Travelers’ Responses to Online Information on Consumer-Generated Media for Travel-Related Services

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Abstract

This research is aimed to investigate how travel consumers respond to online information posted in Consumer-Generated Media. It was examined the impact of consumer characteristics (risk propensity and Internet experience), information characteristics (information valence and information quality), and source characteristics (source identity and similarity) on consumer perception of information credibility, trust in the travel services being discussed, and intention to purchase the services. Hypotheses and research questions were proposed based on the concept of uncertainty reduction and information processing. A 3x2 between-subject experimental research design was developed. Information valence and source identity were manipulated. The survey was conducted at several popular tourist destinations in Bali involving 1939 real travel consumers holidaying in Bali as participants.

Results show significant effects of risk propensity, information quality, and similarity on perception of information credibility, trust in travel services being reviewed, and intentions to purchase the services. Internet experience was found not significant in affecting credibility, trust, and purchase intention. The study also confirmed the main and interaction effects of information valence and source identity on perception of information credibility, trust in travel services being reviewed, and intentions to purchase the services. Information with identified source was perceived to be more credible and leads to greater trust and consumer purchase intention than unidentified information. Balanced information was found to have greatest impact on credibility, trust, and intention. Positive information was suggested to have the least impact on credibility, as well as negative information on trust and purchase intention. The interaction of balanced information with identified source was found to have the greatest influence on credibility, trust, and intention, while negative information with unidentified source was found to have the least effect. Several conceptual, methodological, and research contributions offered by this study are also discussed.

**Keywords:** Consumer-Generated Media, Online Word-of-Mouth, Credibility, Trust, Information Valence, Source Identity
Statement of Original Authorship

Declaration

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material that has been accepted for the award of any other degree or diploma in any university.

____________________________________________
Sony Kusumasondjaja

16 January 2012
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CHAPTER 1

INTRODUCTION

1.1. Research Background

The number of Internet users has dramatically increased over the years. As of 31 December 2011, it was reported that there were more than two billion Internet users in the world (Internet World Stats, 2012), and the world usage growth between 2000 and 2011 was more than 520% (Internet World Stats, 2012). Research shows that households have Internet access for various purposes, including for comparing prices, dating, enjoying entertainment, getting education, doing business, shopping, and socializing (Crum 2009). It is expected that by 2013, 69% of USA consumers will have purchased online at least once (Evans, 2009).

Travel and hospitality is one of the most popular industries for online transaction (Hvass & Munar 2012). The Travel Trust Index Report states that 68% of Americans trust the information they can get from the Internet for travel-related services they would buy (Hotel News Resources, 2008b). Moreover, 70% travel reservations were booked online in 2008 (Hotel News Resource, 2008a). Nearly 118 million people in the USA search travel information online with more than 98 million people making bookings (Bachman, 2012). The domination of travel-product online transactions in the USA and the Europe appears in the flight ticket selling which is accounted for 62.6% of total transactions, followed by hotel reservations (43%) (Bigne, Sanz, Ruiz, & Aldas, 2010). Online travel sales in the USA are predicted to increase 11% this year (Bachman, 2012).

Web 2.0 application (also known as Consumer-Generated Media or Social Media) is a growing phenomenon. Some Internet businesses have become very successful at adopting the new technology in different business domains; such as eBay and Priceline.com in online auction business, Yahoo!, MSN and Google in search engine, Amazon.com, Shopping.Square.com.au and DealsDirect.com.au in retail, Expedia.com, Orbitz.com, and
Wotif.com in travel service booking, iTunes in music and podcasts, and Netflix.com and Quickflix.com.au in video rental business. Furthermore, Watkins (2009) reiterates that young consumers engage Consumer-Generated Media (CGM) as a fundamental part of their life and the study shows how attached young people are to mobile phones, the Internet, and social media applications.

It is predicted in the eMarketer (2012) that there are approximately 615.9 million Internet users using CGM applications this year, and the number is expected to increase to 853.7 million by 2014. In terms of daily usage, it is reported that 57% of individuals aged 21-39 in Asia Pacific go online to participate actively in a social network at least once a week (eMarketers, 2012). Meanwhile according to the Social Network Practitioner Consensus Survey in May 2007, more than 50% of professionals already participating in social networks (Constantinides & Fountain, 2008). Schegg, Liebrich, Scaglione, and Ahmad (2008) cited that 60% of online users in Europe are benefited from the CGM sites. There are more than 20 million travelers arranged their trips through TripAdvisor.com (Schegg et al., 2008). These findings confirm the growing significance of the social media in people’s everyday life.

While growing numbers of travelers use the CGM applications for their planning and decision-making, the credibility of information posted on this new media is frequently being questioned. Some cases of fake online reviews happened on some well-established sites such as Amazon.com or TripAdvisor.com (Topping, 2010; Stammer-Smith, 2010). Information deception is identified as a real risk for the social media (Elliott, 2006; Hancock, Curry, Goorha, & Woodworth, 2005; Zhou & Sung, 2008). Trustworthiness is another problem with CGM. Some social media allows its users to hide their basic personal identity and provides limited verification mechanism to confirm the identity of the information sources. As a result, the information posted on the media cannot be ascertained. Therefore, readers face some level of uncertainty in differentiating the truthful information from the deceptive. This issue is the primary issue to be investigated in this dissertation.

In order to clarify the basic idea of this research, the following scenario is considered. Imagine the situation when you need to make a hotel reservation for your next holiday trip at your most desired holiday destination. You have been performing an online information
search intensively because you have never been to the destination before and you have no prior knowledge. When you find a particular hotel which fits your preferred location and budget, you want to know what other travelers who have stayed at the hotel are saying about their experiences. From an online review site, you find three reviews about the hotel. The first review says that the hotel is clean and comfortable with friendly staff; the second review explains that the hotel is dirty, inconvenient with rude and impolite staff; and the third review suggests that the hotel is unclean but still comfortable with unfriendly but helpful staff. One of the reviews discloses the identity of the reviewer while the other review only provides the reviewer’s online nickname. Will you consider the positive review as more credible than the negative and the balanced ones? Does valence of the review influence your perception of credibility of the information? Does the availability of the reviewer identity influence your assessment? Do your individual characteristics play an important role in your perception of the information credibility? Does your perception of credibility of the review influence your initial trust in the hotel where you want to stay during your holiday? Does the positive review make you intend to make a reservation at the hotel being reviewed, and does negative review change your intention?

The above questions are investigated and reported in this dissertation. Findings are expected to add to the body of knowledge in online consumer behavior and marketing communication.

1.2. Justification of the Research

As explained prior, CGM is considered as one of the most influential and fastest growing channels to generate online recommendation effects (Dellarocas, 2003). Following the growth of CGM adoption, a number of studies have been conducted to observe the power of CGM information and its impacts on consumer behavioral intentions (e.g. Sparks & Browning, 2011; Zhang, Cricun, & Shin, 2010; Zhang, Ye, Law, & Li, 2010). Several investigations have been conducted to examine whether the power of CGM is influenced by several factors; such as information valence (e.g. Duan, Gu, & Whinston, 2008), product
types (e.g. Zhang et al., 2008), information quality (e.g. Dillard & Shen, 2005), expertise (e.g. Park & Kim, 2008) and demographic characteristics (e.g. Armstrong & McAdams, 2009; Lin, Lee, & Horng, 2011). The findings of existent studies, however, are mostly still inconsistent, and therefore, further investigation is suggested. This study is dedicated to confirm the impact of message cues and individual factors on perception of credibility. This is one of the major objectives and contributions of this study.

Another issue to be investigated in this study relates to the nature of CGM information. There are two key characteristics that can be observed from CGM information; namely lack of uniformity and lack of personal identification of information sources. Lack of uniformity allows CGM users to obtain conflicting product information. One certain product can be reviewed as being good quality by some CGM users and commented on negatively by others. Lack of personal identification generates difficulty for consumers to understand the characteristics of the information sources. While a number of researchers have investigated the impact of CGM information valence on consumer responses (e.g. Bambauer-Sachse & Mangold, 2011; Sparks & Browning, 2011), the impact of source identity inexistence in online information is still underexplored. Thus as further basis for this study, investigating how source identity influences the power of CGM and how the source identity and information valence interact in a CGM context contributes to the current marketing literatures.

Using Uncertainty Reduction Theory (Berger & Calabrese, 1975) and McGuire (1978)’s Information Processing Model as the key theories, conceptual framework and hypotheses are developed. Subsequent empirical research investigates source identity and information valence separately and did not examine them in a single framework. This will also be examined and will provide another major contribution to the body of knowledge. Finally, additional consumer characteristics and constructs will be included in the research and discussed subsequently.
1.3. Objectives of the Research

This study aims to contribute to the literatures on consumer behavior and tourism; specifically to the understanding of credibility of CGM information and how it affects travelers’ trust and purchase intention. The study is proposed to address the gap in the body of knowledge as discussed prior by addressing the following research objectives:

1. To examine the relationships among risk propensity, Internet experience, information quality, similarity, credibility of online information, trust, and purchase intention

2. To elucidate the main effects of source identity on the relationships between risk propensity, Internet expertise, information quality, similarity, information credibility, trust, and purchase intention,

3. To elucidate the main effects of information valence on the relationships between risk propensity, Internet expertise, information quality, similarity, information credibility, trust, and purchase intention

4. To elucidate the interaction effects of source identity and information valence on the interaction between risk propensity, Internet expertise, information quality, similarity, information credibility, trust, and purchase intention

1.4. Key Concepts and Definitions

Terminologies used by researchers often have different meanings (Perry, 1998). Therefore, general terminologies which may have more than one interpretation should be clearly defined in order to avoid ambiguity. Accordingly, some key constructs used throughout this research which may have unclear or varying meanings are defined and presented in this section. For the purpose of establishing an equal understanding of the foundation of
constructs in this research and to reconcile any differences in definitions, the key terms for the study are presented in Table 1.1.

<table>
<thead>
<tr>
<th>CONSTRUCT</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credibility</td>
<td>Borrowing the definition from Flanaginand Metzger (2000) and Johnson and Kaye (1998), this study defines credibility as the degree to which online consumers evaluate online information or message posted on CGM to be believable, fair, accurate, and in-depth.</td>
</tr>
<tr>
<td>Information Quality</td>
<td>Borrowing the definition proposed by Rains (2007) and Rains and Turner (2007), this study defines information quality as the extent to which the online information is perceived to have strong or weak arguments.</td>
</tr>
<tr>
<td>Information Valence</td>
<td>Adapting from Jain and Posavac (2004), message valence refers to the sidedness of the online information about a tourism object posted on the CGM, whether it is positively or negatively oriented or balanced between positive and negative orientation.</td>
</tr>
<tr>
<td>Internet Experience</td>
<td>The definition of Internet experience was adapted from FlanaginandMetzger (2000). In this study, Internet experience refers to the extent consumers perceive themselves as experienced in Internet usage.</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>Adapting from Dodds, Monroe, and Grewal (1991), in this study purchase intention refers to as consumer’s intention to act or behave related to a purchase after evaluating online information posted on the CGM. The construct is defined as a form of commitment or willingness to make a purchase.</td>
</tr>
<tr>
<td>Risk Propensity</td>
<td>Borrowing from Meertens and Lion (2008) for this study, risk propensity refers to individual’s tendency in general risk taking behavior. Risk propensity is viewed as the propensity to avoid or take personal risks in daily behavior, and not treated as the propensity to perform thrill-seeking or social norm violation behaviors.</td>
</tr>
<tr>
<td>Similarity</td>
<td>Adapting definition proposed by Gilly, Graham, Wolfinbarger, Yale (1998) and Smith, Menon, and Sivakumar (2005), in this study perceived similarity refers to the extent to which consumers feel similar to reviewer who posted online review on the CGM in terms of attitudes, preferences, emotions, and behavior.</td>
</tr>
<tr>
<td>Source Identity</td>
<td>Adapting definition by Ma and Agarwal (2006), source identity in this study refers to the extent to which CGM information discloses the basic personal information about the identity or personal details of the individuals who posted the reviews.</td>
</tr>
<tr>
<td>Trust</td>
<td>Adapting from Moorman, Deshpande, and Zaltman (1993), in this study trust is defined as the positive expectation in a travel-related service provider without having prior knowledge about the service after his/her initial awareness following first exposure to online information about the service.</td>
</tr>
</tbody>
</table>
1.5. Methodology

A 3x2 (between-subject) experimental design will be used to test the hypothesized predictions. A set of online information will be prepared as stimulus materials to examine the postulated relationships. Two variables manipulated in this study will be information valence and source identity. The information valence will be manipulated at three levels by providing three types of information content orientation of the reviews; positive, negative, and balanced valence. The source identity will be manipulated at two levels by providing two types of personal information disclosure. Following Ma and Agarwal (2007), in disclosed identity condition, the identity of the individual who posted the information will be described. In undisclosed identity condition, there will be no explanation at all about the information source. Real travelers will be approached as participants for this study and recruited at public spots in popular tourist destinations. Data will be captured using spot-intercept survey consisting of scales measuring risk propensity, Internet experience, information quality, similarity, credibility, trust, and intention, simple demographic questions, and questions for manipulation and realism checks.

Survey items will be derived from prior studies; risk propensity (Meertens & Lion, 2008), Internet experience (Flanagin & Metzger, 2000), information quality (Rains 2007), perceived similarity (Gilly et al., 1998), credibility (Flanagin & Metzger, 2000), trust (Bart, Shankar, Sultan, & Urban, 2005), and purchase intention (Dodd, Monroe, & Grewal, 1991). For this study, participants will be asked to rate the items on a 7-point Likert scale. Analysis of Variance (ANOVA), Independent t-test, and Regression Analysis will be the primary statistical tools utilized to answer the research questions.

1.6. Expected Results of the Study

As discussed, existing literature have examined several key factors affecting credibility or trust in online environment. Some factors have been extensively investigated but with conflicting results; such as information valence (e.g. Chang & Lee, 2010; McKay-Nesbitt,
Manchanca, Smith, & Huhmann, 2011); while some others are still underexplored; such as source identity (e.g. Xie, Miao, Kuo, & Lee, 2011). Interaction effect between valence and identity – two most obvious characters in online information – has not been tested either previously. Findings from this study are expected to be able to offer theoretical and managerial contributions. Moreover, prior research also suggests a lack of empirical study exists in the knowledge of credibility of CGM information and its relationships with its primary antecedents; such as consumer risk propensity, Internet experience, information quality, perceived similarity, information valence, and existence of source identity; trust and purchase intentions. This study investigates a relationship model relating these constructs based on and extended from Uncertainty Reduction Theory developed by Barger and Calabrese (1975) and McGuire (1978)'s Information Processing Model. Well-prepared research design, appropriate measurement scales, and suitable techniques of analysis will be adopted and developed to examine the structural model. From this point of investigation, theoretical and managerial significance of the findings are expected to be revealed.

1.7. Significance of the Study

The main objective of this research is to question how the identified types of information valence and information sources’ personal identity differ in their effects on consumer response towards the CGM information. This research is expected to have conceptual, methodological, and managerial significance in the following ways.

This study will examine relationships among factors affecting credibility of CGM information and test how credibility of CGM information affects trust and behavioral intentions. Successful validation of the conceptual framework alone will provide significant contribution in a number of ways. Firstly, the validation of conceptual framework will confirm findings from prior studies which partially investigated some elements of the relationships examined in this study. Findings in this study will thus provide conceptual assistance as future studies may adopt these to further investigate the credibility of other types of online information. In
terms of managerial significance, this model will provide marketing and advertising managers with framework that can be used in crafting an advertising campaign approach, public relations strategy, relationship management tactics, or even advertising and promotion budget planning.

Moreover, this study will examine whether the valence of online information affect its credibility, consumer trust, and intentions. It will also investigate whether the existence of online information source identity affects consumer responses. Conceptually, source identity of online information and its interaction with information valence have been limitedly studied previously. This research will result an expanding knowledge on online information communication and its influence in consumer behavioral responses. By understanding how valence and identity interact and affect consumer responses, marketing managers may be able to anticipate consumer response to online information and to develop strategy on how to involve or respond to such online communication and interaction to maintain or improve corporate image. The use of real consumers instead of students or ‘at home’ samples as participants also provides methodological validity.

1.8. Composition of Dissertation

This dissertation is organized in six chapters. They are chapter 1 (Introduction), chapter 2 (Literature Review), chapter 3 (Conceptual Framework and Hypotheses Development), chapter 4 (Research Methodology), chapter 5 (Findings and Discussion), chapter 6 (Contribution, Limitation, and Future Research Direction). The first chapter introduces the background of the study and explains the justification why this research should be undertaken. Research objectives are also postulated in brief with key constructs being briefly identified. The second chapter introduces some literature on primary constructs used in this dissertation. In this chapter, the nature of CGM is explored, as well as its strategic role in tourism industry and consumer information search behavior. It also explores literature about the concept of credibility and trust.
The third chapter presents the underlying theories supporting the research questions and hypotheses; this includes the development of the conceptual framework and the hypotheses. Research methodology applied in this study is described in chapter four. In this chapter, the research approaches, the stimulus development process, the measurement for the constructs used in this study, manipulation check process are detailed. The fifth chapter presents results from the manipulation and realism checks, the descriptive information about the research participants, and the statistical results from the data analysis presented in a systematic manner. Major findings from the statistical results are also explicated.

Chapter six concludes the dissertation by highlighting research implications and contributions both for marketing literatures and practices, and explaining the limitations of the study. Limitations of the research are delineated and future research directions are also suggested in this section.
CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

The purpose of literature review is to form theoretical understanding for the large body of knowledge developed prior to the present study. Existing literature provides valuable and comprehensive insights into the issues related to the research problems being investigated and offers guidelines as to how best to examine it. Literature on information search behavior is explained in earlier part of this chapter, followed by explanation about word-of-mouth communication. Consumer-Generated Media is then introduced, and subsequently the concept of credibility is explored. Gaps in the literature are also discussed afterwards before this chapter is concluded.

This study explains that online information posted on Consumer-Generated Media is essentially a form of word-of-mouth (WOM) interpersonal communication episodes between consumers conducted online with the ultimate goals of information and social exchange. Online WOM is one of the external information sources available and commonly used by consumers prior to and after purchasing. However, the anonymity characteristic of CGM-based WOM generates considerable risks and uncertainty on the virtual interaction, especially when the information exchanged is about tourism and travel-related products. To alleviate the risks and uncertainty, consumers look for specific cues in the online information to assess its credibility. Therefore, to understand how consumers assess information credibility, it is important to understand how personal and message characteristics affect their perception of information credibility which then lead to initial trust in the firms and consumers’ purchase intentions. The process of perception, trust, and intention formation occurs when consumers perform information search.
2.2. Information Search Behavior

Consumers make decisions in an information environment which includes a wide range of information sources. Their awareness, selection, and decision of products depend on the information available to and used by them in the search process. Since consumers make decisions based on the information they have, it is important for them to ensure that they search and collect complete and credible information in order to avoid making wrong decisions. Consumers tend to perform information search process differently for different information needs (Kingsley & Fesenmaier, 1995). For that reason, information search behavior has been extensively studied by marketing researchers to understand how and where consumers search for information, since it has been argued that information can be treated as the most important factor influencing and determining behavior of consumers (Assael, 1998).

2.2.1. Internal and External Search for Information

Information search behavior is defined as the motivational activation of knowledge stored in memory or information acquired from external environment (Engel, Blackwell, & Miniard, 1995). Every time consumers need to make decisions, an information search is likely to occur. When an individual consumer needs to decide whether to buy a certain product, he or she starts the information search process internally by using their own prior experience or externally existing knowledge about the product (Vogt & Fesenmaier, 1998). If the information from internal memory and knowledge is deemed sufficient for decision making, then the information search process stops and decision will be made (Beatty & Smith, 1987). Nevertheless, frequently the internal search process is insufficient and therefore consumers have to search more from external sources.

Studies on consumer behavior have broadly categorized information sources into two primary groups; internal and external sources (Murray, 1991). Consumers have internal source of information which is derived from their product knowledge obtained from their own prior experience with the product or experience with other products with similar functions, from experience of other consumers, and from previous marketing information in
newspapers, magazines, or advertisements. All information is obtained and stored in long-term memory and retrieved when needed (Vogt & Fesenmaier, 1998). Therefore, internal search for information is basically a cognitive scan for decision-related knowledge stored in consumer’s long-term memory (Engel et al., 1995). This knowledge leads to an internal schema of a product that occupies a specific place in the consumers’ evoked set (Goodstein, 1993). Internal search may fail to generate sufficient information for decision making if the consumer lacks sufficient prior purchase expertise (first-time buyer), or if the last purchase experience has been forgotten because it happened long time prior to the time the information is retrieved, or if the consumer feels dissatisfied in prior consumption experience, or if the consumer perceives that personal preferences or characteristics and product features have changed significantly (Kiel & Layton, 1981). When internal information search is unsuccessful to generate adequate information for decision making, consumers will then attempt to satisfy their needs by looking for information from external sources.

Whilst internal information is considered important in information search process, marketers and researchers have enduring interests in studying and understanding external sources of information due to the fact that the external domain of information sources is more uncontrollable (Moorthy, Ratchford, & Talukdar, 1997). External information search occurs when consumers are motivated to seek information outside their own internal memory (Murray, 1991). Prior study by Srinivasan and Ratchford (1991) identify approximately 60 determinants of external information search behavior; including several task-related factors (i.e. difficulty of the choice task, number of alternatives, and complexity of the alternatives), situational factors (such as time constraints for decision making, perceived risks associated with the decision, prior experience with the similar consumption experience), product characteristics (i.e. price, perceived risks associated with the product), and consumer characteristics (product involvement, socioeconomic status, level of education). Schmidt and Spreng (1996) suggest that marketing information available for consumers can be marketer-controlled information (advertisements), non-marketer-controlled information (information from third party independent organization or resellers), and WOM communication. Fodness and Murray (1999) suggest that consumers use a various combination of these sources at different stages of decision making process.
2.2.2. Online Information Search Behavior in Travel and Tourism Context

The emergence of the Internet has been embraced by travelers who need to search more information for decision making purposes (Sigala, Lockwood, & Jones, 2001). Today, travel consumers search for information from two different sources; offline and online (Murphy & Olaru, 2009). Some online sources have been available since the last few years for consumers seeking travel-related information, such as TripAdvisor.com, Expedia.com, or Fodors.com (Law, 2004; Law, 2006; Law & Chen, 2001). Prior studies suggest that travel planning involves many sub-decisions and consists of hierarchical, dynamic, multi-stage, and contingent processes where the primary decisions are made at the beginning of the process (Fesenmaier & Jeng, 2000). As an information source, the Internet has the ability to allow travelers who are making plans to find multiple travel products or services at the same time, and then compare the characteristics, quality, and availability of the features or facilities (Susskind, Bonn, & Dev, 2003). The Internet contains high level of interactivity and customization capabilities that enable its users to obtain information that is most suitable for their idiosyncratic preferences (Jang, 2004). As a result, the Internet is about to substitute many traditional information resources to the extent of reducing travelers’ problems in making the right plan and decision for their trip (D’Ambra & Wilson, 2004).

In travel and tourism context, extensive studies have been undertaken in the area of online information search from different perspectives. Beritelli, Bieger, and Laesser (2007) suggest that the use of Internet for travel-related information search is related to age, level of education, and level of income. Young and well educated travelers with high level of income are more likely to use travel websites for their travel planning (Gretzel & Yoo, 2008). Beldona (2005) confirms that younger generation cohort shows higher Internet penetration than older cohort, although there is no linear pattern of online information search that increases or decreases with age. On the other hand, Kim, Lehto, and Morrison (2007) note that there are differences in online trip planning behavior between males and females (Kim et al., 2007). Findings of the study suggest that although males generally have more experience with Internet use, females spend more time on the Internet per week and have stronger positive attitude toward online information. The study further indicates that males on average take more trips than females and therefore, they have greater information...
search needs. In this sense, while males have lower perception of information importance than females, their information search behavior is at the same level or higher than their counterpart.

The work of Vogt and Fesenmaier (1998) reveals that leisure and recreation activities are key drivers for travel-related information searching and decision making. Morrison, Jing, O’Leary, and Cai (2001) conducted an experimental study to investigate the likelihood of booking travel online. This study formulates a conceptual model illustrating the process by which travelers make online reservation for their trip. Previous studies suggest that consumers conduct online search in search engine Websites in order to identify unique searching needs (Jansen & Spink, 2006; Jansen, Spink, & Saracevic, 2000). A study by Pan, Litvin, and O’Donnell (2006) investigates how consumers use keywords for travel destination-related Web-based online searching and suggests that the number of keywords used for travel-related searches is significantly higher than for common searches. It is noted that this finding may signify travel searching as a cognitive intensive activity. It is also reported in Pan, Litvin, and O’Donnell (2006) that city name along with the word “hotel”, “attraction”, and “activities” are used in nearly half of all travel-related searches. Jansen, Ciamacca, and Spink (2008) correspondingly find that queries with the words “city”, “location”, “state”, “specific location”, “travel information”, and “hotel” are the top keywords for travel-related queries in Web-based search engines. Xiang and Gretzel (2010) investigate the role of social media in travel information search. It is found in the study that there are 20 social media websites reported as the most popular sites that contain travel-related information and that the words “nightlife” and “restaurants” are two most popular search keywords in the social media sites. Furthermore, a study by Xiang and Pan (2011) claims that “destination-specific words”, “hotel”, “airport”, “casino”, and “beach” are the most commonly used keywords used by consumers seeking travel-related information.

Law and Huang (2006) present some interesting findings from their research on how consumers find their travel and hotel websites. The study finds that search engine sites, such as Google, MSN, and Yahoo, are deemed more important information sources for finding travel and hotel websites than personal sources, such as friends or relatives. This finding is somewhat different from what are suggested in the study by Lo, Cheung, Law
which argues that friends and relatives are more important as a travel-related information source. Another finding in Law and Huang (2006)’s study is that in most cases, online searching process in the search engine sites will keep going until the consumers find travel or hotel websites that satisfy their needs, while some other respondents in the study suggest that they look at the results from the online search process in the search engine sites up to the third screen. Prior studies have investigated the comparison of room-rate information posted in travel websites and in hotel’s own websites (Law, Chan, & Goh, 2007; Law & Hsu, 2006). These two studies found that hotel’s own websites offer more expensive room rates compared to most travel websites. This finding may explain one of the reasons why online consumers tend to find information from various online sources in order to compare all information they obtain before making any decision.

There is a relationship found between information search behavior and consumer motivation to travel. It is suggested that consumers who are strongly motivated by push and pull factors are likely to involve consistently in travel activities, such as travel shopping (Josiam, Kinley, & Kim, 2005) or gastronomy tourism (Fields, 2002). According to the push and pull theory of tourist motivation (Dann, 1981), push motivation explains that consumers decide to travel as a result of their internal or emotional state. In other words, this theory suggests that consumer may decide to travel because they are pushed by their own desire for escape, rest and relaxation, prestige, social interaction, adventures, family togetherness, or excitement (Cha, McCleary, & Uysal, 1995; Crompton, 1979; Oh, Uysal, & Weaver, 1995; Uysal & Hagan, 1993). Meanwhile, pull motivation is more related to the attributes of the tourist destination (Cha, McCleary, & Uysal, 1995; Crompton, 1979; Oh, Uysal, & Weaver, 1995; Uysal & Hagan, 1993). Therefore, consumers who are motivated by pull factors decide to travel because they are inspired by a destination’s attractiveness, such as its scenic landscapes, beaches, cultural attractions, shopping strips, or recreation parks and facilities.

Although these two motivations are different in terms of where the forces are sourced from internal or external factors, both motivations pull factors may stimulate or reinforce inherent consumer push motivations (McGehee, Loker-Murphy, & Uysal, 1996; Pyo, Mihalik, & Uysal, 1989). The study by Josiam, Kinley, and Kim (2005) explains that consumer motivation to do a tourism activity is significantly related with the level of consumer involvement with the activity. In the study, it is found that when consumers are highly
involved with shopping activity while being tourists, they are already motivated to do the shopping; conversely when they are less involved in the shopping activity while traveling, they need to be motivated by many reasons to shop. Different levels of involvement affect not only consumer motivation, but also preferences in information sources. Cai, Feng, and Breiter (2004) conclude that there are significant differences in using the Internet as a travel information source from one level of involvement to another. Travel consumers with low level of involvement seek for basic information about the travel destination, such as information about the nature, museum, or sports activity that can be undertaken in the destination, for their future references; meanwhile, medium level of involvement search for online information about more advanced information, such as local travel tips, dining alternatives, local community agenda, and tips to get around the destination, to make their final travel decision.

Furthermore, Jun, Vogt, and MacKay (2007) find that travel information search and travel product purchase in offline and online context differ in the pre-trip stage and vary by the category of travel products. It is suggested by the study that consumers are more likely to use the Internet during the pre-trip stage to search for travel information than for purchasing travel-related offerings. The study also claims that online search and purchase are dominantly used for accommodations, car rentals, and flights since these categories are deemed necessary travel components and less likely to change. It is also suggested in their study that internet experience influences the information search behavior executed by travelers. Moreover, Gursoy and McCleary (2004) propose that travel information search strategies are affected by consumers’ familiarity with products being searched. Consumers who have high level of familiarity with a travel product category or a tourism destination are likely to retrieve information from their own memory and make decisions based on what they memorize.

From the perspective held by Uncertainty Reduction Theory (Berger & Calabrese 1975), Internet users may use the Internet to reduce uncertainty by finding information they need for their purchase decision making. However, the large amount of information the Internet can provide for consumer problem solving and decision making enhances consumers’ uncertainty, considering that the abundance of online information that may prevent them
to find what is really they are looking for (Pan & Fesenmaier, 2006) and the lack of clear rules that ensure the credibility of the available online information. Since Internet is accepted and adopted by consumers as part of their daily life, they are bombarded with information from more than sufficient sources. As a result, it is not surprising that Internet-based information sources may generate uncertainty because of its great number of available information which may be contently different from one another and also its anonymity characteristics which allow information providers not to be responsible for what they post online.

A simple search on any major Web-based search engine for any product information generates abundant results which make consumers having difficulty to evaluate the reliability and trustworthiness of information they receive. In travel and tourism context, for example, a traveler who is searching for information about hotel available in certain destination may be overwhelmed by the number of websites providing information about available hotels in that destination, and each website offers a lot of hotel names in various locations with a wide range of hotel and room types. Some of the hotels in those websites provide or are linked to reviews posted by other travelers who have stayed at the hotels – sometimes the reviews are clearly sourced, but many times the source is unidentified. Facing this information overload and confusing situation, consumers are now required to cleverly evaluate the available online information and to decide which information to believe and follow and which information to ignore and reject. This task is challenging to some extent since finding substantive cues of online information trustworthiness is not a simple thing to do (Freeman & Spyridakis, 2004; Metzger, 2007).

2.3. Word-of-Mouth Communication

Word of mouth, commonly abbreviated as WOM, is an informal mode of communication and information exchange process between individuals regarding product evaluation (Chung & Darke, 2006; Godes et al. 2005; Grewal, Cline, &Davies, 2003). Some scholars define
WOM as an interpersonal and informal communication conducted by two or more individuals; neither of whom represents any commercial entities nor have personal interests and gain from the sale of a product (Arndt, 1967; Bone, 1992; Brown, Broderick, & Lee, 2007; Schiffman & Kanuk, 2010). The personal influence process occurred in a WOM communication can change information receiver’s attitude and behavior (Sweeney, Soutar, & Mazzarol, 2008). WOM may take place in a direct face-to-face or mediated communication, such as telephone or email conversation, mobile text messaging, or online discussion. Finding accurate information from various options of sources is growing increasingly difficult for consumers. Consumers have learned that good quality information depends on who provides the information (Gilly et al., 1998; Gladwell, 2000; Silverman, 2001; Wirtz & Chew, 2002), and for that reason, consumer preference for relying on personal information such as WOM is quite rational since the sources are free of charge, easy to access, and without any vested interest for delivering the WOM.

Communication via WOM has been extensively studied in the area of consumer behavior (e.g. Katz & Lazarsfeld, 1955; Pincus & Waters, 1977; Brown & Reingen, 1987; Charlett, Garland, & Marr, 1995; Walsh, Gwinner, & Swanson, 2004). It is not surprising since WOM has been well recognized as an important determinant in product-related information seeking (East, Hammond, & Lomax, 2008), product evaluation (Bone, 1995; Herr, Kardes, & Kim, 1991; Laczniak, DeCarlo, & Ramaswami, 2001), consumer preferences and intentions (Livin, Goldsmith, & Pan, 2008; Smith et al., 2005; Zhu & Zhang, 2010), decision making (Bansal & Voyer, 2000; Wangeheim & Bayon, 2004), and new product adoption (Gilly et al., 1998; Mahajan, Muller, & Srivastava, 1990; Rogers, 1995; Still, Barnes, & Kooymsn, 1984). Prior research has also confirmed that this personal source of information develops consumer pre-usage attitudes (Herr et al., 1991) and post-usage attitudes (Bone, 1995). Considered as the least biased source of marketing information (Cheung, Luo, Sia, & Chen, 2009; Hugstad, Taylor, & Bruce, 1987; Swan & Oliver, 1989), the significant role of WOM for consumer decision making is corroborated.

WOM communication is found to be more persuasive and credible than information from company-related sources (Bickart & Schindler, 2001), especially when WOM sources are perceived not to gain any personal benefit from transmitting the WOM. Allsop, Bassett, and
Hoskins (2007) also point out that credibility of WOM is often associated with information being passed through an unbiased filter of ‘people like me’. In a study in tourism, WOM communication from friends and relatives is claimed to be the most commonly adopted by travelers before travel decision making (Beiger & Laesser, 2004) since they have been identified as one of the most reliable sources for destination selection (Murphy, Mascardo, &Beckendorff, 2007). The strength of the ties between information sender and receiver also relates with WOM information adoption since WOM communication is a social behavior (Wirtz & Chew, 2002). During WOM information communication process, consumers relate themselves with many other individuals, from close ones (strong tie) to unknown people (weak tie). It is found that when both information from strong and weak ties sources are available, strong ties sources are more likely to be activated and influential than weak ties (Bansal & Voyer, 2000; Brown & Reingen, 1987). Strong tie sources are perceived as more credible than weak tie sources and WOM communication from strong tie sources are more likely to be more influential than the one from weak tie sources (Bansal & Voyer, 2000; Brown & Reingen, 1987; Hoye & Lievens, 2005; Wirtz & Chew, 2002).

Some literatures suggest that WOM is more impactful for market offering perceived as highly intangible (File, Judd, &Prince, 1992) or high risk (Zeithaml, 1981) or involving ambiguous purchase situation (Bone 1995); those characteristics are generally found in services (Bitner, 1992; Kotler, Bowen, &Makens, 2006). This is supported by Bristor (1990) and Murray and Schlater (1990). The more complex the buying situation is and the more alternatives there are to evaluate, the more likely consumers may put some effort to look for additional information before making any decision (Celsi & Olson, 1988). Hospitality and tourism products are categorized as intangible and uncertain products since they cannot be evaluated before consumption (Murray & Schlacter, 1990), and the intangibility characteristic of services requires consumers to rely more on other consumers’ opinions (Nyer & Gopinath, 2005). Using and giving WOM information for services is usually motivated by risk reduction, perception improvement, and purchase intention (Sweeney, Soutar, &Mazzarol, 2008).
WOM communication is claimed to be seven times as effective as newspapers and magazines in influencing consumer brand switching behavior (Brown & Reingen, 1987; East et al., 2008; Herr et al., 1991). Moreover, Reichheld (2003) suggests that WOM is the strongest single predictor of company growth. The substantial impact of WOM has driven marketers to attempt to involve themselves in consumer-to-consumer conversation for their marketing goals in various ways; including offering consumers cash rewards, free samples, or gift cards for recommending their products (Petty & Andrews, 2008; Tuk, Verlegh, Smidts, & Wigboldus, 2009). This practice is known as WOM Marketing (Kozinets, de Valck, Wojnicki, & Wilner, 2010). Although the strategy may induce consumer likelihood to give recommendation, WOM Marketing tends to generate skepticism among consumers due to the decreasing perceived genuineness of the recommender and credibility of the recommendation (Carl, 2008; Godes et al., 2005; Tuk et al., 2009).

Mangold, Miller, and Brockway (1999) suggest that WOM is more likely to be initiated by consumers’ information needs than by their satisfaction level. When consumers actively search for WOM information, WOM has greater impact on their purchase decisions than if they do not vigorously seek WOM information (Bansal & Voyer, 2000). Moreover, a study by Herr et al. (1991) demonstrates that when WOM information is presented in an emotionally-interesting, concrete and imagery provoking, and proximate in a sensory, temporal, and spatial way, the information is easier to retrieve from consumers’ memory.

The advancement of Internet technology has brought about a WOM revolution (Dellarocas, 2003). The role of WOM has become more important and influential after the emergence of Web 2.0 technologies. When this product-related information exchange between consumers conducted in the Internet-based media, it is commonly referred to as electronic word-of-mouth. Hennig-Thurau, Gwinner, Walsh, and Gremler (2004) defines electronic word-of-mouth (e-WOM) as any positive or negative statements about products, services, or brands by consumers perceived as having no vested commercial interests which are generated on the Internet. Examples of online media where e-WOM may take place include emails, instant messages, websites, weblogs, online forum and community, online chat-rooms, and social networking sites (Litvin, Goldsmith, & Pan, 2007). Online media is found to be far more efficient than offline media in spreading the message faster and further.
(Dellarocas, 2003, Sun, Youn, Wu, & Kuntaraporn, 2006). Once consumers post their opinion in online media, it can be long-lasting and far-reaching. In terms of its effectiveness, e-WOM is confirmed to play a significant role on brand evaluation (Chiou & Cheng, 2003; Lee, Rodgers, & Kim, 2009; Xue & Phelps, 2004), store evaluation (Chatterjee, 2001), risk taking behavior (Ha 2002), consumer preferences (Graham & Havlena, 2007; Smith et al., 2005; Senecal & Nantel, 2004; Vermeulen & Seegers, 2009), product sales (Chevalier & Mayzlin, 2006; Dellarocas, Zhang, & Awad, 2007; Fagerstrom & Ghinea, 2011).

The impact of WOM on consumer decision making is obvious, however it seems to be almost impossible for marketers to manage it (Mangold, et al., 1999) because WOM is the result – and not the antecedent – of good products and services. When marketers try to take advantage of product-related consumer conversation for their marketing purposes, they have to be able to encourage people buzzing about the products or services without being appearing to be company-sponsored (Kaikati & Kaikati, 2004, p.6). Recently, some firms employ “buzz marketing” by recruiting individuals to do a paid job of spreading word-of-mouth about the firms’ products into their social networks (Carl, 2006). This type of persuasive WOM communication from buzz agents (senders) to buzz targets (receivers) conducted offline and online (Ahuja, Michels, Walker, & Weissbuch, 2007) is recently estimated to be more than $100 to $150 million industry. Marketing professionals nowadays seem to embrace buzz marketing practices as their alternative form of advertising and marketing research as it is more effective, inexpensive (Kermouch & Green, 2001), and profitable compared to traditional marketing communication vehicles (Henry, 2003).
2.4. Consumer-Generated Media in Web 2.0 Era

2.4.1. The Emerging Phenomenon of Web 2.0

The World Wide Web technology is currently going through an advanced revolution. While the era of e-commerce practices was becoming primary attention at the end of the 1990s, the interests of marketers have now shifted toward a new form of collaborative online activities. The new technology provides a user with a collection of various interaction alternatives – from a simple conversation between two people in an online chat-room such as to multiple video conferences, and from simple message exchanges through email between partners to collaborative communication using more advanced online media such as blogs or online communities. Some of the current most widely visited include Facebook, Twitter, LinkedIn, Wikipedia, or YouTube. These new online media are the prime examples of the phenomenon known as Web 2.0.

The term Web 2.0 was introduced in 2003 by Tim O’Reilly who is the founder and CEO of O’Reilly Media, Inc. (Lee, DeWester, & Park, 2008). Despite its clear evidence of existence in the field, it is still experiencing the lack of general consensus among experts and academicians on how to clearly define the term. Constantinides and Fountain (2008) define the Web 2.0 as a set of open source, interactive, and user-controlled online applications enhancing the users with more experiences, knowledge, and bargaining power in their business and social life. O’Reilly (2005) identifies Web 2.0 as a Web based application which exploiting and harnessing collective intelligence of experienced users to be taken advantage of by other users. Meanwhile, the term Web 2.0 is also described as a web-based application which is increasingly affected by intelligent Web-based services that allow users to participate by developing, rating, and distributing its content (Vickery & Wunsch-Vincent, 2007).

The notable feature of the Web 2.0 is its capability to equip users with enhanced online collaboration, communication, and information sharing activities with social software which facilitates the users to do them using their own computers (Cooke & Buckley, 2008). It allows mass participation in online social activities structured around the contents (Garcia-
Barriocanal, Sicilia, & Korfiatis, 2010). Users are enabled to post information or reviews describing their own experiences with products, services, or vendors and providers and make them available for other users, while the other users can place comments on the postings. For this reason, the Web 2.0 application conquers the rich wealth of user generated content with extensive user participation and collaboration. All of these characteristics have significantly changed the way consumers acquire product information prior to making purchase decisions as suggested by prior studies (Chatterjee, 2001; Chevalier & Mayzlin, 2006; Schmallegger & Carson, 2008; Lee & Youn, 2009; Karakaya & Barnes, 2010; Sigala, 2010; Zhang, Craciun, & Shin, 2010; Zhu & Zhang, 2010). Nowadays, consumers not only receive information from the Internet or other sources and media published by the company, but also from online information posted by other consumers who generate their own information, share their own experiences, give their opinion or advice through digital camera, video, online communities, and postings on weblogs (Gretzel, Fesenmaier, & O’Leary, 2006).

The Web 2.0 presents marketers with new challenges since consumers are now more powerful in obtaining and distributing information about products before or after purchase decisions. However, the new application also provides businesses with new opportunities. It is suggested that Web 2.0 enables marketers to serve different individual customers as different individual segments (Constantinides & Fountain, 2008). The Web 2.0 also allows company to get and stay in touch with their customers, learn more easily about customers’ needs and wants, as well as interact with them in more personalized approach. Lee et al., (2008) explained how Web 2.0 provides opportunities for small businesses. Schmallegger and Carson (2008) note how weblogs might support key marketing functions, while Drews (2008) illustrates how Web 2.0 is helpful for marketers to capture disabled and elderly travelers segment which has been a growing and but neglected profitable market. It is advocated by Sigala (2008) that Web 2.0 based practices can contribute to the development and implementation of customer relationship strategy. Moreover, similar with the work of Garcia-Barriocanal et al., (2010), Stringam and Gerdes Jr (2010) propose a method to identify actionable words in the online reviews in order to understand suggested areas which a hotel can pay more attention and take appropriate action for better customer satisfaction. In his research, O’Connor (2010) suggests how reviews posted in
*TripAdvisor.com* can help the reviewed hotels manage their image and positioning. Furthermore, Campbell, Pitt, Parent, and Berthon (2011) also demonstrate how marketers can observe the new media and obtain consumer insights about their advertisements and advertised products. Findings from previous studies strongly recommend marketers to exploit the new application and understanding how the application can be capitalized to produce better offerings for consumers is vitally important.

It is reasonable to argue that travel and tourism fields are among the most popular and affected areas by the advancement of Web 2.0 applications. Travel blogs, hotel or restaurant rating and review sites, online travel communities, and other types of travel-related application keep growing in number and popularity (Kang, Stasko, Luther, Ravi, & Xu, 2008; Gretzel & Yoo, 2008; Sigala, 2010; Casalo, Flavian, & Guinaliu, 2011; Tan & Chen, 2011). Previous research extensively revealed significant contribution of Web 2.0 for tourism and hospitality industry (O’Connor, 2010; Stringam & Gerdes, 2010; Zhang et al., 2010), as well as its benefit for travelers for their travel planning and decision making (Cox, Burgess, Sellitto, & Buultjens, 2009; Casalo et al., 2011; Sparks & Browning, 2011; Tan & Cheng, 2011; Ye, Law, & Gu, 2009).

The term Web 2.0 has often been used interchangeably with Social Media; although some experts refer the term Social Media with the social elements of Web 2.0; including user participation and conversation, member communities, or connectedness and openness among users (Kaplan & Haenlein, 2010; Mangold & Faulds, 2009; Xiang & Gretzel, 2009). Some other experts who have more attention on the content elements or the media aspects of the Web 2.0 use other terminologies such as User-Generated Content (O’Connor, 2008; Akerhurst, 2009; Cox et al. 2009; Van Dijck, 2009) or Social Network Sites (Boyd & Ellison, 2007) Consumer-Generated Media (Lee & Gretzel, 2006; Muniz & Schau, 2007; Jeong & Jeon, 2008; Gretzel, Kang, & Lee, 2008; Yoo & Gretzel, 2011). This research hereafter will use the term Consumer-Generated Media since it concentrates on the social elements of the new media from the consumer’s perspective.
2.4.2. Consumer-Generated Media Defined

The terminology of Consumer-Generated Media was first introduced in late 2002 (Blackshaw, 2002). Consumer-generated media – hereafter referred to as CGM – describes how online media contains a variety of new sources of information that are created, initiated, circulated, and used by consumers intend on educating each other about products, brands, services, personalities, and issues (Blackshaw & Nazzaro, 2006) and made available to other online users through interactive technology application (Starkov & Price, 2006). The information in the CGM is produced by the media users on the Internet and then exchanged with other users (Shao, 2009). CGM satisfies users’ informational needs by offering non-commercial, specific, experiential, and factual information accessible beyond the border of individual’s immediate social circle (Yoo & Gretzel, 2011). As CGM empowers individual consumers, they can describe, reconstruct, and revive their consumption experiences through the online media (Pudliner, 2007; Tussyadiah & Fesenmaier, 2009; Xiang & Gretzel, 2010).

Basically, CGM sites are a new form of consumer-to-consumer communication media. Ahuja et al. (2007) suggest that the CGM is an online form of word of mouth marketing where consumers can share their beliefs, views, opinions, and experiences about particular products or services with other consumers. In contrast to paid commercial media managed by marketers, CGM is a social media created and managed by consumers for information sharing purposes based on their experience in consuming products or services, and it is perceived as a new model of word-of-mouth communication undertaken in an online setting (Daugherty, Eastin, & Bright, 2008). The CGM enables consumers to create and generate more personal and targeted marketing or brand-related information based on their own experiences for audience without border limitations which is beyond what advertising or other traditional paid marketing messages generated by corporation can handle (Cappo, 2003; Jaffe, 2005). Moreover, because the CGM is created and managed by consumers, it is often believed to have higher credibility than advertising or other corporate-generated marketing information (Smith et al., 2005; Allsop, Bassett, & Hoskins, 2007).
Consumers have taken advantage of the advancement of this new online media by starting creating texts or photos or videos or any other forms of documents and disseminating them through CGM to tell their stories about their experiences with products or brands they love (Muniz & Schau, 2001; Flight, 2005; Kahney, 2004) or even brands they hate. Some CGM-based websites were created by loyalists of popular brands; such as Apple iPod, Apple Newton, Coca-Cola, Harry Potter, Mozilla Firefox, Macintosh, Nike, Saab, Star Wars, and Volkswagen. In these websites, consumers, who play the role of brand evangelists, are always ready to provide unpaid marketing efforts on behalf of the brands by communicating brand-related marketing messages and information for their peers and for users of other brands (Muniz & Schau, 2007).

Despite the popularity of brand-related CGM, some other CGM websites are developed unrelated to one particular brand. Many well-known CGM are involving people from various backgrounds without any attachment with certain brands. In non-brand-related CGM, individuals create, disseminate, and exchange their thoughts, knowledge, or experience without any limitation to particular brands, although the discussion or information sharing in those websites is sometimes about brand experience (Chen & Xie, 2008; Bambauer-Sachse & Mangold, 2011). Some prominent examples of non-brand-related CGM among many others are EOpinions.com, ConsumerReview.com, and Ciao.co.uk which provide consumer reviews about wide range of products and services, or RateItAll.com which is an online rating website where consumers can assess and rate products’ perceived quality. Other sites such as TripAdvisor.com, CitySearch.com, and VirtualTourist.com serve as information source about hotel, restaurants, and other travel and hospitality related products, and finally prominent social networking sites include MySpace, Facebook, Couchsurfing.com, and LinkedIn.com. Considering the significant growth of CGM both in number and type and the existence of a number of gaps in the knowledge related to CGM, it is imperative for marketers and researchers to gain a better understanding of CGM typologies since different forms of CGM have different characteristics and different ways of consumer participation.
2.4.3. Types of Consumer-Generated Media

According to Lee and Gretzel (2006), CGM takes on various forms of communication modes as presented in Table 2.1 which explains the most popular modes of consumer-generated media.

<table>
<thead>
<tr>
<th>Names</th>
<th>Definitions</th>
<th>Source</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wiki</td>
<td>A type of software that makes it easy for people to collaborate in an Internet environment by creating, organizing, and maintaining a website of automatically linked pages</td>
<td>(Chawner &amp; Lewis, 2004)</td>
<td><a href="http://wikitravel.org">http://wikitravel.org</a> <a href="http://www.world66.com">www.world66.com</a> <a href="http://www.travellerspoint.com">www.travellerspoint.com</a></td>
</tr>
<tr>
<td>Online reviews and Ratings</td>
<td>An online evaluation of product which is normally followed by assigning a rating to indicate the product’s relative achievement that can be used by consumers as basis for product comparison</td>
<td>(Wikipedia, 2009)</td>
<td><a href="http://www.tripadvisor.com">www.tripadvisor.com</a> <a href="http://travel.yahoo.com">http://travel.yahoo.com</a></td>
</tr>
<tr>
<td>Podcast</td>
<td>A type of software that has ability to distribute multimedia files downloaded to subscriber’s iPod devices, mobile phones, or other devices to listen to whenever they want</td>
<td>(Cochrane, 2005)</td>
<td><a href="http://www.lonelyplanet.com">www.lonelyplanet.com</a> <a href="http://www.amateurtraveler.com">www.amateurtraveler.com</a></td>
</tr>
<tr>
<td>Virtual community</td>
<td>A web space where people can find and electronically communicate with others whose similar interests and join activities that provides main reason for belonging to the community and developing emotional ties among members</td>
<td>(Gupta &amp; Kim, 2004)</td>
<td><a href="http://www.igougo.com">www.igougo.com</a> <a href="http://www.concierge.com">www.concierge.com</a></td>
</tr>
<tr>
<td>Tags</td>
<td>Labels affixed to an object or Web pages representing a form of metadata that supports future searches</td>
<td>(Lee &amp; Gretzel, 2006)</td>
<td><a href="http://www.triporama.com">www.triporama.com</a> <a href="http://www.travbuddy.com">www.travbuddy.com</a></td>
</tr>
<tr>
<td>Blog</td>
<td>An electronically written and published narrative on a variety of topics in a personal web space with content displayed in reverse-chronological order</td>
<td>(Lee &amp; Gretzel, 2006)</td>
<td><a href="http://www.travelblog.com">www.travelblog.com</a> <a href="http://www.travelpod.com">www.travelpod.com</a></td>
</tr>
<tr>
<td>Social networking Sites</td>
<td>Online activity of meeting other people or connecting with friends for lots of reasons through the help of web services</td>
<td>(Lee &amp; Gretzel, 2006)</td>
<td><a href="http://www.livejournal.com">www.livejournal.com</a> <a href="http://www.hotelchatter.com">www.hotelchatter.com</a></td>
</tr>
</tbody>
</table>
2.4.4. Consumer-Generated Media and User Participation

There are three different ways of individual’s participation in CGM according to previous studies; namely consuming, participating, and producing (Nonnecke & Preece, 2000; Shao 2009; Van Dijk 2009). Consuming media refers to passive activities such as watching, reading, or viewing the content, and never performing more active behavior. This first level is considered as the most common way of participation which is consumption without contribution. At this level, users primarily employ the CGM as an information source and therefore they tend to consume the content without any contribution given back for other users.

The second level of participation is represented by minimum level of active efforts; such as asking specific questions. By posting a question, a user might generate a new discussion topic and therefore can be considered as giving active contribution. However, since sending a new question or starting a new conversation is not actually producing new information, this level is perceived to be low level of contribution. This level of participation in the CGM indicates higher level of contribution than consuming where media users start to conduct more active behavior such as ranking or rating the content and posting comment to existing contents, but does not perform actual information creation.

The highest rank of CGM participation refers to active engagement involving starting responding to others’ questions, developing social interactions, or generating new content. Producing information involves individuals in actively generating and publishing online content. In his research, Shao (2009) explains that these three activities are performed by individuals in accordance with their level of gradual involvement with the media. New users most likely start developing their relationship with CGM as a lurker or passive member. The relationship will gradually evolve to further stage of participating and then finally come to generate information. Individuals who actively contribute to CGM at the highest level of participation by producing new information, answering questions, and building relationships with other users can be referred to as CGM creators (Yoo & Gretzel, 2011).
2.4.5. Motivation for CGM Adoption and Participation

Significant advancement of CGM technology presents the opportunities for individuals to be active media users who play an important role in creating and disseminating information through Web-based media platform. Many firms, including travel-related companies, are trying to encourage consumers to participate in CGM as it allows the firms to enhance customer value, obtain customer’s insights, and employ customers as marketing intelligence (Sigala, 2009). Regardless the growing popularity of CGM adoption, empirical findings from prior studies signify that most CGM users passively contribute by only reading online information posted by other users (eMarketer, 2007; Rafaeli, Ravid, & Soroka, 2004; Nonnecke & Preece, 2000; Preece, Nonnecke, & Andrews, 2004) and only a few users actively take part in the CGM as information contributors (Daugherty et al., 2008; Rafaeli et al., 2004; Nonnecke & Preece, 2000; Preece et al., 2004). Stimulating user active participation in CGM is a difficult task (Bishop, 2007), and considering the importance of the participation for marketing intelligence activities and for the sustainability of the CGM itself, it is valuable to understand motivations that drive users to participate in CGM.

Media adoption and consumption represent a purposive behavior (Fodness & Murray, 1998) in which individuals actively search for information driven by their own internal motivation (Eastin & Daugherty, 2005). The internal motivation drives them to select and use certain information source and avoid others. In the CGM context, a consumer’s willingness to adopt CGM as his/her information source depends on his or her attitude toward the consumption or adoption of the CGM. For this matter, Uses and Gratification Theory is appropriate to explain motivational aspects of individuals’ media habit.

Proposed by Blumler and Katz (1974), Uses and Gratification Theory argues that individuals consume certain media consumption in order to gratify their psychological needs. It assumes that the individuals purposively and reasonably select the media they want to consume (Katz, Blumler, & Gurevitch, 1974). The theory is considered one of the most appropriate concepts to explain how or why audiences choose certain media to satisfy their needs (LaRose, Mastro, & Eastin, 2001; Ruggiero, 2000); specifically in the context of new media innovations (Stafford, Stafford, & Schkade, 2004). Uses and gratification perspective
is aimed at identifying and profiling individuals' motivations for the use of certain media and it has been widely used to investigate individual's consumption of traditional media; such as television (Tiggemann, 2003; Nabi, Stitt, Halford, & Finnerty, 2006; Reiss & Wiltz, 2004), newspapers (Tsao & Sibley, 2004), magazines (Randle, 2006), or radio (Albarran et al., 2007); and non-traditional media; such as email (Dimmick, Kline, & Stafford, 2003), mobile services (O’Keefe & Sulanowski, 1995; Leung & Wei, 2000; Leung, 2007; Nysveen, Pedersen, & Thorbjornsen, 2005), or the Internet (i.e. Dimmick, Kline, &Stafford, 2000; Chen & Corkindale, 2008; Huang, 2008; Ko, Cho, & Roberts, 2005; Tosun & Lajunen, 2010).

Therefore, when a new Web-based media named CGM was introduced to the stage of mass communication, media user’s motivations to adopt the new media were examined using the same theory (Shao, 2009; Dunne, Lawlor, & Rowley, 2010; Ancu & Cozma, 2009; Raacke & Bonds-Raacke, 2008; Sheldon, 2008; Grace-Farfaglia et al., 2006).

Earlier studies suggest that there are two primary gratifications that motivate individuals to use certain types of media. People select media they use for the content or message served by the media – either for information seeking or entertainment – or for the enjoyment of the actual media usage and experience (Cutler & Danowsk, 1980; Stafford & Stafford, 1996). Television audiences may be driven by motivation to search for product information while other users may be motivated by the enjoyment of the watching process. However, most uses and gratification studies in the Internet media context found that Internet users are more driven by content gratification than by process gratification (Dreze & Zufryden, 1997; McDonald, 1997; O’Reilly, 1996; Stafford & Stafford, 1998). Moreover, a further study by Stafford et al., (2004) highlights that Internet users may also be influenced by social gratification when using the Internet media. This finding is supported by the fact that the Internet has been a used by its users to do social interactions and activities since its inception (McKenna & Bargh, 1999; McKenna, Green, & Gleason, 2002; Schumann & Thorson, 1999).

Findings from prior studies list a number of important motivations to adopt the CGM. A study by Chung and Buhalis (2008) confirms the results from the works of Wang and Fesenmaier (2004a; 2004b) suggest that participation in CGM is derived from motivations to acquire information and to obtain socio-psychological and hedonic benefits. Hennig-
Thuraue et al., (2004) identify eight motivations to create online information; which are (1) to seek advice from other users, (2) to express negative feelings, (3) to obtain positive self-enhancement, (4) to gain economic benefits, (5) to experience social online interaction with other users, (6) to assist Web-based platform staff to moderate the company solving problems, (7) to help other customers, and (8) to help the company. In addition, some underlying reasons held by users for only consuming instead of actively creating online information on the CGM have also been identified; such as feelings of incompetence (Preece, Nonnecke, & Andrews 2004), fear of message persistence (Nonnecke & Preece, 2004), lack of confidence and shyness (Ardichvili, Page, & Wentling, 2003; Gretzel, Yoo, & Purifoy, 2007; Nonnecke & Preece, 2000), and time constraints (Chalkiti & Sigala, 2008; Gretzel et al., 2007); but not because of being selfish free-riders in the online environment (Preece, Nonnecke, & Andrews 2004).

Daugherty et al., (2008) suggest two primary motivations for participating in certain CGM; social motivation and ego-defensive motivation. Social motivation suggests that seeking opportunities to interact with friends and other users or joining in activities considered positively by important others drives consumers to engage in CGM activities. For that reason, individuals may actively contribute to particular CGM to interact with their friends or other people who share similar interests. Ego-defensive motivation developed to protect individuals from internal insecurities or external threats and it serves as internal protection to defense their self-image. Participating actively in CGM reduces individuals’ self-doubt to other users, lessens guilty feelings for lack of contribution, and creates a sense of belonging to the media.

Focusing on travel-related CGM, Wang, Yu, and Fesenmaier (2001) suggest that travelers participate in travel-related CGM driven by functional, social, and psychological motivations. In order to fulfill functional needs, online travelers participate in the CGM to consumer the available information, seek advices from other travelers, and gather all inputs they receive to make good travel-related decisions. Travelers may also join the CGM to cater to their social needs by interacting with other travelers, sharing similar interests, exchanging knowledge, stories, and experiences, and developing virtual relationships. To satisfy their psychological needs, travelers engage themselves in the CGM, and actively participate not
only for building social interaction with other travelers but also for obtaining self-actualization and making the CGM a part of their lives.

Burton and Khammash (2010) identify the reasons behind people reading online reviews posted in CGM categorized into seven groups of motivations. Consumers read online reviews to gather information about products; including find out new products in the market (Hennig-Thurau & Walsh, 2003), understand the facts about the features (Burton & Khammash, 2010), and learn how the products should be consumed (Hennig-Thurau & Walsh, 2003). This motivation is referred to as product involvement motivation. Another motivation identified in Burton and Khammash (2010) is related to decision making. Consumers read online reviews when they are highly involved in the decision making process of purchasing a certain product. In order to avoid making incorrect choice, reviews can be used to support the decision. Furthermore, CGM users feel to have some kind of moral obligations to perform administrative duties for the CGM which include evaluating review accuracy and reading reviews in order to suggest support to the CGM management team. These administrative duties which motivate people to read online reviews are referred to as site-involvement motivation. Burton and Khammash (2010) also point out that participating in the online review sites might be motivated by remuneration or economical motivation, or by a desire to enrich general knowledge for satisfying curiosity and self-involvement motivation. Reading online reviews may also be beneficial to obtain specific information about a certain product which is not available on the manufacturer’s or retailer’s websites. When consumers can obtain trusted opinion about product they are interested in purchasing from the CGM they tend to feel self-empowered in product information search process. This is referred to as consumer empowerment motivation. Social involvement motivation is also suggested as an underlying reason behind people reading online reviews. Reading online reviews is useful in determining online social position and developing social interactions among users.

2.4.6. Consumer-Generated Media in Travel and Tourism Context

Travel and tourism is an information intensive industry (Poon, 1993). Travel and tourism organizations need information exchanges with travelers through various channels to
introduce their offerings and to develop long-term relationships. Travelers also need to search for information to satisfy their information needs (Vogt and Fesenmaier, 1998). Jeng and Fesenmaier (2002) found that travelers generally search for travel-related information in the early stage of travel planning in order to minimize the risks of making an unfavorable travel-related decision. Pan and Fesenmaier (2006) list 10 primary decisions travelers make regarding their travel plan; namely decisions about their travel partners, the destination, their budget, travel activities, travel dates, attraction spots to visit, transportation providers, length of trip, rest stops during the trip, and food stops.

Previous studies suggest that travelers take advantage of different external information sources – including friends and families, travel agencies, travel brochures, information centers, magazines and newspapers – which enable them to make a better travel plan (Fodness and Murray, 1999). With the increasing level of Internet adoption, travelers also take advantage of different types of online information sources for their travel plan (Choi et al. 2008; Seabra, Abrantes, & Lages, 2007). The depth of available information on the Internet allows travelers access to this information on an individual basis with minimal effort and cost. It makes it possible for the travelers to utilize online information to make decisions more efficiently. For that reason, travelers are increasingly relying on online sources to search for information and to complete booking transactions and the travel and hospitality industry is now becoming one of the most benefited industries by the advancement of Internet.

It is widely accepted that Internet-based practices play an important role in travel planning. It is reported that the travel and hospitality industry has reached the biggest share of online transaction volume (Werthner & Klein, 1999). The Travel Trust Index Report stated that 70% travel reservations were booked online in 2008 (Hotel News Resource, 2008a); an increase from 63% in 2006 (Pew Internet & American Life Project, 2006, as cited in Park, Gretzel, & Sirakaya-Turk, 2007). The Internet also plays an important role in travel planning. Lake (2001) cites a study conducted by Plog Research which shows that approximately 95% of Internet surfers use the Internet to collect travel-related information and 93% claim that they visited travel-related websites when planning their trip. Moreover, 78% of Americans use the Internet to make travel decisions, while 68% trust information from the Internet for
travel-related services they would buy (Hotel News Resources, 2008b). Compete (2006) shows that more than 50% of online travel-related services purchasers seek advice from CGM in the decision making process of the products. In a recent study, Yoo and Gretzel (2011) point out that at least 50% of online travelers use CGM for their overnight pleasure trip planning and most of them trust the information they obtain. Ultimately, the Internet-based media has become a highly personalized sources of information in which travelers can tailor their own media exposure to their specific needs and requirements (Liang, Lai, & Ku, 2006). Those facts provide a clear understanding on the important role of the online information sources for travel-related decision making.

The increasing dependence of travelers on online information sources relates to the distinct characteristics of travel-related services. Travel-related services are perceived to have high prices, high level of involvement, and well-distinguished characteristics (Bonn, Furr, & Susskind, 1998) which reflect the risks of those services. According to George (2008), travel-related services have several distinctive characteristics, including intangibility, high cost, and interdependence of travel-related services which leads to interdependence of customer satisfaction. Moreover, consumer decision to purchase or renounce the intention to purchase a travel-related offering is dissimilar with the daily purchase of consumer goods in two different aspects (Sirakaya, McLellan, & Uysal 1996), first, in most cases, the area where consumers live is different from the location where the travel-related products are purchased and actually consumed, and second, in most cases, consumers may allocate a significant amount of money specifically dedicated for the purchase or travel-related products. Those characteristics create risk and uncertainty for travelers purchasing the services. Due to the high level of perceived risks and uncertainty, the level of consumer involvement in travel decision making is commonly high and the importance of information search process prior to purchasing travel-related services is enhanced.

According to Zaichkowsky (1985), most frequent travelers have learned to cope with uncertainty; especially in high-risk decision making such as purchasing travel-related services. Based on Uncertainty Reduction Theory developed by Berger and Calabrese (1975), it is understood that in order to deal with the risks and the uncertainty, travelers tend to maximize their effort in information search from various sources. The Internet, as a source
of information, enables travelers to seek corresponding information through different sources to make better selection and decision on destination, transportation, accommodation, meals, entertainment, or other travel-related services. It enables travelers to lessen their dependency on traditional information intermediaries and provides a huge amount of information and resources for their decision making purposes (Susskind et al., 2003). Online information search usually involves extensive selection and comparison of facilities, prices, and availability so travelers can obtain optimal decision based on sufficient information (Jang, 2004). Plog Research result cited in the study of Pan and Fesenmaier (2006) predicts that 95% of Internet users rely on online information as part of travel information search process.

Travel-related company’s websites traditionally were the main sources for travelers seeking online information for their travel plan, since company’s website had the same role as traditional advertising media (Jeong & Choi, 2004). However, when the advancement of technology introduced CGM that provides information from customers’ point of view on the Internet, the traveler shifted their search from the traditional media to the new media (Dellarocas, 2003). This phenomenon is in accordance with Media Substitution Theory posits that due to limited time consumers have to devote to traditional media, when a new media is introduced and it is viewed as more desirable than the old one, consumers will allocate more time to use the new media and reduce the time for the traditional media that have similar functions (Vitalari, Venkatesh, & Gronhaug, 1985, Dimmick, Kline, & Stafford, 2000, Kang & Atkin, 1999, Lin, 2001).

There are three different categories of information sources as identified by Cox (1967); namely marketer-dominated, consumer-dominated, and neutral sources. While marketer-dominated sources (i.e. advertising, company website) are fully controlled by the marketer of the firm, consumer-dominated sources refer to interpersonal information medium over which marketers have little control; such as email, or online discussion forum. Neutral sources are controlled by independent third party; such as consumer reports or newspapers. All CGM platforms are categorized as consumer-dominated information source since information posted on the media is sourced from the consumers (Akerhurst, 2009; Jeong & Jeon, 2008; Shao, 2009).
The growth of the CGM is very obvious. It is found that five out of ten fastest growing websites in the US from July 2005 to July 2006 are CGM sites; and it is considered as one of the fastest growing channels of interpersonal and informal communication (Jeong & Jeon, 2008). Booz Allen Hamilton (2007) predicts 40% of Internet users in the UK, of whom most are aged less than 25 years, are members of CGM and it was predicted that more than 1.4 billion consumers posted information content as CGM (Blackshaw, 2005). As of June 2008, there are more than 112.8 million weblogs monitored and 250 million people tagged on social networking media (Technorati, 2008). Additionally, Wasserman (2007) cites a report by Jupiter Research stated that one third of consumers were influenced by CGM sites when making purchase decisions.

The significant escalation of CGM enables consumers to make comments on brands and products through social networks. CGM is perceived to be able to provide unbiased and relevant information for their decision making purposes (Sweeney, Soutar, & Mazzarol, 2008). This is supported by empirical findings from tourism and hospitality studies claim that CGM consumption affects travelers’ information search behavior (Tan & Chen, 2011) and product evaluation (Zhang et al., 2010). It is also found that consumers who have not used or visited CGM sites believe that CGM would be beneficial for them (Burgess et al., 2009) – an indication of an increase in CGM adoption and consumption in the future. Despite the importance of CGM and the amount of research conducted in this area, there are still existent deficiencies in CGM-related knowledge, many of which deal with the issue of credibility; the focus of subsequent section of this literature review.

2.5. Credibility Issues on Consumer-Generated Media

2.5.1. The Concept of Credibility in Online Environment

The marketing environment currently abounds with information resources used by consumers for their decision making. With the advancement of information and communication technology application such as Web 2.0, consumers currently have access to
a wider assortment of information sources which needs to be assessed in terms of usefulness and believability. With the almost infinite amount of information available to access online, consumers have to deal with uncertainty regarding who and what can be trusted and who or what is responsible for the information they are exposed to. In this context, searching for accurate and credible information online for decision making purposes may be an arduous task for consumers. Therefore, unraveling trustworthy information from deceptive one in an almost uncontrollable online environment is an important task before using the information. Consumers are now required to craft their own strategies for evaluating the credibility of an information source.

The Oxford Dictionary of English definition of credibility is “the quality of being believable, trusted, or convincing” (2005). The word “credible people” means trustworthy people, and “credible information” has the same meaning with believable information. In daily conversation, the terms “credibility” and “believability” or “trustworthiness” are commonly used interchangeably. Marketing and communication literatures broadly define credibility as the intention trustworthiness of an information source at a certain time (Chitty, Barker, & Shimp, 2008; Erdem & Swait, 2004) which influences recipient’s acceptance of information communicated (Ohanian, 1991). Frequently referred to as believability (Flanagin & Metzger, 2000), information completeness (Dutta-Bergman, 2004), or trustworthiness (Arora & Arora, 2006), credibility is related to how individuals perceive, interpret, and respond to information (Grewal, Gotlieb, & Marmorstein, 1994). In the context of online word-of-mouth communication, credibility is described as the extent to which an individual perceives a message, recommendation or word-of-mouth information received from an online source as believable, true, and factual (Cheung et al., 2009; McKnight & Kacmar, 2007). Although the conceptualization of credibility for both information from Web-based sources and from more traditional media are similar (Sundar, 1999), it is found that consumers consider more factors to evaluate credibility of online information than to assess information from more traditional media (Rieh, 2002).

The construct of credibility has been investigated in numbers of research areas ranging from marketing, communication, psychology, information science to multidisciplinary studies in human-computer interaction (Rieh & Danielson, 2007; Schweiger, 2000; Sundar, 1998). Each
field of study has examined credibility using different approaches, methods, and objectives. According to Rieh and Danielson (2007), the focus of research in this domain can be on several perspectives; namely (1) credibility of information source, endorser, or speaker as commonly used in interpersonal communication or marketing studies (Amos, Holmes, & Strutton, 2008; Chu & Kamal, 2008; Pornpitakpan, 2004; Rains, 2007), (2) credibility of organizations or groups as is often implemented in management sciences (Goldsmith, Lafferty, & Newell, 2000; Lafferty, 2007; Lafferty, Goldsmith, & Newell, 2002), (3) media credibility as is usually the case in mass communication and marketing studies (Banning & Sweetser, 2007; Bucy, 2003; Choi & Rifon, 2002; Johnson, Kaye, Bichard, & Wong, 2008; Mayer, Huh, & Cude, 2005), or (4) message credibility as is usually applied in consumer research and journalism studies (Arora & Arora, 2006; Cassidy, 2007; Cotte, Coulter, & Moore, 2005; Thorson, Vraga, & Ekdale, 2010).

Credibility involves a psychological process called internalization. The internalization process occurs when consumers perceive information delivered by a source is credible, and for that reason they accept the message endorser’s position on an issue as their own state. Therefore, when consumers perceive a message as credible, their attitude is changed because they put themselves on the message endorser’s position (Petty, Ostrom, & Brock, 1981). The definitions of credibility presented above clarify that the construct is not necessarily equivalent to the actual quality and accuracy of information because credibility is a characteristic defined by consumer perception and judgment. Fogg (2003) points out that credibility is like beauty as it resides in the eyes of the beholders. For that reason, the term “credibility” hereafter refers to perceived credibility rather than an actual quality or accuracy.

Most literatures on credibility suggest that the conceptualization of credibility is centered on two components; namely expertise and trustworthiness (Self, 1996; Wathen & Burkell, 2002; Shimp, 2006). These two factors are considered as the most important elements of credibility (Hovland & Weiss, 1951; Ibelema & Powell, 2001). Expertise refers to the extent to which individuals perceive that an information source possesses knowledge, experience, or skills related to the endorsement process (Shimp, 2006). It explains the ability of an information source to provide accurate and valid information in a communication activity as
perceived by the information receivers. In an advertising message context, athletes are regarded as being expert in endorsing sports-related items, while celebrities and models are considered to possess expertise when it comes to the endorsement of fashion products. As expertise is a matter of perception, the fact whether or not the athletes, celebrities, or models are indeed experts is not an important issue. All that matters is the consumers or audiences perceive that the endorsers are experts in the endorsed products.

The second component of credibility is trustworthiness which is related to the characteristics of honesty, integrity, and believability of an information source. Trustworthiness refers to the willingness of an information source to provide accurate and valid information (Ohanian, 1990). Priester and Petty (2003) describe trustworthiness as the extent to which consumer perceive that the sources is willing to deliver the information accurately. In a product endorsement context, the trustworthiness of an information sources relies on the consumer perception of the sources’ endorsement motivations. If consumer perceives that the endorser has nothing to gain by endorsing the product, the endorsement will be more persuasive than if consumer perceives that the endorser is driven by self-interest motivation. Trustworthiness is a primary factor of credibility formation since it captures the perceived morality of the information source (Fogg, 2003). When the source is considered not trustworthy, then information they provide will lose its credibility.

Furthermore, with the advancement of the Web 2.0 technology, the investigation on the construct of credibility has been expanding to online environment. Evaluating credibility of online information is more difficult than of information from traditional media since there is no quality control mechanism in the Web environment (Rieh, 2007). For that reason, consumers who seek online information for their decision making need to make judgments of the information they obtain based on wide range of quality and authority dimensions of web-based information (Rieh & Belkin, 1998). Explaining the nature of web-based information credibility, the work of Rieh (2002) reveals the facets of information credibility in online environment based on the concept of quality and cognitive authority. In his study, Rieh (2002) identifies information quality as the extent to which consumers evaluate information based on its goodness, currency, accuracy, usefulness, and importance; meanwhile information cognitive authority is defined as the extent to which consumers
perceive that the online information they obtain is trustworthy, credible, reliable, scholarly, official, and authoritative. These facets of both credibility elements are more than what have been found in prior studies (e.g. Klobas, 1995; Marchand, 1990; Taylor, 1986).

Another empirical finding by Rieh (2002) indicates that predictive and evaluative judgments explain how online consumers behave during online interaction. Predictive judgment refers to what consumers expect to occur, while evaluative judgment indicates their preferences (Hogarth, 1987). Predictive judgments are made before consumers open a new web page, and once they do, they make an evaluation of the information while looking at the web page. If the web page meets their expectations, they will continue to use it. If not then they would go back to the previous page or try to open a new site. Moreover, there are several main factors found to affect consumer perception of credibility of online information; namely characteristics of information objects (type, title, content, structure, presentation, graphics, and functionality of the information object), characteristics of sources (URL domain, type, reputation, one-collective, and author/creator credentials of the sources), the user’s knowledge, type of task, and other elements such as situational factor, ranking in search output, and general assumption (Rieh, 2002).

2.5.2. Types of Credibility in Online Environment

As more consumers using online media as their sources of information to make purchase decisions, the way they evaluate the credibility of online information becomes particularly interesting (Hennig-Thurau & Walsh, 2004). It is found from prior studies that credibility is one of the most important factors affecting online information adoption (McKnight & Kacmar, 2006; Wathen & Burkell, 2002). There are four levels of credibility assessment process undertaken by consumers according to Fogg and Tseng (1999); namely presumed credibility, reputed credibility, surface credibility, and experienced credibility.

Presumed credibility refers to the level of belief a consumer has on someone or something because of general assumptions in his or her mind and relies on individual’s assumptions and stereotyping behavior. In this low level of assessment, credibility might be generally evaluated prior to exposure. For example, information from personal sources such as friends
or relatives is commonly perceived as truthful and reliable, while marketers are commonly stereotyped as not totally honest as information sources (Park et al., 2007; Gretzel, 2006; Litvin et al., 2007). Information published in traditional newspapers is commonly presumed to be more trustworthy and credible than information posted on online news websites (Flanagin & Metzger, 2000; Kiousis, 2001; Schweiger, 2000).

Reputed credibility describes the level of belief a consumer has on someone or something because of what third-parties have reported. The reports may be in the form of endorsements, reports, or referrals. This type of credibility commonly applies in virtual environment (Fogg, 2003). A link from one website to another trustworthy website can be perceived as an endorsement which may enhance its credibility judgments. For example, AsiaRooms.com; an online hotel booking service; mentions in its website that it collaborates with well-established hotel chains such as Crowne Plaza Hotels & Resorts, Holiday Inn, Hilton, Mercure, Rydges Hotels & Resorts, and Swiss-Belhotel International. Linking its website to these popular hotel chains’ websites is expected to be able to enhance the credibility of information provided at the AsiaRooms.com website. Another online hotel booking service, Agoda.com, links its website with International Air Transport Association (IATA), Pacific Asia Travel Association (PATA), Priceline.com, and VeriSign Authentication Services to gain trust from travelers who want to make a reservation from its website. Based on Congruency Effect Theory, when an online review is posted describing a certain hotel as a good place to stay, travelers may perceive that advertisement developed by the hotel’s marketers is credible (Vandebosch & Higgins, 1996). A review about one particular hotel is considered as trustworthy when the content is congruent to most other reviews on the same hotel (Cheung et al., 2009).

Surface credibility is defined as the level of belief a consumer has on someone or something based on simple inspection. Surface credibility of online information is evaluated based on peripheral cues of the message exposed to the consumer during initial assessment. Consumers make this type of credibility judgments almost every day in many situations. For example, a consumer may consider information presented by a salesperson as credible because the salesperson has an attractive physical appearance and delivers a convincing presentation (Ahearne, Gruen, & Jarvis, 1999; Wood, Boles, & Babin, 2008). A hotel review
however might be perceived as credible just because of the length of the review or the existence of the reviewer’s self-picture. A travel story about a certain lodging service in a personal blog might be considered as less trustworthy simply because there is only one post in the blog and there is no personal information about the blogger.

The highest level of credibility according to Fogg and Tseng (1999) is named experienced credibility. Experienced credibility is described as the level of belief a consumer has on someone or something based on his or her own firsthand experience. For example, a traveler may perceive that online reviews about a certain hotel are credible because he or she has had the same experience explained in the reviews. Another traveler may recognize that information about hotels’ ratings and reviews in one certain online rating and review site are credible when he or she has a long history of getting accurate information from the website or even the specific reviewer. This most solid type of credibility is developed based on continuous interactions between travelers and the website and it may be not be easily changed.

2.5.3. The Distinctive Characteristics of Credibility for Online Information

In an online environment, especially with the advancement of the Web 2.0 technology, the conceptualization of credibility needs to take its uniqueness into account. Prior studies have theorized or empirically recognized different characteristics of online information compared to information generated by traditional media and how the distinctiveness affects credibility of both types of information. The distinctive characteristics of online information are (1) lack of information filtering mechanism, (2) the genuineness of the online content, (3) lack of conventions on how the content should be structurally organized, (4) ease of duplicating, manipulating, and disseminating inaccurate online information, and (5) lack of source attributions and identity. It is important to understand to what extent this distinctiveness affects consumers in evaluating the credibility of online information.

One of the main reasons for difficulty in evaluating credibility of online information is the fact that Web-based media has limited information filtering mechanisms (Flanagin & Metzger, 2000; Johnson & Kaye, 1998). Consumers or Internet users are usually free to
upload information without any confirmation process to ensure the quality of the information (Johnson & Kaye, 1998). The information is frequently made available without being inspected by editorial staff or other gatekeeping processes (Flanagin & Metzger, 2000). Therefore, this lack of quality control may result in inaccurate or false information being released in the Web-based media. Reviews posted on online review sites, such as TripAdvisor.com or HotelChatter.com, have been posted by travelers without any filter procedures. While to some extent the value of the reviews may be enhanced since they were generated by experienced travelers, there is also opportunity for an information deception (Smith et al., 2005). Difficulties in detecting false information in online media platform due to the absence of reliable filtering mechanism is one of the primary challenges in assessing credibility of online information (Yoo & Gretzel, 2009).

Due to the absence of filtering mechanism, the genuineness of online information is frequently questioned. Resnick and Zeckhauser (2002) point out that there is 99.1% probability of every seller on eBay.com having a positive rating in almost all their transactions. Davis (2006) claims that many articles in Wikipedia were being edited not only by members or public, but also by political parties or staff of elected representatives. Similar problems were also evident in well-established travel-related online review site TripAdvisor.com. Stammer-Smith (2010) reveals that on October 2010, Kwickchex, a firm that helps companies to develop and manage their online reputation, planned to take legal action against TripAdvisor.com and its reviewers representing more than 400 hotels and restaurants in the USA and the UK. The plan to bring a group defamation action was initiated after the hoteliers and restaurateurs complained about some reviews on TripAdvisor.com which appeared to be fake and untrue. The grievances were also directed to the possibilities of reviews that were suspected as being falsified by individuals representing competitors. In the reviews, it was mentioned that there was food poisoning and unsubstantiated claims of thefts and racism in some hotels and restaurants.

The third issue of concern regarding the credibility assessment of online information is the fact that Web-based media is lack of conventions on how the content should be structurally organized. Consumers do not and cannot read all reviews in all websites about one particular product they want to purchase (Chatterjee, 2001). It is an impossible task
considering limited time and cognitive resources available for consumers and the large number of online review sites with each publishes significant amount of reviews. What makes it difficult for credibility assessment is that there are significant differences among online review sites in terms of the presentation format and organization. For example, reviews in TripAdvisor.com are presented in different ways; some reviews are short and some others are lengthy. Some provides pictures of the hotel, but many others do not. Some reviewers posted their comments with their real names while many others prefer using a virtual nickname. This diversity is another challenge for travelers to determine which information should be followed and which should be rejected.

Another aspect of online credibility is the fact that Web-based media facilitates consumers to replicate, duplicate, manipulate, and disseminate online information easily. CGM and other Internet-based information sources offer interactive characteristics which were previously unavailable in traditional media. The Web-based media interactive features; in conjunction with the growing adoption of Web 2.0 applications, enable consumers to duplicate, manipulate, and disseminate online information effortlessly (Metzger, Flanagin, & Zwarun, 2003), and, as a consequence, inaccurate information may be reproduced by the recipients with extraordinary simplicity. Difficulties in assessing online information credibility may also result from the varied and relatively unstructured organization of information content (Burbules, 2001; Rieh, 2002) and a relative difficulty in differentiating online information from advertising messages (Flanagin & Metzger, 2000). Due to the unique form of interactivity in Web-based media, what is presented in the media may be genuine and accurate but may also be tendentious or false after being manipulated and misled. The situation when travelers are exposed to two conflicting statements about one hotel, such as where one review suggests that the hotel is recommended and another review says the opposite, is a real example of what normally occurs in Web-based information sources with regard to their interactivity features.

Online information often lacks a clearly identified source. In many cases, there is no information at all about the source (Burbules, 2001, Eastin, 2001), and in some other cases, information about the source is present but difficult to find (Toms & Taves, 2004); although even then there may be concern over fake information. The problem is that online
consumers tend to rely on source identity as an indicator of information quality and credibility (Rieh & Belkin, 1998) and the inexistence of valid identity of the source of online information complicates the assessment process of credibility of the information. A hotel review site BedBugRegistry.com has provided travelers’ reviews and reports about bed bugs in hotels in the USA and Canada since 2006. Personal information about reviewers of this website is very limited; in most reviews there are only nicknames and date of stay. This anonymity can create considerable uncertainty for the travelers evaluating the reviews (Einwiller & Will, 2002). Conversely, another hotel-related online review site HotelChatter.com provides more information about its reviewers, their brief personal identity, their preferences, their self-picture, links to their personal accounts on social networking sites, and information about comments and travel stories they have posted so far. By providing personal information about people posting their comments, the website attempts to enhance the credibility of the reviewers and their comments posted in the website.

2.5.4. Factors Affecting Credibility of Online Information

The following section reviews the literature on antecedents of perception of information credibility. It should be noted that, as with virtually any consumer research, generalizability is a common limitation as different results may be obtained with different type of products, different participants from varying background, and different contexts (Calder, Phillips, & Tybout, 1981). Therefore, it is recommended that this limitation of generalizability should be taken into account when comprehending the following information.

2.5.4.1. Message Consistency

Message consistency refers to the level of uniformity of one message to other messages posted previously for the same product (Burton, Lichtenstein, & Herr, 1993; Cheng et al., 2009). Extensive studies conducted previously demonstrate that message consistency significantly influence how consumers evaluate message credibility (Artz & Tybout, 1999; Cheung et al., 2009; Lynch & Schuler, 1994; Rifon, Choi, Trimble, & Li, 2004). In journalism research, it is suggested that news media outlets and their messages are considered as
credible by consumers who have ideological congruency with the media (Oyedeji, 2010). Another study in communication field points out that when a spokesperson delivers ambiguous and conflicting messages, his or her credibility will be diminished from audiences’ point of views (Barrett, 2005). Furthermore, Artz and Tybout (1999) suggest that advertising message incongruence will raise consumer’s level of skepticism. In an online information research context, Cheung et al. (2009) claim that when one good argumentative opinion posted by a reviewer is congruent to other previous reviews for the same product, it is more likely that the new review is considered as credible. Another finding from this study is that recommendation consistency is influential for consumers with low involvement since review consistency is used as peripheral cues of the information. Moreover, consumers with high level of prior knowledge of the topic being discussed are not influenced by source credibility in assessing the trustworthiness of the information. Conversely, less knowledgeable consumers are more likely to rely on source credibility to evaluate the reviews. Despite of the contribution of this study to the literature, the suggestion of examining positive and negative reviews as a two different stimuli is proposed for further investigation in order to understand the magnitude effect of message valence (Cheung et al., 2009).

2.5.4.2. Message Valence

Based on Prospect Theory (Kahneman & Tversky, 1979; Tversky & Kahneman 1992), research on framing effects have been conducted in consumer psychology research with opposing findings. Frame in communication refers to words, images, and presentation styles used by an information source to convey a message (Gamson & Modigliani, 1989). Levin (1987) found that positively framed messages are evaluated more favorably than messages framed negatively. This finding is supported by Jones, Sinclair, and Courneya (2003), Levin and Gaeth (1988), Kamins, Folkes, and Perner (1997), Park and Lee (2009), and Steward, Schneider, Pizarro, and Salovey (2003). Buda and Zhang (2000) also claim that individuals who receive positively framed information will have better attitudes toward a product than individuals who receive negatively framed information. Clemons, Gao, and Hitt (2007) find in their research in the craft beer industry that strongly positive cues can positively affect product sales. If message evaluation is considered as an indicator of message
persuasiveness, this finding suggests that positive framing is more persuasive than its negative counterpart.

However, a study by Meyerowitz and Chaiken (1987) and supported by Block and Keller (1995) suggests that negative messages are more persuasive than positively framed messages. This contrasting finding is explained by Maheswaran and Meyers-Levy (1990) that consumers tend to perceive positively framed messages as more credible and persuasive when they are less involved with the issue or messages; and conversely negatively framed messages tend to be more powerful when consumers are highly involved with the issue. Moreover, Mudambi and Schuff (2010) point out extreme positive or negative reviews are perceived as less helpful.

In the online context, more recent studies investigate the impact of message valence on message trustworthiness. Duan, Gu, and Whinston (2008a) also claim that online negative reviews are more impactful on consumer responses than positive ones. Studies by Lee, Park, and Han (2008), Papathanassis and Knolie (2011), Park and Lee (2007), and Smith, Bolton, and Wagner (1999) also conclude similar findings. However, in their study on online reviews posted in Amazon.com, Mudambi and Schuff (2010) suggest that neither extremely positive nor extremely negative reviews are deemed helpful by information-seeking consumers, but it is instead moderate reviews that have the most impact. Mudambi and Schuff (2010) discuss this result in as being due to moderate valence reviews having a more objective tone and focus on important issues to be discussed, and reveal less idiosyncratic preferences. Inconsistent results of studies imply the needs of further examination.

2.5.4.4. Message Quality

Providing trust-assuring information is more likely to increase consumer beliefs of information trustworthiness (Doney & Cannon, 1997; Kempf & Palan, 2006) and purchase intention (Wong & Law, 2005). Quality information developed by relevant, verifiable and objective strong claims tends to be perceived more credible (Petty & Cacioppo, 1986). Prior studies have been undertaken to examine the persuasive strength of message quality in different contexts. In an organizational research, it is found that arguments are evaluated as
more persuasive when they provide more information (Schwenk, 1986). Strong arguments containing concrete facts and sound evidence have a greater likelihood of reducing uncertainty as opposed to information with faulty reasoning and lack of evidence (Dillard & Shen, 2005).

Furthermore, in consumer research, Kim and Benbasat (2006) point out that trust-assuring online messages increase consumers’ belief on trustworthiness of the messages. Dutta-Bergman (2004) mentions that consumers who read the message make inferences about the characteristics of the sources and attribute them a certain level of credibility based on the quality of the message. Most studies on message quality so far were undertaken on traditional word-of-mouth context or on online store settings where information is provided by the marketers. This fact raises questions whether message quality has similar influence on credibility in the setting of CGM where messages are produced by consumers. This important yet underexplored issue needs to be further investigated.

2.5.4.3. Source Anonymity

The Social Information Processing theory (Walther, 1992), the Hyper-Personal Model (Walther, 1996), and the Social Identification Theory (Lea & Spears, 1995) suggest that online consumers develop impressions of other online consumers by assessing limited personal cues available online in order to make decisions. Prior studies in the context of computer-mediated communication have examined the impact of source identity or anonymity on information receiver perceptions with similar conclusions (Hayne, Pollard, & Rice, 2003; Hayne & Rice, 1997, Rains, 2007; Scott, Quinn, Timmerman, & Garrett, 1998). Based on the Attribution Theory (Heider, 1958), findings from the studies suggest that in an anonymity environment, individuals tend to make attributions about the sources of information in computer-mediated interactions. These attributions may be accurate or inaccurate but either way, they influence subsequent their perceptions and judgments about the sources (Rains, 2007). Anonymity in a virtual environment may lead to lower perception of quality of information shared (Dennis, 1996; El-Shinnawy & Vinze, 1997), higher level of information helpfulness (Forman, Ghose, & Wiesenfeld, 2008) and higher suspicion of the sources’ unwillingness to be responsible for their opinions (El Sinnawy &
Vinze, 1997). Furthermore, Rains (2007) found supportive findings in his research claiming that anonymous sources of information are rated as less credible than identified sources. Moreover, this study also finds that anonymous sources are negatively associated with lack of expertise.

A more recent study by Xie, Miao, Kuo, and Lee (2011) investigates the impact of online reviewer’s Personal Identity Information on intention to book a hotel with regard to pre-decisional disposition. Pre-decisional disposition toward a hotel is the self-position developed by travelers based on the hotel basic information they obtain, such as the hotel name, its location, price, and room styles, before they read online reviews about the hotel posted by previous guests. From this study, it is found that the presence of reviewer identity positively influence perceived credibility of online reviews which then leads to intention to make a hotel reservation. However, when the online reviews are ambivalent, the presence of the identity reduces booking intention for travelers with a negative or neutral pre-decisional disposition. Interestingly, travelers who interpret ambivalent online reviews as overall positive are still negatively affected by the reviews. The results indicate a stronger influence of the negativity effect than of the pre-decisional information disposition and distortion in the context of online hotel reviews. While this study contributes to the body of knowledge by providing understanding on how the presence of reviewers’ personal identifying information and travelers’ pre-decisional disposition affects travelers’ cognitive processing of ambivalent reviews and hotel booking intentions, the overall extremeness of the reviews appeared to be decreased because of the combination of positive and negative reviews. This situation may influence the results since perception of information credibility on a persuasion process is affected by the extremeness of the information content. These limitations generate opportunity for future research (Xie et al., 2011; Kiousis, 2006).

2.5.4.5. Time Frame

Another interesting finding on credibility studies concerns the impact of time after receiving information on individual’s response. The study of Hovland and Weiss (1951) suggest that high credibility information has greatest impact instantly after exposure. In the experiment conducted on the study, it is found that information with high credibility generates more
attitude change than the one with low credibility immediately following exposure to the information. However, the difference narrowed significantly after four weeks. Participants exposed to high credibility message showed reduced agreement with the message, whereas participants with low credibility message demonstrated significantly improved agreement. This finding is supported by various subsequent studies (Whitehead, 1968; Gilling & Greenwald, 1974; Allen & Stiff, 1989; Hu Liu, & Zhang, 2008) and known as the term “The Sleeper Effect”. The theory of sleeper effect explains that the impact of persuasive information is greater when an individual examines the message closer to the message than farther away from the time of information acceptance (Eagly & Chaiken, 1993).

2.5.4.6. Product Types

How consumers perceive credibility of online information is suggested by several studies as depending on the types of product being discussed. Based on regulatory focus theory, a study carried out by Zhang et al., (2008) shows that positive online reviews are more powerful for products associated with a promotion consumption goal; such as mobile phone as an easier communication device or a hotel for a convenient stay during the vacation. Conversely, the effect of negative online reviews is greater for products associated with a prevention consumption goal; such as anti-virus software used to avoid virus attacks on the computer or laptop or for travel insurance product used for travel precaution purposes.

Another study claims that, compared with search goods, experience goods are more susceptible to the effect of online word-of-mouth (Hao, Ye, Li, & Cheng, 2010). The study also reports that the word-of-mouth effect of negative online reviews is greater for experience goods, while the same effect of positive online review is greater for search goods. Park and Lee (2009) suggest similar idea that negative online reviews are more powerful for experience goods. Pan and Chiou (2011) investigate the difference of perceived credibility of online information for experience and credence goods. The results show that for experience goods either positive or negative online message are perceived to be more credible than positive ones as long as the messages are delivered by those considered to have close social relationships, while for credence goods, negative online information are
deemed to be more credible than positive ones when the information is posted by those considered to have close social relationships.

In another study, Vermeulen and Seeger (2009) conclude that persuasive effect in online reviews has stronger impact for lesser known hotels than for well-known ones. This statement is supported by Zhu and Zhang (2010). Reviews about well-known hotels will be less affected by online reviews since their attributes are more noticeable. Meanwhile, since the attributes of lesser known hotels are unfamiliar for most consumers, any information about them will be more prominent and impactful.

2.5.4.7. Consumers’ Internet Expertise

Some prior works have investigated the role of consumers’ Internet expertise in affecting their perception of information credibility. It is noted in earlier studies that individuals tend to judge their preferred media as the most credible compared to others (Carter & Greenberg, 1965; Rimmer & Weaver, 1987). Based on this premise, it is understood that how a consumer evaluates credibility of online information relies on how experienced the consumer is in consuming the media where the information is posted (Austin & Dong, 1994; Greer, 2003; Johnson & Kaye, 1998, 2000; Wanta & Hu, 1994). Greer (2003) also suggests that how long an individual spends going online is the best predictor of how they rate credibility of online information they find. In another perspective, Johnson and Kaye (2002), as supported by Kiousis (2001), point out that most Internet users do not consume traditional media as intensively as they use the Internet, for that reason they do not have the expertise to judge which Internet sources are more credible than others. Without comparing to other more traditional media, Flanagin and Metzger (2000) found that individuals’ Internet experience predicts their perception of online information credibility.

According to Park and Kim (2008), consumers with different levels of product expertise prefer different types of message. Consumers with high level of expertise favor attribute-centric reviews which provide detailed information on product technical attributes in the content because they are likely to engage in cognitive process when reading the reviews. Conversely, benefit-centric reviews which convey objective data and arguments are
preferred by consumers with low level of expertise. Instead of providing technical explanation about the product (i.e. “this hotel is spotted at the heart of the city, 5 minutes’ walk to train and bus central station where all trains and buses depart to major tourism destination”) like attribute-centric, reviewers in benefit-centric content have subjectively interpreted benefits of each attribute in their own way (i.e. “this hotel is located at very good location”) without further explanation what the word “good” means. Similar findings with this research are also suggested by Lin et al. (2011).

2.5.4.8. Consumer Perception of Similarity

Balance Theory posits that individuals look for balance among themselves, another person outside them, and an issue or an object (Heider, 1958). Individuals can achieve the balance condition when they like the other person and the relevant issue or object, and they perceive that they have similarity with the other person regarding the issue or object (Anderson & McMillion, 1995; Heider, 1958; Perloff, 2003). Perceived similarity, often refers to the construct of homophily (McPherson, Smith-Lovin, & Cook, 2001), concerns the extent to which individuals perceive similarity between themselves and message sources (Wang, Walter, Pingree, & Hawkins, 2008). It covers not only demographic similarity but also similarity in ideas, thoughts, or lifestyle (Meyer, Marchionni, & Thorson, 2010; Ziegler & Golbeck, 2006).

In prior studies, it is suggested in prior study that perceived similarity affects perception of credibility (Aune & Kikuchi, 1993; Bochner, 1994; Gilly et al., 1998). The work of Brown and Reinger (1987) supports the statement and finds out that information from homophilous source is considered as more credible than heterophilous one. Meyer, Marchionni, and Thorson (2010) also conclude the same finding in their research. Preece (2000) puts forward that individuals with similar backgrounds or similar health experiences demonstrate more empathy toward each other. This finding is also supported by subsequent studies (Lieberman, Wizlenberg, Golant, & Di Minno, 2005; Wright & Bell, 2003).

Due to the lack of nonverbal cues in online environments, individuals may find it difficult to evaluate similarity with the online information sources (Wright, 2000). A study in a health-
related website and online discussion forum by Wang, Walther, Pingree, and Hawkins (2008) found that similarity with information sources as perceived by forum members has a positive effect on perceived credibility of the posted information. The unique characteristic of CGM which consumers may not be informed about the profile of the information source generates challenges for further examining this construct.

2.5.4.9. Age and Gender

Concerning age and gender as variables affecting consumer perception of credibility, the work of Weibel, Wissmath, and Groner (2008) investigates the age and gender effects on perceived credibility. As mentioned by earlier studies, the age of the information source is a relevant factor in information persuasiveness (Brownlow & Zebrowitz, 1990; Hovland, Janis, & Kelley, 1953). It is found that the age of information source affects perceived credibility of information presented by the source (Brownlow & Zebrowitz, 1990; Phillips & Sternthal, 1977). In a TV newscasts setting, information presented by older newscasters is perceived as being more credible. The age of the information audience is also an important factor. As Engstrom (1996) found, there is a different perception of information credibility between younger and older women. Younger women rate higher credibility than the older ones for the same information. Meanwhile, younger and older men rate the credibility of information similarly.

Gender factor also plays an essential role in message persuasiveness. The extensive studies which have been conducted so far provide dissenting results. The information credibility is found to be affected by the gender of the information sources (Weibel et al., 2008), although Burkhart & Sigelman (1990) point out that there is no difference in perceived credibility between male and female sources. Same-gender sources are perceived as more credible and more persuasive by the information audiences (Bochner, 1994; Whipple & McManamon, 2002; White & Andsager, 1991), however Flanagin & Metzger (2003) demonstrate that men and women tend to rate Web pages of their opposite sex as more credible than same-sex Websites. Balon, Philport, and Beadle (1978) suggest that male information source is perceived as less credible, and it is supported by some subsequent studies (Andsager & Mastin, 2003; Berry & Brownlow, 1989). Conversely, some other
studies suggest the opposing results that male sources are considered as being more credible (Armstrong & McAdams 2009; Furnham, Abramsky, & Gunter, 1997). Other studies found that older male sources are perceived as more credible than older female sources, while younger males are rated as less credible than younger females (e.g. Cann & Mohr 2001). Flanagin and Metzger (2003) suggest that male Internet users tend to rate credibility of online information higher than females.

In more recent study on CGM context, it is noted that blog posts written by men are perceived as more credible than those written by women; and postings from males are deemed as more credible than females’ postings (Armstrong & McAdams, 2009). Another point suggested in the study is that blog posts is considered as being more credible when perceived written by men rather than by women. These findings support prior work by Armstrong and Nelson (2005) which suggests that official sources of information are deemed more credible only when they are perceived to be male. These conflicting results imply that there is a need for further investigation; and the emergence of CGM where the gender of the sources are often unidentified provides a new direction for research extension (Armstrong & McAdams, 2009).

2.5.5. Consumer Responses to Credible Information

Consumer awareness, preference, and decision of travel-related products depend on available credible information (Fodness & Murray, 1997). Credibility is a central element in the decision-making process as it affects consumer attitudes and behavioral intentions (Arora & Arora, 2006; Cheung et al., 2009; Choi & Refon, 2002; Grewal, Gotlieb, Marmorstein, 1994; Manfredo & Bright, 1991). The influence of message credibility on consumer attitudes has been investigated extensively in the area of marketing, communication, journalism, and media studies. In advertising studies, credibility of advertising message and endorser are found to have an effect on attitude toward the advertising message, attitude toward the brand, and attitude toward the company (Casalo, Flavian, Guinaliu, 2011; Chiagouris, Long, & Plank, 2008; Darke & Ritchie, 2007; Goldsmith et al., 2000; Long & Chiagouris, 2006). Consumers also relate credible advertising messages as a signal of product quality (Gotlieb & Sarel, 1992) especially when they have difficulty in
evaluating product quality or when the evaluation criteria are equivocal (Bone, 1995). The importance of credibility is enhanced when consumers have neither prior knowledge nor attitudes towards the issues or messages (Kumkale, Albarracin, & Seignourel. 2010).

Bloom and Hautaluoma (2001) claim that affective responses are positively correlated with perceived credibility. It is suggested that information with high credibility leads to more favorable attitudes than information with low credibility (Tormala, Brinol, & Petty, 2006). Choi, Hwang, McMillan (2008) propose that in SMS-based advertising context, credibility of the messages is an influential factor for attitude formation toward the message. This finding supports similar results from preceding studies (Drossos, Giaglis, Lekakos, Kokkinaki, & Stavraki, 2007; Tsang, Ho, & Liang, 2004). Other research suggests that when consumers are exposed to advertising messages with strong argument from highly credible source, their attitude towards the advertised brands is developed (Chu & Kamal, 2008). Meanwhile, perceived dishonest advertising about certain products evokes negative attitudes toward future advertising of the products, although the future advertising is endorsed by different sources (Darke & Ritchie, 2007).

While some researchers use the term “trust” and “trustworthiness” interchangeably, there is a difference between the two constructs, as suggested by Hardin (2002). Trust refers to an individuals’ positive belief about perceived reliability of an object (e.g. organization, person, message, or media), whereas trustworthiness or credibility is an individuals’ perception of quality of the object (Fogg & Tseng, 1999; Komiak & Benbasat, 2004; Williams, 2001). Trustworthiness or credibility is considered as a major predictor of trust (Lowry, Vance, Moody, Beckman, & Read, 2008; Mayer, Davis, & Schoorman, 1995; Zahedi & Song, 2008). In the case of initial interaction between consumers and salesperson, consumer trust to salesperson is influenced by verbal and nonverbal cues which develop credibility of the salesperson and the selling firm (Wood, Boles, & Babin, 2008). Since there is no salesperson in online environment, consumers develop initial trust to online marketers from the trustworthiness of the website. Initial online trust is formed by the quality, reputation, and third-party recognition of the website (Jones & Leonard 2008), free of presentation flaws (Everard & Galletta, 2005). Initial trust to a certain website may lead consumers to visit the website longer or more frequently (Wu & Tsang, 2008).
It is suggested that perceived credibility of information influences consumer intentions to accept and follow or to reject and ignore the advice suggested in the information (Bannister, 1986; Pornpitakpan, 2004; Guido, Peluso, & Moffa, 2010). When consumer feels the information he or she receives from the Internet is incredible, they are most likely not return to the website providing the information (Reibstein, 2002). Perceived credibility is found to have a significant positive effect on consumer intentions to adopt e-learning (Ong, Lai, & Wang, 2004), electronic tax filing system (Wang, 2003), online banking (Wang, Wang, Lin, & Tang, 2003), mobile banking (Luarn & Lin, 2005), and mobile services (Wang, Lin, & Luarn, 2006). Moreover, perceived credibility of a SMS-based or mobile advertising message is suggested to influence purchase intention of the advertised brand (Drossos et al, 2007; Choi, Hwang, & McMillan, 2008). Trustworthiness is also indicated to have an effect on citizens’ intentions to use e-government services (Carter & Belanger, 2005). In political context, Prete (2007) claims credibility of mobile political communication reinforces past voting behavior and enhances loyalty of actual voters, but it does not alter voting intention. Yoon, Pinkleton, and Ko (2005) suggests that high credible candidates using negative political advertising to attack their opponents will lead to greater voting intention than when less credible candidates do the same thing. Meanwhile, voters tend to evaluate the trustworthiness of a political advertising, and when they perceive that negative advertising attacking the political candidate from their own party, they are less likely to vote (Stevens, Sullivan, Allen, & Alger, 2010). Furthermore, credibility also plays a crucial role in forming consumer intentions in online environments (Cheung et al., 2009). Trustworthiness is found to be one of the most important factors for evoking purchase intentions (Park et al., 2007; Van der Heijden & Verhagen, 2004). When consumers perceive that information from an online shop they receive is trustworthy, they will have intention to buy in that shop and are willing to take the risks (Buttner & Goritz, 2008). Some empirical findings point out that credibility of online information affects consumers’ willingness to accept the information or to follow the advice (Cheung et al., 2009; McKnight & Kacmar, 2006).

Most literatures focus on how the message appeared as advertisements, or published in newspapers or the Internet is perceived as credible and how it affects individuals’ responses (e.g. Guido, Peluso, & Moffa, 2010; Smith et al., 2005; Sparks & Browning, 2011; Stevens et al., 2010). However, an online travel information search in the CGM involves at least three
elements; which are (1) the online information itself, (2) the travel-related objects discussed in the information, and (3) the behavioral consequences of travelers who read the information. Despite the fact that these three elements are interconnected, there is very limited research examining these three elements in a one conceptual framework. This limitation justifies the need of further investigation.

2.6. Key Gaps in the Literature

This chapter was previously presented a review of the broad concept of CGM and has identified credibility issues related with the CHM media platform. It has also cited existing gaps related with the constructs. The current gaps are likely to have important consequences from both conceptual and practical points of view.

Among the gaps identified in the literature, the most obvious one may be the lack of studies investigating the interrelationships among perceived credibility of online information, initial online trust and purchase intention. Previous works generally investigate the relationships among advertising message or source credibility, attitude toward the ads or the advertised brands, and behavioral intentions (e.g. Choi & Rifon, 2002; Drossos et al., 2007; Lafferty et al., 2002), or among message cues, trust, and behavioral intentions (e.g. Huang & Chen, 2006; Senecal & Nantel, 2004; Xie et al., 2011). The nature of travel-related online information search system involves three actors, namely the travel consumer who needs and seeks for information, the search engine sites, corporate websites, or third-party information sources which should provide credible information for the consumers, and the travel and tourism businesses which are discussed on the online media and need to be trusted by consumers (Pan, Xiang, Law, & Fesenmaier 2011). The fact that the interrelationships among credibility, initial trust, and intentions are still underexplored indicates that this gap is an important area to satisfy (Pan et al., 2011).

Perception of credibility of travel-related information posted on CGM may also be affected by individual characteristics of consumers who read the information. Age, gender, level of
expertise, involvement, country of origin, and perceived risk are to name a few of individual characteristics affecting perception of credibility of online information. The role of message characteristics in forming perception of message credibility has also been investigated extensively with equivocal findings. Message valence, source identity, product type, argument quality, and message consistency are found to have an impact on credibility; however the findings of the prior studies are inconsistent (Lee, Law, & Murphy, 2011). The conflicting results in prior studies explained in previous part of this chapter signify the existence of literature gaps.

Regardless the crucial issue of anonymity in CGM context, the investigation on the importance of source identity on review credibility is limited (Lee, Law, & Murphy, 2011). Previous works have examined the impact of email address as proxy of online identity on information credibility (Douglas & McGarty 2001), or the impact of online identity on consumer attitude, satisfaction, and behavior (Ellison et al., 2006; Forman et al., 2006; Ma & Agarwal, 2007). However, the role of the existence of the source identity in explaining consumer perception of CGM information credibility is still underexplored.

### 2.7. Conclusion

This chapter introduces the fundamental concepts adopted in this study. Uncertainty reduction, the concept of word-of-mouth communication, the emergence of CGM, and the concept of credibility are explored. This literature review serves as a guide to develop conceptual framework outlining relationships among online information credibility, its antecedents, and its marketing consequences, as well as to propose research questions and hypotheses.
CHAPTER 3

CONCEPTUAL FRAMEWORK & HYPOTHESES DEVELOPMENT

3.1. Overview of Conceptual Framework

This chapter aims to discuss main issues identified in Chapter 2 and to present underpinning theories underlying the issues. Adopting and collaborating theories from Uncertainty Reduction Theory proposed by Berger and Calabrese (1975) and Information Processing Model proposed by McGuire (1978), hypotheses and research framework for this study are developed to address those issues aforementioned which are developed into four key research objectives within the context of Consumer-Generated Media.

1. To examine the relationships among risk propensity, Internet experience, information quality, similarity, credibility of online information, trust, and purchase intention

2. To elucidate the main effects of source identity on the relationships between risk propensity, Internet expertise, information quality, similarity, information credibility, trust, and purchase intention,

3. To elucidate the main effects of information valence on the relationships between risk propensity, Internet expertise, information quality, similarity, information credibility, trust, and purchase intention

4. To elucidate the interaction effects of source identity and information valence on the interaction between risk propensity, Internet expertise, information quality, similarity, information credibility, trust, and purchase intention
3.2. Theoretical Background

Uncertainty Reduction Theory (URT) of personal communication is used as underlying theory for this research. URT was originally developed to explain the dynamics of human communication; especially initial communication between individuals who do not have previous interaction history (Berger & Calabrese, 1975). The basic assumption of URT is that "when strangers meet, their primary concern is of uncertainty reduction of increasing predictability about the behavior of both themselves and others in the interaction" (Berger & Calabrese, 1975, p.100). The concept of uncertainty reduction has been empirically validated and reexamined by a number of researchers (Bradac, 2001; Gibbs, Ellison, & Lai, 2011; Gudykunst, 1995; Gudykunst & Hammer, 1987; Kellermann & Reynolds, 1990; Neuliep & Grohskopf, 2000).

Uncertainty refers to individual’s inability to predict other people’s behavior (Neuliep & Grohskopf 2000). It is also defined as a cognitive state that fluctuates on a continuum between the amount of information required to perform a task and the amount of information already obtained (Daft & Lengel, 1986). More information means less uncertainty.

Berger and Calabrese (1975) suggest that when two individuals interact for the first time, a substantial level of uncertainty exists. Since uncertainty relates to the sufficiency of information, initial interaction drives individuals to perform information-seeking tasks in order to reduce it; such as observing behavior of others, asking questions, initiating conversation, and communicating intensively to encourage others to reveal more about themselves (Berger, 1979) by which the level of liking, intimacy, and trust between the parties involved in the interaction may be developed (Gibbs et al., 2011; Jarvenpaa, Tractinsky, & Saarinen, 2006; Parks & Adelman, 1983). Uncertainty may be reduced after sufficient amount of communication and information seeking; which eventually lead to a sense of reciprocity, similarity, and liking. Based on this argument, it is indicated that communication and information seeking are primary strategies for uncertainty reduction process. This is the main postulation upheld in this study.
In their concept, Berger and Calabrese (1975) suggest that interpersonal relationship is developed through three distinct phases; namely (1) entry phase, (2) personal phase, and (3) exit phase. In entry phase, each communicator focuses more on the content and quality of the verbal communication and less on non-verbal cues. For that reason, newly-interacting partners commonly engage in more formal, polite, and normative ways of communication. In this phase the amount of information seeking is high (Berger & Bradas, 1982; Kellerman & Berger, 1984) and will decrease progressively over time. Based on this fact, URT suggests that the intensity of information seeking process is positively related to the level of uncertainty. As the uncertainty declines over the duration of the communication process, the number of questions asked goes down and each communicator focuses more self-disclosure of personal information and attitude-related issues. In the second stage of relationship development named personal phase, interacting parties focus on acquiring each other’s demographic information in the first few minutes of conversation (Berger & Bradas, 1982). This is when individuals start to pay more attention to personal attitudes and similarities/dissimilarities in background information. Individuals interacting at this stage usually have had extended and repetitive interactions with one another which allow them to communicate about their attitudes, disposition, or values about more intimate topics. Similarities in attitudes tend to generate interpersonal attractiveness and reduce perceived uncertainty between interacting individuals (Neimeyer & Mitchell, 1988). For that reason, URT postulates that high level of uncertainty in the initial stage drives interacting parties to exchange and discuss less intimate information that is expected to subsequently help the parties reduce their perceived uncertainty about their partners. It is also suggested that in initial interpersonal interaction, individuals use both the verbal communication and background personal information to assess partner’s similarities in order to reduce uncertainty. The third stage of interpersonal development is the exit phase. Individuals decide at this phase whether the relationship should continue or conclude based on their evaluation on the introductory interaction performed during the entry and personal phase. Although there are three phases, the conceptualization of Uncertainty Reduction Theory focuses specifically on the entry phase since during this phase a sense of uncertainty is experienced and felt by interacting individuals (Neuliep & Grohskopf, 2000).
Uncertainty Reduction Theory has been predominantly implemented for communication studies in the context of face-to-face interactions. Following suggestions from prior studies (e.g. Byron & Baldridge, 2007; Heisler & Crabill, 2006), this study investigates uncertainty reduction in the context of computer-mediated communication. Computer-mediated communication (CMC) refers to the facilitation of sophisticated interactions among individuals, both synchronous and asynchronous, by computer devices (Jonassen, Davidson, Collins, Campbell, & Haag, 1995). CMC is not only about the tools or devices; it is the technology, the medium, and the engine of social relations among interacting individuals (Jones & Leonard, 1995). Common examples of CMC are email, online instant messaging, or discussion in online forum. Compared to face-to-face interactions, CMC occurs in a reduced-cues environment (Culnan & Markus, 1987) which limits individuals from evaluating attitudes or intentions of their communication partners. This condition is aggravated by the relative anonymity and allows the communicators to cover their identity during the communication process. The absence of cues about identity commonly present in face-to-face interaction and the insufficient immediate feedback during communication process enforce individuals to consider the nature of online environment when performing uncertainty reduction strategies.

According to the Social Identification Theory (Lea & Spears, 1995), the Social Information Processing Theory (Walther, 1992), and The Hyper-Personal Model (Walther, 1996), in such a reduced cues environment, individuals will engage in cognitive forethought to recompense for the limitations and develop impressions about their communication partners based on any available information. Individuals not only evaluate the message-related cues, such as message content or linguistic presentation (Tidwell & Walter, 1992), but also assess the social aspects of the message – including the identity or personality of the communication partners or sources and perceived similarity between the communicating parties. Revealed identity or personality and perceived similarity will significantly reduce uncertainty experienced by communicating individuals (Gudykunst, 1995; Antheunis, Valkenburg, & Peter, 2010). Moreover, Parks and Floyd (1996) argue that predictability and understanding of a partner’s behavior affect the development of interpersonal relationships through CMC, including email conversations (Tidwell & Walther, 2002), e-commerce (Ling, Chuan, Yian, Yani, & Huaping, 2007), and Social Networking Sites or CGM (Antheunis et al., 2010).
Furthermore, uncertainty reduction strategy is also influenced by the personal characteristics of the individuals (Prithviraj, George, & Lawrence, 2004; Neuliep & Grohskopf, 2000). In the traveling context for example, risk-taker travelers may be satisfied with only limited information about a tourist destination, meanwhile risk-avoider travelers prefer to equip themselves with more information from various sources. As another example, while cultural values and communication competence which vary across individuals are also found to affect the success of uncertainty reduction, individual perception toward communication competence varies from culture to culture (Neuliep & Grohskopf, 2000). It is also suggested that competence or expertise in technical aspect of communication, such as the language or the media used for the communication, positively affects uncertainty reduction strategies (D’Ambra & Rice, 2001; D’Ambra & Wilson, 2004; Goodhue & Thompson, 2005).

From the foregoing discussion, it can be concluded that uncertainty reduction strategy in CMC process involves message-related cues, source-related cues, and information-receiver characteristics. These factors affect the effectiveness of uncertainty reduction strategies adopted by an individual. This suggestion complies with what is proposed by the Information Processing Model (McGuire 1972; 1978). The Information Processing Model (IPM) has been advanced as a framework for social psychology, communication and persuasion studies although it received progressively less attention in the field of consumer behavior due to the popularity of Elaboration Likelihood Model. The IPM states that information processing consists of a sequence of information presentation, attention to the information, comprehension of the information content, yielding to the conclusion, retention of the new attitude, and behavior on the basis of the new attitude (McGuire, 1978). According to this model, effectiveness of information processing is affected by five factors; including (1) sources characteristics (the attributes of the information source), (2) the information itself (the content, structure, presentation, and style of the information), (3) receiver characteristics (the attributes of the audience receiving the information transmitted), (4) channel factors (where, when, and how the information is communicated), and (5) destination factors (the target effect of the communication).
In the context of CGM-based information seeking behavior as investigated in this study, the frameworks from different theories previously explained may be adopted since it is contextually similar with the contexts used in those aforementioned theories. Uncertainty reduction discussed in prior studies are commonly undertaken in face-to-face initial interaction (Knobloch & Solomon, 2002; Neuliep & Grohskopf, 2000), although some more recent studies adopted the URT in an online environment (Antheunis et al., 2010; Flanagin, 2007; Nowak & Rauh, 2006). This study observes travel-related CGM which connects travelers who wish to interact with fellow travelers from other parts of the world or to find experience-based travel-related information. In most types of CGM, commonly there is no prior history of interaction between communicating individuals and the expectation of future interaction may be nonexistent. As an illustration, a European traveler who plans to visit Australia may interact with some Australian travelers in a travel-related online forum to gain initial information about traveling to Australia. The European may never meet the Australians before they communicate in the online forum, and they may never intend to interact with each other again when the communication completes. This kind of situation generates two types of uncertainty, which are; (1) the uncertainty about the associated products or services being considered by the consumers – whether the products or services meet their expectation, and (2) the uncertainty about the genuineness and intentions of the CGM information and its sources. In order to lower such high level of uncertainty in that typical situation, online information seekers attempt to evaluate the trustworthiness of the online information provided by comparing information they receive with information from other sources (Eighmey & McCord, 1998, LaFerle, Edwards, & Lee, 2000), judging trustworthiness of the information sources (Zhu & He, 2002), or assessing the credibility of the information in their hands (Buda & Zhang, 2000; Senecal & Nantel, 2004). Uncertainty reduction behavior in a less-cue online environment represented by travel-related CGM performed by evaluating the credibility of CGM information based on information and source-related factors is the main issue investigated in this research. Individual characteristics that may influence the credibility assessment are also taken into account.
3.3. Conceptual Framework

Drawing from literature review, a conceptual framework for credibility of CGM information is developed (Figure 3-1). The model consists of nine interrelating constructs.

Based on Uncertainty Reduction Theory (Berger & Calabrese, 1975), travelers who use CGM to obtain travel information are exposed to uncertainty due to the less-cues nature of CGM, and they tend to find a way to reduce it. Reducing the uncertainty is undertaken by evaluating credibility of the information in order to develop trust in the services they will purchase. Following the Information Processing Model (McGuire, 1978), this study proposes that credibility and trust are influenced by receiver factors (risk propensity and Internet experience), source factors (source identity and similarity), and message factors (information valence and quality). Both information credibility and trust will consecutively affect purchase intention.
3.4. Hypotheses Development

3.4.1. Construct Definition

The constructs constituting the theoretical framework in this study and their definitions are presented in Table 3-1.

<table>
<thead>
<tr>
<th>CONSTRUCT</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credibility</td>
<td>Borrowing the definition from Flanagin and Metzger (2000) and Johnson and Kaye (1998), credibility is defined as the degree to which online consumers evaluate online information or message posted on CGM to be believable, fair, accurate, and in-depth.</td>
</tr>
<tr>
<td>Information Quality</td>
<td>Following Rains (2007) and Rains and Turner (2007), this study defines information quality as the extent to which the online information is perceived to have strong or weak arguments.</td>
</tr>
<tr>
<td>Information Valence</td>
<td>Adapting from Jain and Posavac (2004), message valence refers to the sidedness of the online information about a tourism object posted on the CGM, whether it is positively or negatively oriented or balanced between positive and negative orientation.</td>
</tr>
<tr>
<td>Internet Experience</td>
<td>The definition of Internet experience was adapted from Flanagin and Metzger (2000). In this study, Internet experience refers to the extent consumers perceive themselves as experienced in Internet usage.</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>Adapting from Dodds et al. (1991), in this study purchase intention refers to as consumer’s intention to act or behave related to a purchase after evaluating online information posted on the CGM. The construct is defined as a form of commitment or willingness to make a purchase.</td>
</tr>
<tr>
<td>Risk Propensity</td>
<td>Borrowing from Meertens and Lion (2008) for this study, risk propensity refers to individual’s tendency in general risk taking behavior. Risk propensity is viewed as the propensity to avoid or take personal risks in daily behavior, and not treated as the propensity to perform thrill-seeking or social norm violation behaviors.</td>
</tr>
<tr>
<td>Similarity</td>
<td>Adapted from Gilly et al. (1998) and Smith et al. (2005), in this study perceived similarity refers to the extent to which consumers feel similar to reviewer who posted online review on the CGM in terms of attitudes, preferences, emotions, and behavior.</td>
</tr>
<tr>
<td>Source Identity</td>
<td>Adapting definition by Ma and Agarwal (2006), source identity in this study refers to the extent to which CGM information discloses the basic personal information about the identity or personal details of the individuals who posted the reviews.</td>
</tr>
<tr>
<td>Trust</td>
<td>Adapting from Moorman et al. (1993), in this study trust is defined as the positive expectation in a travel-related service provider without having prior knowledge about the service after his/her initial awareness following first exposure to online information about the service.</td>
</tr>
</tbody>
</table>
3.4.2. Risk Propensity, Information Credibility, and Trust

The degree of risk is a function of the importance of the goals to be achieved, the eminence of the penalties imposed for non-achievement, and the significance of the effort committed to attaining the goals (Cox, 1967b). Risk propensity refers to an individual’s tendency to take or avoid personal risks (Sitkin & Pablo, 1992; Sitkin & Weingart, 1995). The higher the individual’s risk propensity, the more likely the individual will take the risks, and conversely lower risk propensity means lower likelihood of individual taking risky decision. The construct is viewed as an individual trait that may change over time and be different in various contexts. Sitkin and Weingart (1995) suggest that risk propensity is simultaneously enduring and it may change as a result of individual’s experience. Although risk propensity – or the tendency to take risk – is commonly related to specific risky actions, such as behavior involving tension or arousal seeking (Trimpop, Kerr, & Kirkcaldy, 1999; Keinan, Meir, & Gome-Nemirovsky, 1984) or health risk (Arnett, 1994), the construct may also be adopted for general decision making (Meertens & Lion, 2008; Steketee & Frost, 1994).

In marketing literature, risk is often associated with trust and uncertainty (Mitchell, 1999). The tendency to take risks should also be referred to individuals’ effort to reduce uncertainty they have to face in their environment. The context of risk investigated in this study is focused on the uncertainty of trusting the CGM information and the service discussed on the information. When travelers need a recommendation about a hotel in one particular holiday destination, they may seek for information from popular online sources, including travel-related CGM such as TripAdvisor.com or LonelyPlanet.com. Travel-related CGM is popular among information-seeking travelers since it contains online postings about fellow travelers’ firsthand experience. However, the common anonymity nature of CGM provides uncertainty, since the task of evaluating credibility of the information is quite challenging. This study suggests that individuals with high level of risk propensity are more likely to perceive greater credibility on CGM information and trust the product recommended in the CGM information than individuals with low level of risk propensity. Following hypothesis is thus proposed:

\[ H1: \text{Risk propensity will positively affect (a) information credibility, and (b) trust} \]
3.4.3. Internet Experience, Information Credibility, and Trust

Prior studies suggest that individuals’ perception of media credibility is related to the usage of that particular media. It is found that the more people use and rely on one particular media for their information needs, the more they will judge that information generated from that media as credible (Austin & Dong, 1994; Johnson & Kaye, 2000; 2002; 2010; Johnson et al., 2008; Rimmer & Weaver, 1987; Wanta & Hu, 1994). Greer (2003) also claims that the amount of time spent by an individual for using the Internet is the strongest predictor of whether the online media would be considered as credible. If someone has an extensive experience in an area, the person may be an expert in it (Shanteau, Weiss, Thomas, & Pounds 2002). Not surprisingly, it is posited that Weblog users perceive blogs as significantly more credible than any other media (Johnson & Kaye, 2004).

Media reliance is considered by extensive prior studies as the only strong predictor of media credibility (e.g. Flanagin & Metzger, 2004; Greer, 2003; Johnson & Kaye, 2004; Kiousis, 2001). Adopting online media as the context observed, this study proposes similar postulation. Based on this literature, this study predicts that individuals who have great level of experience with and reliance on using Internet to satisfy their information needs should be familiar with various cues in the information generated by Internet-based media that may help them to make credibility assessment. They also should have been familiar with the online reputation of the Internet media, the way it presents the information, or the way the information is generated. Drawing upon findings from previous research, this study suggests that individuals with high level of Internet experience are more likely to perceive greater credibility on CGM information and trust the product recommended in the CGM information than individuals with less experience. Thus, the following hypothesis is proposed:

\[ H2: \text{Internet experience will positively affect (a) information credibility, and (b) trust} \]

3.4.4. Information Quality, Information Credibility, and Trust

Initial interaction is the most important stage for two strangers starting to communicate. In this stage, verbal communication between the strangers may alleviate uncertainty. For this reason, informational content is considered one of the most important elements in online
trust formation in e-commerce related studies (Liu & Arnett, 2000; Rieh, 2002). To reduce uncertainty, extensive information searching may need to be performed. In the context of the hospitality area of study, when consumers are presented with hotel reviews, they put some efforts in to evaluate whether or not the reviews serve an accurate representation of the hotel before making any decision (Buda, 2003).

Information quality refers to the extent consumers perceive the level of argument strength of the received information (Rains & Turner, 2007). It represents the extent to which the information receiver views the information as convincing or well-supported. If the received information is perceived to have valid arguments, the receiver will consider the information as credible; conversely if the received information appeared to have lack of supporting arguments, the receiver will be inclined to consider the information as not credible. Prior studies in various contexts suggest that information with strong claims which are relevant, objective, and verifiable tends to be more persuasive and perceived more trustworthy (e.g. Kempf & Palan, 2006; Schwenk, 1986; Dillard & Shen, 2005; Cheung et al., 2009). For instance, in the context of organizational studies, Schwenk (1986) suggests that information delivered by senior managers is perceived to be more powerful when supported by relevant arguments. Research in healthcare communication points out that strong information containing verifiable facts and relevant evidence has greater likelihood of reducing uncertainty than information lacking in evidence or sound arguments (Dillard & Shen, 2005). Information quality of interpersonal communication conducted by two consumers is found to be influential on brand attitude formation and purchase intention (Kempf & Palan, 2006).

Andrews and Shimp (1990) point out in their research on advertising that when consumers are exposed to an advertising message, ads information with strong argument has greater impact on consumer attitude than weak argument. In a study in online review context, when consumers visit an online consumer discussion forum to find information they need, it is found that they do not blindly follow the recommendation suggested by reviewers on the forum (Cheung et al., 2009). Information quality is evaluated and valid and strong arguments are expected.

Referring back to the context of this study, information-seeking travelers need to ensure themselves regarding the quality of the information they obtain. If the information quality is
perceived convincing, they may consider the information to be credible. As a result, their trust in the object being discussed in that particular piece of information may be developed as well. Some previous studies demonstrate the effect of information quality on perceived information credibility in both physical and computer-mediated communication (e.g. Nabi & Hendriks, 2003; Cheung et al., 2009). Based on this discussion, it is hypothesized in this study that information quality contributes to perception of credibility of the information. When quality of the information is perceived high, the information will be deemed highly credible as well.

**H3: Information quality will positively affect (a) information credibility, and (b) trust**

### 3.4.5. Similarity, Information Credibility, and Trust

In communication research, similarity is often referred to as homophily which explains the degree of similarity between communicators and information receivers (Gilly et al., 1998). Similarity or homophily is defined as the extent to which individuals in a dyad feel similar not only in demographic characteristics but also perceived similarity in terms of shared values, preferences, and lifestyle (Lazarsfeld & Merton, 1954). It bounds individuals’ social world due to its powerful implications for the interactions they experience, the information they obtain, and the attitudes they develop (McPherson & Smith-Lovin, 1987).

Similarity factors between communicating partners is considered as major driver of interpersonal communication and information exchange both in high and low involvement situation. When consumers exchange information, similarity with the source can facilitate the flow of information in consumers’ external information search process (Price & Feick, 1984). In Social Identity Theory, Tajfel and Turner (1979) posit that individuals reduce uncertainty they have in communication by choosing to interact with others who share similar values and social identity. Information originating from a socially similar source mostly generates more interests in the receiver since the similarity serves as a cue to the information recipient that the issue may also be interests of the source (Jones, Pelham, Carvallo, & Mirenberg, 2004). Similarity of individuals leads to a greater level of interpersonal attraction and trust than would be expected among dissimilar individuals (Arindell & Luteijn, 2000; Ruef, Aldrich, & Carter, 2003). For example, young girls find it easy
to discuss about fashion with their peers compared to with their mothers, whilst for travelers it should be easier to have a conversation about traveling with fellow travelers than with people who rarely have a holiday trip. On the topic of similarity, it is also found that romantic partners experience greater relationship satisfaction with partners with similar religion and interests (Lutz-Zois, Bradley, Mihalik, & Moorman-Eavers, 2006). In consumer studies, it is noted that consumer purchase intention is higher for products advertised by endorsers with similar race and ethnicity than by dissimilar endorsers (Simpson, Snuggs, Christiansen, & Simples, 2000). More recent research also suggests that the effect of similarity on information credibility also applies in online environment (Wang et al., 2008). In the same study, it is also suggested that perceived similarity with the sources plays a significant role in determining perceived credibility and level of acceptance of online information. This finding is supported by Thelwall (2009) arguing that mutual liking and friendships tend to be developed between homophilous individuals in social networking sites such as MySpace.com. Similarity is also found to influence Internet users’ perception of credibility of online health information. The more homophilous an online health information cues is perceived as being, the more likely individuals are to follow the advice suggested in that piece of information (Wang et al., 2008). Furthermore, students seeking information from online forums are reported to engage homophilous sources more than heterophilous ones (Steffes & Burgee, 2009). It is also noted in Steffes and Burgee (2009) that information from sources with high level of similarity is more influential on their decision making than information from heterophilous sources.

Consumers with similar social, demographic, and psychographic characteristics tend to have similar needs and wants in consumption (Schiffman & Kanuk, 2010). For this reason, consumers are more likely to feel comfortable when interacting with other consumers who have similar personal characteristics (McCroskey & Richmond, 2000; Rogers & Bhowmik, 1970). Supporting Brown and Reingen (1987), Xia and Bechwati (2008) suggest that information sources who shared similar characteristics with their receivers tend to be perceived as more credible than heterophilous sources and thus have greater influence on behavioral responses. This phenomenon increases consumers’ likelihood in using homophilious social contacts as a source of product information (Brown & Reingen, 1987; Simpson, Snuggs, Christiansen, & Simples, 2000). In the context of CGM where personal
information of information sources is limited, similarity is an element of social mechanism that helps consumers interpreting the underlying motivation driving the sources posting the information (Bartel & Dutton, 2001). Drawing upon this discussion, it is hypothesized in this study that when consumers perceive that the information sources have similar characteristics with them, the information provided by the sources in CGM is deemed credible and trust in the travel-related services informed is also developed.

\[ H4: \text{Similarity will positively affect (a) information credibility, and (b) trust} \]

3.4.6. Information Credibility, Trust, and Purchase Intention

Information credibility is defined here as the degree to which online consumers evaluate online information or message posted on CGM to be trustworthy (Flanagin & Metzger, 2000; Johnson & Kaye, 1998). According to West (1994), information credibility is related to believability, fairness, accuracy, and completeness. Since credibility is assessed by the judgment of information receivers, it is not necessarily equivalent to the actual truthfulness of the information. When product information obtained is perceived as credible, trust in the product will be formed because perception of credibility developed for the specific information negatively influence perceived risk that is associated with the information (Pavlou, 2003) and purchase intention will also be developed (Chen, Dhanasobhon, & Smith, 2008; Chevalier & Mayzlin, 2006; Clemons et al., 2006; Ghose & Ipeirotis, 2006; Hu, Liu, & Zhang, 2008; Park et al., 2007).

Trust refers to an individual’s willingness to rely on other party and take action in situation which can put him/her in a vulnerable position to the other party (Jarvenpaa et al., 1999). Trust is about positive expectation that a consumer has in a travel-related service provider without having prior knowledge about the service after his/her initial awareness following first exposure to online information about the service (McKnight, Cummings, & Chervany, 1998; Moorman et al., 1993). Trust refers to individual’s belief that another party will perform an action that will provide positive outcomes and not take any unexpected action that will lead to negative outcomes (Anderson & Narus, 1990). When consumers put their trust in a service provider, it means that they believe that the provider will do things that satisfy them. As a result, the intention to purchase or use the service is generated. Trust in
the service provider alleviates perceived risk associated with using the service (Pavlou, 2003). After reading online reviews about a new restaurant in town, a consumer may decide to visit the new restaurant because the review is perceived as credible. Travelers who just arrive in a city they have never been may go to a less popular tourist destination recommended by an online fellow traveler in an online travel forum just because they trust the recommendation. They may be sure that the recommendation they read is trustworthy, although they may never know who wrote the recommendation. Credible information encourages both the consumer and travelers to trust the particular object being recommended; which subsequently may develop their intention to purchase. Drawing upon this discussion, it is hypothesized that credible information about travel-related services contributes to the trust in the service providers which consequently lead to intention to purchase the services. The following hypotheses are then proposed:

\[ H5: \text{Information credibility will positively affect trust} \]

\[ H6: \text{Purchase intention will be positively affected by (a) credibility, and (b) trust} \]

3.4.7. The Main Effect of Source Identity

According to Bartel and Dutton (2001), source identity is one social mechanism element in information generated from an online environment – such as CGM – that may help consumers decipher its genuineness and trustworthiness. Identity refers to a communication tool through which individuals allow themselves known to others and can use to develop relationships when others reciprocate (Taylor & Altman, 1987). As suggested by Uncertainty Reduction Theory (Berger & Calabrese, 1975), communication partners undertaking an initial stage of interaction reduce uncertainty by gathering any information that allows them to know their partners in order to be able to predict their attitude, preference, values, or behavior. Disclosed identity helps the initial process to be faster which leads to more efficient and effective communication and information exchange.

Knowing the identity of an information source allows information seekers to hold the source accountable for the information they provide (El-Shinnawy & Vinze, 1997). When an information source discloses his/her personal identity, they can evaluate the competence of
the source in the related issue before assessing the information quality. Conversely, when the information source is anonymous, the inability to identify the source may lead them to question the source’s expertise and the trustworthiness of the information (Dennis, Hilmer, & Taylor, 1998; Freeman & Spyridakis, 2004). Honest and full disclosure of source identity may increase consumer trust (Forman et al., 2008; Head & Hassanein 2002). Rains (2007) suggests that individuals exposed to anonymous information have a great number of negative-irrelevant thoughts about the source’s competence and they rate the information as less credible. Anonymous sources are also related with the suspicion that they may have something to hide or be unwilling to be responsible for the information they provide (El-Shinnawy & Vinze, 1997).

In CGM-context where lack of non-verbal cues is common, disclosure of personal identity information is valuable for interaction. Anonymity, shared interests, and lack of physical presence in CGM may contribute to the need of personal information disclosure, which consequently lead to the liking and trust building among online interacting partners (Baker, 2005; Henderson & Gilding, 2004; McKenna, Green, & Gleason, 2002). A study of Ellison, Heino, and Gibbs (2006) suggests that effective self-disclosure and self-presentation in an online environment may affect mutual liking or trust. In their study, self-picture in an online profile is considered to be able to communicate what the individual looks like and show personal qualities that they think are important for others to know. Another study claims that in online newsgroups, individuals who are better able to present themselves online are more likely than others to have developed online relationships (McKenna et al., 2002). However, more recent study suggests that reviews from unidentified source are perceived as more helpful than reviews from identified source (Lee, Law, & Murphy, 2011).

Based on the work of Sussman and Seigal (2003), there are two reasons for the importance of personal identity information in CGM online environment. First, information acquisition is more efficient when the source is identifiable. Identified sources help information seekers to put their attention and effort on the information content and therefore shorten the information processing time. Second, identity enhances the trustworthiness of information sources and as a result, the information presented by identified sources is more likely to be deemed more credible and useful. It is found that when online information sources share
their demographic information in an online review, the identity affects positively on sales (Forman, Ghose, & Weisenfield, 2008). According to Prominence-Interpretation Theory (Fogg, 2003; Fogg, Cuellar, & Danielson 2003), consumer evaluation of online source credibility is determined by (1) the cues consumers identify within an online setting relevant for evaluating information credibility, and (2) consumer interpretation of these cues. The presence of Personal Identifying Information in the CGM information then helps consumers to assess information credibility since genuine and capable reviewers are considered to be more willing to provide their personal information (Xie et al., 2011). Based on this discussion, it is postulated in this study that the existence of source identity affects credibility of online information and its relationships with its antecedents and consequences. Following hypotheses are thus proposed:

H7. Information quality will be greater when the information source is identified than when the source is unidentified

H8. Similarity will be greater when the information source is identified than when the source is unidentified

H9. Information credibility will be greater when the information source is identified than when the source is unidentified

H10. Trust will be greater when the information source is identified than when the source is unidentified

H11. Purchase intention will be greater when the information source is identified than when the source is unidentified

3.4.8. The Main Effect of Information Valence

Findings from previous studies are inconsistent in explaining the impact of information valence on consumer responses. Some suggest that positive valence information is more influential than negative information, whilst others argue the opposite. Jain and Posavac (2004) use the terminology valence to describe the angle of information whether it is presented in positive or negative orientation. Information valence has been explored extensively in advertising and communication research (e.g. Kamins, Folkes, & Perner, 1997; Wu & Dahmen, 2010; Yoon et al., 2005). In an advertising context, Jain and Posavac (2004)
convey that information valence is an important determinant of the information persuasiveness. Their findings demonstrate that negative valence information leads to perception of lower credibility and less favorable attitude toward the associated brands or products. Negative valence is found to be more likely associated with more counter-argumentation and lower believability than positive valence information (Jain, 1993). Positive valence health advertising is also claimed to be more effective than negative valence advertising (Reardon & Miller, 2008). Supporting earlier studies of Hawkins and Hane (2000), Jones et al., (2003), and Steward, Schneider, Pizarro, and Salovey (2003), their work on smoking prevention advertising suggests that positive valence advertising message tends to be adopted while negative message are more likely to produce counter-arguments. Furthermore, in political communication, positive online information about political candidates leads to greater liking and voting intentions than negative information (Wu & Dahmen, 2010; Yoon et al., 2005). These findings imply that negative information is more powerful in affecting consumers than positive information.

Conversely, articles on framing effects suggest contradictory findings. Levin (1987) found that positively framed messages are evaluated more favorably than messages framed negatively. This finding is supported by other literatures; including Jones et al. (2003), Levin and Gaeth (1988), Kamins, Folkes, and Perner (1997), Park and Lee (2009), Steward et al., (2003), Ye, Law, Gu, and Chen (2011), and Zhang et al., (2010). Grau and Folse (2007) suggest a similar conclusion; that positive frame information serves as effective cues to generate consumer attitude toward CRM campaign and intention to participate. Buda and Zhang (2000) also claim that individuals who receive positively framed information will have better attitudes toward product than individuals who receive negatively framed information. Clemons et al., (2007) found in their research in craft beer industry that strongly positive cues can positively affect product sales. If message evaluation is considered as an indicator of message persuasiveness, these results suggest that positive framing is more persuasive than its negative counterpart.

In addition to the two contradicting arguments, some other researchers suggest that two-sided information or moderate valence is more persuasive in some cases. For example, Crowley and Hoyer (1994) point out two-sided arguments are more influential than one-
sided positive arguments, when consumers initially have neutral or negative attitude. Mudambi and Schuff (2010) suggest that neither extremely positive nor extremely negative reviews but instead moderate reviews are deemed helpful by information-seeking consumers. It is also suggested by Mudambi and Schuff (2010) that reviews with moderate valence have a more objective tone and focus on important issues to be discussed, and reveal less idiosyncratic preferences. Prior studies also argue that two-sided advertisements tend to be viewed as more credible than their one-side counterparts since they are perceived to be honest and fair (e.g. Kamins & Assael, 1987; Pechmann, 1992).

This study investigates the effect of information valence on CGM information. It is to be examined whether or not there is differential effect on perceived credibility, trust, and purchase intention if the information is positive, negative, or balanced. Considering there are three conflicting opinions regarding whether positive, negative, or balanced information is more dominant on affecting consumer responses, instead of proposing hypotheses, this study develops the following five research questions to be explored and examined.

\[\text{RQ1. Is there any difference in information quality between positive, negative, and balanced information? If so, to what extent is the difference?}\]

\[\text{RQ2. Is there any difference in similarity between positive, negative, and balanced information? If so, to what extent is the difference?}\]

\[\text{RQ3. Is there any difference in perceived information credibility between positive, negative, and balanced information? If so, to what extent is the difference?}\]

\[\text{RQ4. Is there any difference in trust between positive, negative, and balanced information? If so, to what extent is the difference?}\]

\[\text{RQ5. Is there any difference in purchase intention between positive, negative, and balanced information? If so, to what extent is the difference?}\]

\[\text{3.4.8. The Interaction Effect of Source Identity and Information Valence}\]

In a real-life online environment, consumers are typically exposed to different formats of online information and they may have to decide which one is the most trustworthy and which one is the least. Consumers may read positive information from identified source,
negative information from unidentified source, or other information combined from different source and valence types. Considering this situation, this study attempts to contribute to the literature by examining the interaction between the disclosure of source identity and information valence. This interaction has been unfavorably underexplored regardless their relevance in online context. To identify the interaction effect, these following research questions are proposed:

RQ6. For positive information, is there any difference in (a) information quality, (b) similarity, (c) credibility, (d) trust, and (e) purchase intention between information with identified and unidentified sources? If so, to what extent is the difference?

RQ7. For negative information, is there any difference in (a) information quality, (b) similarity, (c) credibility, (d) trust, and (e) purchase intention between information with identified and unidentified sources? If so, to what extent is the difference?

RQ8. For balance information, is there any difference in (a) information quality, (b) similarity, (c) credibility, (d) trust, and (e) purchase intention between information with identified and unidentified sources? If so, to what extent is the difference?

RQ9. For information with identified source, is there any difference in (a) information quality, (b) similarity, (c) credibility, (d) trust, and (e) purchase intention between positive, negative, and balanced information? If so, to what extent is the difference?

RQ10. For information with unidentified source, is there any difference in (a) information quality, (b) similarity, (c) credibility, (d) trust, and (e) purchase intention between positive, negative, and balanced information? If so, to what extent is the difference?
3.5. Summary of Hypotheses

Drawing upon Uncertainty Reduction Theory (Berger & Calabrese, 1975) and Information Processing Model by McGuire (1978), this chapter proposes a conceptual framework to investigate the impact of credibility of CGM information and its antecedents on trust and purchase intention. Sets of hypotheses and research questions have been developed from predicted relationships based on literature review. Those hypotheses and research questions are summarized in Table 3.2, Table 3.3, Table 3.4, and Table 3.5. Hypotheses 1 to 4 and hypotheses 7-11 are contributing hypotheses; or hypotheses which offer theoretical contribution as they have been understudied previously. Meanwhile, hypotheses 5 and 6 are the confirming hypotheses as they are expected to support findings from prior studies.

The developed research questions and hypotheses have been comprehensively derived from framework of concepts that in turn draws in psychology, communication, marketing, and consumer studies. The methodology for testing the proposed hypotheses is presented in the next chapter.

| Hypothesis 1 | Risk propensity will positively affect (a) information credibility, and (b) trust |
| Hypothesis 2 | Internet experience will positively affect (a) information credibility, and (b) trust |
| Hypothesis 3 | Information quality will positively affect (a) information credibility, and (b) trust |
| Hypothesis 4 | Perceived similarity will positively affect (a) information credibility, and (b) trust |
| Hypothesis 5 | Information credibility will positively affect trust |
| Hypothesis 6 | Purchase intention will be affected by (a) information credibility, and (b) trust |

Table 3.2 – Set of Hypotheses for Research Objective 1
**Table 3.3 – Set of Hypotheses for Research Objective 2**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Information quality will be greater when the information source is identified than when the source is unidentified</td>
</tr>
<tr>
<td>8</td>
<td>Similarity will be greater when the information source is identified than when the source is unidentified</td>
</tr>
<tr>
<td>9</td>
<td>Information credibility will be greater when the information source is identified than when the source is unidentified</td>
</tr>
<tr>
<td>10</td>
<td>Trust will be greater when the information source is identified than when the source is unidentified</td>
</tr>
<tr>
<td>11</td>
<td>Purchase intention will be greater when the information source is identified than when the source is unidentified</td>
</tr>
</tbody>
</table>

**Research Objective-2: Do information quality, similarity, information credibility, trust, and purchase intention vary between information with identified and unidentified sources?**

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**Table 3.4 – Set of Research Questions for Research Objective 3**

<table>
<thead>
<tr>
<th>Research Objective-3: Do information quality, similarity, information credibility, trust, and purchase intention vary across different information valence? If so, how?</th>
<th>RQ 1</th>
<th>Is there any difference in information quality between positive, negative, and balanced information? If so, to what extent is the difference?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RQ 2</td>
<td>Is there any difference in similarity between positive, negative, and balanced information? If so, to what extent is the difference?</td>
</tr>
<tr>
<td></td>
<td>RQ 3</td>
<td>Is there any difference in perceived information credibility between positive, negative, and balanced information? If so, to what extent is the difference?</td>
</tr>
<tr>
<td></td>
<td>RQ 4</td>
<td>Is there any difference in trust between positive, negative, and balanced information? If so, to what extent is the difference?</td>
</tr>
<tr>
<td></td>
<td>RQ 5</td>
<td>Is there any difference in purchase intention between positive, negative, and balanced information? If so, to what extent is the difference?</td>
</tr>
</tbody>
</table>
Table 3.5 – Sets of Research Questions for Research Objective 4

<table>
<thead>
<tr>
<th>Research Objective-4: Does interaction effect between source identity and information valence occurs on information quality, similarity, information credibility, trust, and purchase intention?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RQ 6</strong></td>
</tr>
<tr>
<td><strong>RQ 7</strong></td>
</tr>
<tr>
<td><strong>RQ 8</strong></td>
</tr>
<tr>
<td><strong>RQ 9</strong></td>
</tr>
<tr>
<td><strong>RQ 10</strong></td>
</tr>
</tbody>
</table>
CHAPTER 4

RESEARCH METHODOLOGY

4.1. Overview of the Research Methods

The purpose of this research methodology chapter is to explicate how the conceptual framework, hypotheses, and research questions developed in Chapter 3 are examined. Experimental design is discussed at the beginning of the chapter to provide a brief understanding about the basic nature of the research method implemented in this study. Manipulation development is clarified next by providing information on how the scenario and the stimuli for the experiment were developed, and it was followed by information about manipulation check procedures. Measurement scale adopted for this study presented in the next section informs about the questionnaire items used to measure the constructs investigated in this study. After explaining measurement instruments used in this study, information about research participants is provided. Next, ethics approval is explained followed by information about pre-testing and pilot study. Data collection procedures and analytical techniques implemented in this study conclude this chapter.

The research method implemented in this study can be categorized as quantitative research. Quantitative research involves statistical analysis based on the collection of numerical data and demands an adequate number of respondents to obtain representative sample and ensure validity and reliability of the data (Brunt, 1997; Veal, 2005). Quantitative approach can be clustered into descriptive and causal research (Malhotra, 2009). Descriptive research analyses the nature of marketing phenomenon, and predicts the incidence of the phenomenon, while causal research observes causal relationships between variables (Malhotra, 2009).
4.2. Experimental Design

Experimental research is considered as the most appropriate quantitative method to validate the hypotheses and the conceptual model in this study. It allows the manipulation and appraisal of perceptions of online information credibility while controlling for other aspects of the study, hence being able to attribute differences across conditions directly to the manipulated variables.

Cook and Campbell (1979) suggest that it is best in research to optimizing the finding generalizability regarding the populations of the study, the precision in control and measurement of variables being investigated, and the existential realism of the context in which behavior is observed. In order to obtain the optimization, researchers must make trade-offs between the fundamental problems they want to avoid and the problems they are willing to accept (McGrath & Brinberg, 1983). This study implements experimental research due to its ability to infer causal relationships among variables observed by systematically varying specific aspects of the research to isolate the influence of explanatory factors on dependent variables (Cook & Campbell, 1979).

In experimental research, there is a trade-off between field and laboratory experiments. Field experiments undertaken in natural settings generally have greater external validity than laboratory experiments which are conducted in controlled settings. On the other hand, controlling unrelated variables in a laboratory experiment leads to a greater internal validity than field experiments. Considering the potential problems regarding internal and external validity, the research objectives, and research timeframe and cost, a laboratory experiment is to be applied in this study. This study implements a role-playing scenario-based experimental design. In this type of experimental design, participants are asked to read short scenario, imagine that they are part of the situation explained on the scenario, and then respond to questions relating to variables of interests (Bitner, 1990). An experimental role playing or scenario method has been used extensively in consumer research, especially in services context (e.g. Gelbrich, 2010; Mattila, 2010; Vermeulen & Seegers, 2009; Weber & Sparks, 2010). By using this approach, researchers can expect to have a high degree of
realism, given that the scenario is applicable, realistic, and appropriate for the participants (Brown, 1962; Carlsmit, Ellsworth, & Aronson, 1976; Kelman, 1968; Schultz, 1969).

There are several advantages in implementing role-playing experiments in this study as noted by Bitner (1990). This experimental approach allows researchers to enhance internal validity since the scenario and the role played by the participants controls any other unobserved variables. Another benefit of role playing experiments is that expensive or difficult manipulation of independent variables can be easily operationalized in the scenario. Moreover, role playing or scenario-based experiment tends to be more time saving in creating the research settings, whereas in real life the situation described in the scenario may take longer period of time. However, these benefits are at the expense of a concurrent loss of external validity since the scenario assumes that there is no other variable affecting the observed variable. In an attempt to minimize some of the trade-off factors, the use of realistic pre-tested scenario and real travelers who were actually in a holiday mood is implemented and this may be helpful to provide an acceptable degree of realism (Carlsmit, Ellsworth, & Aronson, 1976; Bitner, 1990) and hence enhance the external validity (Lynch, 1982).

The type of CGM investigated in this study was online review and ratings. An online review and rating site, also known as online feedback mechanism (Dellarocas, 2003), reputation system (Resnick, Zeckhauser, Friedman, & Kuwabara, 2000), or online merchant rating (Qu, Zhang, & Li, 2008), is an online feedback mechanism which normally includes reviewing and rating the product to indicate its relative performance in comparison to similar offerings. Online review and rating is chosen for this study due to several reasons. First, online review and rating site is one of the most widely used CGM with an estimation of almost 10 million product or company related comments posted on the online sites (Hennig-Thurau et al., 2004). Second, in travel and tourism context, there are numerous online review and rating sites offering extensive information and consumer evaluation about travel-related services; such as TripAdvisor.com, MyTravelGuide.com, Asiarooms.com, or Travelpost.com; and this type of source has been found to be highly trusted by travelers (Yoo, Lee, Gretzel, & Fesenmaier, 2009). Third, it is suggested that more than 40% travelers consult online review sites before deciding on whether to book a hotel room or not, and are willing to pay more to
hotels which gain excellent or 5-star ratings from their guests (Comscore, 2007). Four, since many online stores adopt this feedback mechanism in their websites; such as eBay.com, Amazon.com, Macys.com, or Barnes & Noble; investigating this form of CGM will generate greater managerial implications.

Among various types of travel-related services such as restaurants, attractions, and transportation, this study will focus on accommodation services or hotels. Hotel services are chosen to represent the travel-related activities commented and rated on the Internet based on four reasons; first, hotel and other types of accommodations in one particular area are considered as representing tourism intensity in the area (Potts & Uysal, 1992), second, findings from previous research suggest that travelers perceived online reviews to be more relevant for hotel services than for other travel-related products (Gretzel et al., 2007), third, in the travel decision making process, booking a hotel room will be the first decision to consider once a destination is decided (Pan & Fesenmaier, 2006), and fourth, another research finds “hotel” as the most searched keyword when consumers make travel queries (Xiang & Pan, 2011).

4.3. Manipulation Development

A 2X 3 (between-subjects) factorial experimental design research was implemented in this research. Two variables were manipulated in this study; namely source identity and message valence.

The source identity was manipulated at two levels by providing two types of personal information disclosure. Following Ma and Agarwal (2007), in the disclosed identity condition, the identity of the individual who posted the information was described; which included the individual’s name, location, age group, length of membership, self-picture, and brief explanation about him/herself. In the closed identity condition, there was no explanation at all about the individual who posted the information.
The message valence was manipulated at three levels by providing three types of content orientations of the reviews, namely a positive, negative, and balanced/neutral orientation. In the positive valence condition, the information about the travel-related services designed as the stimuli was all positive and favorable and in negative valence, the information was all negative and unfavorable. In balanced valence, the information presented fairly the positive and negative aspects about the services. The groupings of participants and the experiment treatments are illustrated in Table 4.1

Table 4.1 - Groups of Treatment in the Experiment Study

<table>
<thead>
<tr>
<th>Valence</th>
<th>Source Identity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Identified</td>
<td>Unidentified</td>
</tr>
<tr>
<td>Positive</td>
<td>GROUP 1</td>
<td>GROUP 2</td>
</tr>
<tr>
<td>Negative</td>
<td>GROUP 3</td>
<td>GROUP 4</td>
</tr>
<tr>
<td>Balanced</td>
<td>GROUP 5</td>
<td>GROUP 6</td>
</tr>
</tbody>
</table>

4.3.1. The Development of the Scenario

One scenario was developed for the study. The scenario was purposely set as high involvement situation in order to create a sense of importance of this task, which was expected to make the participants engage in cognitive processing. Moreover, it is necessary to ensure that the situation depicted in the scenario is familiar for the participants so they can give proper response to the experiment.

The scenario explains a situation where the participant is asked to imagine expecting a holiday with friends. The participant is responsible for making plans for the entire trip of this
long-awaited holiday. The destination was not specified to avoid bias in the participants’ prior knowledge, attitude, or preference.

In the development process, the scenario was discussed with 15 PhD students from various academic backgrounds and reviewed by 4 experts in tourism and marketing fields to ensure that the scenario was realistic in describing the situation faced by the participants. The final version of the scenario that was pre-tested in the pilot study is presented below:

For months, you have been talking with your friends about having a holiday at your most desired destination. The plan is for a two-week trip. Finally, the time is right to make it happen. You have taken the responsibility to plan the entire holiday trip, so, all your friends are really depending on you. Everyone will spend a lot of money for this holiday, and therefore expect everything to be perfect.

After an intense search on the Internet, you found that the SUPREME Hotel is one of the alternatives that fit your budget

Now before finally deciding whether to book rooms at this hotel or elsewhere, you want to see what other customers who have stayed at this hotel are saying. Travelmate.com is a travel-related online review site with significant growth in popularity and you want to know what its members say about the SUPREME Hotel. Please read carefully the Travelmate.com members’ online reviews about this hotel posted on the website and answer the questions following each review.

4.3.2. Manipulation of the Online Information

Information investigated in this study is an online review about a given fictitious hotel. Three reviews – positive, negative, and balanced – were designed based on the template of travel-related online review sites which provide travelers’ comments and reviews on thousands of tourism destinations, activities, and travel-related services around the world. Reviews were manipulated in terms of source identity. In one set of reviews, the source identity was identified, and in the other, the review was anonymous. Therefore, there were six sets of review in total following the number of treatment groups as shown in Table 4.1. There were four elements of the review which were designed for this study; namely the homepage of the online review website, the hotel, the reviewer, and the reviews. The manipulation process of each element is explained in the following sections.
4.3.2.1. Manipulation for the Online Review Website

Although the reviews used for this study were constructed based on several online reviews posted in online review sites such as TripAdvisor.com, the name of the online review sites used in the survey instruments was fictitious in order to control participants’ familiarity with the brand of online media used in this study. A generic and authentic sounding name TravelMate.com was chosen. The name was chosen because of its simplicity and similarity to the names of other well-known travel-related online review sites so that the participants can easily understand what kind of information posted in the websites. This website name did not exist at the time of data collection process; however, interestingly, since 2011 this name has been being used for a travel review site. The layout of the web page was created based on the web page of other travel-related online review sites in order to enhance level of realism of the experiment stimuli. The primary color of the webpage was chosen to be a neutral and soft color in order to avoid participants’ focus on processing the information distracted. The example of the web page designed as a stimulus for the experiment can be seen in the questionnaire in the Appendix 1.

4.3.2.2. Manipulation for the Hotel

The brand name of the hotel being reviewed is Supreme Hotel; a purposely generic sounding name in order to reduce bias that would exist by using a specific known hotel chain name. The hotel location is not specified in what city or country and it is only stated as at city centre. These strategies were aimed at enhancing internal validity of the experiment by controlling participants’ previous knowledge, perception, preference, or attitude toward particular hotel brands or particular locations.

The picture of the hotel provided for the manipulation is the picture of a hotel lobby. The picture was carefully chosen so neither identified with any particular hotels nor created participants’ perception about the quality of the hotel prior to reading the online reviews; such as pictures of the guest rooms, the front side of hotel building, the balcony, or hotel facilities.
4.3.2.3. Manipulation for the Reviewer

CHRIS was chosen as the name of one of the reviewers. The name was chosen based on the criteria that (1) the name should be a unisex name in order to avoid gender bias in the response from participants, and (2) the name should be widely used in order to enhance the level of realism of the stimuli. The name CHRIS is a unisex name that was popularly used as a nick name for both male and female names; such as Christopher, Christian, or Christine. The reviewer CHRIS’ age group chosen was to be 25-34 in order to create a sense of similarity between participants and the reviewer. Moreover, the information about reviewer also includes his/her self-picture. Although the reviewer’s picture was provided in the review, it was carefully chosen so it would not be associated with any particular gender either. This strategy was aimed to avoid gender bias in participants’ responses.

Furthermore, information about the reviewer CHRIS’ identity was created to show some extent of personality of the reviewer without providing any information about the reviewer’s preference about travel-related activities. The identity information of the online information source or reviewer provided for the experiment manipulation was the reviewer’s name, residing location, age group, membership length, place of birth, education background, and his/her favorite music, leisure activities, and hobbies. The identity created was expected to show the reviewer as an ordinary person with common hobbies or leisure activities, and were at the similar age group with the participants. The description about CHRIS included in the web site was presented in the Appendix A-3. The description about CHRIS was a manipulation for the identified online information source. The other manipulation was for unidentified source which did not provide any information about the source identity. Figure 3.3 presents the example of the description of the online review source for unidentified source.

4.3.2.4. Manipulation for the Review

The information or the online review was the most important part of the experiment and therefore its manipulation was carefully developed. As discussed prior, there were two
elements of the message that was crafted for this study, namely the hotel attributes to be reviewed and the content of the review.

To decide what hotel attributes needed to be featured in the manipulation for the experiment, there were 842 hotel reviews randomly selected from online review sites TripAdvisor.com to be analyzed to understand what hotel attributes were commonly commented and discussed in online review sites. Based on the finding of the analysis of those selected reviews, seven hotel attributes are chosen to be treated as the stimuli manipulated for the experiment. Those seven attributes are (1) general comments and recommendation statements about the hotel’s value, (2) the quality of the lobby, the bed, the bathroom, and the balcony, (3) the speed of check-in process, (4) the staff’s English proficiency, service quality, and knowledge about localities, (5) hotel’s accessibility and proximity to amenities, (6) the quality of meals, and (7) hotel’s facility.

In order to ensure that the reviews developed for this study were fairly equivalent and comparable, the reviews should contain all seven hotel attributes explained above with different yet comparable evaluation. For example, if for positive identified review it was mentioned that “this hotel gave me one of the best hotel experiences so far”, then for negative and balanced reviews the statements should be comparable, like “the hotel gave me one of the worst hotel experiences so far” and “this is not the best offer compared to other hotels within its area, but it’s not too bad”. More examples of comparable statements in the stimuli are presented in Table 4.2. This strategy was expected to not only control the content balance of all the reviews, but also confirm the balance of their length so that all six reviews were fairly comparable. The complete questionnaire is presented in the Appendix 1.

<table>
<thead>
<tr>
<th>Example 1</th>
<th>Our rooms were nice and comfy (Positive)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Our rooms were poor and uncomfortable (Negative)</td>
</tr>
<tr>
<td></td>
<td>Our rooms were small but comfy (Balanced)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Example 2</th>
<th>So, I really recommend this hotel when you need to stay in this city (Positive)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>So, I really recommend you not to stay at this hotel when you are in this city (Negative)</td>
</tr>
<tr>
<td></td>
<td>So, I think this hotel is not a bad alternative when you need to stay in this city (Balanced)</td>
</tr>
</tbody>
</table>
4.4. Manipulation Checks

In this study, participants were required to imagine themselves in the situation provided in the scenario and then answer the questions based on two pre-designed online reviews presented in the questionnaire. To avoid bias in the result of this study, it was crucial to ensure that the scenario and the stimuli (the reviews) are perceived to have high level of realism (Wilson & McNamara, 1982). Therefore, realism and manipulation checks were performed. The realism checks were conducted for the scenario and the reviews used for this study in order to ensure that the realism of both the situation presented in the scenario and the appearance of the reviews. The realism of scenario and the appearance of the online review site were checked through two-item Likert-scale questions adapted from prior studies (Mattila, 2010; Gelbrich, 2010). The sample questions are presented in Table 4.3.

Table 4.3 – Check for the Scenario Realism/Online Review Site Webpage

| For me, the situation/online review site webpage used in this questionnaire is realistic | 1 = Strongly Disagree, 7 = Strongly Agree |
| For me, the problem/online review site webpage features used in this questionnaire is realistic | 1 = Strongly Disagree, 7 = Strongly Agree |

The manipulation for the source identity was checked through 7-items Likert-scale questions. Similar manipulation check questions used in previous studies such as Coyle and Thorson (2001) and Thomas, Vitell, Gilbert, and Rose (2002) were adopted. The question items are presented in Table 4.4. The manipulation for information valence was checked through two items Likert-scale questions. Similar questions were used to check the valence manipulation in previous studies; including Maheswaran & Meyers-Levy (1990), and Jain & Posavac (2004). The question items are presented in Table 4.5.
### Table 4.4 – Manipulation Check for the Source Identity

<table>
<thead>
<tr>
<th>Statement</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>The review includes the identity of the reviewer</td>
<td>1 = Strongly Disagree, 7 = Strongly Agree</td>
</tr>
<tr>
<td>The review includes the self-description of the reviewer</td>
<td>1 = Strongly Disagree, 7 = Strongly Agree</td>
</tr>
</tbody>
</table>

### Table 4.5 – Manipulation Check for the Information Valence

<table>
<thead>
<tr>
<th>Statement</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>The review is favorable to the SUPREME hotel</td>
<td>1 = Strongly Disagree, 7 = Strongly Agree</td>
</tr>
<tr>
<td>The review is positive to the SUPREME Hotel</td>
<td>1 = Strongly Disagree, 7 = Strongly Agree</td>
</tr>
</tbody>
</table>

### 4.5. Measurement Scales

Online media perceived credibility has been measured in several ways and previous studies suggest that how credibility is measured affects the degree to which individuals evaluate the media as credible (Gaziano & McGrath, 1986). There are five indicators that consistently emerge in previous researches; namely accuracy, believability, bias, completeness, trustworthiness (Austin & Dong, 1994, Flanagin & Metzger, 2000, 2007, Gaziano, 1988, Meyer, 1988, Metzger et al., 2003, Newhagen & Nass, 1989, Rimmer & Weaver, 1987, West, 1994). For this study, subjects were asked to rate on a 7-point Likert scale whether the online reviews provided were accurate, believable, biased, complete, and trustworthy. The scale was adapted from Flanagin & Metzger (2000) which was originally developed by West (1994).

The concept of trust has been studied extensively. The participants were asked to answer 5 questions and rate them on a 7-point Likert scale about the trustworthiness and representativeness of the hotel being reviewed, as well as overall trust, beliefs, and
confidence in the hotel. Each of the questions anchors of agreement and disagreement for each scale point. The online trust scale used in this study was developed by Bart et al. (2005) measuring trust determinants, trust, and behavioral intention and used in their study to investigate 25 websites from 18 most popular categories.

Furthermore, to evaluate risk propensity, participants were asked to determine their likelihood to perform some actions stated in the questionnaire. An existing 5-item test designed to assess risk propensity adapted from Meertens and Lion (2008) was used for this study. The scale used in this study measures individual’s tendency to take risks in everyday life. This scale combined the items from the Everyday Risk Inventory (Stekete & Frost 1994), the Sensation Seeking Scale (Madsen, Das, Bogen, Grossman 1987), and the scale five choices between a sure and gamble thing (Schneider & Lopes 1986).

Internet experience was measured using five indicators, namely Internet use, experience, expertise, familiarity, and access. The respondents were asked to respond to statements which represent the indicators on a 7-point Likert-type scale. This measurement scale was adapted from the study of Flanagin and Metzger (2000). The study by Gilly et al. (1998) developed the original scale to test the effect of similarity. The scale used in this study measured perceptual similarity and did not measure demographic similarity.

Finally for online purchase intention, the subjects were asked to indicate their willingness to book the hotel in the scenario, their likelihood to make a reservation, and the probability of considering the hotel in the scenario when they need to make a hotel reservation. The five measurement items were adapted from the items used by Dodds et al., (1991).

4.6. Instruments of Measurement

A scenario-based self-administered questionnaire was used for data collection containing scenario scripts and a set of questions pertaining to the variables of interest. The entire questionnaire can be seen at Appendix 1. The utilization of scenario scripts was aimed to get the participants highly involved in an assignment, to invoke a strong identification with one
specific travel-related CGM and one specific travel-related service provider, and to expose the participants to reviews about the service provider.

Instruments for the experiments adhered to basic notions of appropriate question design and sequence (Iaobucci & Churchill 2009). Questionnaire items pertaining to travelers’ characteristics were placed at the beginning and items relating to demographic profiles of the participants were placed at the end of the questionnaire. Questions pertaining to the scenario were placed immediately after each scenario resulting in a logical sequence. Detailed instructions were clearly provided for the completion of specific questions and were amended when there was a change in question format. All items were close-ended questions facilitating ease of data entry process. All questions relating to dependent variables and manipulation checks were rated on 7-point bipolar scales. The rating scale was adopted for this study due to its advantageous according to Oppenheim (1992) in terms of its effortless to administer, simplicity for the participants to understand, reduction in time needed to complete the questionnaire.

Questionnaire length is another important factor that has an impact on initial response and final completion rate (Iaobucci & Churchill, 2009). A lengthy questionnaire may result in participant exhaustion, causing the participants to pay less attention to the items at the end of the survey or leading them to answer the questions improperly. The length of the questionnaire was a specific concern for this study as it contained more than one scenario in one instrument paper to accommodate the research objectives. Additionally, there were various dependent variables that had to be measured in this study. This issue was solved by paying much attention on the design of questionnaire presentation. Particular attention was given to developing paper-based instruments with a user-friendly appeal that were easy to complete in a short time. In this study, a paper-based questionnaire was developed with an extensive use of color and shading and variability of how the questions were presented.
4.7. Participants

Young people aged 19-33 from different countries who were enjoying their holiday in Bali, Indonesia recruited as participants for this study. The participants were recruited at several popular tourist attractions and other public spots in Bali.

Bali was chosen as the location of data collection based on the main consideration that Bali is well-known as one of the most popular and visited holiday destinations in the world. International travel consumers from many countries are available almost everywhere in Bali due to its popularity as a holiday destination. This situation supported the needs of the research to involve large number of international travel consumers from various demographic and psychographic backgrounds as participants in this study. Another reason is the fact that holiday activities in Bali mostly involve relaxed doings such as beach sunbathing, enjoying small conversations at the coffee houses, pubs, and beaches, or having window shopping at art shops or traditional markets. Approaching target participants while they are in a relaxed atmosphere enhances the likelihood of acceptance of the request to participate in this study.

Instead of involving student sample like many studies in marketing and consumer research conducted previously, this research involves real travelers as participants in the experiment. The strategy of using real travelers (non-student sample) was based on the finding from previous studies that most of criticism in experimental research deals with the use of participants who were considered as not representative of the real population (Voracek, 2001; Cunningham, Anderson, & Murphy, 1974; Soley & Reid, 1983; Enis, Cox, & Stafford, 1972; Roering, Schooler, & Morgan, 1976; Burnett & Dunne, 1986). By involving real travelers, it was expected that the adequate level of population representativeness in this study could be achieved. Another reason is the fact that findings from previous studies suggest that the use of students as participants in consumer research may not be appropriate under all circumstances (Yavas, 1994) as it may bias the results (Peterson, 2001). In this study, participants were expected to have some level of familiarity and experience in travel planning and decision making in order to be able to involve emotionally and cognitively in the situation depicted in the scenario. The final reason is because this
research attempts to achieve high level of external validity in order to generalizable. To achieve good external validity, it is suggested that real people are involved to participate in the research. Conducting research with only student participants lacks external validity and weakens the examination of the conceptual framework (Calder, Phillips, & Tybout, 1982). Furthermore, Lynch (1982) also cites Ferber (1977)'s arguments against the use of student sample which mentions that there is no statistical grounds for generalizing experimental research conducted by the convenient use of student participants.

Young travel consumers aged 19-33 were recruited as participants for this study because people from the age range were considered as good representation of Generation Y consumers; which were born between 1977 and 1994 (Engebritson, 2004, Paul, 2001, Morton, 2002, Noble, Haytko, & Phillips, 2009). This strategy of choosing Generation Y as the basic population was decided based on several reasons. First, Generation Y is now believed to be one of the largest generations in history with high level of purchasing power (Janoff, 1999; Gardyn, 2002; Kennedy, 2001; Maciejewski, 2004). In the year 2011, the Generation Y population was more than 40% of total world population (Welles, 1999). Generation Y has been predicted to have purchasing power of more than $600 billion a year (Kennedy, 2001) and has spent $153 billion in 1999 (Morton, 2002). This generation is also considered as having more disposable money than any teen group ever (Morton, 2002). It is predicted that in the near future, the Generation Y will eventually be the most powerful generation in the world (Neuborne & Kerwin, 1999). In their study, Stanton, Stanton, Kirkham, and Pyne (2001) explain the significant influence and high level of activity of Generation Y consumers in the market which justify the importance of focusing this study on Generation Y. Another reason is the fact that Generation Y has distinctive psychographical characteristics compared to other generations. Wolburg and Pokrywcynski (2001) mention that consumers from Generation Y tend to be more educated, grown in a media-saturated environment, informative, trend-setters, and early adopters. Therefore, they are commonly familiar with new technology and the Internet (Fernandez-Cruz, 2003; Porter & Donthu, 2006; Stone et al., 2001) and less likely to be misled by marketing information (Shavitt, Lowrey, & Haefner, 1998). These characteristics make Generation Y consumers appropriate to be the population for this study since scenario-based experimental research
was found to be more successful when the scenario used is something familiar to the participants.

4.8. Ethics Approval

How the research subjects are treated during the participation in the study and how the data maintains confidential must be considered. For that reason, prior to conducting the data collection, it was necessary to ensure the research process follows the general principles of research ethics; which are (1) participation is totally voluntary, (2) anonymity and confidentiality should be maintained, (3) no harm should befall the research participants during or after the participation (Graziano & Raulin, 2004; Ticehurst & Veal, 2000; Babbie & Wagenaar, 2006).

The research undertaken for this dissertation was approved by Curtin University's Human Research Committee on August 2009. In accordance with the National Statement of Ethical Conduct in Research involving Humans, all participation was voluntary and participants in the study need to be asked for approval or consent. The participants’ consent to participate in this study was indicated by their willingness to complete this questionnaire. The nature and purpose of the research was explained to the participants before they started to fill in the questionnaire. The data collected during the study has been kept confidential and used for academic purposes only.

4.9. Pre-Test & Pilot Study

In order to lay a correct and strong foundation for the research and to explore the appropriate research design and implementation, a pre-test and a pilot study were conducted. Perdue and Summers (1986) suggested that while pre-test applies to activities designed to evaluate the appropriateness of selected elements of the experiment
procedures and/or instruments, pilot study refers to those activities involving research subjects to the total experimental experience which is designed to be similar with the experience in the main experiment.

Following recommendation from Perdue and Summers (1986), manipulation and realism checks in this study were undertaken before the main experiment; which was during the pre-test and the pilot study. The strategy was chosen based on several reasons. First of all, the questionnaire designed for the experiment had two stimuli (the valence and source identity) and a number of question items in three parts that needed to be answered by the participants. Adding questions for manipulation and realism checks will lengthen the completion time and it will decline the willingness of the target participants to take part in this study. Another reason is that finding negative results about the experiment manipulations will cost less when it is found at early stage. When an unexpected negative result occurs during the pre-test and/or pilot study, the experiment design can be modified before the main experiment. Conversely, when the need for modifying the design is found during or after the main experiment, the costs incurred will be significant for the extra time and effort spent for refining the design, rerunning additional pre-test and pilot study, and repeating the main experiment. The issue is an important concern especially for an experiment study involving several and/or complicated manipulations as found in this research.

4.9.1. Pre-Testing the Research Instruments

The pre-tests were undertaken on November 2009 to examine the preliminary version of the research instruments. It is valuable to ensure that the manipulation and design of the experiment instruments are responded by the participants as intended (Perdue & Summers 1986). For this study, two stages of pre-test were conducted.

The first pre-test was undertaken on first week of November 2009. There were 8 PhD students from several universities in Western Australia and from various academic backgrounds. The first pre-test was aimed to obtain feedback and suggestions should there
be any major issues with the questionnaire and the manipulation design that need to be solved before the questionnaire was distributed for a larger size pilot study.

There were several issues revealed during the first pre-test. The questionnaire was perceived as not convenient to read because of the font type used. The earlier version of the layout made the questionnaire seemed too long. Moreover, the early version of the scenario did not clearly and explicitly control the involvement level of the task which has led to bias. However, there was no issue raised about the online review site webpage, hotel information, the review, and the reviewer manipulation.

To address the problems revealed in the first pre-test, some revisions were made. The font type was changed and the layout was refined as well in order to provide more enjoyable and convenient questionnaire. Moreover, the scenario was redeveloped by adding more sentences to specify and clarify the involvement level of the task. After refining the research instruments, the second pre-test was conducted.

The second pre-test was undertaken on second and third week of November 2009. It involved 39 international students undertaking their doctoral study in Perth, Australia. The number of participants in the pre-test followed the suggestion that the size of the pilot group may range between 25-100 subjects (Cooper & Schindler, 1998). No significant issue was encountered in the second pre-test. Satisfying results in the second pre-test confirmed that the research instrument was appropriate for the main survey.

4.9.2. Pilot Study

Pilot test is an important part of developing questionnaire (Oppenheim, 1992). Conducting small-scale trial-runs of a larger survey is valuable in identifying any problems regarding the research instruments (Veal, 2005) since the pilot test is aimed at ensuring reliability and validity of the survey (Finn, Elliott-White & Walton, 2000). Moreover, a pilot study is beneficial for (1) testing questionnaire wording, (2) testing question sequencing, (3) testing questionnaire layout, (4) testing fieldwork arrangements, (5) training and testing the fieldworkers, and (6) estimating questionnaire completion time (Ticehurst & Veal, 2000).
The pilot study was undertaken during the last week of November 2009 and the first two weeks of December 2009. It involved 153 international travelers in Perth, Australia. International travelers were chosen to be the pilot study participants following suggestion that research participants in the pilot study should have similar characteristics with the target participants for the main survey (Perdue & Summers, 1986). Similar characteristics refer to the target participants’ age range (born between 1977-1994), multinational backgrounds, and situation when the participants were approached (holidaying). Convenience sampling was implemented in the pilot study. The number of participants in the pilot study followed the suggestion that the size of the pilot group may range between 25-100 subjects (Cooper & Schindler, 1998). It took 15-20 minutes on average for participants to complete the questionnaire.

In the second pilot study, manipulation and realism checks were conducted as well as reliability analysis of the questionnaire items to make sure that the research instrument was ready to use for the main study. The results of manipulation and realism checks and reliability analysis conducted in the pilot study are presented in the next chapter.

4.10. Data Collection Procedures

An on-site convenience sampling survey with a self-administered questionnaire was implemented in this study. It was considered as the most appropriate technique for data collection since the questionnaire used in this study contained numerous questions. On-site survey also allows the researcher to visually confirm the characteristics of respondents required for the study; such as age or gender group (Baines & Chansarkar, 2002). By using on-site survey, a large number of questionnaires can be distributed rapidly and efficiently (Alreck & Settle, 1995; Jennings, 2001). Moreover, on-site survey has been widely adopted in research on tourism (Veal, 2005) as it can be seen from a number of previous studies by Pizam & Jeong (1996), Chen & Hsu (2000), Chen (2001), Bigne, Sanchez, & Sanchez (2001), Beerli & Martin (2004), Kim & Petrick (2005), Lee, Lee, & Lee (2005), and Zabkar, Brencic, Dmitrovic (2010) among many others.
Data for this study was collected from January to September 2010. Participants of this study were 1939 travel consumers holidaying in Bali, Indonesia. The participants were approached at several popular tourism destinations and other public spots there by the surveyors. After approving to participate in this study verbally, they were informed about the context of the research setting without identifying the specific research interests being investigated. They were also advised that the research was governed by Curtin University research ethics guidelines. Moreover, it was also informed that as an appreciation for participation, a small yet unique Indonesian traditional souvenir was provided for each participant after completing the questionnaire. Providing small incentives are suggested by Luck and Rubin (1987) to encourage participants in the survey to respond well to the questionnaire. During the onsite survey, each participant received a research booklet containing exactly the same questions. They were also exposed to the same scenario and one of the six reviews. The different treatment was allocated to the participants by random assignment.

There were three sections in the questionnaire. After answering questions about risk propensity, Internet use motivation, and Internet expertise in the Section 1, participants were asked to imagine themselves in a scenario of information search for one particular hotel. In the scenario, participants imagined themselves in a situation where they needed to find a hotel. They were exposed to one particular hotel which suited to their requirements. Then, participants were exposed to the one of the six reviews prepared for the experiment. After reading the review, the participants were asked to complete the questionnaire by answering items on perceived credibility of the information or reviews, their online trust, and their purchase intention. Finally, in the Section 3, they were asked to provide their demographic information and some basic information. All tasks were performed by participants under the surveyors’ supervision. All 1939 participants returned the booklet at the end of the survey. Completion time was averagely 15 minutes.
4.11. Analytical Techniques

The data in this study was analyzed using various statistical techniques using SPSS version 18. The first six hypotheses were assessed by examining the data using Regression Analysis. Regression Analysis was used because the six hypotheses were proposed to measure the causal relationships between independent variables and dependent variables (Field, 2009). The next six hypotheses and eleven research questions were tested using independent samples t-test and one-way between group analysis of variance (ANOVA). The t-test and ANOVA were used because the next six hypotheses and the research questions were proposed to investigate the roles of independent variables consisted of two (t-test) and more than two (ANOVA) participant groups (Field, 2009).

According to Hair, Black, Babin, and Anderson (2009), key assumptions for ANOVA are that (1) the dependent variables are measured on a scale, (2) the research subjects or participants are independent, and (3) there is homogeneity of error variance for the dependent variable across different conditions. Furthermore, ANOVA is vigorous to violations of normality assumption when the sample size is similar across different conditions and greater than n=12. The greater the sample size, the lower the impact of abnormal data on the F-statistic (Field, 2009). In this study, sample sizes were similar across the six conditions and the lowest sample size for a condition is n=300, therefore the impact of abnormal data on the tests were reduced.

The first assumption for ANOVA is that the dependent variable is measured using a scale. In this study, the dependent variables were measured using established scales. The second assumption for ANOVA is that there is independence of observations. In this study, the independence was obtained by randomly assigning the participants to one of the six treatments and having them complete the questionnaire without any influence from other participants. The third condition for ANOVA is about the homogeneity of variance and the equality of variance-covariance. Homogeneity of variance was examined using Levene’s test of equality of error variance. The equality of variance-covariance was tested and reported in the Box’s test of equality of covariance matrices. Both results were reported in the next chapter.
CHAPTER 5

ANALYSIS & FINDINGS

5.1. Overview of Research Findings

Chapter 5 presents the analysis and findings based on the hypotheses and research questions developed in Chapter 3 using the methodology discussed in Chapter 4. The findings are presented in six sections. After the overview, the second section describes demographic profile of participants. The third section presents the results of realism and manipulation checks for the stimuli used in the experiment. Reliability of measurement items employed in this study is discussed in the fourth section. The fifth section reports the results of main study and followed by the sixth section which is conclusion of the chapter. To reiterate the focus of the study, the study seeks to address these following objectives:

1. To investigate the relationships among risk propensity, Internet experience, information quality, similarity, credibility of online information, trust, and purchase intention

2. To examine the main effects of source identity on the relationships between risk propensity, Internet experience, information quality, similarity, credibility of online information, trust, and purchase intention

3. To elucidate the main effects of information valence on the relationships between risk propensity, Internet experience, information quality, similarity, credibility of online information, trust, and purchase intention

4. To explicate the interaction effects of source identity and information valence on the interaction between risk propensity, Internet experience, information quality, similarity, credibility of online information, trust, and purchase intention
5.2. Profile of Research Participants

Descriptive analysis was performed to examine the characteristics of the research participants as well as the Internet usage and information search behavior in general. Demographic information was collected in the fieldwork on gender, age, occupation, and country of origin of participants.

There were 1939 fully completed questionnaires used in the data analysis. Both male and female participants were fairly represented in this study; with male participants accounting for 51.8% and female participants 48.2% of total participants. The fair representativeness of both gender types in this study is expected to overcome the possible gender effect on the participants’ responses as predicted by Weibel, Wissmath, and Groner (2008).

Research participants were aged between 19 and 33 years. Most of them were between 23 and 25 years of age (36.1%) followed by participants between 19 – 22 years of age (36.0%) and participants between 26 and 33 years of age (27.9%). Following prior studies (Engebretson, 2004; Morton, 2002; Noble, Haytko, & Phillips, 2009, Paul, 2001), the age range of participants was considered representative of Generation Y which had been decided to be the target group in this study. Most participants involved in this study were workers (54.5%), followed by students (36.9%), self-employed (7.0%), and unemployed (1.5%).

In terms of country of origin, participants were originated from 31 countries in the world. As is evident, a majority of the participants is Australians (16.2%), followed by participants from Indonesia (8.4%), China (5.7%), Germany (5.4%), and USA (5.1%), and from 26 other countries worldwide (59.2%). After the countries were grouped based on the World Tourism Organization region, Table 5.1 reports that there are four regions where the participants came from; namely Asia (39.35%), Europe (35.12%), America (6.66%), and Oceania (18.87%).

This demographic profile of participants indicates good representativeness of international travel consumers from Generation Y which has been previously proposed. A summary of the descriptive profile of the participants is presented in Table 5.1.
<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male participants</td>
<td>1,004</td>
<td>51.8%</td>
</tr>
<tr>
<td>Female participants</td>
<td>935</td>
<td>48.2%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,939</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Group</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>19 – 22 years of age</td>
<td>698</td>
<td>36.0%</td>
</tr>
<tr>
<td>23 – 25 years of age</td>
<td>700</td>
<td>36.1%</td>
</tr>
<tr>
<td>26– 33 years of age</td>
<td>541</td>
<td>27.9%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,939</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>716</td>
<td>36.9%</td>
</tr>
<tr>
<td>Self-employed</td>
<td>136</td>
<td>7.0%</td>
</tr>
<tr>
<td>Professional worker</td>
<td>656</td>
<td>33.8%</td>
</tr>
<tr>
<td>Skilled worker</td>
<td>401</td>
<td>20.7%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>30</td>
<td>1.5%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,939</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country of Origin</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>763</td>
<td>39.35%</td>
</tr>
<tr>
<td>America</td>
<td>129</td>
<td>6.66%</td>
</tr>
<tr>
<td>Europe</td>
<td>681</td>
<td>35.12%</td>
</tr>
<tr>
<td>Oceania &amp; Pacific</td>
<td>366</td>
<td>18.87%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,939</td>
<td>100%</td>
</tr>
</tbody>
</table>

Based on further analysis conducted on the behavioral profile of the participants, it was found that the most participants have adequate level of Internet exposure for travel-related purposes. Most participants used the Internet extensively for price comparison of travel-related purposes.
related offerings (71.3%) and only a few who had never or rarely performed this role (3.5%). It was also reported that most participants (78.6%) read online opinion from other travel consumers when they intend to make a reservation; almost all participants (97.9%) were also likely to read online reviews. Moreover, when planning to make a reservation, travel websites were frequently visited by most participants (79.6%). Meanwhile, most participants (66.9%) reported that they had great experience in making online reservations, and only a few (3.6%) that never made an online reservation.

Moreover, it was also found that most participants (70.2%) considered themselves as being knowledgeable about traveling. It is also reported that most participants (63.1%) perceived themselves as being influential on other people’s travel-related decisions. Not surprisingly, most participants (77.5%) perceived that their friends saw them as a good source of travel information.

Furthermore, external sources of information, such as articles or reviews in newspapers or advertising materials, were considered as important or very important by most participants (46%), while 12.4% of participants perceived the external sources as the most important information source for their planning and decision making. Most participants (60%) thought that their own first-hand experience was an important source of information. Meanwhile, interpersonal sources of information, such as opinions from friends, relatives, family, or fellow travel consumers, were deemed important or very important by most participants (66%), and 11.8% of participants considered it as the most important information source for their travel-related decisions.

These results indicate good representativeness of participants as international travel consumers with adequate level of Internet and travel experiences who mostly consider the high importance of interpersonal sources of information for their travel-related decisions. Summary of descriptive profile of the participants is presented in the Appendix 2.
5.3. Realism & Manipulation Checks

As indicated in Table 5.2, the participants found the problem and situation in the scenario used in the study realistic ($M=5.52, SD=.502$) and believable ($M=5.43, SD=.498$). Table 5.3 also confirmed that the webpage ($M=5.06, SD=.475$) and features ($M=5.18, SD=.479$) on the online review site used in this study were deemed realistic by the participants.

<table>
<thead>
<tr>
<th>Realism Check Items</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>For me, the situation that was described to me was realistic</td>
<td>5.52</td>
<td>0.502</td>
</tr>
<tr>
<td>For me, the problem that was described to me was believable</td>
<td>5.43</td>
<td>0.498</td>
</tr>
</tbody>
</table>

Note: All items were measured on a 7-point scale with a value of 1 indicating strong disagreement and a value of 7 indicating strong agreement

<table>
<thead>
<tr>
<th>Realism Check Items</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>For me, the online review site webpage that was exposed to me was realistic</td>
<td>5.06</td>
<td>0.475</td>
</tr>
<tr>
<td>For me, the features on the online review site webpage that was described to me was realistic</td>
<td>5.18</td>
<td>0.479</td>
</tr>
</tbody>
</table>

Note: All items were measured on a 7-point scale with a value of 1 indicating strong disagreement and a value of 7 indicating strong agreement

Checks confirmed that manipulations for source identity and information valence were successful, as shown in Table 5.4 and Table 5.5. Participants exposed with identified source material rated identity ($M=5.18, SD=.441$), name ($M=5.18, SD=.441$), self-picture ($M=5.22, SD=.511$), and personal description ($M=5.22, SD=.422$) of the source significantly higher ($t(1937)=34.07, p<.001$) than identity ($M=5.18, SD=.441$), name ($M=5.18, SD=.441$), self-picture ($M=5.22, SD=.511$), and personal description ($M=5.22, SD=.422$) of the unidentified source. Participants deemed positive review the most positive and most favorable, while negative review is perceived as the least positive and least favorable. The differences in review favorability ($F(2,1936)=469.028, p<.001$) and positivity ($F(2,1936)=726.078, p<.001$) are significant.
### Table 5.4 – Manipulation Check Result for Source Identity

<table>
<thead>
<tr>
<th>Manipulation Check Items</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>The online review that was exposed to me included the identity of the reviewer</td>
<td>5.18</td>
<td>0.441</td>
<td>21.062**</td>
</tr>
<tr>
<td>Identified Source</td>
<td>2.04</td>
<td>0.944</td>
<td></td>
</tr>
<tr>
<td>Non-Identified Source</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The online review that was exposed to me included the name of the reviewer</td>
<td></td>
<td></td>
<td>38.454**</td>
</tr>
<tr>
<td>Identified Source</td>
<td>5.18</td>
<td>0.441</td>
<td></td>
</tr>
<tr>
<td>Non-Identified Source</td>
<td>1.38</td>
<td>0.531</td>
<td></td>
</tr>
<tr>
<td>The online review that was exposed to me included the self-picture of the reviewer</td>
<td></td>
<td></td>
<td>25.711**</td>
</tr>
<tr>
<td>Identified Source</td>
<td>5.22</td>
<td>0.511</td>
<td></td>
</tr>
<tr>
<td>Non-Identified Source</td>
<td>1.58</td>
<td>0.846</td>
<td></td>
</tr>
<tr>
<td>The online review that was exposed to me included the description of the reviewer</td>
<td></td>
<td></td>
<td>36.838**</td>
</tr>
<tr>
<td>Identified Source</td>
<td>5.22</td>
<td>0.422</td>
<td></td>
</tr>
<tr>
<td>Non-Identified Source</td>
<td>1.44</td>
<td>0.580</td>
<td></td>
</tr>
</tbody>
</table>

Note: All items were measured on a 7-point scale with a value of 1 indicating strong disagreement and a value of 7 indicating strong agreement, ** = significant at the 0.001 level

### Table 5.5 – Manipulation Check Result for Information Valence

<table>
<thead>
<tr>
<th>Manipulation Check Items</th>
<th>Mean</th>
<th>SD</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>The review was favorable to the Supreme Hotel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Review</td>
<td>6.63</td>
<td>0.52</td>
<td>469.028**</td>
</tr>
<tr>
<td>Negative Review</td>
<td>2.00</td>
<td>1.05</td>
<td></td>
</tr>
<tr>
<td>Balanced Review</td>
<td>4.03</td>
<td>0.87</td>
<td></td>
</tr>
<tr>
<td>The review was positive to the Supreme Hotel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Review</td>
<td>6.47</td>
<td>0.59</td>
<td>726.078**</td>
</tr>
<tr>
<td>Negative Review</td>
<td>1.47</td>
<td>1.21</td>
<td></td>
</tr>
<tr>
<td>Balanced Review</td>
<td>4.24</td>
<td>0.64</td>
<td></td>
</tr>
</tbody>
</table>

Note: All items were measured on a 7-point scale with a value of 1 indicating strong disagreement and a value of 7 indicating strong agreement, ** = significant at the 0.001 level
5.4. Reliability Analysis

Reliability analysis was performed to examine the internal consistency of each item variable measurement scale. Cronbach’s alpha coefficient is used as the indicator of reliability as it is one of the most commonly adopted indicators for internal consistency and reliability (Coakes 2009). The Cronbach’s alpha score 0.70 is commonly regarded as the standard cut-off point for reliability or internal consistency (Nunnally, 1978) or 0.6 for exploratory research (Hair, Black, Babin, & Anderson, 2009). However, Field (2009) suggests that the exact magnitude of an estimate may vary depending on the research purposes and the use of the scores. In early stages of research on predictor tests or hypothesized measures of a construct, Cronbach’s alpha of 0.50 or 0.60 is considered sufficient (Nunnally, 1978 p.226).

The test scores presented in Table 5.6 show that all measurement scales adopted in this study are at acceptable levels of reliability. All the scales are reported to be reliable with Cronbach’s alpha score 0.7 and above (Nunnally, 1978). The complete result of the Reliability Analysis presenting all question items used for each scales is reported in the Appendix 3.

<table>
<thead>
<tr>
<th>Measurement Scale</th>
<th>Number of Item</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Propensity</td>
<td>7</td>
<td>.964</td>
</tr>
<tr>
<td>Internet Expertise</td>
<td>5</td>
<td>.742</td>
</tr>
<tr>
<td>Information Quality</td>
<td>6</td>
<td>.799</td>
</tr>
<tr>
<td>Similarity</td>
<td>4</td>
<td>.701</td>
</tr>
<tr>
<td>Credibility</td>
<td>5</td>
<td>.746</td>
</tr>
<tr>
<td>Trust</td>
<td>5</td>
<td>.873</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>5</td>
<td>.790</td>
</tr>
</tbody>
</table>
5.5. Results of Main Study

5.5.1. Objective One: Relationships of Risk Propensity, Internet Experience, Information Quality, Similarity, Credibility, Trust, and Purchase Intention

The first four hypotheses hold that risk propensity, Internet experience, information quality, and perceived similarity affect information credibility. In order to test these hypotheses, credibility was regressed on the independent variables.

\[ H1a: \text{Risk propensity will positively affect information credibility}, \]
\[ H2a: \text{Internet experience will positively affect information credibility}, \]
\[ H3a: \text{Information quality will positively affect information credibility}, \]
\[ H4a: \text{Perceived similarity will positively affect information credibility}, \]

As summarized in Table 5.7, the overall multiple regression model is found to be significant (\( R^2_{\text{adj}} = .448 \)), \( F(4,1934) = 349.9, p<.001 \). Risk propensity (\( \beta = -.114, t = -6.337, p<.001 \)), information quality (\( \beta = .290, t = 11.799, p<.001 \)), and similarity (\( \beta = .385, t = 15.886, p<.001 \)) are deemed significant predictors of participants’ perception of credibility. However, Internet expertise (\( \beta = .017, t = .956, p>.005 \)) does not have a significant influence on credibility. In conclusion, risk propensity, information quality, and similarity have significant positive effects on credibility, while Internet experience is found not to be significant. Therefore, hypotheses 1a, 2a, and 4a are supported, and hypothesis 3a is rejected.

<p>| Table 5.7 – Regression Analysis Result for Factors Influencing Information Credibility |
|----------------------------------|--------|------|------|</p>
<table>
<thead>
<tr>
<th><strong>Independent Variables</strong></th>
<th><strong>Standardized Coefficients</strong></th>
<th><strong>Adjusted ( R^2 )</strong></th>
<th><strong>F-value</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Propensity</td>
<td>.114**</td>
<td>.448</td>
<td>394.900**</td>
</tr>
<tr>
<td>Internet Expertise</td>
<td>.017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Quality</td>
<td>.290**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Similarity</td>
<td>.385**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: ** = Regression is significant at the 0.001 level*
These next four hypotheses suggest that individuals’ risk propensity, individuals’ Internet experience, information quality, and similarity affect trust. In order to test these hypotheses, multiple regression analysis was performed to examine how trust was affected by risk propensity, individuals’ Internet experience, information quality, and similarity.

\[ H1b: \text{Risk propensity will positively affect trust} \]
\[ H2b: \text{Internet experience will positively affect trust} \]
\[ H3b: \text{Information quality will positively affect trust} \]
\[ H4b: \text{Perceived similarity will positively affect trust} \]

As shown in Table 5.8, the overall multiple regression model is found to be significant \((R^2_{adj} = .448)\), \(F(4,1934) = 207.14, p<.001\). Risk propensity \((\beta=-.063, t=-3.083, p<.01)\), information quality \((\beta=.397, t=14.33, p<.001)\), and perceived similarity \((\beta=.155, t=5.663, p<.001)\) are also found to be significant predictors of participants’ trust. However, the effect of Internet expertise \((\beta=.03, t=1.487, p>.05)\) on trust is found not significant. In conclusion, risk propensity, information quality, and similarity are found to have significant positive influence on trust; however Internet experience is found not significant in affecting trust. Statistical results reported in Table 5.9 suggest that hypotheses 1b, 3b, and 4b are supported, while hypothesis 2b is rejected.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Standardized Coefficients</th>
<th>Adjusted R^2</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Propensity</td>
<td>.063**</td>
<td>.298</td>
<td>207.140**</td>
</tr>
<tr>
<td>Internet Expertise</td>
<td>.030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Quality</td>
<td>.397**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Similarity</td>
<td>.155**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: ** = Regression is significant at the 0.001 level*
Moreover, to further examine the relationships among information credibility, trust, and purchase intention, the hypotheses 5 and 6 are proposed and to be tested in this study. These two hypotheses mentioned above hold that individuals’ perception of information credibility affects trust; meanwhile purchase intention is positively influenced by information credibility and trust. In order to test these hypotheses, linear regression was performed to test causal relationship between credibility and trust, followed by multiple regression to examine the effect of credibility and trust on purchase intention.

**H5: Information credibility will positively affect trust**

**H6: Purchase intention will positively be affected by (a) information credibility, and (b) trust**

As shown in Table 5.9, credibility ($\beta=.383$, $t=18.226$, $p<.001$) is found to significantly affect trust. This finding confirms that hypothesis 5 is supported.

### Table 5.9 – Regression Analysis Result for Credibility Influencing Trust

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Standardized Coefficients</th>
<th>Adjusted $R^2$</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Credibility</td>
<td>.383**</td>
<td>.146</td>
<td>332.178**</td>
</tr>
</tbody>
</table>

*Note: ** = Regression is significant at the 0.001 level*

Moreover, Table 5.10 reports that the overall multiple regression model is found to be significant ($R^2_{adj} = .734$), $F(4,1936) = 2665.288$, $p<.001$. Purchase intention is found to be influenced by credibility ($\beta=.099$, $t=7.775$, $p<.001$) and trust ($\beta=.814$, $t=64.097$, $p<.001$). These findings suggest that hypothesis 6 is verified.

### Table 5.10 – Regression Analysis Result for Factors Influencing Purchase Intention

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Standardized Coefficients</th>
<th>Adjusted $R^2$</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Credibility</td>
<td>.099**</td>
<td>.733</td>
<td>2665.28**</td>
</tr>
<tr>
<td>Trust</td>
<td>.814**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: ** = Regression is significant at the 0.001 level*
5.5.2. Objective Two: The Main Effect of Source Identity on Information Quality, Similarity, Credibility, Trust, and Purchase Intention

Hypotheses 7-11 were aimed to determine whether there are main effects of source identity on the measured variables investigated in this study. The main effects of source identity on information quality, similarity, credibility, trust, and purchase intention were examined by Individual t-test.

\[ H7. \text{Information quality will be greater when the information source is identified than when the source is unidentified} \]

\[ H8. \text{Similarity will be greater when the information source is identified than when the source is unidentified} \]

\[ H9. \text{Information credibility will be greater when the information source is identified than when the source is unidentified} \]

\[ H10. \text{Trust will be greater when the information source is identified than when the source is unidentified} \]

\[ H11. \text{Purchase intention will be greater when the information source is identified than when the source is unidentified} \]

The result shows that there was a significant main effect of source identity on information quality \( (F(1,1933)=1030.662, \ p<.001, \ \omega^2=.032). \) Participants exposed to information with identified source rated information quality \( (M=5.19, \ SD=.493) \) significantly higher \( (t(1937)=30.099, \ p<.001) \) than participants exposed to information with unidentified source evaluated information quality \( (M=4.60, \ SD=.377). \) Similar results are also found in similarity, there was a significant main effect of source identity found on similarity \( (F(2,1933)=1272.573, \ p<.001, \ \omega^2=.38). \) The results indicate that participants exposed to information with identified source rated similarity \( (M=5.08, \ SD=.486) \) significantly higher \( (t(1937)=34.072, \ p<.001) \) than participants exposed to information with unidentified source \( (M=4.43, \ SD=.350). \) Moreover, main effect of source identity on credibility was confirmed significant as well \( (F(2,1936)=1570.632, \ p<.001, \ \omega^2=.38). \) Participants exposed to information with identified source evaluated information credibility \( (M=5.18, \ SD=.372) \) significantly higher \( (t(1937)=36.072, \ p<.001) \) than participants exposed to information with unidentified source \( (M=4.43, \ SD=.350). \)
SD=.374) significantly higher ($t(1937)=34.167, p<.001$) than participants exposed to information with unidentified source evaluated credibility ($M=4.58, SD=.402$) of information they read. In addition, there was a significant main effect of source identity on trust ($F(2,1933)=313.420, p<.001, \omega^2=.06$). Therefore, trust developed by participants exposed to information with identified source was found to be significantly greater ($t(1937)=11.032, p<.001$) trust ($M=5.06, SD=.592$) than those who were shown to information with unidentified source ($M=4.35, SD=.477$). A significant main effect of source identity was confirmed as well for purchase intention ($F(2,1933)=302.926, p<.001, \omega^2=.06$). Purchase intention formed by participants who read information with identified source was found to be significantly greater ($t(1937)=10.988, p<.001$) purchase intention ($M=4.89, SD=.746$) than the intention ($M=4.61, SD=.364$) of other participants exposed to unidentified source.

These findings confirm that Hypotheses 7-11 are supported. Table 5.11 presents the Independent t-Test results for the main effect examination of source identity.

<table>
<thead>
<tr>
<th>Manipulation Check Items</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identified Source</td>
<td>5.19</td>
<td>0.493</td>
<td>30.099**</td>
</tr>
<tr>
<td>Non-Identified Source</td>
<td>4.60</td>
<td>0.377</td>
<td></td>
</tr>
<tr>
<td>Similarity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identified Source</td>
<td>5.08</td>
<td>0.486</td>
<td>34.072**</td>
</tr>
<tr>
<td>Non-Identified Source</td>
<td>4.43</td>
<td>0.350</td>
<td></td>
</tr>
<tr>
<td>Credibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identified Source</td>
<td>5.18</td>
<td>0.374</td>
<td>34.167**</td>
</tr>
<tr>
<td>Non-Identified Source</td>
<td>4.58</td>
<td>0.402</td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identified Source</td>
<td>5.06</td>
<td>0.592</td>
<td>12.869**</td>
</tr>
<tr>
<td>Non-Identified Source</td>
<td>4.35</td>
<td>0.477</td>
<td></td>
</tr>
<tr>
<td>Purchase Intention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identified Source</td>
<td>4.89</td>
<td>0.746</td>
<td>10.988**</td>
</tr>
<tr>
<td>Non-Identified Source</td>
<td>4.61</td>
<td>0.364</td>
<td></td>
</tr>
</tbody>
</table>

Note: All items were measured on a 7-point scale with a value of 1 indicating strong disagreement and a value of 7 indicating strong agreement, ** = significant at the 0.001 level.

Figure 5.1 – The Graphs for the Main Effects of Source Identity
5.5.3. Objective Three: The Main Effect of Information Valence on Information Quality, Similarity, Credibility, Trust, and Purchase Intention

Research questions 1-3 were aimed to determine whether there are main effects of information valence on the measured variables investigated in this study. The main effects of information valence on information quality, similarity, credibility, trust, and purchase intention were examined using ANOVA.

RQ1. Is there any difference in information quality between positive, negative, and balanced information? If so, to what extent is the difference?

RQ2. Is there any difference in similarity between positive, negative, and balanced information? If so, to what extent is the difference?

RQ3. Is there any difference in perceived information credibility between positive, negative, and balanced information? If so, to what extent is the difference?

RQ4. Is there any difference in trust between positive, negative, and balanced information? If so, to what extent is the difference?

RQ5. Is there any difference in purchase intention between positive, negative, and balanced information? If so, to what extent is the difference?

The result shows that there was a significant main effect of information valence on information quality \((F(2,1933)=95.859, \ p<.001, \ \omega^2=.006)\). Balanced information was perceived by participants as significantly highest in information quality \((M=5.02, \ SD=.525)\), while positive \((M=4.90, \ SD=.585)\) information led to higher information quality than negative \((M=4.72, \ SD=.413)\) one, \((F(2,1936)=56.63, \ p<.001)\). Participants also deemed that similarity was significantly greater when they were exposed to balanced information \((M=4.87, \ SD=.530)\) when compared to positive \((M=4.74, \ SD=.549)\), and positive information resulted in greater similarity than negative \((M=4.60, \ SD=.477)\) information, \((F(2,1933)=75.067, \ p<.001, \ \omega^2=.004)\). Moreover, information credibility was assessed significantly greater \((F(2,1933)=297.804, \ p<.001, \ \omega^2=.015)\) when participants read balanced information \((M=5.13, \ SD=.448)\), while positive information \((M=4.69, \ SD=.480)\) was considered as less credible than negative information \((M=4.77, \ SD=.484)\). For participants in
this study, trust in the service providers was developed significantly greatest \((F(2,193)=860.247, p<.001, \omega^2=.32)\) when balanced information \((M=5.00, SD=.594)\) was shown, while positive \((M=4.89, SD=.532)\) information generated greater trust than negative \((M=4.21, SD=.484)\) information. Purchase intention was significantly greatest \((F(2,193)=1022.924, p<.001, \omega^2=.39)\) when participants read balanced information \((M=5.06,SD=.493)\), and negative \((M=4.23, SD=.433)\) information was more likely to result lower purchase intention than positive \((M=4.93, SD=.485)\) information. These findings answered Research Questions 1-6 proposed in this study. Table 5.12 presents the ANOVA results for the main effect examination of information valence.

### Table 5.12 – ANOVA Results for the Main Effect of Information Valence

<table>
<thead>
<tr>
<th>Manipulation Check Items</th>
<th>Mean</th>
<th>SD</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Review</td>
<td>4.90</td>
<td>0.585</td>
<td>56.633**</td>
</tr>
<tr>
<td>Negative Review</td>
<td>4.72</td>
<td>0.413</td>
<td></td>
</tr>
<tr>
<td>Balanced Review</td>
<td>5.02</td>
<td>0.525</td>
<td></td>
</tr>
<tr>
<td>Similarity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Review</td>
<td>4.74</td>
<td>0.549</td>
<td>42.359**</td>
</tr>
<tr>
<td>Negative Review</td>
<td>4.60</td>
<td>0.477</td>
<td></td>
</tr>
<tr>
<td>Balanced Review</td>
<td>4.87</td>
<td>0.530</td>
<td></td>
</tr>
<tr>
<td>Credibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Review</td>
<td>4.69</td>
<td>0.480</td>
<td>167.554**</td>
</tr>
<tr>
<td>Negative Review</td>
<td>4.77</td>
<td>0.484</td>
<td></td>
</tr>
<tr>
<td>Balanced Review</td>
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<td>0.532</td>
<td>409.227**</td>
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<td>0.594</td>
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<tr>
<td>Purchase Intention</td>
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<td></td>
<td></td>
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<tr>
<td>Positive Review</td>
<td>4.93</td>
<td>0.485</td>
<td>575.906**</td>
</tr>
<tr>
<td>Negative Review</td>
<td>4.23</td>
<td>0.433</td>
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</tr>
<tr>
<td>Balanced Review</td>
<td>5.06</td>
<td>0.493</td>
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</table>

Note: Post-hoc analysis shows significant difference between positive, negative, and balance for all variables. All items were measured on a 7-point scale with a value of 1 indicating strong disagreement and a value of 7 indicating strong agreement, ** = significant at the 0.001 level.
Figure 5.2 – The Graphs for the Main Effects of Information Valence

The Main Effect of Information Valence on Information Quality

The Main Effect of Information Valence on Similarity

The Main Effect of Information Valence on Intention

The Main Effect of Information Valence on Credibility

The Main Effect of Information Valence on Trust
5.5.4. Objective Four: The Interaction Effect of Source Identity and Information Valence on Information Quality, Similarity, Credibility, Trust, and Purchase Intention

Research questions 4-8 were aimed to determine whether there are interaction effects of source identity and information valence on the measured variables investigated in this study. The interaction effects of source identity and information valence on information quality, similarity, perceived credibility, trust, and purchase intention were examined using General Linear Modeling (GLM).

RQ4. For positive information, is there any difference in (a) credibility, (b) trust, and (c) purchase intention between information with identified and unidentified sources? If so, to what extent is the difference?

RQ5. For negative information, is there any difference in (a) credibility, (b) trust, and (c) purchase intention between information with identified and unidentified sources? If so, to what extent is the difference?

RQ6. For balance information, is there any difference in (a) credibility, (b) trust, and (c) purchase intention between information with identified and unidentified sources? If so, to what extent is the difference?

RQ7. For information with identified source, is there any difference in (a) credibility, (b) trust, and (c) purchase intention between positive, negative, and balanced information? If so, to what extent is the difference?

RQ8. For information with unidentified source, is there any difference in (a) credibility, (b) trust, and (c) purchase intention between positive, negative, and balanced information? If so, to what extent is the difference?
As depicted in Table 5-13, significant interaction effect is verified between information valence and source identity on credibility ($F(2,1933)=30.888$, $p<.001$, $w=.012$). This indicates that information valence affects differently participants’ perception of credibility of information with identified and unidentified source.

Quality perceived by participants who were exposed to positive information with identified source ($M=5.29$, $SD=.522$) was significantly higher than the one perceived by those exposed to positive information with unidentified source ($M=4.56$, $SD=.391$). Negative information with identified source ($M=4.90$, $SD=.355$) was proven to lead to significantly higher quality than the one with unidentified source ($M=4.55$, $SD=.393$). Furthermore, information quality was found to be affected significantly greater by balanced information with identified source ($M=5.39$, $SD=.443$) than by balanced information with unidentified source ($M=4.67$, $SD=.328$). Meanwhile, source identity is indicated to differently influence participants’ perceived quality of information between they who were exposed to positive, negative and balanced information. Quality perceived by participants who read information with identified source was found greatest in balanced ($M=5.39$, $SD=.443$) information, followed by positive ($M=5.29$, $SD=.523$) and negative ($M=4.90$, $SD=.355$) information. In addition, when the information source was not clearly identified, information quality was found to be greatest when participants were exposed to balanced ($M=4.69$, $SD=.328$) information, followed by positive ($M=4.56$, $SD=.391$) and negative ($M=4.55$, $SD=.393$) information.

Significant interaction effect between information valence and information source was confirmed on similarity ($F(2,1933)=19.092$, $p<.001$, $w=.001$). This indicates that information valence affects differently participants’ perception of source similarity between they who were exposed to information with identified and unidentified source. Similarity perceived by participants who were exposed to positive information with identified source ($M=5.15$, $SD=.475$) was significantly higher than the one perceived by those exposed to positive information with unidentified source ($M=4.38$, $SD=.305$). Negative information with identified source ($M=4.85$, $SD=.465$)was proven to lead to significantly higher similarity than the one with unidentified source ($M=4.37$, $SD=.359$). Furthermore, similarity was found to be affected significantly greater by balanced information with identified source ($M=5.24$, $SD=.431$) than by balanced information with unidentified source ($M=4.53$, $SD=.361$).
Meanwhile, similarity was indicated to differently influence participants’ perceived credibility between they who were exposed to positive, negative and balanced information. Similarity perceived by participants who read information with identified source was found greatest in balanced (M=5.24, SD=.431) information, followed by positive (M=5.15, SD=.475) and negative (M=4.85, SD=.465) information. In addition, when the information source was not clearly identified, similarity was found to be greatest when participants were exposed to balanced (M=4.53, SD=.361) information, followed by positive (M=4.38, SD=.305) and negative (M=4.37, SD=.359) information.

Credibility perceived by participants exposed to positive information with identified source (M=5.04, SD=.401) is significantly higher than the one perceived by those exposed to positive information with unidentified source (M=4.39, SD=.309). Negative information with identified source (M=5.15, SD=.194) is shown to lead to significantly higher credibility than when exposed to an unidentified source (M=4.43, SD=.274). Furthermore, for balanced information, credibility is found to be affected significantly greater by identified source (M=5.36, SD=.400) than unidentified source (M=4.92, SD=.372). Meanwhile, source identity is indicated to differently influence participants’ perceived credibility between those who were exposed to positive, negative and balanced information. Credibility perceived by participants who read information with identified source is found greatest in balanced information (M=5.36, SD=.409), followed by negative (M=5.15, SD=.194) and positive (M=5.04, SD=.401) information. In addition, when the information source is not clearly identified, credibility is found to be greatest when participants were exposed to balanced information (M=4.92, SD=.372), followed by negative (M=4.43, SD=.274) and positive (M=4.39, SD=.309) information.

There is a significant interaction effect between information valence and information source on trust in service providers (F(2,1933)=735.477, p<.001, w=.013). It is indicated that information valence affects trust differently depends on whether the source was identified or not. Trust developed by participants exposed to positive information with identified source (M=5.26, SD=.456) is significantly higher than the trust perceived by those exposed to positive information with unidentified source (M=4.56, SD=.347). Meanwhile, negative information with identified source (M=4.52, SD=.389) is proven to lead to significantly
higher trust than the trust with unidentified source ($M=3.87, SD=.330$). Furthermore, for balanced information, trust is found to be affected significantly greater by identified source ($M=5.47, SD=.427$) than unidentified source ($M=4.59, SD=.375$).

Source identity is indicated to differently influence trust between participants exposed to positive, negative and balanced information. Trust developed by participants who read information with identified source is found greatest in balanced information ($M=5.47, SD=.427$), followed by positive ($M=5.26, SD=.456$) and negative ($M=4.51, SD=.389$) information. In addition, when the information source is not clearly identified, trust is formed significantly greatest when participants are exposed to balanced information ($M=4.59, SD=.375$), followed by positive ($M=4.56, SD=.347$) and negative ($M=4.52, SD=.389$) information.

Moreover, a significant interaction effect between information valence and information source on purchase intention is confirmed ($F(2,1933)=489.103, p<.001, \omega^2=.019$) suggesting that valence affects participants’ purchase intention differently between when they are shown to information with identified and unidentified source. Purchase intention formed by participants exposed to positive information with identified source ($M=5.26, SD=.434$) is significantly higher than the intention perceived by those exposed to positive information with unidentified source ($M=4.65, SD=.320$). Negative information with identified source ($M=4.45, SD=.380$) is proven to lead to significantly higher purchase intention than the intention developed by those exposed to information with unidentified source ($M=4.00, SD=.362$). Furthermore, purchase intention is found to be affected significantly greater by balanced information with identified source ($M=5.43, SD=.361$) than by balanced information with unidentified source ($M=4.73, SD=.332$).

Source identity is also indicated to differently influence participants’ purchase intention between participants exposed to positive, negative and balanced information. Participants presented information with identified source is found to be significantly greatest in purchase intention when information they read is balanced information ($M=5.43, SD=.361$), followed by positive ($M=5.26, SD=.434$) and negative ($M=4.45, SD=.380$) information. In addition, when the source is not clearly identified, purchase intention is found to be

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greatest among participants exposed to balanced information ($M=4.73$, $SD=.331$), followed by positive ($M=4.65$, $SD=.320$) and negative ($M=4.00$, $SD=.362$) information. These sets of findings provide answers for Research Questions 4-8 proposed in this study.

### Table 5.13 – Results for the Interaction Effect of Information Valence & Source Identity

<table>
<thead>
<tr>
<th>Variables</th>
<th>Identified Sources</th>
<th>Unidentified Sources</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Credibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Review</td>
<td>5.04</td>
<td>0.401</td>
<td>4.39</td>
</tr>
<tr>
<td>Negative Review</td>
<td>5.15</td>
<td>0.194</td>
<td>4.43</td>
</tr>
<tr>
<td>Balanced Review</td>
<td>5.36</td>
<td>0.409</td>
<td>4.92</td>
</tr>
<tr>
<td>Trust</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Review</td>
<td>5.26</td>
<td>0.456</td>
<td>4.56</td>
</tr>
<tr>
<td>Negative Review</td>
<td>3.87</td>
<td>0.330</td>
<td>4.52</td>
</tr>
<tr>
<td>Balanced Review</td>
<td>5.47</td>
<td>0.427</td>
<td>4.59</td>
</tr>
<tr>
<td>Trust</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Review</td>
<td>5.26</td>
<td>0.456</td>
<td>4.56</td>
</tr>
<tr>
<td>Negative Review</td>
<td>3.87</td>
<td>0.330</td>
<td>4.52</td>
</tr>
<tr>
<td>Balanced Review</td>
<td>5.47</td>
<td>0.427</td>
<td>4.59</td>
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<tr>
<td>Trust</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Positive Review</td>
<td>5.26</td>
<td>0.456</td>
<td>4.56</td>
</tr>
<tr>
<td>Negative Review</td>
<td>3.87</td>
<td>0.330</td>
<td>4.52</td>
</tr>
<tr>
<td>Balanced Review</td>
<td>5.47</td>
<td>0.427</td>
<td>4.59</td>
</tr>
<tr>
<td>Purchase Intention</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Positive Review</td>
<td>5.26</td>
<td>0.434</td>
<td>4.65</td>
</tr>
<tr>
<td>Negative Review</td>
<td>4.00</td>
<td>0.362</td>
<td>4.45</td>
</tr>
<tr>
<td>Balanced Review</td>
<td>5.43</td>
<td>0.361</td>
<td>4.73</td>
</tr>
</tbody>
</table>

Note: Post-hoc analysis shows significant difference between positive, negative, and balance for all variables. All items were measured on a 7-point scale with a value of 1 indicating strong disagreement and a value of 7 indicating strong agreement, ** = significant at the 0.001 level.
Figure 5.3 – The Interaction Effects of Source Identity & Information Valence on Information Quality

Figure 5.4 – The Interaction Effects of Source Identity & Information Valence on Similarity
Figure 5.5 – The Interaction Effects of Source Identity & Information Valence on Credibility

The Interaction Effects of Source Identity & Information Valence on Credibility

Figure 5.6 – The Interaction Effects of Source Identity & Information Valence on Trust

The Interaction Effects of Source Identity & Information Valence on Trust
Figure 5.7 – The Interaction Effects of Source Identity & Information Valence on Purchase Intention

The Interaction Effects of Source Identity & Information Valence on Intention

Source Identity
- Identified Sources
- Unidentified Sources

Mean AvgInten

Information Valence
- Positive
- Negative
- Balanced
Further analysis was conducted on the interaction of information valence and source identity. As shown in Table 5-14 and Figure 5-1, it is suggested that when the source identity is identified, there is a significant difference in credibility ($F(2,918)=67.661$, $p<.001$, $\omega^2=.019$), trust ($F(2,918)=1383.664$, $p<.001$, $\omega^2=.025$), and purchase intention ($F(2,918)=1244.734$, $p<.001$, $\omega^2=.026$) between positive, negative, and balanced information. Balanced information is perceived as the more credible ($M=5.36$, $SD=.409$) than negative information ($M=5.15$, $SD=.194$), while the least perceived credible is positive information ($M=5.04$, $SD=.401$). Moreover, balanced information leads to the greater trust ($M=5.47$, $SD=.427$) in the travel services and consumer intention to purchase the services ($M=5.43$, $SD=.361$) than the impact of positive information on trust ($M=5.26$, $SD=.456$) and purchase intention ($M=5.26$, $SD=.456$), whereas negative information generates the lowest trust ($M=3.87$, $SD=.330$) and purchase intention ($M=4.00$, $SD=.361$). The result is different when the source identity is unidentified as depicted in Table 5-15 and Figure 5-2. There is a significant difference in credibility ($F(2,1015)=287.336$, $p<.001$, $\omega^2=.029$) and purchase intention ($F(2,1015)=59.183$, $p<.001$, $\omega^2=.047$) between positive, negative, and balanced information when the source is unidentified. Balanced information is perceived as more credible ($M=4.92$, $SD=.372$) than positive ($M=4.39$, $SD=.309$) and negative information ($M=4.43$, $SD=.274$), however there is no significant difference in credibility between positive and negative information. Purchase intention is found to be greater when the information is balanced ($M=4.73$, $SD=.332$) than when it is positive only ($M=4.65$, $SD=.320$), while the negative information ($M=4.45$, $SD=.380$) leads to the lowest purchase intention. Interestingly, it is suggested that for information with unidentified source there is no significance difference in trust ($F(2,1015)=3.13$, $p>.001$, $\omega^2=.035$) in travel services between positive, negative, and balanced information.
Table 5.14 – ANOVA Results for the Information with Identified Source

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Groups Compared</th>
<th>Sig. (p&lt;.05)</th>
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<td>Credibility</td>
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<td></td>
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<tr>
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<td>5.29</td>
<td>.523</td>
<td>P → N B</td>
<td>Sig.</td>
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<td>Negative Review</td>
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<td>P N → B</td>
<td>Sig.</td>
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<td>Sig.</td>
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<td></td>
</tr>
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<td>.475</td>
<td>P → N B</td>
<td>Sig.</td>
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<td>4.85</td>
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<td>Sig.</td>
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<td>P →→ B</td>
<td>Sig.</td>
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</tr>
<tr>
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<td>.400</td>
<td>P → N B</td>
<td>Sig.</td>
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<tr>
<td>Negative Review</td>
<td>4.85</td>
<td>.194</td>
<td>P N → B</td>
<td>Sig.</td>
</tr>
<tr>
<td>Balanced Review</td>
<td>5.24</td>
<td>.409</td>
<td>P →→ B</td>
<td>Sig.</td>
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<tr>
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<td>.456</td>
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<td>Sig.</td>
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<td>Sig.</td>
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<td>5.43</td>
<td>.361</td>
<td>P →→ B</td>
<td>Sig.</td>
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Note: Post-hoc analysis shows significant difference between positive, negative, and balance for all variables. All items were measured on a 7-point scale with a value of 1 indicating strong disagreement and a value
Figure 5.8 – The Effects of Valence of Information with Identified Source on Information Quality

The Effect of Valence of Information with Identified Source on Information Quality

Figure 5.9 – The Effects of Valence of Information with Identified Source on Similarity

The Effect of Valence of Information with Identified Source on Similarity
Figure 5.10 – The Effects of Valence of Information with Identified Source on Credibility

Figure 5.11 – The Effects of Valence of Information with Identified Source on Trust
Figure 5.12 – The Effects of Valence of Information with Identified Source on Intention

The Effect of Valence of Information with Identified Source on Intention

Source Identity
Identified Sources

Mean AvgIntent

Information Valence
Positive  Negative  Balanced
Table 5.15 – ANOVA Results for the Information with Unidentified Source

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Groups Compared</th>
<th>Sig. (p&lt;.05)</th>
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<td><strong>Credibility</strong></td>
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</tr>
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<td>Not Sig.</td>
</tr>
<tr>
<td>Negative Review</td>
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<td>.393</td>
<td>P → N → B</td>
<td>Sig.</td>
</tr>
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<td>P → N → B</td>
<td>Sig.</td>
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</tr>
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<td>Not Sig.</td>
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<td>.359</td>
<td>P → N → B</td>
<td>Sig.</td>
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<tr>
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<td>.361</td>
<td>P → N → B</td>
<td>Sig.</td>
</tr>
<tr>
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</tr>
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<td>Not Sig.</td>
</tr>
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<td>.274</td>
<td>P → N → B</td>
<td>Sig.</td>
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<td>.372</td>
<td>P → N → B</td>
<td>Sig.</td>
</tr>
<tr>
<td><strong>Trust</strong></td>
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<td>Sig.</td>
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<td>.374</td>
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<td>Not Sig.</td>
</tr>
<tr>
<td><strong>Purchase Intention</strong></td>
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<td></td>
</tr>
<tr>
<td>Positive Review</td>
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<td>P → N → B</td>
<td>Sig.</td>
</tr>
<tr>
<td>Negative Review</td>
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<td>.380</td>
<td>P → N → B</td>
<td>Sig.</td>
</tr>
<tr>
<td>Balanced Review</td>
<td>4.73</td>
<td>.332</td>
<td>P → N → B</td>
<td>Sig.</td>
</tr>
</tbody>
</table>

Note: Post-hoc analysis shows significant difference between positive, negative, and balance for all variables. All items were measured on a 7-point scale with a value of 1 indicating strong disagreement and a value...
Figure 5.13 – The Effects of Valence of Information with Unidentified Source on Information Quality

Figure 5.14 – The Effects of Valence of Information with Unidentified Source on Similarity
Figure 5.15 – The Effects of Valence of Information with Unidentified Source
On Credibility

The Effect of Valence of Information with Unidentified Source on Credibility

Mean AvgCred

Positive Negative Balanced

Information Valence

Source Identity
Unidentified Sources

Figure 5.16 – The Effects of Valence of Information with Unidentified Source
on Trust

The Effect of Valence of Information with Unidentified Source on Trust

Mean AvgTrust

Positive Negative Balanced

Information Valence

Source Identity
Unidentified Sources
5.6. Conclusion

In this chapter, results for each of the proposed hypotheses and research questions have been detailed. Findings support the assertions about the relationships between risk propensity, information quality, similarity, credibility, trust, and purchase intention. Risk propensity, information quality, and similarity are found to have significant positive effects on credibility and trust; while the claim that Internet experience influences credibility and trust is not supported. Credibility is also verified to have a positive effect on trust. Additionally, purchase intention is influenced by credibility and trust. The main and interaction effects of source identity and information valence on credibility, trust, and purchase intention are also confirmed. Furthermore, the interaction effect between source identity and information valence is also signified. Table 5.14 – 5.17 summarizes all the findings. Chapter 6 appears subsequently and will discuss in more depth the implications of the research findings, conceptual, theoretical and managerial contributions, research limitations, and directions for future research.
Table 5.14 – Results of Hypotheses for Research Objective 1

| Research Objective-1: How is the interaction among information credibility, its key antecedents, trust, and purchase intention? |
|---------------------------------|-------------------------------------------------|-----------------|
| **Hypothesis 1**                | Risk propensity will positively affect (a) information credibility, and (b) trust | **Supported**   |
| **Hypothesis 2**                | Internet experience will positively affect (a) information credibility, and (b) trust | **Not Supported** |
| **Hypothesis 3**                | Information quality will positively affect (a) information credibility, and (b) trust | **Supported**   |
| **Hypothesis 4**                | Perceived similarity will positively affect (a) information credibility, and (b) trust | **Supported**   |
| **Hypothesis 5**                | Information credibility will positively affect (a) trust, and (b) purchase intention | **Supported**   |
| **Hypothesis 6**                | Trust will positively affect purchase intention | **Supported**   |

Table 5.15 – Results of Hypotheses for Research Objective 2

| Research Objective-2: Do information credibility, its key antecedents, trust, and purchase intention vary between information with identified and unidentified sources? |
|---------------------------------|---------------------------------------------------------------------------------|-----------------|
| **Hypothesis 7**                | Information quality will be greater when the information source is identified than when the source is unidentified | **Supported**   |
| **Hypothesis 8**                | Similarity will be greater when the information source is identified than when the source is unidentified | **Supported**   |
| **Hypothesis 9**                | Information credibility will be greater when the information source is identified than when the source is unidentified | **Supported**   |
| **Hypothesis 10**               | Trust will be greater when the information source is identified than when the source is unidentified | **Supported**   |
| **Hypothesis 11**               | Purchase intention will be greater when the information source is identified than when the source is unidentified | **Supported**   |
Table 5.16 – Results of Research Questions for Research Objective 3

<table>
<thead>
<tr>
<th>Research Objective-3: Do information credibility, its key antecedents, trust, and purchase intention vary across different information valence? If so, how?</th>
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</thead>
<tbody>
<tr>
<td><strong>RQ 1</strong></td>
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<tr>
<td><strong>RQ 2</strong></td>
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<td><strong>RQ 3</strong></td>
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<tr>
<td><strong>RQ 4</strong></td>
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<td><strong>RQ 5</strong></td>
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Table 5.17 – Results of Research Questions for Research Objective 4

<table>
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<tr>
<th>Research Objective-4: Does interaction effect between source identity and information valence occurs on information credibility, trust, and purchase intention?</th>
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<tbody>
<tr>
<td><strong>RQ6</strong></td>
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<tr>
<td><strong>RQ7</strong></td>
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<td><strong>RQ8</strong></td>
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<td><strong>RQ9</strong></td>
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<td><strong>RQ10</strong></td>
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CHAPTER 6

DISCUSSION & CONCLUSION

6.1. Introduction

Chapter 6 addresses and summarizes in details the answers to the research objectives of this study. The findings, as generated from the statistical analysis discussed in Chapter 5, are discussed in detail in this chapter through the lens of previous literature explained in Chapter 2 and of conceptual framework presented in Chapter 3.

This final chapter is presented in five sections. After the introduction, the second section discusses the statistical results and findings from Chapter 5. Conclusions are drawn about the hypotheses and each of the four research objectives set for this study. This section serves to explain, compare, and contrast the findings with the literature reviewed in Chapter 2. Similarities and differences of the findings with prior studies are highlighted, and how the findings of this study advance the existing literature and therefore make a conceptual contribution to the body of knowledge is discussed. Afterward, the third section of this chapter explains the contributions made by this study. There are three areas of contributions discussed in the third section, namely conceptual contributions, which acknowledge how this research advances the existing body of knowledge, methodological contributions, which discuss how the research method used in this research generates new insights and therefore contributes to future studies, and managerial contributions which detail how this research provides insightful suggestion on business and marketing practices. Subsequently, the fourth section of this chapter outlines and explains the limitations of this study and how those limitations may be addressed in further research. The final section concludes and summarizes the explanation in this chapter.
6.2. Discussion of the Research Findings

This study investigates several research questions based on Uncertainty Reduction Theory (Berger & Calabrese 1975) and Information Processing Model (McGuire 1978) to delineate how consumer evaluation of CGM information credibility might be influenced by certain aspects of the information and how it affects how consumer responds to the information. The results of statistical analysis shown in the Chapter 5 are largely consistent with the theoretical arguments developed from the literature and proposed in this study.

Regression analysis results reveal that consumer perception of online review credibility and initial trust in travel services being discussed in the online review are influenced by consumer’s risk propensity, information quality, and consumer perception of similarity with the reviewer. These results are consistent with the concept of Uncertainty Reduction Theory (Berger & Calabrese 1975). Evaluating the trustworthiness of information posted on a CGM; in this case particularly online review sites, and trusting the entities being discussed in the information are risky tasks. The fact that many online review sites lack of filtering mechanism and source identification suggests the existing uncertainty embedded in the task of assessing them. As evident in Hypothesis 1, consumers who have propensity to make risky decisions in their daily life are willing to take risks in trusting information posted on CGM sites and the travel services being discussed in the information. Finding from hypothesis 3 suggests when consumers perceive that the information is of good quality and contains convincing arguments they are likely to consider that the uncertainty in the information is lowered and trust the information and the object being discussed in the information (Kempf & Palan, 2006; Cheung et al., 2009). Finding from Hypothesis 4 demonstrates that when consumers perceive that they have some extent of similarity with the information provider or the reviewer, the uncertainty in assessing online review sites is also lowered (Wang et al., 2008). These findings concur with the assertions that the characteristics of the information and its source have significant impact on consumer assessment of the word-of-mouth communication, both in the conventional (Duhan et.al. 1997) as well as in the electronic domain (Park, Lee, & Han 2007; Hu et al. 2008).
Interestingly, it is found that Internet experience does not have significant effect on either credibility or trust as hypothesized. Following the findings from some previous works (e.g. Flanagin & Metzger, 2003; Greer, 2003; Johnson & Kaye, 2004; Kim & Benbasat, 2006; Kiousis, 2001), this study posited in Hypotheses 2 that Internet experience will affect consumer perception of online information credibility as well as initial trust in travel services being discussed in the information. However, the results suggest that this is not the case in this study. This result may be due to the similarity of demographic background of the participants of this study, especially their age. Participants are from 19 to 33 years of age which are considered as good representation of Generation Y consumers (Engebretson 2004; Paul, 2001; Morton, 2002; Noble, Haytko, & Phillips, 2009). According to Wolburg & Pokrywczynski (2001), individuals from this generation tend to be more educated and live in media-saturated environment. This consumer cohort tends to be early adopters, familiar with new technology, and skillful with the Internet (Porter & Donthu, 2006). Since participants of this study are most likely to have similar level of Internet expertise, its impact on their perception of trustworthiness of online information and the services being discussed in the information may not be observable.

As shown in Hypothesis 5, when consumers perceive that the information they read in CGM is credible, they will develop initial trust in the hotel being discussed in the information. This result is consistent with the findings from prior studies suggesting that credibility is a major predictor of trust (Lowry et al., 2008; Mayer et al., 1995; Wood, et al., 2008; Zahedi & Song, 2008). Meanwhile, in the findings from Hypothesis 6, it is shown that information credibility has significant influence on consumer trust in the hotel and intention to purchase the hotel services. When consumers deem the CGM information they read is credible, they are likely to generate trust (Pavlou, 2003) and intention to follow the advice suggested in the information (Buttner & Goritz, 2008; Cheung, et al., 2009; Guido, Peluso, & Moffa 2010; Park, et al., 2007; Van der Heijden & Verhagen 2004).

Furthermore, the main effect of source identity is found to be highly significant in influencing consumer perception of CGM information quality, similarity with the reviewer, online review credibility, initial trust development in travel services being reviewed, and consumers’ purchase intention. Online information with an identified source is found to
have greater impact than with an unidentified source on consumer perception of CGM information quality, similarity with the reviewer, online review credibility, initial trust development in travel services being reviewed, and consumers’ purchase intention. This is evidenced in Hypotheses 7-11. Identity communication is highlighted in Self-Representation Theory (Goffman, 1959) which suggests that individuals tend to disclose their identities to others in order to obtain a sense of coherence before focusing on other things that bring them together. Without knowing the identity of the source, information is less likely to be adopted and the information exchange process becomes less efficient (Poston & Spier, 2005; Sussman & Seigal, 2003). Results from this study suggest that the mere availability of personal demographic information may enhance the information credibility and develop trust in the object being discussed in the information. These results indicate that disclosed source identity information is not only important on face-to-face interaction, but also on computer-mediated communication.

The main effect of information valence is found to be highly significant in influencing consumer responses, as confirmed in Research Question 1-5. Balanced information is found to have greater impact on consumer perception of information credibility than negative information, while positive information has the least effect on credibility compared to the other two types of information. Results of this research also suggests that balanced information leads to greater consumer perception of CGM information quality, similarity with the reviewer, initial trust development in travel services being reviewed, and consumer intention to purchase the services being discussed than positive information, while travel services with negative recommendation have least impact on consumer perception of CGM information quality, similarity with the reviewer, initial trust development in travel services being reviewed, and consumers’ purchase intention compared to the other two types of information. It is indicated in this study that the mere valence of information may represent the information credibility and lead to trust formation in the object being discussed.

Another finding in this study is that the interaction effect of valence and source identity is found to be significant. It is verified by the results from Research Question 6-8 that when consumers are exposed to positive, negative, or balanced online information, information with identified source has greater impact on information quality, similarity, credibility, trust,
and purchase intention than unidentified source. In addition, results from Research Question 9 suggest that when consumers are exposed to identified information, consumers have greater perception of CGM information quality, similarity with the reviewer, initial trust development in travel services being reviewed, and consumer intention to purchase the services after reading balanced information, followed by positive and negative information consecutively. However, consumer perception of credibility of identified online information is greater for balanced information, followed by negative and positive information sequentially. Furthermore, results from Research Question 10 suggest that when consumers are exposed to unidentified online information, balanced information has greatest impact on consumer perception of CGM information quality, similarity with the reviewer, online review credibility, initial trust development in travel services being reviewed, and consumer intention to purchase the services, followed by positive information and negative information.

While the interaction effects are found, two interesting further results stand out in this study. The first is the evidence that there is no significant difference in credibility between positive and negative information when the source is unidentified. When the source identity is not disclosed, one-sided information is perceived as less credible than two-sided information. A potential explanation can be drawn from the Attribution Theory (Kelley & Michela, 1980; Shultz & Ravinsky, 1977). Consumers participated in this study may wonder why other consumers would communicate only positive or only negative information about the services they experienced without providing any information about themselves. This may lead the consumers who receive the information to attribute the claims in the information to the information source and not to the actual characteristics of the hotel services being discussed. This finding is consistent with what is suggested in the Attribution Theory; that the inclusion of positive and negative sides in product or service information is more likely to increase the perception of trustworthiness of the information (Easley, Bearden, & Teel, 1995; Eisend 2007). Second, there is no significant difference in trust between positive, negative, and balanced information when the source is unidentified. Based on Social Identity Theory, it is suggested that the identity may foster trust (Kramer & Brewer 1984) and increase consumer perception that their goals and values are similar to
those of the reviewers (Kramer & Brewer, 1984; Kramer et al., 1996). These two findings in this study highlight the magnitude of the existence of source identity in CGM information.

6.3. Research Significance

6.3.1. Conceptual Contributions

Online review sites and any other forms of CGM are becoming increasingly important sources of information for modern consumers. Reviews reflect the level of consumer satisfaction and loyalty and they have some extent of influence on consumer behavior. However, considering the nature of CGM information which is commonly generated by less identifiable consumers and the mechanism of CGM which lacks of filtering and verification, information credibility is the lifeblood of the CGM applications; including online review sites. Without being perceived as credible, information posted in the CGM will not be adopted or followed by consumers for their decision making regardless the fact that the online review has been used widely in the travel and tourism area of consumption. In this context, this study makes certain important conceptual contributions.

From a theoretical perspective, this study extends the Uncertainty Reduction Theory to the domain of CGM; or in this case specifically online review sites. The concept of uncertainty reduction has been widely investigated in previous studies in face-to-face interaction and computer-mediated communication contexts (e.g. Adjei, Noble, & Noble, 2010; Antehunis, Valkenburg, & Peter, 2010; Cui, Bao, & Chan, 2009; Jacobs, Evans, Kleine, & Landry, 2001; Littler & Melanthiou, 2006; Tellefsen, 2002). However, in most of those studies, uncertainty reduction was conceptualized in the context of direct interpersonal communication. However, as noted earlier, an online review site is a form of indirect information exchange with high level of uncertainty. This study demonstrates that consumers actively seek information in initial encounters online with travel services as they do in face-to-face interactions. This information is sought regardless of the limited cues characteristics of online environment, and consumers tend to alleviate uncertainty in the online information
exchange mechanism by paying attention to any available cues both in the information itself (e.g. information valence) and the source (e.g. source identity).

Another contribution of this study is the examination of the impact of information credibility in CGM context which has been suggested by Lee, Law, and Murphy (2011) as underexplored issue. The value of the online review systems lies in the trustworthiness of the product or services information that reveals the true quality of the product or services. As Mudambi and Schuff (2007) imply, the significant growing number of online review sites enhances the importance for the sites of focusing on providing credible quality information than supplying as much quantity as possible for information-seeking consumers. Despite the strategic role of information credibility, little effort has been undertaken to investigate its impact on CGM sites. By investigating information credibility and its effect on consumer trust in the travel services being discussed combined with the impact of message valence and social identity, this study provides significant contribution to the marketing and tourism literature.

The inclusion of social identity of the information source in explaining credibility and trust in CGM context provides the third contribution of this study. It is commonly believed that one of the main purposes of CGM applications is information exchange. Due to the anonymity afforded by the systems in most CGM sites, there is a considerable opportunity for deception, misleading information postings, and leaving consumers with uncertainty about the trustworthiness of the information being exchanged (Yoo & Gretzel, 2009). The fact that there is no protection for consumers from misleading and deceptive information associated with products or services listed in CGM sites elevates the uncertainty. Despite the importance of the social identity to ensure the online information credibility, most of the previous studies on CGM have focused mainly on the attributes of the products or services being reviewed and the information itself, and very limited work examined the attributes of the information sources (e.g. Forman, Ghose, & Weisenfeld, 2008). By examining the role of source identity which is considered by Lee, Law, and Murphy (2011) as still understudied, this study provides a theoretical contribution by demonstrating the importance of the social identity for credibility assessment of information being exchanged in online communication.
6.3.2. Methodological Contributions

A number of clear methodological contributions have emanated from this research. The contributions are twofold; the first contribution relates with the research design and the second one deals with the participants involved in this study.

Scenario-based experimental research used in conducting this study, in addition to the sound research design developed predominantly from previous works, contributes to the methodological significance of this study. The implementation scenario based-experiment for this study was decided based on the consideration to enhance internal validity of this study. The experiment stimuli for this research were developed appropriately and pretested properly to ensure the realism, reliability, and validity of the research instruments. The participants for this study were real travel consumers approached in popular tourist destination in Bali, Indonesia. All of these procedures were performed in order to ensure that the research design and instruments used in this study are appropriate and robust.

Another contribution to the methodological significance relates with the research participants involved in this study. This research includes 1,939 real travel consumers from 31 countries in the world. The use of a large number of real travel consumers from different national background as research participants does not only enhance the external validity of this research, but also increase the participant representativeness of the study population. This contribution also inflates the probability of generalizing the results of this study.

6.3.3. Managerial Contributions

In the Web 3.0 era, consumer-to-consumer (C2C) online interactions play an important role in affecting consumer decision on the business-to-consumer (B2C) transaction platforms. Information exchange activities commonly occurring in the C2C online interaction can generate unlimited value for all the involved business stakeholders. Results of this study have important managerial implications for two sets of stakeholders; namely the management of the CGM sites and travel, tourism, and hospitality service providers.
Findings of this study indicate that consumer perception of CGM information credibility affects consumer initial trust in travel services being discussed and intention to purchase the services. In this context, there is an urgent need for the management of CGM sites to develop verification mechanism that helps consumers to determine credibility of information posted on the media. This strategy is not only important not only for consumers who have to face overwhelmingly great numbers of online information for any given travel services and must decide which information should be followed or rejected, but is also essential for the management of CGM sites to ensure that only credible information presented to the consumers and eventually to enhance credible image of the sites. For instance, in TripAdvisor.com now, each hotel review posted on the site is now evaluated by other consumers who read the review by rating the level of helpfulness of the review. Similar sites such as IgoUgo.com calculate the helpful votes obtained by each review for each hotel and provide tools for consumers to sort the reviews based on this factor as well as the valence of the review (negative or positive reviews). Moreover, in order to generate genuine reviews from the real guests, some international hotel chains, hostel booking services, and other accommodation services also put some efforts into encourage their guests who use their services to make accommodation reservation to leave a comment or review both on their own websites and on online review sites such as TripAdvisor.com about their experience staying at the property. Findings from this study that confirm the importance of credibility for consumers to develop trust and purchase intention suggests such aforementioned strategies are necessary to increase the usability of the reviews and the review sites as well as to enhance consumers’ trust in the travel services.

The social identity of the review is another important aspect of this study that has managerial implications. It is suggested by this study that online information providing self-descriptive information about its source is considered more trustworthy than the one with unidentified source identity. Considering the essential role of the existence of source identity, the management of CGM sites needs to implement mechanisms that encourage information sources or reviewers to provide more socio-demographic information, or to develop online cues that may help consumers to predict the trustworthiness of the sources. For example, consumers who want to post reviews about their experience can be offered for some incentives for posting their personal information that will help others to enhance
the trustworthiness of their reviews. Travel review site *IgoUgo.com* encourages consumers to post reviews and their photos to earn rewards. Popular site *TripAdvisor.com* provides not only the “helpful votes” system that can be used by consumers to sort out the reviews, but also information about the reviewers such as how many reviews they have posted or whether they stayed at the hotel with family or friends or as solo travelers. This information is presented to suggest consumers whether the reviewer has some extent of similar characteristics matched with theirs that can help them to determine whether they should follow or reject the advice from the reviews. This suggestion is relevant with one of the findings of this study claiming that the greater the similarity with the reviewers, the greater likelihood that consumers will follow their advice.

The above discussed elements of CGM also have significant implications for the management of travel, tourism, and hospitality service providers. Postings on CGM sites provide extensively rich information about consumers, since groups of consumers actively seek and exchange information about products and services, pricing, quality, likes and dislikes, and satisfaction in that media. This rich information can be used by managers of travel, tourism, and hospitality service providers to obtain consumer insights easily and free of charge. Mining this information will help the service providers to understand the characteristics of their consumers, relate disparate consumption activities, and generally acquire understanding of why consumers are happy or unhappy.

### 6.4. Limitations & Future Research Directions

While the study makes several important contributions to managerial practices and to the existing body of knowledge, a number of limitations of this research must be acknowledged. These limitations need to be kept in mind when generalizing the results to other contexts.

One important limitation with research design is how the experiment stimuli were exposed to participants of this study. Although the reviews used for this study were developed based on extracted 842 reviews posted in *TripAdvisor.com*, participants did not explore a real
travel CGM website; instead they were exposed to a print version of predesigned webpage. This prevents participants from having a genuine website browsing experience which could affect their evaluation regarding the information being investigated in this study. However, implementation of this data collection technique is justified since most research on online B2C context used similar technique of showing participants a printout of webpage and then asking them to express their opinion about the webpage. Whether this has any influence on the results is unknown. Despite that the manipulation check confirmed that the webpage seemed to be realistic, future research may consider to developing the experimental design involving participants with a functioning website.

Furthermore, the focus of this study is on investigating the impact of valence and source identity on credibility of online information, its antecedents, and its subsequent consumer responses. Although there is a conceptual model used in this study, the structural relationships among variables used in this study were not examined. The moderating roles of independent variables were not statistically investigated as well. This is another limitation of this study. While this limitation did not affect findings of the study, application of a procedure such as structural equation modeling might increase the value of the research. It is important for further studies to develop and test the structural relationships of credibility of online information, its antecedents, and its subsequent consumer responses. It is also interesting to examine the moderating effects of the independent variables in the structural relationship measurement.

Moreover, this research was conducted with one type of travel services in order to enhance internal validity of the experimental design. For this reason, generalizability of findings to other types of services may be limited since other types of services may have different characteristics from hotel services investigated in this study. Further study may investigate other types of services or products or compare different types of them in order to gain more insights on the issue of CGM information credibility, its antecedents, and its subsequent consumer responses.

Among different types of CGM website, this study only examined one type of CGM; which was online review sites. This is another limitation of this study. There are a lot of CGM
applications with different characteristics and mechanisms now providing travel information; such as weblogs and Facebook. The issue of anonymity, for example, may be different in online review sites, blogs, and Facebook, and the differences among those media may need to be addressed differently as well. Similar further study needs to be conducted for other types of CGM in order to address this limitation.

6.5. Conclusion

In this chapter, a discussion and comparison of the existing literature to the findings of this study is presented to establish the contribution this research makes to the resolution of the research problems, to the advancement of managerial practices, and to the enrichment of the body of marketing and business knowledge. The research limitations are drawn and future directions are suggested. In brief, this research provides a framework for understanding how consumer perception of credibility of online information is developed and how it affects trust and purchase intention, and how source identity and information valence affect consumer responses to online consumer-generated information. This study has been shown to be of conceptual and managerial interests. The hypotheses generated are mostly supported and offer contributions to the body of knowledge in tourism marketing and consumer studies.
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