The Impact of Online Consumer Review to Online Hotel Booking Intention in Malaysia

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Abstract—Travellers today tend to believe more on peer reviews in selecting tourism products and services instead of information provided by the businesses. With the rise of communication technologies such as Web 2.0, there is a pool of opinions on hotels, tourism destinations, and even travel services that are expressed from the perspective of consumer consumption in the internet. As online review becomes an important source for travellers to evaluate the quality of hospitality services, only hoteliers that take advantage of online review are able to attract the attention of travellers that utilize the digital channel for information searching. The increment of hotels and rooms in Malaysia has somehow exceed the increment of tourist arrivals in the recent years. Hoteliers are worried that the supply would go beyond the demand in the future with the continuous growth of hotels but average occupancy rate remains at 62 to 63 percent. Thus, this study aims to examine the causal relationship between the attributes of the online consumer reviews and the online hotel booking intention specifically in Malaysia context.

200 survey responses were collected from local travellers that have at least once booked hotel through online method. The results show that usefulness (t = 3.478, p < 0.01), valence (t = 2.462, p < 0.05), and timeliness (t = 2.145, p < 0.05) of the online consumer review significantly affect the online hotel booking intention in Malaysia. This findings provide an insight to hoteliers on how to manage and improve the online consumer reviews that are accessible.

Keywords—Online review, Online booking intention, Hotel, Consumer review, Online booking, E-WOM

1. Introduction

Vacation planning often linked to uncertainties as most travellers are unfamiliar to tourism products and services in other countries and internet is often used as the medium for travellers to obtain information in assisting their purchase decision. Today, travellers tend to trust more on peer reviews in selecting tourism products and services [1] instead of information provided by the businesses through online and offline promotions [2]. Most travellers believe that peer reviewers are more neutral and honest [3] in comparative to information shared by businesses.

With the rise of communication technologies such as mobile phone applications and Web 2.0, the numbers of electronic communities and virtual networks in the online world has been increased and these consumer-generated platforms are showing the way to a new generation of marketing leading by the word-of-mouth (WOM) communications [4]–[5]. In the internet, there is a pool of opinions on hotels, tourism destinations, and even travel services that are expressed from the perspective of consumer consumption. These reviews are strongly believed to have no bias nor structured pattern for the consumers to post their experience online [6], and they may include crucial information that the hotels hesitate to disclose openly [7]. As online review becomes an important source for travellers to evaluate the quality of hospitality services, only hoteliers that take advantage of online review are able to attract the attention of travellers that utilize the digital channel for information searching [8].

This study focuses on a South East Asia country, namely Malaysia, where tourism industry contributes significantly to the country economy. In Malaysia, the total number of hotels and rooms has increased drastically in recent years due to the UNESCO recognition of several states such as Melaka and Pulau Pinang. The number of hotels had increased 13.6% from 2724 to 3094 units from year 2012 to 2013, and it continued to increase for 31.6% to 4072 units in year 2014 [9]. As the total number of rooms, it had increased 7.2% from 195,445 to 209,527 units from year 2012 to 2013, and raised 25.1% to 262,021 units in year 2014. Although the increment of tourist arrival looked constructive, the increment of hotel and room has somehow exceed the increment of tourist arrivals of 6.7% from year 2013 to 2014. With the continuous growth of hotels and average occupancy rate remains at 62 to 63 percent [9], most hoteliers are worried that the supply would go beyond the demand in the future. Thus it raises a need for differentiation among the hotel providers to avoid direct competition.

With proper online review management, hotel providers can share tourism-related information on online communities and review sites, dynamically support virtual interactions and comments, or allow consumers to review on their company website in the form of testimonials. However, as review slowly obtain popularity in the internet, the excess online hotel review websites in the internet such as
Tripadvisor, Agoda, Booking.com, and Trivago have created the crisis of information overload which trouble the hotel providers to make use of the online reviews. The attributes of online review appear to have either positive or negative influences on the perception of a hotel which consequently draw or push a potential consumer away from a hotel [10]. Therefore, based on [7] claim that 10% increment in review rating would rise the online booking by 5%, this study aims to close the research gap by examining the causal relationship between the attributes of the online consumer reviews and the online hotel booking intention specifically in Malaysia context.

2. Determinants of online hotel booking intention

There are two major categories of online review which can be commonly found for products and services sold online: professional editors’ review and consumers’ review [5]. Although both reviews are found to be reliable in the eyes of consumers, most potential online buyers tend to trust more on consumers’ review because they believe that it may consist of information that is not publicly revealed by the professional editors and hotel providers [5], [11]. Thus, this study aims to examine the influence of online consumer review attributes towards the hotel booking intention through internet. As the online consumer review formats vary across websites and mobile applications in the internet, this study generalized the attributes based on common characteristics shared by all reviews such as the usefulness, valence, timeliness, and volume [5].

The usefulness of online review in general is defined as “the degree to which consumers believe that online reviews would facilitate their purchase decision-making process” [12]. Internet often used as the main source of information for travellers to plan for their vacation itinerary and reference in searching for hospitality services. So, it is rational to claim that the helpfulness of the online hotel review will change the expectation of the travellers in selecting the hotels that they book [5]. Moreover, the current internet development has provided an universal platform that allows information sharing from individuals around the world [13], which eventually helps this group of people in gaining marketing intelligence about the accommodations that they are interested in [5]. With the overload of comments and posting in the online review, travellers may only refer to selective comments that only lead to their decision-making. In addition, the impacts of the usefulness of online review to intention to comply with a review [12] and frequency of usage [14]-[15] in past studies have further proven the quality of an online review positively impacts on consumer’s decision making. Thus, this study proposes the following as the first hypothesis:

H1: There is a positive relationship between usefulness of online consumer review and online hotel booking intention in Malaysia

Valence often referred to the positive or negative psychological perception given by an individual to a different individual, object, or event. In the context of online review, the valence of message often shows the positive or negative attributes of the products and services sold online [16]. Commonly, negative messages are more indicative and often show a product or service is in poor quality but a positive message may indicate high, average, or poor quality [17]. Positive messages often compliment the quality orientation of an organization [18] and serve as recommendation vehicle in promoting the product or service to others [19]. On the other hand, negative messages tend to be viral quicker as dissatisfied consumers are more likely to spread word-of-mouth compared to the satisfied ones [20]. When the number of negative messages rises, unfavourable attitude will be formed towards the product or service [7] and create harmful results to business manufacturers and retailers [5], [21]. The impact of online opinions in the positive or negative ways have been continuously studied for better marketing strategies development [5] and constantly debated for better understanding on consumer behaviour. Previous findings on the valence of messages are inconsistent [5] with scholars such as [22] and [23] claimed that consumers put more weight on negative messages in product evaluations whereas [24] argued positive messages are more influential. However, as empirical evidences show a single positive recommendation can be sufficient enough to convince a product trial [25], this study proposes hypothesis only from the “positive message” perspective, which is:

H2: There is a positive relationship between a positive valence online consumer review and online hotel booking intention in Malaysia

The timeliness of online review is determined by “whether the messages are current, timely, and up-to-date” [26]. In websites, comments and opinions are left in large quantity and consumers may face difficulties in interpreting all the information. This situation leads to the emphasis of timeliness [5]. However, due to its absolute importance, this attribute is often ignored in most online review studies [5]. In order to deliver values to users, a website needs to be constantly updated to ensure the users obtain the information that add values to them. The impact might be even stronger when these updated messages are highlighted and shown before the older reviews [27] because the average usefulness of a review drops as time elapses [28]. In addition, the effectiveness of recent reviews in attracting the user attentions has been highlighted by [29]. As such, the third hypothesis of this study is:

H3: There is a positive relationship between timeliness of online consumer review and online hotel booking intention in Malaysia

The volume attribute refers to the total sum of interactive messages [28] or comments of reviewers [30] that can be found in a product or service review. From the consumer decision making perspective, awareness has to be formed before they can proceed to the purchase decision of a product or service [5], [31]. With high number of comments in the online
community, the attention of information searchers are more likely to be attracted [30] and it may bring a perception of reduced risk to consumers especially on tourism products that are often intangible and unique [32]-[33]. In previous studies such as [28], [34], and [35], the volume of message has been empirically proven to impact on consumer behaviour. Thus, this study proposes the following as the forth hypothesis:

**H4:** There is a positive relationship between volume of online consumer review and online hotel booking intention in Malaysia.

### 3. Research methodology

With relevant literature, several attributes of online consumer review were identified to examine the impact upon local travellers’ online hotel booking intention in Malaysia. These attributes were then further discussed with two Malaysia university lecturers and five local travellers to obtain better understanding on the suitability in the context of Malaysia hotel industry. As the result, four attributes of online consumer review were finalized for this study which include: usefulness, valence, timeliness, and volume. In this study, quantitative approach was used to collect the data needed for analysis. Survey technique was applied with questionnaire as the instrument to collect data from 200 local travellers that have at least once booked hotel through online method. These respondents were intercepted in hotels in Melaka with non-probability sampling method (snowball sampling). To ensure the representativeness and suitability of the respondents, a filtering question of “I have booked hotel through online at least once” was included in the questionnaire. As for data analysis, SmartPLS analytical tool was selected to answer the hypotheses showed in Figure 1:

![Figure 1](image_url)  
**Figure 1.** Impact of online consumer review attributes to online hotel booking intention

### 4. Demographic profiling

Two hundred (200) respondents participated in this study. Before data entry, all questionnaires were cautiously filtered to ensure all questions were answered and all respondents fulfilled the requirement of “booking experience”. Among the 200 respondents, 112 (56.0%) are reported as male and 88 as females (44.0%). Majority of the participated respondents aged 20 to 25 years old (73.5%), followed by age groups of 26 to 30 (12%), below 20 years old (12.0%), and above 30 years old (2.5%). In the context of academic qualification, 32 respondents (16.0%) hold qualification of SPM/O-level, 47 respondents (23.5%) with Diploma/STPM/A-level qualification, 113 respondents (56.6%) with bachelor degree, and only 8 of them (4.0%) with qualification of master degree and above. As for monthly personal income, 171 respondents (85.5%) are recorded with income below RM2000, 17 respondents (8.5%) within the range of RM2000 to RM2999, 9 respondents (4.5%) within the range of RM3000 to RM3999, and 3 respondents (1.5%) with monthly income more than RM4000.

### 5. Results and discussion

All the variables in this study were measured based on multi-item scales. Each variable consists of at least four items with all indicator's outer loading greater than the suggested level of 0.708 [36]. According to Fornell-Larcker criterion analysis in Table 1, discriminant validity has been established for all five variables with square root of each variable's AVE (usefulness = 0.864, valence = 0.758, timeliness = 0.785, volume = 0.841, online hotel booking intention = 0.830) larger than its correlation with other variables. On the other hand, Table 2 summarizes the results for measurement model for this study and it shows all evaluation criteria for measures’ reliability and validity have been met. The internal consistency reliability has been attained with the composite reliability of usefulness (0.922), valence (0.871), timeliness (0.864), volume (0.906), and online hotel booking intention (0.917) are above the 0.708 threshold [36]. Lastly, the convergent validity has been attained with all the AVE values (usefulness = 0.747, valence = 0.574, timeliness = 0.616, volume = 0.708, online hotel booking intention = 0.689) recorded higher than 0.50 threshold [36].

The assessment of structural model was carried out after the five variables’ measures were confirmed as reliable and valid. Table 3 shows the model’s predictive capabilities and the relationships between the four independent variables (usefulness, valence, timeliness, and volume) and dependent variable of online hotel booking intention with 5% of probability of error at the t-value (two-tailed) of 1.96. With the bootstrapping routine of 500 samples and 200 bootstrap cases, hypotheses H1, H2, and H3 were found supported with the t-values for usefulness (t = 3.478, p < 0.01), valence (t = 2.462, p < 0.05), and timeliness (t = 2.145, p < 0.05) recorded greater than the theoretical t-value of 1.96, and values of path coefficients (usefulness = 0.322, valence = 0.214, timeliness = 0.177) more than zero. Thus, it can be concluded that there is a positive relationship between the three independent variables (usefulness, valence, and timeliness) and dependent variable. On the other hand, the proposed hypothesis H4 of this study is found to be rejected due to the recorded t-value of 0.522 (p > 0.05). Although there is insignificant relationship between both variables, the positive value (0.053) of path coefficient
indicates an insignificant positive relationship. Thus, it can be concluded that there is no significant positive relationship between volume and online booking intention.

Lastly, the model’s predictive accuracy of this study is measured by the R2 value of 0.395 which indicates that 39.5% of the overall influences on the online hotel booking intention are explained by the four independent variables of this study. It also specifies that 60.5% of the influences on online hotel booking intention are not explained by the model of this study. According to the path coefficient values, usefulness of online review is found to be the most important influence to online hotel booking intention, followed by valence and timeliness respectively.

### Table 1. Results of Fornell-Larcker Criterion Analysis

<table>
<thead>
<tr>
<th></th>
<th>Online hotel booking intention</th>
<th>Usefulness</th>
<th>Valence</th>
<th>Timeliness</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online hotel booking intention</td>
<td>0.830</td>
<td>0.555</td>
<td>0.508</td>
<td>0.471</td>
<td>0.446</td>
</tr>
<tr>
<td>Usefulness</td>
<td>0.864</td>
<td>0.546</td>
<td>0.758</td>
<td>0.496</td>
<td>0.539</td>
</tr>
<tr>
<td>Valence</td>
<td>0.758</td>
<td>0.546</td>
<td>0.758</td>
<td>0.496</td>
<td>0.539</td>
</tr>
<tr>
<td>Timeliness</td>
<td>0.496</td>
<td>0.546</td>
<td>0.758</td>
<td>0.496</td>
<td>0.539</td>
</tr>
<tr>
<td>Volume</td>
<td>0.446</td>
<td>0.539</td>
<td>0.578</td>
<td>0.543</td>
<td>0.841</td>
</tr>
</tbody>
</table>

### Table 2. Result summary of measurement model

<table>
<thead>
<tr>
<th></th>
<th>Composite reliability</th>
<th>AVE</th>
<th>Discriminant validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usefulness</td>
<td>0.922</td>
<td>0.747</td>
<td>Yes</td>
</tr>
<tr>
<td>Valence</td>
<td>0.871</td>
<td>0.574</td>
<td>Yes</td>
</tr>
<tr>
<td>Timeliness</td>
<td>0.864</td>
<td>0.616</td>
<td>Yes</td>
</tr>
<tr>
<td>Volume</td>
<td>0.906</td>
<td>0.708</td>
<td>Yes</td>
</tr>
<tr>
<td>Online hotel booking intention</td>
<td>0.917</td>
<td>0.689</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Table 3. Result summary of structural model

<table>
<thead>
<tr>
<th></th>
<th>Path coefficients</th>
<th>t-value</th>
<th>p-value</th>
<th>Significance levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usefulness</td>
<td>0.322</td>
<td>3.478</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Valence</td>
<td>0.214</td>
<td>2.462</td>
<td>0.02</td>
<td>0.05</td>
</tr>
<tr>
<td>Timeliness</td>
<td>0.177</td>
<td>2.145</td>
<td>0.03</td>
<td>0.05</td>
</tr>
<tr>
<td>Volume</td>
<td>0.053</td>
<td>0.522</td>
<td>0.60</td>
<td>Not sig</td>
</tr>
</tbody>
</table>

a. Dependent variable: Online hotel booking intention  
b. Independent variables: Usefulness, valence, timeliness, and volume  
R² = 0.395

### 6. Marketing discussion and recommendation

The usefulness of the online consumer review is empirically proven to have significant and positive influence to the online hotel booking intention in Malaysia. This result is found to be consistent with previous studies such as [5], [12], [14], and [15] in the context of online review. It can be further explained as any improvement in the usefulness of the online review will contribute to positive intention of booking a hotel online. As most travellers are used to online information searching in planning for their vacations [5], [37], the messages shared in the online review must be able to answer questions and doubts in their minds. With the shared prior experiences of consumers on the online review, it serves as an intrinsic cue to the potential consumer and made them feel comfortable and less risky [38] in selecting a particular hotel as the choice of accommodation. Thus, this result calls for the attention of hotel providers in carefully managing the messages on the online review. Hoteliers are advised to filter the messages by allowing only contents that are relevant to the products and services that they are offering. Messages which are non-related shall be deleted immediately as message overloaded may only leads to selective reference among consumers. In addition, the hoteliers are also advised to encourage the participation of their customers in posting comments on the online review, especially messages that are related to the quality of intangible services offered to reduce risks perceived from the intangibility of service. Moreover, the messages shared by consumers must be reliable and genuine as replicated messages will further reduce the trust of consumers towards the review of a website.

The result of this study also shows that the positive valence of online review positively affects the online hotel booking intention in Malaysia. This result is found to be consistent with previous studies such as [4], [24] highlighted the importance of more resource allocation in handling the valence of the online review. As most tourism products appear in intangible form and the quality cannot be determined until purchase [39], the valence of the messages on online reviews plays an important role in forming the “temporary” attitude [5] towards a particular hotel that leads to the booking behaviour. Thus, hoteliers are advised to reduce the spread of negative word-of-mouth by handling customer complaints in more effective way, especially on the negative messages posted on online review. Service recovery should be carefully carried out to deal with dissatisfied customers, and these customers should be encouraged and allowed to post the updated testimonials on the initial negative reviews.

As for the timeliness of online review, it is empirically proven with positive effects on the online hotel booking intention in Malaysia. As discussed beyond, the internet is currently in a situation of information overload [5] where the online review of
hotel may be flooded with outdated, irrelevant, and conflicting comments which may lead to consumers’ confusion. As time passes by, the services provided by a hotel may be improved or downgraded where a recent comment appears to be more accurate than the older ones. In order to assist consumers in information searching, an up-to-date online review is needed to help consumers in their decision process. An hotelier can choose to include additional features on the online review, such as peer-rating system or filter to sort the comments according to the date of comment posted. Consumers should also be allowed to comment on the older posts to update on the recent progress of a hotel.

On the other hand, the results of this study proves no significant relationship between volume of online review and the online booking intention in Malaysia. As the volume of reviews contributes no impact to the online booking intention, hoteliers are recommended not to increase the numbers of comments and messages in their online review. Instead, they are advised to manage the volume of reviews in the way of supporting the usefulness, valence, and timeliness of reviews. Additional features discussed above should be applied to handle the large of messages, and sort them, and display the comments as according to its usefulness, valence, and timeliness. Rather than asking consumers to post new comments, hoteliers should encourage consumers to update on existing comments.

The result of this study provides directions for future study in online review context. As the situation of information overload has been widely discussed in most literatures [5], the impact of volume on the usefulness, valence, and timeliness of review has yet to be empirically proven. So, future scholars could look at this in their future research. While this study emphasises on accommodation booking only, one may extend the model to other online booking systems such as flight tickets, movie tickets, restaurant, or other services that are most likely to be booked or bought online.

References


