Influence of Online Review and Rating System towards Consumer Preferences in Hospitality Sector

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The purpose of this study was to examine the effects of online review and rating systems on online consumer behavior in the hotel industry. The study applied quantitative method and data was collected through online survey. 174 usable responses were performed in data analysis by using multivariate analysis of variance (MANOVA) and multiple regression analysis. The findings suggested that online consumer's perception of valence not only depends on rating score component but also depends on other online review components such as review content and responding message from service providers. Rational review content produced more impact on online consumer's perception of information diagnosticity than the effect of emotional review content. The online consumer's perception of source credibility can be increased by providing source identity of reviewers. Furthermore, a negative online review created more powerful impact on online consumers' perceptions, attitudes and purchase intention than a positive one.

INTRODUCTION

Word-of-Mouth (WOM) was ranked as the most effective information source among the mix of information sources that consumers rely on as they make everyday decisions. In addition, WOM has been recognized as a key issue that influences on product evaluations and consumers' purchasing decision by many marketing researchers and practitioners (e.g. Wang, 2011; Sweeney et al., 2008; Matos & Rossi, 2008). In a current competitive market, the Internet has been adopted as the important key communication tool and marketing channel for every organization in order to increase their competitive advantages and gain more consumers' satisfactions. The emergence of the Internet has shifted the marketing communication among firms and their consumers. The firms are able to communicate directly with their consumers or distribute the up-to-date information about their products and services to their consumers precisely. In addition, as soon as the Internet became availability and accessibility for everyone, people have begun to associate with one another through online channel which creating the virtual communities. Firms began to utilize these communities to gain more competitive advantages, increase market share, create businesses and offer more products and services (Goldsmith & Horowitz, 2006). Consequently, the traditional WOM has shifted their styles of communication to become available in online media for every

Internet users in the new form called online WOM or electronic WOM (eWOM). Unlike traditional WOM, eWOM is able to present positive and negative reviews made by the former, actual or potential customers on a product or service with the statistically figures in a timely manner through the Internet (Hennig-Thurau et al., 2004). The Internet has created major changes of consumer behavior from physical purchasing behavior to online purchasing behavior. As a result, understanding online consumer behaviors on eWOM system is necessarily for business scholars and practitioners.

According to American Hotel and Lodging Association (2018), the travel and tourism industry ranks as one of the top 10 largest industries in the United States. In 2016, tourism generated about $894 billion in sales (excluding international passenger fares on U.S. airlines), and the tourism industry alone paid $149 billion for federal, state and local taxes. International travelers in the United States spend an average of $6,207 per person in 2016. In the hotel and tourism industry, it can be concluded that eWOM influence other travelers in terms of being a good recommendation about a travel destination, product or service; helping to evaluate alternatives; helping others to avoid places/services; providing ideas on travelling; increasing confidence in decision-making process; helping to imagine what a place will be like; reducing risk and uncertainty. There were more than 74% of travelers use online reviews or comments posted by other travelers on the Internet to make decisions on planning the trips (Gretzel & Yoo, 2008). In this, Cakim (2010) believed that consumers will become increasingly willing to trust online posts and add them together with the information they gather before in order to make a decision to buy, vote or join a group. Consumers do not just get tips from their family and friends anymore but they can easily get more information via the Internet about businesses, rate products and exchange opinions about consumer experiences across groups and boundaries.

Recent research on consumer behavior shows that online reviews are a key resource for consumers to decide where to go and what to buy. Consumers seek information from online reviews for many reasons. For instance, they want information from other consumers about a product or service which it might help them to find a way to keep costs down or reduce risk of wasting money on a poor product or service. They might use the information from online review as an instrumental reference to see what's popular on other consumers for their own preferences. Similarly with hotel industry, as eMarketer (2007, as cited in Gretzel & Yoo, 2008) reported that 25 percent of infrequent leisure travelers use online review for their hotel booking and 33 percent of frequent travelers switched a hotel stay based on online review from other travelers, the information of eWOM plays an importance role on travelers' decision-making process and purchasing intention. As a result, since hotel industry is still on the increasing trend in both domestic and global perspectives, understanding more about the impact of eWOM on online consumer behavior would be necessary for all stakeholders in both business practices and academia in the hospitality sector.

LITERATURE REVIEW

Although the characteristics of WOM and eWOM are totally different, it is necessary for the researchers to be familiar with the WOM investigated platforms because WOM studies were the fundamental theories of eWOM. Many empirical studies (e.g. Berger, 2014; O'Reilly & Marx, 2011; Tsang & Predergast, 2009; Sweeney et al. 2008; Watts & Dodds, 2007; Van den Bulte & Joshi, 2007; Backwell et al., 2001) had provided the basic evidences, supported theories and developed research models to facilitate the investigation of WOM. Those investigated platforms of WOM include the motivation of the WOM message senders, the WOM processes, and the impacts of WOM on numerous perspectives. WOM has been accepted as a powerful and influential information source on an individual's behavior since the introduction of the two-step flow theory of mass communication by Katz and Lazarsfeld (1955). In this, Brown and Reingen (1987) found that WOM was seven times more effective than newspapers and magazine, four times more effective than personal selling and two times more effective than radio advertising in influencing consumers to switch brands. In the study of Day (1971), he presented that WOM was nine times more effective than advertising in converting neutral or unfavorable predispositions into positive attitudes. In general, one dissatisfied customer can be expected to tell nine

other people about his/her dissatisfied experience. On the other hand, one satisfied customer will express his/her satisfied experience to an average of five other people (Mangold et al., 1999).

Electronic Word-of-Mouth (eWOM)

The Internet has created a new form of global networked communication that many marketing scholars called "Electronic World-of-Mouth (eWOM)", which can be defined as an "informal, person-to-person communication between a perceived noncommercial communicator and a receiver regarding a brand, a product, an organization, or a service" (Harrison-Walker, 2001). Wu and Wang (2011) referred eWOM as the knowledge exchange that consumers carry out online. Henning-Thurau et al. (2004) defined eWOM as any positive or negative statement made by potential, actual, or former customers about a product or company that is made available to people and institutions through the Internet.

According to Yoon (2008), Electronic Word-of-Mouth Systems (eWOMS) are the major technological supporting of eWOM that can be described as the information systems for products or services that buyers and sellers offered on the Internet. In eWOMS, it allows individuals who have previously experienced the products or services to provide their opinions or experiences, assess the quality, and evaluate or recommend those products or services in the form of electronic reviews or ratings on the web. From the existing literatures, eWOMS was described in various terms such as web reviews (Kuehl, 1995), reputation systems (Standifird, 2001), online reputation system or online feedback systems (Ba & Paul, 2002), digital WOM (Dellarocas, 2003), virtual opinion platforms (Hennig-Thurau & Walsh, 2003), electronic reputation or feedback mechanisms (Bolton et al., 2004), web-based consumer opinion platforms (Hennig-Thurau et al., 2004), customer feedbacks (Chen & Xie, 2005), word-of web (Weinberg & Davis, 2005), product recommendations in virtual market (Smith et al., 2005), internet opinion forums (Dellarocas, 2006), online WOM systems (Sun et al., 2006), feedback text comments in online marketplace (Pavlou & Dimoka, 2006), online product reviews (Dellarocas et al., 2007), consumer-opinion web sites (Pollach, 2008), online customer reviews (Lee & Bradlow, 2011), online recommendation system (Jiang et al., 2010), online reviews (Dellarocas et al., 2010), online WOM (O'Reilly & Marx, 2011). In this study, the term eWOM and eWOMS are used.

Similarly to the driven mechanisms of traditional WOM, many researchers (e.g. Chen et al., 2013; Zhang et al., 2013; Prendergast et al., 2010; Trusov et al., 2009) had started to investigate eWOM in three aspects: the motivations, the processes, and the impacts on an individual's behavior based on each components of eWOMS.

Rating Valence (Negative vs. Positive)

Rating valance refers to numerical ratings evaluated by individuals who have already experienced the products or services. eWOMS automatically calculate rating valence by dividing summed rating scores by the number of raters (Tsang & Prendergast, 2009b). For the rating valence, according to Tsang and Prendergast (2009a), it is common to see ratings given as final conclusion from text-review in many displays such as grades, marks, stars, and thumbs up or thumbs down. For example, in the film's industry, movie review usually shows text-review together with the rating system (e.g. given stars) that can be assumed as a summary of the text-review and other point of views (Tsang & Prendergast, 2009b). In the study of Chevalier and Mayzlin (2006), they discovered that positive valence increased book sales in Amazon.com and BarnesanNoble.com while negative valence decreased sales. They also noted that the impact of one-star reviews had a greater impact of five-star reviews. However, some literatures did not show whether rating valence has impact on sales (e.g. Senecal & Nantel, 2004).

Text Review

Product's text-review is one of the most popular components of eWOMS. People utilize it to find out more product information on the Internet before they make purchasing decision. People are likely to observe others' opinions towards the product in order to reduce uncertainty risk because others' opinions represent indirect experience on many sensory aspects (West & Broniarczyk, 1998). Chevalier and Mayzlin (2006) found that the length of reviews (total number of typed characters) associated with sales

of book when the respondents were given the same level of the overall rating score of a book. Many empirical studies have utilized the rational and emotional appeal to analyze and investigate the effects of the informational content from the advertising messages (e.g. Kotler & Keller, 2012; Simon, 1971). Park et al. (2007) noted that the appearance of some rational eWOM reviews might be message such as "This product is twice as fast as other comparable goods and even cheaper" which are specific, clear, and back up the recommendation with reasons. In this, the rational review can be perceived as a high-quality review which create more favorable attitude toward the message. On the other hand, the forms of emotional eWOM reviews might include message such as "It's so good that I'm going to buy another one" or "I can't believe I got this; I'm proud of it" which are subjective, emotional and do not have reasoned arguments. This kind of emotional review was perceived as a low-quality review because they associate with emotional, subjective, vacuous, no factual information, and simply make a recommendation which lead to less persuasiveness than a rational review.

Volume of Reviews

Volume of reviews is measured as the number of reviews (Yoon, 2008). Due to the ability of accumulated information on eWOMS, a large volume of eWOM would be considered as a consumer perception toward a law of truth. However, in the literatures, there is an unclear result about the effect of volume of reviews on consumer purchasing decisions.

Source Identity Indicator

Yoon (2008) defined the source identity indicator in eWOMS as the informant identity that are expected to function the information seekers in order to increase trust in informant credibility. This source identity indicator includes informant review provision history, real name, or email address which are able to persuade information seekers to make inferences regarding characteristics of the information source. In addition, in hospitality industry, this might include traveler types and purposes of the informant source. For instance, Agoda.com offers six traveler types for every review that include solo travelers; couples; business travelers; families with young children; families with older children; and groups. In the persuasion and influential message literatures, Slater and Rouner (1996) stated that source credibility could be identified as the first- and most-studied variables. The various dimensions of source credibility such as expertise, bias and attractiveness have been found to influence the impact of a message on the receiver's beliefs. Theory of social comparison introduced by Festinger (1954) is able to explain how source similarity influences persuasiveness. Festinger (1954) believed that people always compare their attitudes and capabilities with others. So, the tendency to compare oneself with another increases such that individual is perceived to be similar to oneself because similar people have similar needs and preferences. In addition, according to Kelman (1961), the receivers are able to better identify and understand the sources that are similar to them. Therefore, perceived sender similarity increases the persuasiveness of the information transmitted. As a result, a source perceived as similar to the receiver is more persuasive than a source perceived as dissimilar (Prendergast et al., 2010).

Responding to eWOM from Product/Service Providers (Webcare)

Responding to eWOM can be referred as "Webcare" which can be defined as the act of engaging in online interactions with consumers, by actively searching the web to address consumer feedback such as comments, questions, complaints and so on (Van Noort & Willemsen, 2012). Although the intention of Webcare is responding to eWOM in both negative and positive comments, many researchers (Breitsohl et al. 2010; Lee & Song, 2010) believed that Webcare is a useful and helpful tool for a company to implement as a countering negative eWOM as well as control undesirable outcomes on consumer behavior. According to Willemsen (2013), by applying Webcare, companies attempt to solve complaints that cause consumers to engage in negative eWOM as well as limiting the potential damage that such complaints could have on other consumers. It can be concluded that Webcare aim to service dissatisfied consumers in order to reduce the chance that negative eWOM spread through others.

Purchasing Intension

Chan and Ngai (2011) noted that the impact of eWOM on purchasing intention was discussed in many literatures (e.g. Chen et al., 2013; Zhang et al., 2013; Prendergast et al., 2010; Trusov et al., 2009; Wen, 2009). Brown et al. (2007) found that individuals who participate in an online consumer community will increase their attitudes toward the online interacting in community-related activities that affect their purchasing intention. Park et al. (2007) stated that the quantity and quality of online customer reviews such as relevance, understandability, sufficiency, and subjectivity are the essential characteristics of eWOM that affect consumer information-processing.

Trustworthiness

Choudhury and Karahanna (2008) defined informational trust as beliefs of users about the reliability, credibility and accuracy of information gathered through the web. In this, Yoon (2008) suggested that the information quality of eWOMS could also be described in the similar term as informational trust in terms of the consumers' perception in reliability, credibility and accuracy of information gathered toward the quality of information presented on eWOMS. These include rating valence, text-review, volume of reviews, source identity indicators, and helpfulness indicators. Kiecker and Cowles (2001) added that even though the information providers and receivers in eWOMS may or may not have similar demographics and lifestyles, they are related to each other in term of consumer-perspective. The information they present can be expected as the reaction of typical product performance which makes the information more trustworthiness than the information provided by marketers who might have never used the product in their real-world lifestyles.

Conceptual Framework

Several consumer behavior theories were investigated including Stages in Consumer Decision Making, Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), the Technology Acceptance Model (TAM), the Information Integration Theory, the Elaboration Likelihood model, Theory of Social Comparison, and Accessibility-Diagnosticity model, the purposed conceptual model for this research was developed as shown in figure 1.

FIGURE 1
PURPOSED CONCEPTUAL FRAMEWORK
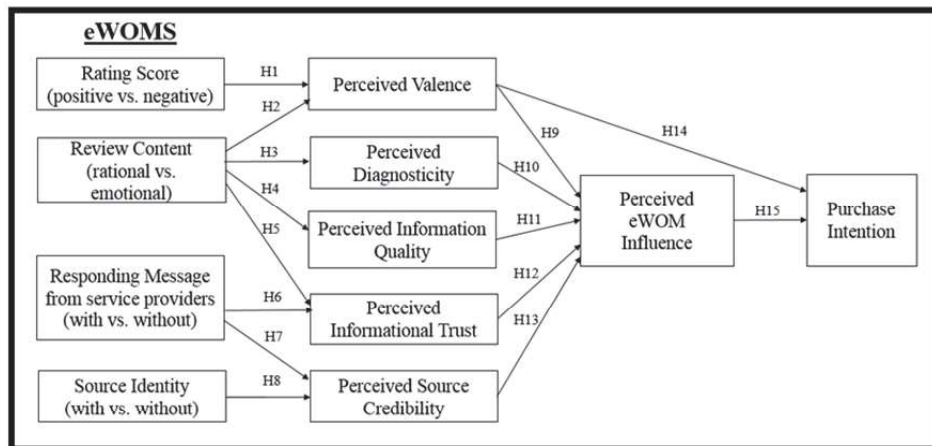
METHOD

This research were conducted by the quasi-experimental research design due to the fact that the study attempts to manipulate the independent variables and investigate the casual relationships among those

control variables, dependent variables, predictor variables, mediator variable, and outcome variables in the hypotheses.

A self-administrated online questionnaire was used to collect primary data from the respondents who had been purchasing or booking hotel rooms for more than three times in the past. Sixteen scenarios of 2X2X2X2 eWOMS were created as the control variables on each scenario which included two valences of rating score (positive or negative), two valences of review content (rational or emotional), two given responding message from service providers (with or without), and two given source identities of eWOM (with or without). Each respondent was randomly assigned to one of the sixteen experimental conditions in order to reflect their individual differences and responses on their assigned scenario.

This study applied the research measurement items from the previous empirical studies in order to keep the reliability of the scale. The measurement items of purchase intention were adapted from Li et al. (2001). Four items ask to evaluate the likelihood of the participants in terms of purchasing decision toward the hotel (Cronbach's alpha = 0.79). Five measurement items of perceived eWOM influence were adapted from Mishra et al. (1993) (Cronbach's alpha = 0.94) and one measurement item of perceived eWOM influence was adapted from Smith et al. (2005) (Cronbach's alpha = 0.81). Two items of perceived valence were adapted from Park et al. (2007) (Cronbach's alpha = 0.79). Two items of perceived diagnosticity were adapted from Jiang & Benbasat (2007) (Cronbach's alpha = 0.8). Two items of perceived information quality were adapted from Awad and Ragowsky (2008) (Cronbach's alpha = 0.86) and two items of perceived informational trust were adapted from Roca et al. (2009) (Cronbach's alpha = 0.75). Five items of perceived source credibility were adapted from Ohanian (1990) (Cronbach's alpha = 0.92). Each measurement items were measured by a 7-point Likert scale (7= strongly agree; 6= agree; 5= somewhat agree; 4=no opinion; 3= somewhat disagree; 2= disagree, and 1= strongly disagree).

The sampling frame for this study was the persons who were in the age group above 19 and had been purchasing or booking hotel rooms for at least 3 times in the past. Nonprobability sampling was applied in this study. Convenience sampling and snowball sampling were used as the methods of sample selection by distribute online questionnaire through the university's e-mail groups, personal emails, hotel websites, and social media such as Facebook, Linkedin and so on. In addition, in order to obtain more participants, the survey link for this study was also distributed through some useful websites such as callforparticipants.com, reddit.com, and surveygizmo.com. Each respondent was asked to follow the instruction and randomly processed to one of the sixteen scenarios. The scenario was appeared on the left side of the respondent's monitor and the online questionnaire was presented on the right side of the respondent's monitor at the same time. In the final part, each respondent was asked to fill the demographic information. The total of 243 responses were collected.

RESULTS

The total of 243 responses were collected, only 174 were usable for further analysis. 17 questionnaires were eliminated because the respondents did not pass the qualified questions (either younger than 20 years old or have experiences on booking/purchasing hotel less than 3 times in the past or both). 41 cases were removed because the respondents did not successfully pass the manipulated questions. 11 responses were rejected because they exit the survey without completion. Out of 243 responses, 50 participants input their personal e-mail address in order to receive a brief summarized result of this study.

From 174 usable participants, each of them was assigned randomly in one of the sixteen scenarios as show in table 1 below. The majority group of participants (8%, n = 14) was assigned to scenario 16. The second largest group (7.5 %, n = 13) was participated with scenario 13. Followed by the group (6.9 %, n = 12) who responded the survey with scenario 4. The lowest number of respondents in individual scenario was 10. These groups completed the survey by responding to scenario 2, 5, 8, 9, 10, 11, 14 and 15. In this, there were 86 participants who received the scenarios with positive rating score whereas 88 respondents were received the scenarios with negative one.

TABLE 1
TABLE 1
THE DISTRIBUTION OF PARTICIPANTS IN QUASI-EXPERIMENTAL SCENARIOS

Scenario	Rating Score	Review Content	Responding Message	Source of Reviewer	Frequency (n = 174)	Percentage (%)
1	Positive	Rational	With	With	11	6.3
2	Positive	Rational	With	Without	10	5.7
3	Positive	Rational	Without	With	11	6.3
4	Positive	Rational	Without	Without	12	6.9
5	Positive	Emotional	With	With	10	5.7
6	Positive	Emotional	With	Without	11	6.3
7	Positive	Emotional	Without	With	11	6.3
8	Positive	Emotional	Without	Without	10	5.7
9	Negative	Rational	With	With	10	5.7
10	Negative	Rational	With	Without	10	5.7
11	Negative	Rational	Without	With	10	5.7
12	Negative	Rational	Without	Without	11	6.3
13	Negative	Emotional	With	With	13	7.5
14	Negative	Emotional	With	Without	10	5.7
15	Negative	Emotional	Without	With	10	5.7
16	Negative	Emotional	Without	Without	14	8.0

All assumptions in this study included independence of error, normality, linearity, homoscedasticity, and multicollinearity were tested. All assumptions did not violate and were satisfied. Cronbach's alpha value of all measurement items in this study were greater than 0.7 which indicated that all measurement items were acceptable and reliable. Confirmatory factor analysis was performed in order to test the validity in this study. The factor loading values for all measured items from perceived valence, perceived diagnosticity, perceived information quality, perceived informational trust, and perceived source credibility ranged between 0.543 and 0.870 which indicated that all factors in this study were satisfied with this criteria. The results indicated that the measured items were categorized into three groups with the total variance explained of 76.84%. Based on the loading factor and the objective of this study, the three factors were named as followings: factor 1 "Perceived eWOM Trustworthiness"; factor 2 "Perceived eWOM Diagnosticity and Quality"; and factor 3 "Perceived Valence." According to the confirmatory factor analysis, the research model for this study was updated as shown in figure 2.

FIGURE 2
PURPOSED CONCEPTUAL FRAMEWORK
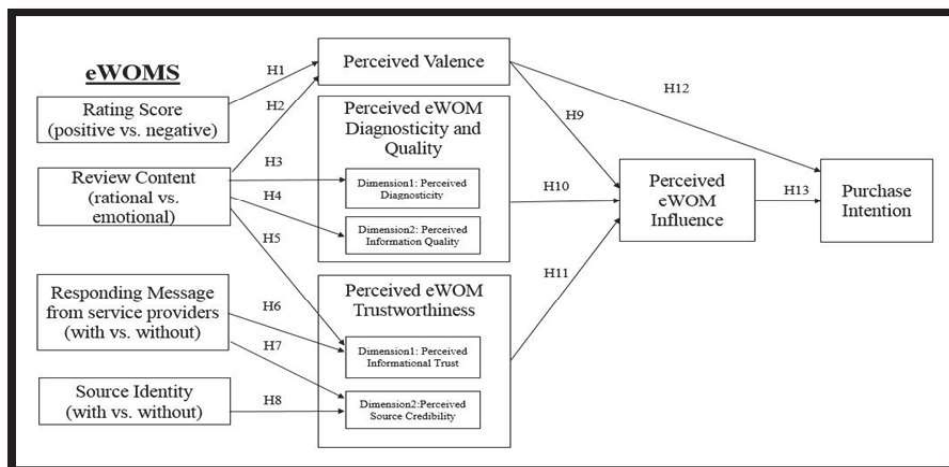
In order to test hypotheses 1 to 8, a four-way between-subject MANOVA was performed on five dependent variables: perceived valence, perceived diagnosticity, perceived information quality, perceived informational trust, and perceived source credibility. Results of MANOVA test, is presented in table 2, indicate that the main treatment effect of rating score was statistically significant (Pillai's trace = .680, $F_{Pillai's\ trace}$ = 63.319, p < .001) and accounted for 68% of the variance. In addition, the main treatment effect of the three-way interaction among rating score, review content, and responding message was statistically significant (Pillai's trace = .070, $F_{Pillai's\ trace}$ = 2.319, p < .05) and account for 7% of the variance. For the main treatment effects of review content, responding message, source identity, all the two-way interactions among all variables, nearly all the three-way interactions among all variables, and the four-way interaction among all variables were not significantly different (p >.05).

TABLE 2
RESULTS OF MANOVA

Effect	Pillai's Trace	F	Sig
Rating Score	.680	63.319	.000
Review Content	.052	1.696	.139
Responding Message	.035	1.108	.359
Source Identity	.044	1.421	.220
Rating Score * Review Content	.039	1.262	.283
Rating Score * Responding Message	.007	.221	.953
Rating Score * Source Identity	.012	.376	.864
Review Content * Responding Message	.043	1.399	.228
Review Content * Source Identity	.012	.368	.870
Responding Message * Source Identity	.027	.855	.513
Rating Score * Review Content * Responding Message	.070	2.319	.046
Rating Score * Review Content * Source Identity	.037	1.188	.317
Rating Score * Responding Message * Source Identity	.045	1.435	.215
Review Content * Responding Message * Source Identity	.012	.369	.869
Rating Score * Review Content * Responding Message * Source Identity	.021	.672	.646

Univariate ANOVAs were conducted on each dependent measure separately to determine the locus of the statistically significant multivariate main effects of each dependent variable. Multiple regression analysis was performed in order to test Hypotheses 9 to 13. Prior performing the three-step mediation testing process introduced by Baron and Kenny (1986), the responses were separated into two group: 86 for positive scenarios and 88 for negative conditions. The results from both positive and negative conditions confirmed that perceived eWOM diagnosticity and quality (β = .470 in positive scenarios; β = .482 in negative scenarios), and perceived eWOM trustworthiness (β = .461 in positive scenarios; β =

.383 in negative scenarios) positively affected perceived eWOM influence. Perceived eWOM influence was a partial mediator in both positive and negative study conditions.

For positive scenarios, although perceived eWOM influence and perceived eWOM diagnosticity and quality positively affected purchase intention but perceived eWOM influence (β = .377) had stronger impact than perceived eWOM diagnosticity and quality (β = .320). For negative study conditions, perceived valence negatively affected perceived eWOM influence (β = -.133). Similarly, perceived eWOM influence and perceived eWOM diagnosticity and quality negatively affected purchase intention but perceived eWOM influence (β = -.550) had stronger impact than perceived eWOM diagnosticity and quality (β = -.281). However, perceived eWOM trustworthiness positively affected purchase intention (β = .302). Figure 3 illustrates a summary result from multiple regression analysis for positive study conditions and figure 4 presents a summary result from multiple regression analysis for negative study conditions.

FIGURE 3
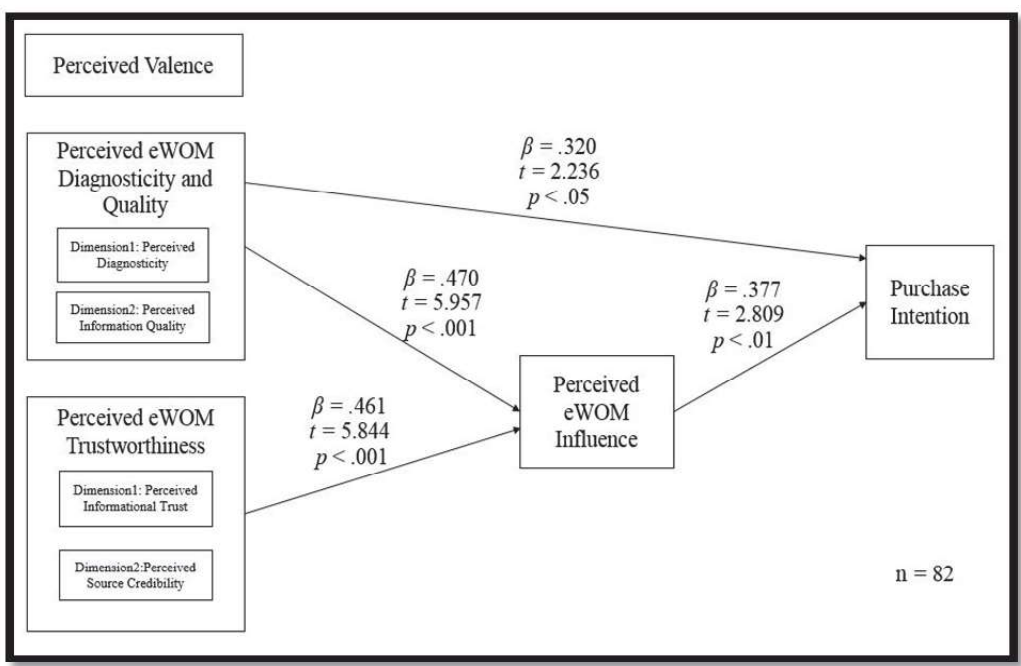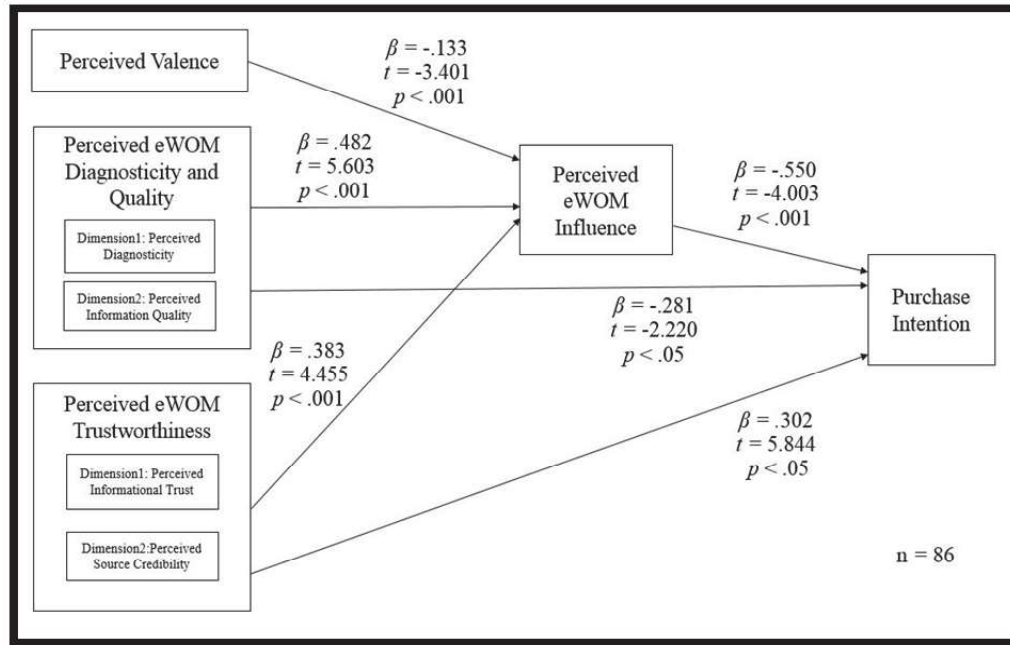**MULTIPLE REGRESSION ANALYSIS FOR POSITIVE SCENARIOS**

FIGURE 4
MULTIPLE REGRESSION ANALYSIS FOR NEGATIVE SCENARIOS

The results of descriptive analysis for each component of eWOMS reported that volume of review was ranked the most influential eWOM component among other 5 components: overall rating score, source identity of reviewers, volume of vote for helpfulness, review contents, and responding messages from hotel representatives. The least influential eWOM component was source identity of reviewers. However, if this dataset was separated into different age group, the group of participants who were 60 years old and older viewed overall rating score as the most influential eWOM component. Similarly, if this dataset was separated into different numbers of time on purchasing products or service online in the past 3 months, the group of participants who did not purchase products or services online in the past 3 months viewed overall rating score as the most influential eWOM component.

DISCUSSION AND IMPLICATIONS

The results indicated that perceived valence was mainly evaluated by integrating all pieces of information that were presented in eWOMS. The results showed significant difference on perceived valence from the main treatment effect of rating score between the respondents who were given positive (high) rating score and negative (low) rating score. However, there was no statistically different on perceived valence from the main treatment effect of review content between the respondents who were given rational review content and emotional review content. The results also indicated that there was no statistically different on perceived valence from the interaction effects of rating score and review content but, according to additional findings presented in the previous chapter, there was significantly difference on perceived valence from the interaction effects of rating score, review content and responding message from service providers. This implies that the online consumers' perception of valence was not evaluated only by rating score component but also by other available eWOM components such as review contents and responding message components. The finding here found to be consistent with theory of information integration by Anderson (1981) that people accumulate all possible sources of information to make an overall evaluation. The results also supported many existing studies (e.g. Lopez & Sicilia, 2014; Willemsen, 2013; Tsang & Predergast, 2009b; Chevalier & Mayzlin, 2006) that perceived valence of

eWOM from online consumers should involves more perspectives later than a summarized objective ratio.

The direct effect of perceived valence on purchase intention was not found in both positive and negative study conditions despite the relationship between these two variables were considered to be high. This was found to reflect the study of Liu (2006) in movie industry but inconsistent with the study of Clemons et al. (2006) in craft beer industry. Since the hotel industry was considered as experience products which consists of intangible attributes that can be evaluated only after consumption or by accumulating related information from other customers' experiences, perceived valence from eWOMS alone does not have enough impact on the hotel purchasing intention, similarly with the study of Liu (2006) in movie industry. However, according to the results from negative study conditions, perceived valence has a negative effect on perceived eWOM influence such that the lower score of perceived valence, the higher score of perceived eWOM influence. On the other hand, according to the results from positive study conditions, perceived valence has no effect on perceived eWOM influence. These results replicated many marketing studies that a negative eWOM has more influential effects on consumer attitudes than the positive one. This can be explained by the category diagnosticity theory that negative information is more diagnostic and useful than positive one when categorizing products based on their performance and quality (Willemsen et al., 2011). In this study, the hotel industry was used as experience products which the online reviews were associated with either performance or quality perspectives. As a result, online consumer's attitudes toward the online hotel review with negative valence is more influential than the positive one.

Perceived eWOM diagnosticity and quality has the most powerful positive impact on perceived eWOM influence. This finding is somewhat consistent with many prior studies (e.g. Sweeney et al., 2014; Yoon, 2008). As Park et al. (2007) noted that the quantity and quality of online reviews such as relevance, understandability, sufficiency, and subjectivity are essential characteristics of eWOM that affect consumer information-processing, this study found similar results in that rational review content containing more quantity and quality of online hotel reviews produces more influential impact on online consumer's information-processing than emotional review content. In addition, perceived eWOM diagnosticity and quality also has a positive impact on purchase intention in positive study conditions and a negative impact on purchase intention in negative study conditions. Since hotel is a high-product involvement, Park et al. (2007) found that consumer's purchasing intention with high-product involvement is influenced by both review quantity and quality, however, consumer's purchasing intention with low-product involvement is mostly influenced by review quantity rather than review quality. This study supported Park et al. (2007) in that consumer's purchasing intention increases when the reviews are logical and persuasive with sufficient reasons based on specific facts. The results from this study also replicated the results from the study of Wu and Wang (2011) in that emotional eWOM has less impact comparing with rational eWOM in high-product involvement.

The results found in this study indicated that there was a statistical significance on perceived information diagnosticity from the main effect of review content such that the participants who received rational review content had higher scores on perception of information diagnosticity than the participants who received emotional review content. However, in this study, the main effect of review contents on either perceived information quality or perceived informational trust was not found. In addition, the main effect of responding messages from service providers on perceived informational trust was also not found. On the other hand, according to the additional findings, there was a statistical significance on perceived information quality from the main effect of rating score such that the respondents who received negative rating score had higher scores on perception of information quality than the respondents who received positive rating scores. These findings duplicated many literatures (e.g. Sweeney et al., 2014; Zhang et al., 2013; Van Noort & Willemsen, 2012; Yoon, 2008) where negative WOM has a more powerful impact on consumers than positive one.

Perceived eWOM trustworthiness from both positive and negative study conditions have a direct positive impact on perceived eWOM influence. This finding is supported by the theory of social comparison proposed by Festinger (1954) that people will always compare their attitudes and capabilities

to others. So, perceived sender similarity increases the persuasiveness of the information transmitted. The results also supported the statement of Prendergast et al. (2010) that a source perceived as similar to the receiver is more persuasive than a source perceived as dissimilar. Although the information reviewers and receivers in eWOMS may or may not have similar demographics and lifestyles, they are related to each other in term of consumer-perspectives (Kiecker & Cowles, 2001). This finding confirmed that participants who received source identity of reviewers perceived the similarity of needs and were able to observe other characteristics of reviewers which eventually increased their trust toward reviewer's credibility. In addition, under the negative review conditions, perceived eWOM trustworthiness also has a direct positive effect on purchase intention with the more online customer's perception of eWOM trustworthiness toward negative reviews, the more chance of their purchasing intention increasing. On the other hand, under the positive review conditions, perceived eWOM trustworthiness does not produce any effect on online customers' purchase intention. This result was consistent with the studies of Lee et al. (2009) in that the negative rating valence has more influential impacts on buyer's trust in credibility than the positives one.

In this study, the results from both positive and negative study conditions confirmed that perceived eWOM influence is partial mediator between perceived eWOM diagnosticity and quality and purchase intention. In positive review situations, the results from multiple regression model showed that perceived eWOM diagnosticity and quality and perceived eWOM trustworthiness were able to predict perceived eWOM influence about 71% and perceived eWOM influence and perceived eWOM diagnosticity and quality were able to predict purchase intention at around 41%. Perceived eWOM influence had the most positive powerful impact on predicting purchase intention indicating that the more online consumer's perception of eWOM influence toward positive reviews, the more chance of increasing in their purchasing intention. In negative review situations, the result from multiple regression model presented that perceived valence, perceived eWOM diagnosticity and quality and perceived eWOM trustworthiness were able to predict perceived eWOM influence at about 60% and perceived eWOM influence, perceived eWOM trustworthiness and perceived eWOM diagnosticity and quality were able to predict purchase intention at around 37%. Perceived eWOM influence had the most negative powerful impact on predicting purchase intention which indicated that the more online consumer's perception of eWOM influence toward negative reviews, the more chance it has at reducing their purchasing intention. The model result was consistent with the study of Yoon (2008) highlighting that perceived eWOM diagnosticity and quality is the main factor to influence online customers and the study of Lopez and Sicilia (2014) in that perceived source credibility and perceived valence are the determinants of perceived eWOM influence. Similarly with the results of traditional WOM, perceived eWOM trustworthiness positively affects perceived eWOM influence in both positive and negative reviews. In addition, it also has a positive impact on purchase intention in negative study conditions. This finding supported some existing studies (e.g. Sweeney et al., 2014; Wu & Wang, 2011) in that credible source are more persuasive than less credible one.

Overall rating scores and volume of reviews components are perceived to be the two most influential eWOM component from people who obtain product or service information from online review systems before making decision. As Tversky and Kahneman (1971) noted, a large sample size (volume of reviews) offers more input to a total numerical rating which in-turn creates greater rating credibility, these two components are related to each other in term of providing summarized numbers or figures that are easily interpreted for online consumers. As a result, most of the people who have sufficient experiences in finding the information of product or service from online review systems for a product or service judgement before making decision tend to utilize both overall rating score and number of reviews components. This is mainly because the higher number of reviews; the harder it is for eWOM to fault. In this, it is possible for people to avoid the unrealistic online reviews in eWOMS.

The results from this study implied that an online consumer's perception toward valence did not depend only on rating score component but also depended on other eWOM components such as review content and responding message from service providers. In this, it suggests that when considering the outcomes of online consumer's perception toward eWOMS, both research scholars and business

practitioners should not focus only the impact of one eWOM component but should also take other eWOM components into account as a clue to increase the influential power of online review on consumer's perception. Therefore, business practitioners and website providers should encourage and provide more functions for the reviewers to input related data and information on eWOM platform as well as try to showcase it to eWOM receivers as much as possible. Moreover, the study results also indicated that the perceived valence of eWOM from online consumers alone does not have any influence on online consumer's purchase intention in the hotel industry. As a result, it is meaningless for the hotels to hire companies to boost up their overall rating score since online consumers does not rely on only this eWOM component but tend to integrate it with other eWOM components before making a judgment.

The findings in this study also support the accessibility-diagnosticity model developed by Feldman and Lynch (1988) in that an individual's belief, attitude or intention depends on any piece of information that is used as an input for product judgment. There were many marketing studies that adopted this model in their investigation of consumer's belief, attitude, intention and behavior (Sweeney et al., 2014). The results from this study showed similar conclusion with the study of Wu and Wang (2011) in that the effect of rational review content in eWOMS has more impact on online consumer's perception toward information diagnosticity than the effect of emotional review content. Thus, in order to increase online consumer's perception toward information diagnosticity in the hotel industry, business practitioners and website providers should provide eWOM platform that encourage the hotel reviewers to include more rational information on their review contents and display those rational information to message receivers accordingly. For example, amazon.com has displayed the similar statement of review contents made by reviewers as well as presented the number of people who wrote down those similar contents on its eWOM platform.

Similarly with many empirical research, this research also found that negative WOM has more powerful impact on consumers than positive WOM. Thus, in the hotel industry, managing negative eWOM in online review systems is a challengeable effort for business practitioners which they need to response to those negative reviews with an accurate solution in an appropriate time. Although, the results from responding message component on online consumer's perception toward informational trust and source credibility were not found significantly in this study, the effect of responding message on online consumer's perception in negative study conditions was shown different outcomes which indicated that responding message component was able to improve online consumer's perception in negative review situations. According to the results found in this study, hotel managers might utilize the responding message component on eWOM platform in order to manage negative eWOM in online hotel review systems as Willemsen (2013) suggested that by applying Webcare (responding message component), companies attempt to solve complaints that caused consumers to engage in negative eWOM as well as limiting the potential damage which such complaints could have on other consumers. In addition, online consumer's perception toward source credibility can be increased by providing source identity of reviewers on eWOM platform. As a result, hotel managers and website providers should encourage all reviewers to insert their personal details on eWOM platform as well as display related source identities of reviewers to online consumers in an appropriate way.

According to the model, online consumer's perception toward eWOM diagnosticity and quality, online consumer's perception toward eWOM trustworthiness, and online consumer's attitude toward eWOM influence are the main factors that impact online consumer's purchase intention in the hotel industry. Hence, online consumers attempt to transmit all data from eWOMS into their information-processing and proceed to the eWOM perceptions and attitudes before making purchasing decision in hotel. With this, business practitioners and website providers in the hotel industry should provide the eWOM platform that is complete with many aspects of the hotel review for the reviewers and deliver the accurate and comprehensive eWOM information for the message receivers.

As the number of reviews component was ranked the most influential factor for online consumers in the hotel industry, hotel managers and website providers are able to increase the number of reviews by encouraging their guests to participate in eWOM since most of their guests have to provide an email address when booking or purchasing online. In this, the hotels are able to get feedbacks as well as

increase the number of online reviews in eWOMS. In addition, in order to increase online consumer's perceptions and attitude in the hotel industry, business practitioners and website designers should integrate other eWOM components in online review systems such as maps, the lists of the attractive places around the hotel, the lists of the attractive activities around the hotel, pictures, videos, or calendar events of the hotel.

FUTURE RESEARCH

This research study observed the simple, interaction and main effects of four eWOM components on online consumers' perceptions by manipulating these four variables. Other eWOM components (such as the number of reviews or the number of votes for helpfulness indicators) were not manipulated. As a result, for future research, manipulating other eWOM components as additional independent variables in this research model could help to explore more effects of each eWOM component as well as determine their contributions on online consumers' perceptions. Here, new additional variables might influence the relationship strength among online consumers' perceptions and attitude which may be included to predict online consumers' purchase intention in hotel industry.

This study manipulated respondents by using online reviews that are considered as medium-high positive or medium-low negative reviews. Applying extremely high positive or extremely low native reviews in future studies, the results from online consumers might be different. In addition, for future research, investigating the effect of neutral online review in this research model might also be interesting because online consumers' perceptions toward neutral eWOM might create different results from the current study.

The current research study manipulated participants by applying only the online reviews from one hotel. For future research, offering more online reviews from more than one hotel might be advantageous. Future studies could explore more on how the online consumers react with these complex situations. Moreover, adding more high-involvement service industries such as healthcare services, personal tutor services or beauty services could help the future studies to have a clearer understanding of the effects of each eWOM component on online consumers' perception toward service industry as well as identify what kind of eWOM platform could be employed in high-involvement service industry. The findings of such studies could offer more additional knowledge to WOM literatures in service industry as well as providing additional guidelines for business practitioners, system designers and website providers in the service industry.

Another recommendation for future studies is to conduct the similar study from cross-cultural perspectives. Since the different cultural backgrounds create different worldviews, beliefs, attitudes and behaviors, the future research could explore these different effects by comparing respondents who have different places of origin from two or more distinctive cultural differences such as USA (individualism) vs. Japan (collectivism). Furthermore, future studies could investigate the effects of eWOM from the respondents who come from different countries that are dissimilar in the Internet infrastructures such as high Internet penetration country vs. low Internet penetration country. The findings of such studies could provide additional support to both business practitioners and researchers.

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