DOES EMBEDDING SOCIAL MEDIA CHANNELS IN HOTEL WEBSITES INFLUENCE TRAVELERS' SATISFACTION AND PURCHASE INTENTIONS?

By

AJAY KUMAR ALURI

Bachelor of Technology in Computer Science and
Information Technology
Jawaharlal Nehru Technological University
Hyderabad, Andhra Pradesh, India
2004

Master of Science in International Studies
Oklahoma State University
Stillwater, OK
2007

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
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Dissertation Approved:

Dr. Lisa Slevitch

Dissertation Adviser

Dr. Murat Hancer

Dr. David Njite

Dr. Robert Larzelere

Outside Committee Member

Dr. Sheryl A. Tucker

Dean of the Graduate College

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CHAPTER I

INTRODUCTION

Background

According to Internet World Stats (2011), the number of worldwide Internet users increased exponentially from 360 million in 2000 to 2.1 billion in 2011. The World Wide Web (WWW), for instance, has grown to more than 50 billion web pages in 2011 (WorldWideWebSize, 2011). In the last decade, growth in the size of the Internet and WWW has been largely driven by two "mega trends": online search engines and social media channels (Xiang & Gretzel, 2010). Google, Yahoo, and Bing the three most popular search engines based on the number of hits, have enhanced the way customers search for information and make purchase decisions (StatCounter, 2011). However, Social Networking Sites (SNSs) and blogs make up the top share of Internet usage, with two-thirds of world Internet users visiting them in 2010 (Nielsen, 2010a).

The travel business is one of the leading industries that use web-based applications to reach Internet users. Unlike traditional customers, Internet users are just one search away from finding a better product or service online. Therefore, their switching power is high and keeping them on the website becomes imperative. Hotel websites are one of the fastest-growing reservation channels among travelers.

In 2009, 66% of U.S. Internet users reported making travel reservations online (U.S. Travel Association, 2009). In 2010, 52% of leisure and 42% of business travelers made reservations through the web (Travelport, 2010). One research study identifying consumer travel trends in twelve countries shows that the top visitors of search engine websites are travelers (Travelport, 2010). Law and Huang (2006) found that the Google search engine was mostly visited by travelers to search information. According to Hitwise (2011, 2012), Facebook is the most visited social media channel outpacing search engine websites, including Google.

In an environment where businesses have to compete for every online traveler, understanding travelers' needs and exploring satisfaction and purchase intentions are essential for the success of hotel businesses (Dotan, 2002; Jeong et al., 2003; Law & Cheung, 2006).Considering the impact of social media on Internet users, it is important to understand its role for hotel businesses, in particular the online aspect of lodging operations. In that regard, it is essential to know how many hotel websites are embedding social media channels and what kinds of social media are predominantly used by hotel websites. Do hotel websites with embedded social media channels have higher levels of travelers' satisfaction and do they improve travelers' purchase intentions? If yes, what kind of embedded social media channels do travelers prefer to use while browsing hotel websites? All those questions need to be answered as developments in information technology profoundly affect the hotel industry.

The DEI Worldwide (2008) states that social media is comprised of the following online channels: Social Networking Sites (SNSs), blogs, virtual communities or chat rooms, forums, video sharing websites, review sites, and travel Wikipedias. Based on social presence

or media richness and self-presentation or disclosure, Kaplan and Haenlein (2010) classified social media channels as collaborative projects (e.g. Wikipedia, blogs, etc...), content communities (e.g., YouTube, other SNSs, etc...), and virtual games or social worlds (e.g., World of Warcrafts, Second Life, etc...). Boyd and Ellison (2008) and Edosomwan et al. (2011) related the history of social media and proposed that it was not a new concept but can be a strategy of broadcasting through a medium that provides two-way communication. Social media is also considered a scalable communication technology that can make Internet-based communications into an interactive platform (Mantalvo, 2011). Kambil (2008) describes web-based social media as "social web" that provides real-time connectivity among businesses and Internet users through websites. As social media provides a unique platform for web applications that focus on user participation (Boyd & Ellison, 2008; Gruber, 2006; Kambil, 2008), most online businesses have begun embedding social media channels on host websites.

Embedding social media channels

In the last two decades, commercial websites have shifted from a unidirectional information provider (Web 1.0) to multidirectional collaborative web-technologies (Web 2.0) (Kambil, 2008; Park & Thelwall, 2006; Schilling, 2010). Kambil (2008) and Schilling (2010) describe web pages in Web 2.0 as more interactive and integrated because of their embedded hyperlinks. The technology called Object Linking and Embedding (OLE) was first developed by Microsoft (2007), making it possible for websites to embed objects, links, and multimedia to enhance user experience. Now, most business websites provide embedded hyperlinks, for

instance social media channels, as "an integral part" of their company website to encourage user interaction through these channels (Merriam-Webster, 2011).

Uzzi and Gillespie (2002) called this practice of embedding social media channels on websites social embeddedness. They define it as "the extent to which organizations provide links of social networking platforms that offer social attachments, such as friendship and kinship within the web" (p. 157). Agarwal (2009) states that almost everything can be embedded on websites today and the most embedded applications and features include RSS (Really Simple Syndication) feeds, Flash and HD videos, audio files, photos, web albums, calendars, charts, graphs, animations, blogs, documents, presentations, spreadsheet data, maps, and SNSs.

The overall eBusiness strategy of firms is to use websites effectively in travelers' acquisition and retention, which is directly related to understanding what makes them satisfy (Dotan, 2002; Huang & Lin, 2006). It is reported that 46% of travelers are booking flights and hotels directly on company's websites, whereas only 21% are making reservations through online travel agencies (Travelport, 2010). By embedding social media channels on hotel websites, more travelers may use these websites for making their travel plans and reservations. Nevertheless, in the travel industry, most practitioners wonder if social media channels embedded on business websites truly influence traveler behavior (McKay, 2010; O'Reilly, 2005). McCarthy, Stock, and Verma (2010) insist that social media is changing the way leisure travelers make their hotel decisions. Travel websites are embedding social media to provide personalized services, enhance marketing strategies, and build value-based relationships (DEI Worldwide, 2008; McKay, 2010; Smith, 2009).

Several recent surveys of college students found that about 88.5% to 91% of respondents used various social media channels every day (Ellison et al., 2007; Miller et al., 2010; Pempek et al., 2009; Wiley & Sisson, 2006). These and other findings indicate that SNSs have already become an indispensable tool for communication and entertainment among young adults and their usage is not likely to diminish in the near future (Das & Sahoo, 2011). The popularity of social media is not limited to young adults. A research study conducted by Pew Internet and American Life Project found that older adults, especially ages 50 and older, were the fastest growing segment of social media users, and that user population has doubled in 2010 (Madden, 2010). These studies suggest that embedded social media channels have a unique potential to attract young and old travelers.

SNSs are the most used channel in social media even though Kaplan and Haenlien (2010) classified them as having mediocre levels of media richness and social presence (Lenhart, 2009). Several studies have shown efforts to assess the reasons why social media has been getting more attention. Kietzmann, Hermkens, McCarthy, and Silvestre (2011) describe seven building blocks of social media channels: identity, conversations, sharing, presence, relationships, reputation, and groups. These building blocks identify various functionalities that may explain why users seek various channels, but still do not provide insights on users' preference of social media channels embedded on business websites. One possible indication from Borgatti, Mehra, Brass, and Labianca (2009) found that individuals that are involved in a social network may conform to group norms as they correspond regularly with each other. Hess, Lang, and Xu (2011) theorized that social media channels enable users to embed themselves in an online social network.

An analysis of the top 10 websites on Hitwise (2012) discovered that most travelers visited map websites, online reservation websites, and airlines websites. Meanwhile, only one hotel website, Hotels.com, was able to gain a top 20 ranking. It is unclear why hotel brand websites are less-frequently visited by travelers and why Hotels.com is the only website that stands out among other hotel websites. A short visit to the Hotels.com website suggests that social media channels play a major role as more travelers like and talk about their products and services compared to other sites. To recognize hotel websites, the Web Marketing Association (2010) presents the best hotel and lodging website award called the "Webaward." Interestingly, social media is not one of the criteria for this award, even though the best website for 2011 uses social media channels extensively.

O'Conner (2008) advises that the success of the hotel industry depends on actively embracing social media and its applications to generate incremental business and build customer loyalty. The fact that more travelers are using social media to make travel plans and purchases (DEI Worldwide, 2008; McCarthy, 2010; Travelport, 2010) underscores the growing need to explore social media's influence on travelers using online websites. In the context of travel websites, website quality and its influence on purchase intentions is widely researched (Bai et al., 2008; Jeong et al., 2003; Law & Bai, 2008; Law & Hsu, 2006; Law & Cheung, 2006; Nusair & Kandampully, 2007; Travelport, 2010). Pyo, Mihalik, and Uysal (1989) recommend periodic research to analyze traveler behavior and improve the tourism market share, and few researchers have recommended future studies on social media influence among online tourism markets (Buhalis & Law, 2008; Xiang & Gretzel, 2010).

Problem Statement

Despite this, very few studies have explored the influence of embedded social media research in the travel industry (Kaplan & Haenlein, 2010; McCarthy et al., 2010; Riegner, 2007). In travel industry research, the suggested measures of customer satisfaction with the hotel website are navigability, playfulness, information quality, trust, personalization, and responsiveness (Nusair & Kandampully, 2007). When comparing travel websites, Law and Bai (2008) suggest website quality factors play a major role compared to functionality factors in enhancing satisfaction and purchase intentions. It has also been found that cheaper prices, a simple reservation process, convenience, and price comparison features on websites improve traveler satisfaction (Travelport, 2010).

Though several social media studies have been done, very few studies have focused on travelers' needs and specific gratifications they seek when using embedded social media channels, and how those would influence their purchasing behavior (Cheung et al., 2010; Johnson & Yang, 2009; Kaye, 2010). Meanwhile social media may have become so significant that search engines may direct travelers to these channels (Xiang & Gretzel, 2010). Law and Huang (2006) claim that the Google search engine website is travelers' most used channel to find travel and hotel websites. DEI Worldwide (2008) found that 45% of users' forward information found online to social media websites. There is a lack of research concerning how social embeddedness influence individuals' behavior in information systems, marketing, and tourism management research (Takac et al., 2011).

To address this issue, several researchers and practitioners have recommended further exploration of the topic in order to understand the impact of social media on travelers'

behavior (Boyd & Ellison, 2008; Diffley et al., 2011; Hess et al., 2011; Thevenot, 2007; Xiang & Gretzel, 2010; Zhang et al., 2011). Moreover, the travel industry is information-intense, where mostly preferred embedded social media channels should be identified in order to study the impact on consumer behavior (Buhalis & Law, 2008; Hess et al., 2011; Law & Hsu, 2006; Qu & Lee, 2011; Xiang & Gretzel, 2010).

Purpose of the Study

In the Uses and Gratifications (U&G) approach proposed by McQuail, Blumler, and Brown (1972) and Katz, Blumler, and Gurevitch (1973), it is assumed that travelers actively use various mass media channels including social media to satisfy their individual needs. Travelers browsing websites are expected to seek specific media channels for gratification purposes, which lead to purchase intentions based on their satisfaction. By examining individual traveler's needs and motivations to visit hotel websites, businesses can enhance their tourism marketing strategies and visibility in search engines, also referred to as search engine optimization. Examining the role of social media in the online travel, Xiang and Gretzel (2010) recommend tourism organizations to use social media for "advertising or providing contents of sites and by integrating social media components on the supplier website" (p. 187). The primary objectives of this study were proposed to examine whether integrating or embedding social media channels on hotel websites influence travelers satisfaction and purchase intentions.

In the last decade, mass media communications researchers have widely explored user gratifications in using various eCommerce and user-generated websites (Ebersole, 2000; LaRose & Eastin, 2004; Leung, 2009; McQuail, 2005; Papacharissi & Rubin, 2000). In previous research studies that have adopted the U&G approach, it has not been explored whether embedded social media channels influence travelers' satisfaction and purchase intentions, as compared to websites without embedded social media. Travel businesses can enhance their websites in order to meet traveler needs, once they have understood the differences between the gratifications travelers obtain on websites with embedded social media channels, versus those without. The casual relationships between traveler gratification

factors, satisfaction, and purchase intentions are not been widely explored in the context of hotel websites with embedded social media channels versus those without social media channels.

The main purpose of this research is to explore how embedded social media channels influence travelers' perceptions of host travel websites. This study will examine specific gratifications travelers look for while browsing hotel websites with and without embedded social media channels. Furthermore, the differences in satisfaction and purchase intentions of travelers after browsing the hotel websites with and without embedded social media channels will be examined. Later, the relationships among traveler gratifications, satisfaction, and purchase intentions while using the hotel websites with, versus those without embedded social media channels were examined. Additionally, the most-used embedded social media channels used among hotel businesses and their brand websites was explored. Finally, this study explored travelers' preferences in using various embedded social media channels when they are available on hotel websites. To address these concerns, the following primary and secondary research objectives have been considered for this study.

Research Objectives

The research objectives are divided into primary and secondary objectives.

General objectives

1. To explore any differences in gratification levels that travelers obtain when browsing hotel websites with, versus those without embedded social media channels.
2. To examine the influence of embedded social media channels on travelers' satisfaction while using hotel websites.
3. To examine the influence of embedded social media channels on travelers' purchase intentions while using hotel websites.
4. To explore major social media channels used among top hotel brand websites.
5. To identify which embedded social media channels travelers prefer to use on hotel websites.

Research Questions

Primary research questions

1. Is there any difference between the levels of fulfilled gratifications of travelers using hotel websites with, versus those without embedded social media channels?
2. Does the presence of embedded social media channels influence travelers' satisfaction with a hotel website?
3. Does the presence of embedded social media channels influence travelers' purchase intentions with a hotel website?

Secondary research questions

1. What kind of embedded social media channels are predominantly used among hotel brand websites?
2. What kind of embedded social media channels do travelers prefer to use while visiting host travel websites?

Significance of the Study

Theoretical Contribution

The transitions from Web 1.0, a "basic publishing and transaction medium" to Web 2.0 or Travel 2.0, a "social and co-created web," has completely changed the way travelers connect with each other (Kambil, 2008, p.56). The exponential growth of social embeddedness among websites highlights the need to empirically study its influence on consumer behavior (Takac et al., 2011), specifically in the areas of travelers' satisfaction and intentions. At the same time, academic research on the influence of such embeddedness on consumer behavior is still in its infancy (Kaplan & Haenlein, 2010; Kietzmann et al., 2011). This study will analyze previous research conducted in the diverse fields of information systems, mass media communications, travel, and the hotel industry in order to explore the influence of social media channels on consumer behavior.

Montalvo (2011) suggests that managing social media is a specialized skill that needs to be explored from a wide range of disciplines such as communications, marketing, public relations, information systems, and strategic management. By exploring and synthesizing research studies in these disciplines, this study will empirically explore the influence of embedded social media channels on travelers' satisfaction and intentions. Takac, Hinz, and Spann (2011) argue that there is a "lack of coherent understanding of how social connections (including social media channels) impact individual and organizational decision making." The researchers seem to agree that human decision making is strongly influenced by social environment and individual behavior is influenced by embedded networks and their interpersonal relationships (Granovetter, 1985).

Hence, this study will offer new knowledge, in the specific context of the hotel business, concerning travelers' behavior while using embedded social media channels. This study will provide an empirical support to the knowledge of online travelers that examine the influence of various embedded social media channels on host websites.

Practical Contribution

Many traditional businesses in the travel industry are facing tremendous competition in acquiring new customers, while online travel businesses are reaching out in many innovative ways, such as social media networking. According to Hitwise (2011), the average visit duration of travelers on online travel industry websites is 6 minutes and 53 seconds. In this brief estimated time, hotel websites are expected to meet every expectation of the traveler visiting their site. It is quite evident that in eBusiness, most websites must focus on the customer, and on offering transparent product or service information. In sharp contrast to online travel websites, the total time spent on SNSs in the U.S. increased 277% in 2010 (Nielsen, 2011) and more travelers are visiting these sites. These reports from Nielsen (2011, 2010a, 2010b) suggest that websites that are embedded with social media elements may enhance the average visit duration of travelers on the website.

The implications of the proposed study will help small, medium, and large businesses in the hotel industry to improve their travelers' satisfaction without making huge marketing investments. The results of this study will help practitioners, especially web administrators or web-based travel companies to use websites more efficiently and effectively. With an increased understanding of travelers' preferred social media channels, hotel businesses and

practitioners can enhance their website as a "one-stop" shopping site. Independently-owned and small-scale hotel businesses can increase their competitive edge with the knowledge gained through this study, which will allow them to enhance their websites with the most-used social media channels found on larger hotel brand websites. While hotel websites are still considered a major source of information in the current market, it is increasingly necessary to study the growing importance of social media. Social media is built on establishing relationships with consumers and businesses, so that businesses can "pull" travelers by engaging and empowering them (Diffley et al. 2011; Edosomwan et al., 2011; Montalvo, 2011). This knowledge will help practitioners establish new strategies and improve the social media presence, which in turn may enhance traveler satisfaction and encourage more purchases.

Definition of Key Terms

Social Media: Kaplan and Haenlein (2010) define social media as "the group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, which allows the creation and exchange of user-generated content" (p.60). Milano, Baggio, and Piattelli (2011) gave the touristic version of Web 2.0 the name Travel 2.0 (Introduction, para. 3). DEI Worldwide (2008) states that social media can be grouped into the following channels: SNSs, blogs, virtual communities or forums, online chat rooms, video sharing websites, review sites, and Wikipedias.

Social Network and Social Networking Sites (SNSs): SNSs can be defined as "a social structure made up of individuals or organizations who are tied by one or more specific types of interdependency, such as friendships, kinships, common interests, financial exchanges, dislikes, intimate relationships, or relationships of beliefs, knowledge or prestige" (Takac et al., 2011, p. 189). According to Nielsen (2011), the top five SNSs are Facebook, MySpace, Twitter, Classmates, and LinkedIn. Other emerging sites include Tagged, Hi5, myYearbook, Google+, Friendster, Orkut, Pinterest, and Flicker.

Social Embeddedness: Uzzi and Gillespie (2002) define social embeddedness as "the extent to which organizations are connected to other actions or linkages of a social network or the extent to which human action of consumers (including their economic behavior) takes place within a web of social attachments such as friendship and kinship" (p. 157). It is also described as "the degree to which commercial transactions take place through social relations

and networks of relations that use exchange protocols associated with social, noncommercial attachments to govern business dealings" (Uzzi, 1999, p.492).

Satisfaction: Satisfaction is "a judgment that a product or service feature or the product or service itself that provided a pleasurable level of consumption-related fulfillment, including levels of under-or-over fulfillment" (Oliver, 1997, p.11-13). Oliver (1999) describes satisfaction as "delightfully meeting the needs, goals or desires of the customer" (p. 34). In the context of online purchasing, Kotler (1997) says that satisfaction results from the experiences of the customer in various stages of online purchasing.

Purchase Intentions: Purchase intentions are the consumers' inclination to buy a particular product or service that is influenced by his or her perceptions, attitude, and satisfaction (Morrison, 1979; Spreng et al., 1996; Taylor & Baker, 1994). Purchase intention is a term used to describe the willingness to buy and likelihood of recommending a product or service to others (Dodds et al., 1991; Prendergast et al., 2010).

CHAPTER II

LITERATURE REVIEW

This chapter is a review of previous literature related to traveler satisfaction and purchase intentions that provide background to the established research objectives and questions. The review of literature is divided into the following sections:

- Travelers' Satisfaction
    - Uses and Gratification (U&G) Approach
    - U&G approach towards the Internet and websites
    - U&G approach towards social media channels
    - User gratifications of perceived informativeness, perceived enjoyment, and perceived social interaction
    - Influence of embedded social media channels on satisfaction
- Travelers' Purchase Intentions
    - Theory of Reasoned Action (TRA)
    - Technology Acceptance Model (TAM)
- Proposed Research Framework
- Summary of Research Hypotheses

Traveler Satisfaction

In Marketing and Information Systems (IS) research, satisfaction is a fundamental concept in every eBusiness function and practice (Churchill & Suprenant, 1986; Dotan, 2002; Law & Bai, 2008; McKinney et al., 2002). Maslow's (1954) hierarchy of needs (psychological, safety, belonging and affection, esteem, and self-actualization) was based on the concept that the satisfaction of individual's needs influences his or her behavior. With this in mind, when looking into travelers' behavior, Crompton (1979) argues that the socio-psychological needs of a traveler play a major role in travelers' perception of experiences and satisfaction. Another study proposed that satisfaction is a desired outcome of different factors when traveler needs are met (Bearden & Teel, 1983; Ho & Wu, 1999). This study will explore previous literature in understanding travelers' needs, identify various gratifications that travelers seek while browsing through a hotel website, and examine the influence of social media channels on travelers' satisfaction.

Gnoth (1997) proposed that various needs trigger motivation, and interaction between needs elements influence outcome variables, such as satisfaction. The concept of push-pull further explains this notion; several researchers propose that traveler psychological needs are pushed internally when making decisions and later pulled by external needs, such as destination attributes (Kim & Lee, 2001; Uysal & Jurowski, 1994; Walker & Walker, 2011). It is also found that perceived performance, expectations, and subjective disconfirmation influence travelers' satisfaction (Tse & Wilton, 1988). Pearce (1996) applied Maslow's hierarchy of needs to the travel industry by demonstrating the relationships between various levels of traveler needs and by showing that as lower needs were satisfied, the traveler sought to fulfill the higher needs in the hierarchy.

In the context of IS, satisfaction "is an outcome of perceived performance of a product or service in relation to the expected performance prior to (online) purchase or use" (Myers, 1991, p.35). Many researchers propose that, "website quality may significantly impact the success of the eCommerce" (Li et al., 2001) as the website performance directly influences satisfaction (Bai et al., 2008; Li, 2009; McKinney et al., 2002). In the field of IS research, most researchers focus on website quality dimensions and propose that information, system, and service quality influence satisfaction (DeLone & McLean, 2003, 2004; Loiacono, et al., 2002; McKinney, 2002). Apart from technical, informational, and product characteristics, Ho and Wu (1999) suggest that the website homepage presentation plays a vital role in the satisfaction of online shoppers. Dholokia and Rego (1998) recommend websites that are "well-embedded in the web network with greater number of links on the home page appear to attract visitor traffic" (p. 735). However, previous literature has not addressed whether embedded social media channels attract more travelers to hotel websites (Kaplan & Haenlein, 2010; McCarthy et al., 2011).

In the travel industry, reservation and hotel price information are considered vital for travelers browsing the host website (Bai et al., 2008; Law & Hsu, 2005). On the other hand, Law and Hsu (2006) reported that there is no difference in most of the website dimensions and attributes between travelers that use hotel websites, versus those that never used a hotel website. Nusair and Kandampully (2008) found that very few travel websites are up to the standards of website quality dimensions (navigability, playfulness, information quality, trust, personalization, and responsiveness) that can enhance satisfaction. Law and Bai (2008) also insist that the quality of functionality and usability

factors on travel websites influence satisfaction. McCarthy et al. (2010) and DEI Worldwide (2008) found significant numbers of travelers visit social media websites while making hotel purchase decisions online.

In the field of mass communication theory, most researchers examine the needs of the users classifying by motive the uses of media and satisfactions attained (McQuail, 2005). One of the most common approaches is the Uses and Gratifications (U&G) approach, derived from the Active Audience theory that claims that any effect has to be consistent with the needs of the audience (Lin, 1996; Papacharissi & Rubin, 2000; Stafford & Stafford, 2001). Using the U&G approach, this study examines the influence of embedded social media channels on travelers by exploring the specific gratifications they seek to fulfill while browsing the website. Later, traveler satisfaction and purchase intentions will be examined as outcome variables (Cronin & Taylor, 1992; Huang, 2008; Law & Bai, 2008).

Uses and Gratifications (U&G) Approach

In social science theory, particularly in the fields of mass media and communications, the U&G approach is extensively established and widespread. Cantril (1942) in Ruggiero (2000) proposes this approach in radio communications to "study gratifications that attract and hold audiences to kinds of media and the types of content that satisfy their social and psychological needs" (p.3). In the early 1940s, the effects of media and the study of gratifications focused on intentions and choice of media among individuals, especially looking at areas such as radio, newspaper reading, quiz programs,

music, comics, magazines, phonogram, and film (Huang, 2008; Ruggiero, 2000). Drawn from Katz et al. (1973, p. 510-511), the following five elements for the U&G framework are proposed in the context of the travel industry:

- The travelers' use of mass media is initiated based on a specific goal or purpose
- An individual traveler makes decisions in using certain media based on their need gratification
- The various sources of media compete with each other in meeting the traveler's need satisfaction
- The goals of individual travelers in using mass media can be derived from their motives
- When exploring traveler orientations, the significance of popular mass culture needs to be ignored

The U&G theory examines the motivational dimensions of individuals in using various mass media channels, as derived from their uses of media, and their goals, which are meant to achieve desirable gratifications (Blumler & Katz, 1974; Lin, 1977; Newhagen & Rafaeli, 1996; Papacharassi & Rubin, 2000). Drawing upon Katz et al. (1973) and McQuail's (1994) framework, many researchers have applied the U&G approach in other disciplines. As discussed by Huang (2008) and Ruggiero (2000), the U&G approach is widely used in studies about television, camcorders, and computers, as well as e-mail, Internet, and the WWW. Demonstrating just how generalizable the U&G approach is, Stafford (2008) says "the terms uses and gratifications refer loosely to media use activities that arise from unmet needs in audience members (uses), and the gratifying

need-satisfaction process that results from engaging in motivated media use triggered by some need (gratifications)" (p.3).

U&G Approach towards the Internet and Websites

In the last two decades, the U&G approach has been successfully adopted in Internet technology and applications research. Newhagen and Rafaeli (1996) suggest using the U&G approach to study the Internet in the context of mass communication and social science research. Dicken-Garcia (1998) states, "the Internet use may reshape discourse, community, people's perceptions, and communication behavior" (p.19). Papacharissi (2009) states that "the strengths of U&G approach is in its application and significant framework that it offers to study the motives, social, psychological antecedents, cognitive, attitudinal, and behavioral outcomes" (p.137). The fundamental theoretical concept of the U&G approach was depicted by Stafford (2008, p.3) in a visual aid as provided in Figure 2-1.

The Internet enables users to communicate informally and build relationships online in a different way than any other medium including face to face and phone communications (Dicken-Garcia, 1998). Many researchers agree that the U&G approach is applicable in understanding Internet users, as they purposely use this media to fulfill their intentional choices, usage, and goals (Ko et al. 2005; Papacharissi & Rubin, 2000; Rayburn, 1996). Stafford (2003) proposed that user gratifications when adapted to Internet utilization, can be examined by process (resources, search engines, searching, surfing, technology, and websites), content (education, information, knowledge, learning, and research), and social gratifications (chat, friends, interaction, and people).

Meanwhile, Newhagen and Rafaeli (1996) suggest multimedia, packet switching, hypertextuality, synchroneity, and interactivity as characteristics of communication that users pursue while browsing on the Internet.

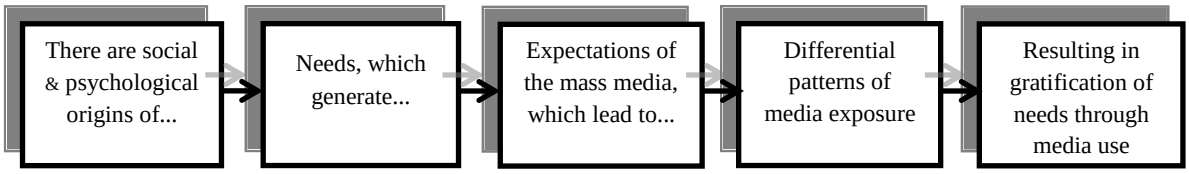


Figure 2-1. "Uses and Gratifications Illustrated" from Stafford (2008, p.3)

While exploring relationships between individual personalities and Internet use, Orchard and Fullwood (2010) found three significant activities among users: leisure activities, social activities, and informational activities. Leung (2009) observed that website users exhibited needs such as recognition, cognition, social, and entertainment needs. In regard to outcome and consequences, most studies have measured attitudes, intentions to use, usage, and satisfaction. The U&G approach established in various user gratifications and satisfaction studies in mass media communications is also applicable to websites with embedded social media channels (Eighmey & McCord, 1998; Ruggiero, 2000). Therefore, it can be theorized that the user's needs to browse hotel websites can be measured using process and content gratifications provided by Stafford and Stafford (2001) and Stafford (2003), such as seeking enjoyment, searching information, surfing the web, and finding online resources to meet their travel goals.

Table 2-1. Uses and Gratifications Approach Used Among Various Internet Websites

Author(s)	Context/Types of Websites	Antecedents and independent variables	Outcome variables
Luo, Chea, and Chen (2011)	Web-based information service adoption	Information seeking, interpersonal utility, entertainment, pass time, convenience	Behavioral intentions or usage
Leung (2009)	User-generated content of web	Recognition needs, cognitive needs, social needs, entertainment needs	Gratifications of Internet content generation, civic engagement, psychological empowerment
Teraumpon (2009)	E-commerce websites	User interface quality, product information quality, service information quality, site awareness, perceptions of security	Information satisfaction, website commitment, website usage/ online purchase
Shao (2009)	User-generated media (Ex: YouTube, MySpace, Wikipedia)	Information, entertainment, social interaction, community development, self-expression, self-actualization	Usage, consumer satisfaction
Huang (2008)	B2C websites	Entertainment, irritation Mediation: Perceived ease of use, Perceived usefulness	Attitude, behavioral intention, satisfaction, usage
Ko, Cho, and Roberts (2005)	Internet websites (interactivity)	Information, convenience, entertainment, social interaction	Attitude toward the brand, purchase intention
Kaye and Johnson (2004)	Websites (for political information)	Guidance, entertainment, convenience, information seeking	Usage of web
Stafford and Stafford (2001)	Websites (Commercial)	Search, cognitive, new & unique factor, social, entertainment	Usage of websites
McClung (2001)	Websites (Radio)	Listen to music, get information, be entertained	Perceptions of value and use
Luo (2002)	World Wide Web (WWW)	Entertainment, informativeness, irritation	Attitude toward the web, web usage, and satisfaction
Ebersole (2000)	WWW	Research and learning, easy access to entertainment, communication and social interaction	Attitudes, opinions, use of web
Ferguson and Perse (2000)	WWW	Entertainment, pass time, relaxation, social information	Web motivation and usage
Eighmey and McCord (1998)	WWW	Entertainment value, personal involvement and relevance, information involvement, clarity of purpose, controversy, credibility	Purchase interest, continuing relationship
Kaye (1998)	WWW	Entertainment, social interaction, passing time, escape, and information	Motivations to use
Wu, Wang, and Tsai (2010)	Online games	Enjoyment, social interaction, achievement	Motivation to play, proactive stickiness

U&G Approach towards Social Media Channels

The U&G approach provides "mediated communication situations via a single or multiple sets of psychological needs, motives, communication channels, content, and psychological gratifications within a particular or cross-cultural context" (Lin, 1996, p.574). Applicable to any mass media communications and IS research, the U&G approach is adopted to examine the influence of social media channels on host websites. Apart from process and content gratifications, social media channels are made available to fulfill the social needs of users in interacting, chatting, and collaborating with friends and other groups of people (Stafford et al. 2004).

In the context of new media, interactivity is one of the dimensions that differed from other marketing communication mediums (Ko et al., 2005; Morris & Ogan, 1996). Quan-Hasse and Young (2010) propose that social information and connectivity are two factors that differentiate user gratifications of social media channels compared to other media channels. Social media channels enhance the interactivity among users and also provide real-time information virally throughout the network, unlike other mass media communications.

Studies with Framework based on U&G Approach

The basic application of the U&G approach to Internet and web-technologies usage has not been widely accepted (LaRose & Eastin, 2004). On the contrary, an alternative to the U&G approach, with an integrated framework to explore Internet and web gratifications, is recommended by LaRose and Eastin, (2004) and Orchard and

Fullwood (2010). LaRose, Mastro, and Eastin (2001) and LaRose and Eastin (2004) adapted a social cognitive theory framework to the U&G approach with a model that explained more variance in Internet usage. Luo et al. (2011) combined a motivational model and the U&G approach to explain user acceptance based on intrinsic and extrinsic motivations.

Taking it a step further, Papacharissi (2009) recommended a "collaboration or integration with social network perspectives that could broaden the interrogative scope of U&G, by allowing it to examine not only overlapping networks of media, but also overlapping networks of media users and producers" (p.144). Luo (2002) adopted the U&G approach and found that the influences of informativeness and entertainment on attitudes towards the web can lead to satisfaction and web usage. The research studies that applied the U&G approach to various social media channels were presented in Table 2-2.

The U&G theory has been widely adopted to examine the relationships between consumer gratifications, satisfaction, and purchase intentions in using technological mediums such as the Internet and social media websites (Tables 2-1 & 2-2). However, the direct and indirect influences of embedded social media channels on hotel websites have not been widely explored (Uzzi & Gillespie, 2002). Therefore, it is worthwhile to examine the strength of relationships between website with treatment and without treatment, gratification factors, traveler satisfaction, and purchase intentions.

Table 2-2. Uses and Gratifications Approach Used Among Various Social Media Channels

Author(s)	Social media channel/s	Antecedents and independent variables	Outcome variables
Li (2011)	Social Networking Sites (SNSs)	Perceived enjoyment, social influence, sociability, status	Intention to use
Dunne, Lawlor, and Rowley (2010)	SNSs	Communication, friending, identity creation, entertainment, escapism & alleviation of boredom, information search, interacting	Peer acceptance, relationship maintenance, safety from embarrassment and rejection, and engaging
Nyland (2007)	SNSs	Gratification opportunities, social utility, entertainment	Intentions to use
Smock, Ellison, Lampe, and Wohn (2011)	Facebook	Entertainment, information sharing, social interaction, & habitual pass time	General use and specific features
Cheung, Chiu, and Lee (2011)	Facebook	Subjective norm, group norms, social identity, values, & presence	We-intention
Quan-Haase and Young (2010)	Facebook	Pastime, affection, fashion, share problems, sociability, social information	Use of Facebook
Park, Kee, and Valenzuela (2009)	Facebook	Socializing, entertainment, self-status seeking, information	Political, civic participation
Raacke and Bonds-Raacke (2008)	Facebook & MySpace	Keep in touch with old and current friends, post pictures, make new friends, locate old friends	Communications, social needs
Chen (2011)	Twitter	Active months on twitter, hours per week on twitter, frequency of tweets, total tweets, replies	Need to connect
Johnson and Yang (2009)	Twitter	Social motives, information motives	Satisfaction
Hanson and Haridakis (2008)	YouTube	Information, entertainment, interpersonal communication	Watching content, sharing content
Kim and Johnson (2012)	Blogs (Political)	Political surveillance/guidance, expression/affiliation, convenience/information seeking, entertainment	Use and motivations, attitudes, Intentions to use
Kaye (2010)	Blogs	Information seeking, media sentiment, expression/affiliation, guidance/opinion seeking, blog ambience, personal fulfillment, political debate, variety of opinion, specific inquiry	Intentions to use
Cheung and Lee (2009)	Virtual Community	Purposive value, self-discovery, entertainment value, social enhancement, maintaining interpersonal interconnectivity	Satisfaction, commitment, group norms, intention to continue using, intention to recommend
Farfaglia, Dekkers, Sundararajan, Peters, and Park (2006)	Online community	Community involvement, attitude, expectation, cultural values, demographics/family composition	Gratifications, media satisfaction
Sangwan (2005)	Virtual Community	Information needs, social interaction, personal uses, self-expression uses, entertainment	User satisfaction

Perceived Informativeness

Based on the results in Table 2-1, it can be proposed that the perceived informativeness of a website influences satisfaction (Huang, 2008; Luo, 2002; Shao, 2009; Teraumpon, 2009). In addition, other studies have proposed that perceived informativeness influences behavioral intentions, including purchase intentions (Eighmey & McCord, 1998; Huang, 2008; Ko et al., 2005; Kaye & Johnson, 2004; Luo et al., 2011; McClung, 2001; Teraumpon, 2009). In the case of travel research, information presented on the hotel website directly influences traveler satisfaction and enhances purchase intentions (Law & Bai, 2008; Law & Hsu, 2005; McCarty et al., 2010; Nusair & Kandampully, 2008). As shown in Table 2-1, several researchers also suggest that perceived informativeness of social media websites influence satisfaction and intentions to use (Johnson & Yang, 2009; Kaye, 1998; Kaye, 2010; Kim & Johnson, 2012; Sangwan, 2005).

Using the U&G approach, initial web use questions were explored and many researchers suggested various factors in understanding the wide growth of web media channels (Newhagen & Rafaeli, 1996; Ruggiero, 2000). When exploring the motivations that drive web use, Stafford and Stafford (2001) found that the first motivation was information search. Luo (2002) found that websites that offer resourceful and helpful information contribute a positive feeling to a user's general attitude toward the web. Other researchers found that if a particular medium does not satisfy the gratifications customers are seeking, they will choose alternate media options to fulfill them (Johnson & Yang, 2009). In fact, much research found that the gratification of using websites to

seek information directly influences satisfaction (Johnson & Yang, 2009; Luo, 2002; Shao, 2009; Sangwan, 2005; Teraumpon, 2009).

In the context of hotel websites, travelers may seek information gratifications in the form of information available on the hotel website, and their satisfaction may be directly influenced by embedded social media channels, if available, on the hotel website. A few studies that adopted the U&G approach found that the informativeness of the website indirectly influences usage of the web through attitude (Ko eta l., 2005; Luo, 2002). Terumpon (2009) found that the motivation to obtain information is directly correlated with website use, including anything from general online activities to online purchases. Later, Luo et al. (2011) compared the motivational model and the U&G approach and found that when using the U&G approach, gratification factors including the informativeness of a website directly impact behavioral usage without the mediating influence of attitude or behavioral intentions. In the context of travel websites, Law and Bai (2008) & Bai, Law and Wen (2008) found that website quality factors indirectly influence purchase intention through satisfaction.

It should be noted that so far it has not been established whether embedding social media channels on host travel websites enhances satisfaction or purchase intentions. However, it is possible that by providing access to social media channels on hotel websites, hotel businesses may enhance traveler perceived informativeness, since travelers can use these links to browse for more information available through their chosen social network. There is a clear gap in understanding what improves perceived informativeness of hotel websites, particularly the relationship between informativeness and purchase intentions when embedded with social media channels.

When hotel websites are embedded with social media, travelers may have access to additional information that may be perceived more credible or useful, such as reviews and comments from other travelers in the social network. Thus, the travelers' perception of the host website's informativeness may be enhanced by embedding social media channels. Based on this literature review the following hypothesis was formulated:

H_1: Travelers will experience higher levels of perceived informativeness while using hotel websites with embedded social media channels versus websites without embedded social media channels.

Perceived Enjoyment

The studies that adopted the U&G approach (Table 2-1) show that individuals also use websites in order to fulfill their needs and motives of entertainment. Initially, Davis, Bagozzi, and Warshaw (1992) proposed that perceived enjoyment is the extent to which the activity of using information technology is believed to be enjoyable. The same measures of perceived enjoyment are adopted when understanding user gratifications of entertainment needs and motives in the U&G approach (Li, 2011). For the purposes of this study, Perceived Enjoyment (PE) of travelers is used since its measures are similar to entertainment features in the U&G approach.

Stafford and Stafford (2001) proposed entertainment gratification as a process-motivated gratification that is directly influenced by the content of the website. Enjoyment, entertainment, and humor are considered vital motivational factors for revisiting websites (Huang, 2008; Stafford and Stafford, 2001). Shao (2009) said

"entertainment gratifications are more important than information gratifications in triggering media use" (p. 11). Going a step further, entertainment gratifications have been found to have a direct influence on motivation to use the internet and the World Wide Web (WWW) (Feruguson & Perse, 2000; Kaye, 1998; Kaye & Johnson, 2004; Shao, 2009). In the specific context of a website, studies have found that entertainment gratifications directly influence user satisfaction (Cheung & Lee, 2009; Sangwan, 2005). Based on all of this evidence, the travelers' perceived enjoyment of using hotel websites with, versus those without embedded social media channels may directly influence their satisfaction.

Ko et al. (2005) proposed that entertainment gratification indirectly influences purchase intentions through attitude. As mentioned earlier, Luo et al. (2011) found that the U&G motivational factors indirectly influence behavioral usage, with attitude as the mediating factor. In the context of Social Networking Sites (SNSs), studies have recommended that entertainment gratifications, such as perceived enjoyment, directly influence intentions to use and purchase (Cheung & Lee, 2009; Kaye, 2010; Li (2011); Nyland, 2007; Smock et al., 2011). In Management Information Systems (MIS) literature, most researchers found that perceived enjoyment of the website directly influences behavioral or purchase intentions (Heijden, 2004; Venkatesh, 2000).

It is important to mention that user satisfaction is enhanced when websites meet the needs of entertainment (Huang, 2008; Luo, 2002; Shao 2009). It has also been found that perceived enjoyment of a website influences behavior and purchase intentions (Eighmey & McCord, 1998; Ferguson & Perse, 2000; Huang, 2008; Ko et al. 2005; Luo et al. 2011, Leung, 2009; McClung, 2001). Li (2011) states that "users get motivated to

use entertainment features of the website if they find it enjoyable" (p.566). Stafford, Stafford, and Schkade (2004) also state that the U&G approach involves enjoyment when using the website.

The U&G approach used on social media websites (Table 2-2) also shows that the entertainment features of the website and users' perceived enjoyment influence satisfaction and intentions to use or purchase (Cheung et al. 2011; Kaye, 1998; Kim & Johnson, 2012; Li, 2011; Nyland, 2007; Park et al. 2009; Sangwan, 2005). However, it has not yet been established whether travelers' perceived enjoyment is enhanced when social media channels are embedded in a hotel website. Since most social media channels are designed to provide entertainment to their users, these channels may enhance perceived enjoyment of a website when they are used.

For example, travelers may have access to embedded social media channels on host websites to view videos, pictures, animations, and other multimedia that may enhance their perceived enjoyment. These argument lead to the following hypothesis:

H_2: Travelers will experience higher levels of perceived enjoyment while using hotel websites with embedded social media channels versus websites without embedded social media channels.

Perceived Social Interaction

Apart from cognitive and entertainment needs mentioned in the U&G approach, social needs and motives are also considered vital for users using websites (Johnson & Yang, 2009; Leung, 2009). Various U&G approach studies (Table 2-1) show that social interaction gratification influences satisfaction and intentions (Ebersole, 2000; Ko et al., 2005; Shao, 2009; Stafford et al., 2004; Wu et al., 2010). Shao (2009) and O'Connor (2008) states that users interact through websites directly by e-mail, instant message, and chat rooms; or indirectly by rating the content, sharing with others, and posting feedback or comments on the website. Today, most travel and hotel websites have included various features to promote social interaction among travelers. Most researchers that have explored the perceived gratifications of social interaction on various types of websites (Table 2-2) found a significant influence on satisfaction and intentions (Kaye, 1998; Li, 2011; Nyland, 2007; Park et al., 2009; Quan-Haase & Young, 2010; Sangwan, 2005; Smock et al., 2011). However, previous studies have not examined how embedded social media impacts perceived social interaction of travelers (Qu & Lee, 2011; Xiang & Gretzel, 2010).

McMillan (2002) proposed three concepts of interactivity: human-to-human, human-to-document, and human-to-system. This study will focus on human-to-system interaction in the context of travelers and their social needs, motives, and perceived gratifications on travel websites. Some studies have examined the role of social interactivity on advertising effectiveness on websites (Ko et al. 2005). Social gratification plays a vital role among customers who are motivated to use the web to connect with, view, and interact with other people in the network (Kaye, 1998; Stafford & Stafford,

2001). It is believed that the social motives and needs of customers play a direct role in their satisfaction (Cheung & Lee, 2009; Johnson & yang, 2009; Sangwan, 2005). New website designs and social media applications, such as embedded social media channels, enable users to seek social gratifications. In the travel industry, a few researchers have suggested that traveler interaction plays a major role in the online travel community (Buhalis & Law, 2008; Qu & Lee, 2011; Xiang & Gretzel, 2010). In the hotel industry, the perceived social interaction and its direct and indirect relationships with traveler satisfaction has not been widely explored, especially in the context of embedded social media channels.

By integrating social media channels on websites, organizations may be able to reach customers that are seeking social gratifications. In the context of websites and social media channels, a few researchers have suggested that social interaction indirectly influences the usage of websites and purchase intentions (Cheung & Lee, 2009; Ko et al., 2005; Sangwan, 2005; Stafford & Stafford, 2001) and a few researchers have gone farther to suggest that social media may influence intentions in various other industries (Li, 2011; Stafford & Stafford, 2001). Some researchers have recommended further study to examine social actions and uses of websites among customers for interpersonal interaction and information acquisition (Cheung et al., 2011; Stafford, 2003). In the hotel industry, McCarthy et al. (2010) found that travelers were using social media websites make their hotel purchase decisions. However, in the context of embedded social media channels, the direct and indirect influence of perceived social interaction on purchase intentions has not been explored widely.

Including embedded social media channels may enhance perceived social interaction on the hotel website compared to websites without embedded social media channels. By using embedded social media channels, travelers' may have access to their personal social media page as well as the host social media channel, which may then enhance interactions with other travelers, family, and friends in the social network. Consequently, the following hypothesis was formulated:

H_3: Travelers will experience higher levels of perceived social interaction while using hotel websites with embedded social media channels versus websites without embedded social media channels.

Influence of Embedded Social Media Channels on Satisfaction

The U&G approach is mostly used in research with a "how and why" approach to identify social and psychological needs that motivate individuals to seek a particular medium or technology to gratify those needs (Huang, 2008; Ko et al., 2005; Stafford et al., 2004). The gratification categories that have been adopted in this study (perceived informativeness, perceived enjoyment, and perceived social interaction) are based on specific aspects of satisfaction reported by users in previous research studies (Table 2-1 and 2-2) from active use of Internet and websites. The U&G approach focuses on a user-level perspective compared to a mass-level perspective of understanding their media usage (Rayburn, 1996; Stafford et al., 2004). Most studies that embrace the U&G approach consider satisfaction as an outcome variable, derived from various aspects of user gratifications when travelers sought the Internet or websites in order to fulfill their

needs and expectations (Cheung & Lee, 2009; Farfaglia et al., 2006; Huang, 2008; Kaye, 1998; Luo, 2002; Sangwan, 2005; Shao, 2009; Teraumpon, 2009).

Even though there are multiple studies examining the influence of traveler gratifications on satisfaction, the differences in travelers' satisfaction levels between websites with, versus those without embedded social media has not been widely examined in the tourism industry. After an examination of Table 2-1 and Table 2-2, it could be said that traveler gratifications play a vital role in influencing satisfaction. Based on this strong foundation of evidence, it seems that traveler satisfaction directly influences purchase intentions and is a moderating factor where perceived informativeness, perceived enjoyment and perceived social interaction is concerned.

In the case of Facebook, Twitter, and YouTube, travelers may have access to their social media page as well as the hotel's social media page. Therefore, travelers may perceive the host website with embedded social media channels as being more informative, entertaining, and socially interactive. Consequently, the satisfaction in using host websites with embedded social media channels may be higher when compared with host websites without embedded social media channels. This leads to the formulation of the following hypothesis:

H_4: Travelers who use a hotel website with embedded social media channels will have higher levels of satisfaction than those who use a website without embedded social media channels.

Behavioral Intentions

In the last four decades, behavioral intentions have been widely studied among social science researchers. In the early 1960s and 1970s, pioneering studies explored behavioral intentions in predicting consumers' actual behavior (Ajzen & Fishbein, 1969; Fishbein, 1967). Fishbein and Ajzen (1975) and Ajzen and Fishbein (1980) present the Theory of Reasoned Action (TRA), which states that the actual behavior of an individual is determined by behavioral intentions and these intentions are determined by attitudes and subjective norms. Fishbein and Ajzen (1975) define behavioral intentions as the "degree to which an individual's intention is measured based on a specific behavior" (p.288). It has been argued that the TRA is a rational model that provides a general framework in measuring individual intentions, but it cannot provide specific beliefs that influence a particular behavior (Davis et al., 1989). Other researchers also argued that the subjective norms of the TRA were barely cognized, and it was complicated to separate its direct influence on intentions and indirect influence mediated by attitude (Venkatesh & Davis, 2000). Davis (1985) and Davis et al. (1989) suggest using the Technology Acceptance Model (TAM) as an alternative to explain user acceptance to use technology.

In fact, several studies not only used but also extended the TAM model by adding various constructs and antecedents (Dillon & Morris, 1996; Huang 2008, Venkatesh et al., 2003). Venkatesh and Davis (2000) propose a TAM2 that excludes the attitude component while testing the Bagozzi et al.'s (1992) proposition that attitude to accept or use technologies may evolve only when individuals learn to use them. In the service industry, a few researchers have suggested that satisfaction has an attitude-like construct that influences behavioral purchase intentions (Clarke, 2001; Weiss, 2002). Taylor (2008)

proposed a measurement scale, the "Attitude to the Application Process" (AAP) which represents "satisfaction as an internal buying process attitude, which influences purchase intentions" (p.41). Stafford, Stafford, and Schkade (2004) compared all the extended TAM models and the U&G approach and found that TAM models are mostly applicable to "on-the-job" approaches to the use of technology, but the U&G approach explains individual or personal media use of the Internet.

Both the TAM and the U&G approach have found that purchase intentional measures are more effective than behavioral intentional measures in understanding consumer preferences, when it comes to making purchases on the web (Day, 1969; Eighmey & McCord, 1998; Ko et al., 2005; Law & Bai, 2008). Stafford et al. (2004) propose that the gratifications expected or received from using the Internet in the U&G approach are based on individual motivations, but in the TAM, the external variables are based on normative motivations or linked to extrinsic motivations for performance and advancement. Other research also found that individual purchase intentional measures are more accurate than behavioral measures, since multiple factors are involved in evaluating whether intentions lead to actual behavior (Cao & Zhang, 2005; Day, 1969; Sheppard et al., 1988).

Influence of Satisfaction on Purchase Intentions

Travelers tend to search the web to minimize the gap between their expectations and the actual travel experience, so providing a satisfying customer experience is crucial for hotel businesses (O'Connor & Frew, 2002; Szymanski & Hise, 2000). Travelers'

satisfaction on the hotel website has major influence on their purchase intentions, thus increasing the accuracy of predicting their decision to purchase (Bai et al., 2008; Law & Bai, 2008). Increased levels of satisfaction toward the website largely lead to repeat purchases (Berkman & Gilson, 1986; Clarke 2001; Lee, 2002; Patterson et al., 1997; Taylor & Baker, 1994; Taylor, 2008). Unlike the TRA and the TAM and their extended models, the U&G approach "focuses on what consumers do with media rather than measuring the influences of the media on them" (Stafford, 2003). Studies that adopted the U&G approach found that higher levels of satisfaction received from using various social media websites highly influenced purchase intentions (Cheung & Lee, 2009; Huang, 2008; Luo, 2002; Shao, 2009; Teraumpon, 2009).

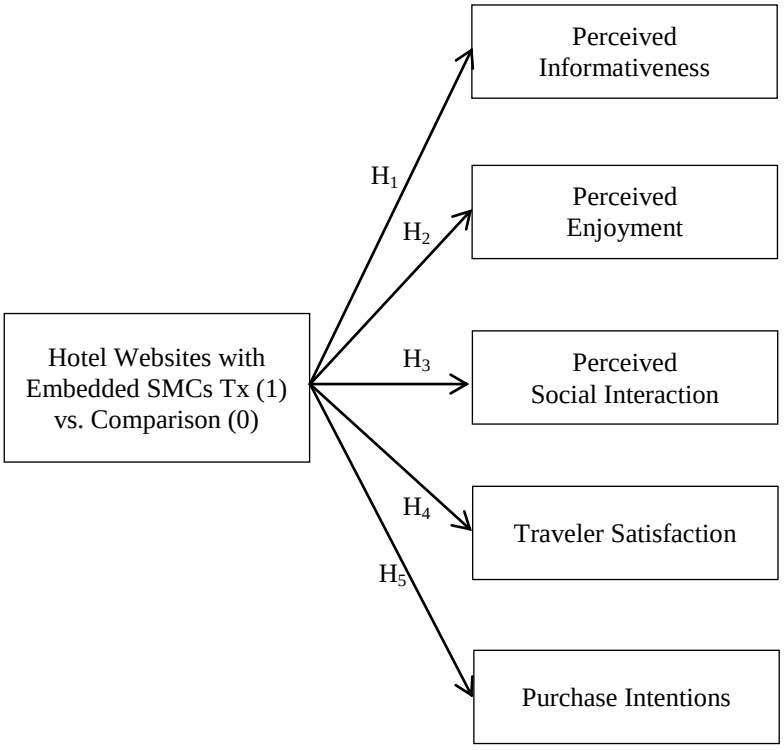
Taylor and Baker (1994) examined the relationships between satisfaction and purchase intentions, and found that satisfaction directly impacted purchase intentions and is a moderating factor of service quality. Spreng et al. (1996) confirmed that overall satisfaction directly impacts repurchase intentions. In the hotel and travel industry, studies reported that satisfaction directly influences purchase intentions and is strongly mediated by website quality factors (Jeong et al., 2003; Law & Bai, 2008; Bai et al., 2008). Studies that used the U&G approach also indicated a direct relationship between traveler satisfaction and purchase intentions, with satisfaction as a strong mediating factor (Cheung & Lee, 2009; Huang, 2008; Luo, 2002; Shao, 2009; Teraumpon, 2009).

Even so, the satisfaction stemming from embedded social media channels on hotel websites and its influence on traveler purchase intentions is unknown. Providing access to various social media channels on a host website may enhance a traveler's search for user-generated content, access to multimedia channels, and social interaction with other

travelers in the social network. Therefore, embedding social media channels on hotel websites may cause travelers to experience higher levels of gratifications (perceived informativeness, perceived enjoyment, and perceived social interaction) that may in turn influence their satisfaction. Later, these higher levels of satisfaction evoked by embedded social media channels may measurably influence their purchase intentions, when compared with websites without embedded social media channels. Based on this research framework, the following hypothesis has been formulated:

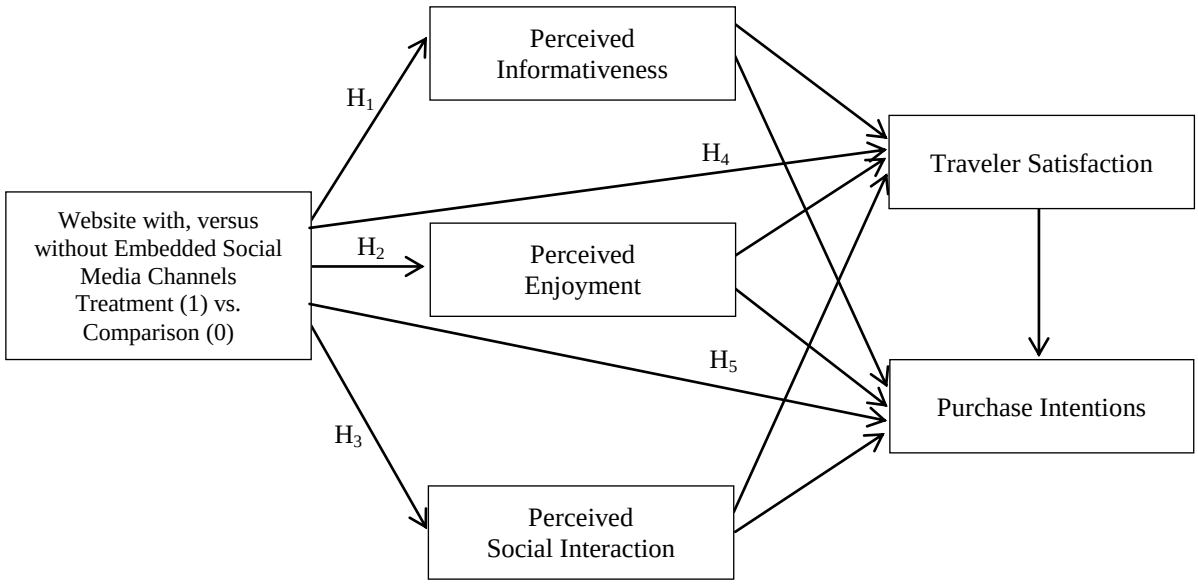
H_5: Travelers who use a hotel website with embedded social media channels will have higher levels of purchase intentions than those who use a website without embedded social media channels.

Figure 2-2. Proposed Research Framework to Measure Differences among Travelers*



Note: *To examine the differences between the treatment and control groups, the hotel website was considered the exogenous variable, and gratification factors, traveler satisfaction, and purchase intentions were considered the endogenous variables.*

Figure 2-3. Proposed Research Framework to Measure Relationships*



Note: *Based on a strong theoretical foundation, the influence of embedded social media channels was examined measuring the strength of relationships among treatment and control groups and their gratification factors, traveler satisfaction, and purchase intentions. For the purposes of this study, the hotel website was considered an exogenous variable, gratification factors were mediator variables, and traveler satisfaction and purchase intentions were each endogenous variables.*

Summary of Research Hypotheses

The hypotheses H_1-H_3 were proposed to examine the differences between a hotel website with embedded social media channels, and one website without them, in terms of influence on hypothesized mediating variables for travelers. The hypotheses H_4 and H_5 were proposed to examine the differences between the two versions of the hotel website in terms of influence on travelers' satisfaction and purchase intentions.

H_1: Travelers will experience higher levels of perceived informativeness while using hotel websites with embedded social media channels versus websites without embedded social media channels.

H_2: Travelers will experience higher levels of perceived enjoyment while using hotel websites with embedded social media channels versus websites without embedded social media channels.

H_3: Travelers will experience higher levels of perceived social interaction while using hotel websites with embedded social media channels versus websites without embedded social media channels.

H_4: Travelers who use a hotel website with embedded social media channels will have higher levels of satisfaction than those who use a website without embedded social media channels.

H_5: Travelers who use a hotel website with embedded social media channels will have higher levels of purchase intentions than those who use a website without embedded social media channels.

CHAPTER III

METHODOLOGY

The purpose of this chapter is to present research methodology and specify methods used in this study. In addition, instrument development, a sampling plan, and data collection procedures will be described. The data analysis of this study is divided into two parts: preliminary analysis and causal analysis. In the preliminary analysis, the most frequently occurring kinds of social media channels on top brand hotel websites are examined and the social media channels travelers use most on hotel websites are identified. An experimental study is proposed to test the research model and hypotheses.

Research Design

Quantitative research methodology was used in this research study. The methods used were descriptive and causal modeling tests. The study is divided into three phases. In the first phase, the various kinds of embedded social media channels used among top hotel brand websites were explored. The list of hotel brand websites were drawn from the results of the 2011 top U.S. hotel brands survey by Hotel Management.net (2011).

From these sources, the most-used social media channels embedded on hotel websites were derived for use in the second phase of research. The list of social media channels that are predominantly used among hotel brand websites were provided in the section below. In this second phase, a true-experimental, between-group, posttest-only design was used to address the primary research questions of the study. The respondents were randomly assigned to a scenario before participating in the experimental research (APPENDIX A). The research design framework is provided in Figure 2-2. The respondents were randomly assigned to two hotel websites: one with and one without embedded social media channels. The respondents in the control group were assigned a scenario that included travel information and access to a hotel website without embedded social media channels.

The respondents in the experimental group were also assigned to a similar scenario that includes travel information and access to a hotel website with embedded social media channels. After visiting the websites, subjects were given access to online survey questionnaire designed using Qualtrics software to measure their gratifications factors (perceived informativeness, perceived enjoyment, and perceived social interaction), satisfaction, and purchase intentions. After visiting two versions of the hotel website, one with and one without embedded social media channels, respondents were directed to an online survey questionnaire to measure gratifications factors obtained after using the hotel website, traveler satisfaction, and purchase intentions. In addition to the questionnaire both the control and treatment groups were administered to evaluate their preferences in using various embedded social media channels.

Scenario Development

The respondents in the experimental study were divided into two groups: a control group (who browsed a hotel website without embedded social media channels) and a treatment group (who browsed a hotel website with embedded social media channels). To test the proposed model in this study, a purchasing scenario was developed that would ensure that the respondents browsed the hotel websites. This scenario asked respondents to access a hotel website for at least 10 minutes to seek gratifications, make a purchase decision, and later participate in an online survey.

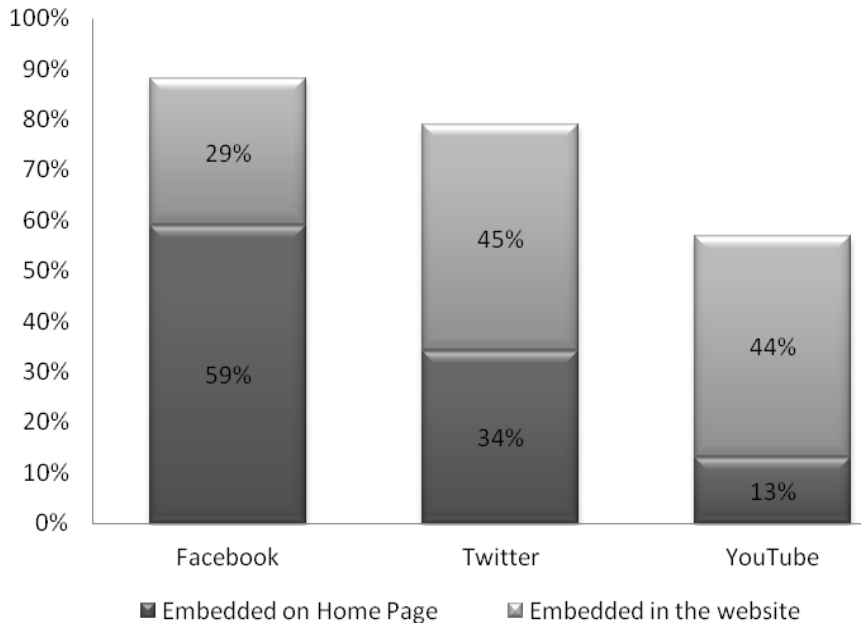
In the travel industry, the average trip duration for most domestic trips among is one or two nights, and on average travelers made reservations for two adults and paid around $112 per room, per night (Barrows et al., 2012; U.S. Travel Association, 2012). Based on this industry average, a travel scenario (Appendix B) was created asking respondents to make a two night travel reservation for two adults, between May 25th and May 31st with a budget of $250. After being allowed to browse the website for at least 10-15 minutes, respondents were asked to make a purchase decision and later take the online survey. Since both groups of respondents used the same website, apart from the embedded social media channels, the same scenario was used for both the control and treatment groups.

Social Media Channels Predominantly Used Among Hotel Brand Websites

An exploratory study was conducted to identify the most-used social media channels among top hotel brand websites. Using Hotel Management.net (2011), 2011 U.S. Hotel Brands Survey results, all the top hotel brands and their websites have been explored to investigate the presence of embedded social media channels. Among the top 98 hotel brand websites, 94% of the hotels use at least one kind of social media channel on their websites.

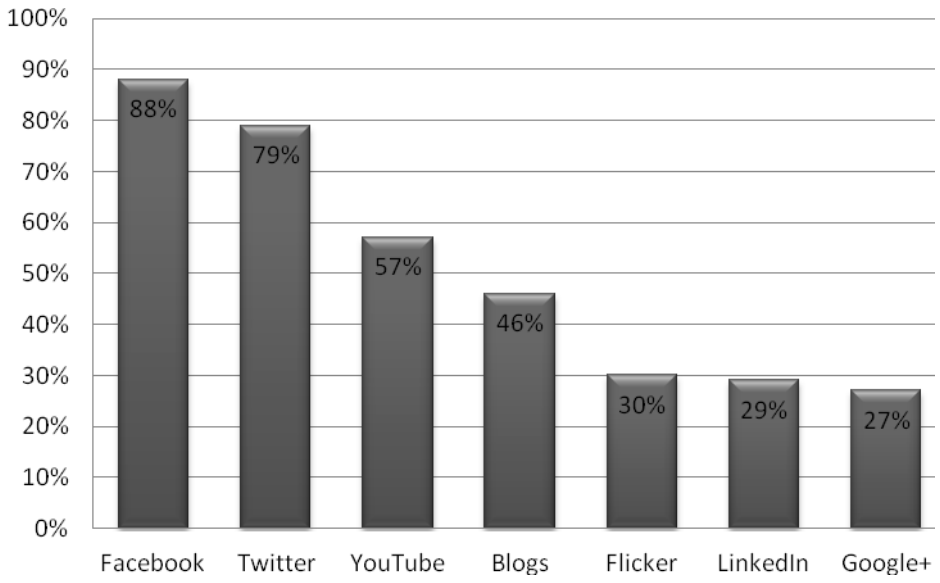
Breaking down these findings further, the top social media channels were identified as well as their usage of the site presented in a bar chart below. Facebook emerged as the top social media channel used among hotel websites. A total of 88% use Facebook, and of that number, 59% have a direct Facebook link on their home page, and 29% have links available in other web pages. Twitter is the second most popular social media link found on among hotel websites, with a total of 79% of the sites using them. Breaking down the Twitter usage further, 35% had a direct Twitter link on their home page, while 45% had links available on other webpages. Among hotel websites explored, YouTube was the next popular social media channel, with a total of 57% using them. Within this group, 13% has direct YouTube links on their home page, while 44% had YouTube videos and links available elsewhere on their website.

Figure 3-1. Percentage of Hotel Websites with Social Media Channels (Facebook, Twitter, and YouTube)



It was also found that among top hotel brand websites, 46% use various kinds of travel blogs and 30% use Flicker links. Other familiar SNSs used on hotel websites were LinkedIn (29%) and Google+ (27%). Out of the 25 hotel brand companies that were examined from the 2011 U.S. Hotel Brands Survey results, 23 websites were used some kind of social media channel on their websites. The top three social media channels—Facebook, Twitter, and YouTube—were considered in the experimental study. These embedded links were made available to the treatment group, so that subjects could have "real-time" access to the social media. For the control group, these embedded links were deleted from all pages of the hotel website.

Figure 3-2. Percentage of Social Media Channels on Hotel Websites



Hotel Websites for the Research Study

Two versions of a hotel website were designed just for the purpose of this study—one with the most embedded social media channels (APPENDIX C) and one without embedded social media channels (APPENDIX D)—among hotel brand websites. In order to provide a real experience to respondents, a beta version of an independent hotel in the southeastern cities was used for this study. An independent hotel website was chosen for this study to avoid brand bias and preconceptions in subjects, which might influence experiment results. This hotel website chosen is managed by one of the major hotel management groups in the U.S., which also manages several of the most popular hotel brands, including Starwood, Hilton, Marriott, InterContinental Hotel Group (IHG), Wyndham, and Choice.

With coordination with the third-party company that manages the hotel reservations and website; two privately accessible complete versions of the website were designed for respondents. In other words, these had all the components of the real website and didn't look like incomplete or sandbox sites. The hotel reservations website template, which shows rates and room availability, was customized for the respondents in the study. For the treatment group, the top three social media channels—Facebook, Twitter, and YouTube—were embedded in the hotel website. To provide real-time experience in browsing these embedded social media channels, the links to the hotel's Facebook, Twitter, and YouTube channels were made functional and live for respondents. For the control group, the embedded social media channels were not included in the website and respondents had no access to any kind of social media channels.

Law and Hsu (2006) recommended that reservations, facilities, and contact information, as well as information about the surrounding area be provided on the hotel websites. Other important attributes, such as room rates, hotel location maps, photos, virtual tours, hotel/guest room facilities, restaurants, hotel descriptions, promotions, and meeting facilities also were provided on the websites (Law & Hsu, 2005, 2006). The websites were equipped with a content management system (CMS) and was designed with a dynamic website PHP hypertext preprocessor. The main page of the website includes jQuery slideshow rotating images equipped with a user-friendly interface that meets the industry standards of the hotel websites. The search and book online tool provides easy access to respondents to search, make reservations, and find room availability.

Instrument Development

The twenty-item instrument development was divided into two major sections. The first section consisted of a fourteen-item instrument that captured the respondents' gratifications after using the hotel website by measuring perceived informativeness (three items), perceived enjoyment (five items), and perceived social interaction (four items). The second section of the instrument consisted of a questionnaire to examine the outcome variables, which measured traveler satisfaction (three items) and purchase intentions (three items). The four items of perceived informativeness were adopted from Luo (2002); a fifth item proposed by Luo (2002) is not applicable in the context of the hotel website was not included in this study. The perceived enjoyment and its five items were adopted from Huang (2008), Li (2011), and Luo (2002). The perceived social interaction and its items are adopted from Ebersole (2000) and Ko et al. (2005); three items were adopted from Ko et al. (2005) and two items of social interaction were adopted from Ebersole (2000), while the other three items were originally part of the communication factor.

The measurement scales for all user gratifications received from using the hotel website (perceived informativeness, perceived enjoyment, and perceived social interaction) were adopted from Huang (2008). The perception of respondents has been measured by a seven-point Likert scale, where 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, and 7 = strongly agree. Previous research studies recommended using a multi-item scale when measuring outcome variables such as satisfaction and purchase intentions (Szymanski & Henard, 2001). The dependent variables, traveler satisfaction, and purchase intention

scales were adopted from Taylor and Baker (1994) and Cronin and Taylor (1992), and were measured on a seven-point Likert scale with 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, and 7 = strongly agree.

The last measure of satisfaction in the Taylor and Baker (1994) study, which was based on a scale ranging from very dissatisfied to satisfied, has been modified to match scales used in the rest of the study. All the questions were slightly modified to fit the context of the hotel website. To measure the respondents' usage of embedded social media channels, two questions were asked to determine respondents' preference in using embedded social media channels. The embedded social media channels respondents preferred while browsing through the hotel website included SNSs, video sharing websites, user-generated content review sites, blogs/micro-blogging, forums, and multi-media sites. To learn about the regular usage of hotel websites among respondents, the information was also gathered about their frequency in which they make hotel reservations online was also included. The respondent preferences and usage were measured in nominal scales. The demographic data used to identify the characteristics of travelers and was measured using a nominal scale that included gender and education level (Appendix H).

Pilot Test

A preliminary pilot study was conducted to assess the validity and reliability of the survey instrument. The respondents in this pretest included students enrolled in the hospitality and tourism management emphasis in one of the major southeastern universities. The study was conducted in March, 2012. Fraenkel and Wallen (2006) recommended at least 20 respondents to demonstrate the differences between groups or tests. A total of 74 students were invited to participate in the pilot study and 60 students volunteered to participate in the experimental study. Therefore, 30 students in each group were included in the pilot study with no missing values in the data. The pilot study was conducted to gather respondents' feedback to the scenario, uncover issues [for glitches/errors] in the hotel websites, hone the wording of the survey questions, check data collection results, and to make sure the research design would work as planned for the final study (Churchill & Brown, 2007; Hair et al., 2003).

For the pilot study, factor analysis was performed on the three gratification factors, traveler satisfaction, and purchase intentions. The chart the traveler gratification factors, perceived informativeness was measured using four items (PI1, PI2, PI3, PI4), perceived enjoyment was measured using five items (PE1, PE2, PE3, PE4, PE5), and perceived social interaction was measured using five items (PS1, PS2, PS3, PS4, PS5). Hair et al. (2003) defined factor analysis as a "statistical technique to examine the linear combinations of variables that combines them into a smaller set of composite factors based on underlying patterns" (p. 360). As part of factor analysis, Kaiser-Mayer-Olkin (KMO) was used to examine the measure of sampling adequacy and was found to be .814, suggesting that the sample was factorable, since values above 0.8 are considered

"meritorious" (Hair et al., 2010). It was also found that sufficient correlations exist among variables in the study using statistical significance in Barlett's Test of Sphericity (sig. < .01). Also, three factors were identified with eigenvalues greater than 1 and items were loading on each of the factors as proposed in the research study.

The reliability of the survey instrument was tested using the values of Cronbach's Alpha to assess the degree of consistency between multiple measurements of a variable (Hair et al., 2010). The Cronbach's alpha value for the reliability test was .902, which indicated that the strength of association among twenty items was excellent, since a consistent measure of the factors at an alpha value of .7 is considered minimal (Hair et al., 2003). Because of these excellent preliminary results, the scales used to measure results in the pilot test were deemed appropriate for use in the final experimental study and to assess its validity. In the final experimental research, the level of reliability of the survey instrument was measured using recommendations of Hair et al. (2010) and Nunnally and Barnstein (1994) with the values of Cronbach's alpha .7 or higher. Utilizing feedback and insights from the pilot study, necessary revisions were undertaken in the questionnaire wording, measurement scales, and online website design to further enhance the validity and reliability of the instrument.

In the pilot study, the subjects spent an average of ten minutes browsing the website and five minutes completing the online survey. As reported earlier, the average visit duration of travelers on an online travel website is 6 minutes and 53 seconds (Hitwise, 2011). Based on this observation, subjects in the final study were encouraged to browse the website for at least ten minutes and to take an additional five minutes to complete the survey. During survey testing, subjects were allowed to move freely back

and forth between the hotel website and the survey. The Internet Explorer (IE) web browser was used in this study. To avoid any pop-up blocker issues with the IE browser, an online webpage was specifically created for the final study that included instructions, links to hotel websites, and survey links for respondents (Appendix B). The webpage made it easy for respondents to navigate between the hotel website assigned to them and the survey link as they answered the survey questions.

Validity

Hair, Anderson, Tatham, and Black (1998) describe validity as the degree to which a scale or measure precisely assesses the concept of interest. The content validity is the degree the ability of the measure to capture the significant characteristics of the construct (Churchill & Brown, 2007; Hair et al., 2010). The construct validity is the degree of the instrument evaluates and measures the construct and is very difficult to establish (Churchill & Brown, 2007). In order to ensure content and construct validity, the items included in the study to measure the constructs have been adopted from previous studies that have been accepted by researchers and practitioners in the field, as mentioned in the instrument development section.

A homogenous group of students was used for the final study, to try to avoid any subject selection that could threaten the internal validity of the final study. A true experimental post-test only design was used to avoid repeated testing of subjects. The experimental study was conducted in a computer lab specifically reserved for this purpose, so there could be no chance for subjects for maturing or dropping out during the

course of the study. The active, embedded links to social media channels in the hotel website used with the treatment group, as well as the truly random assignment of subjects using a post-test only design, helped to ensure the validity and reliability of the instrumentation used in the study.

The final research study was conducted in a computer lab, where subjects were randomly assigned content forms which directed them to the study webpage. When they logged in using the information on the content forms, they read the instructions for the survey and were given access to either the hotel website for the treatment group (with embedded social media channels) or the website for the control group (without embedded social media channels), depending on the form they were given.

Sampling Plan

Because of the Internet-based focus of this study, the target population was travelers who prefer to make their travel reservations online. The sample was taken from the student subject pool from one of the major southeastern universities approved by the Institutional Review Board (IRB) (Appendix E). Therefore, students enrolled in one of the colleges were targeted for this research study. The experimental study was conducted in April 2012. A non-probability sampling procedure (convenience sample) was used, because it seemed to be more relevant, since most student travelers have been found to use social media channels and travel websites frequently (Ellison et al., 2007; Miller et al., 2010; Pempek et al., 2009; Wiley & Sisson, 2006).

Phelan et al. (2002) found that in various empirical studies in the Strategic Management Journal among 1980-2000, the average sample size for the studies was 175

respondents. Hair, Black, Babin, and Anderson (2010) suggest having at least five times as many observations as the number of variables in the model and a minimum of twenty cases for each variable to be analyzed. Based on this sample size recommendation, a minimum of 400 students would be needed for the final experimental study. In order to gain a truly homogenous subject pool, approximately 962 students, all enrolled in 10 Business Management courses at the college, were targeted for the study. Five faculty members coordinated the research study to reach the target population. It should be noted that some students were enrolled in two or more courses from the target population.

A total of 434 unique subjects volunteered to participate in the experimental study. Of the 434 total responses, 422 completed and valid survey responses were considered for further data analysis, evenly divided into two groups; 211 responses for the control group, and 211 for the treatment group. Detailed results regarding missing data analysis, outliers, and descriptive statistics are discussed in the results section of this paper.

Survey Administration

A true experimental design method (post-test only design) was administered to answer the research questions. Based on this experimental design, subjects were randomly assigned to the treatment group (the hotel website with social media channels-Appendix F) and the non-treatment or control group (the hotel website without embedded social media channels-Appendix G). The research study website provided necessary guidelines and instructions for students to access the website and the online survey. The content form (Appendix A) was randomly provided to subjects at the entrance of the

computer research lab. This form included the website number that they accessed during the experimental study (1 = treatment or 2 = without treatment). Five faculty members from the College of Business and Economics volunteered to coordinate this research study and sent e-mails to gather students enrolled in the ten different courses they were teaching.

A total of sixteen lab sessions were scheduled in a two-week period and the lab schedules were reported to the faculty. By mutual agreement of the faculty members, subjects who participated at least once in the experimental study were eligible to receive extra credit in other courses if they are enrolled in their other business Management courses. Therefore, subjects were allowed to participate only once in the research study even if they were enrolled in other participating courses, but they would potentially benefit in several courses, due to their participation in the study. To ensure extra credit, subjects were asked to provide their name, course number, and the professor's name in the course in which they were enrolled. This information was recorded separately at the end of the experimental study. After they had browsed the assigned hotel website, subjects were provided with an online survey to measure their levels of gratifications fulfilled, satisfaction, and purchase intentions. The data was collected through a web-survey (see Appendix H) using Qualtrics software. Using statistics available in the Qualtrics software, the numbers of surveys started and completed were assessed for each session in order to reach the required sample size. The participants were given the opportunity to enter their e-mail addresses at the end of the online survey for a drawing of five $25 gift certificates of their choice, as an incentive for participating in the research study.

Ethical Considerations

1. The respondents that participated in the study were recruited voluntarily and are assured of the confidentiality of their responses.

2. The subjects were also informed that their class standing or grades were not affected by refusal to participate in the experimental study.

3. To create a realistic scenario for making hotel reservations, a real hotel website was used in the study, and students were not informed of the differences between the two forms of the hotel website (one with, versus one without embedded social media channels).

4. Subjects were presented with a content form (AppendixA) and informed that there were no emotional, physical, or any other known risks associated with this experimental study.

Assumptions in the Experimental Study

1. Subjects were familiar with online hotel websites and were capable of the following the scenario of the research study.

2. Subjects in the treatment group were capable of understanding the embedded social media channels available on the hotel website.

3. Subjects are honest and forthcoming when answering questions; in their answers to questions.

4. Subjects were capable of understanding and answering the questions.

Limitations in the Experimental Study

1. A subject's unique characteristics had not been identified during the experimental study may have influenced his/her responses.

2. Subjects were not given the real-life liberty and choice of assessing other hotel websites and the features of those other hotel websites during the experimental study.

Data Analysis

The data collected during the pilot test and the final experimental study were analyzed using the statistical software's of IBM Statistical Package for Social Science (SPSS) version 17.0, and Analysis of Moment Structures (AMOS) version 19.0. The initial data analysis in this study included missing data analysis, descriptive statistics, sampling adequacy, frequency analysis, reliability analysis, and factor analysis. The crucial data analysis in this study included Multivariate Analysis of Variance (MANOVA) and Path Analysis with a structural model using Structural Equation Modeling (SEM).

Examining Data for Multivariate Analysis

After the final data was collected from the experimental study, graphical examination of the data was conducted to understand basic characteristics and relationships within the data. Hair et al. (2010) recommended addressing two questions before conducting any multivariate analysis: first, determine whether the missing data cause any issues in estimation and interpretation, and second, find the best approach to resolving the missing data problems. Initially, frequencies of data were examined using

histograms with the values of Kurtosis and Skewness for every variable in order to assess normality distributions for each variable.

To examine bivariate relationships between variables scatterplots are examined. To assess group difference and outliers in the data, boxplots were examined. This study used the Hair et al. (2010) four-step process to identify missing data and to apply remedies before any kind of data analysis. The reliability analysis of the scales was conducted using Cronbach's Alpha values. The alpha values that are 0.7 and over were considered in the final experimental study. The frequency procedure was used to determine the frequency and percentage of demographic data, such as gender and age. Also, descriptive statistics were used to describe the travelers' usage of online hotel websites and preferences in using embedded social media channels.

Factor analysis was used for the purpose of reducing measures that were not related to observed variables. By using a principal component analysis method and Varimax Rotation, the items that do not correlate to the observed variable will be removed from the analysis. The variables that had Kaiser-Mayer-Olkin (KMO) values of more than 0.70, and meet the requirements of the Barlett's Test of Sphericity (BTA) with significant chi-square values for all variables greater than 0.05 were considered in the study. For instance, using the precedents established by Hair et al. (2010) and Kline (2005).

Table 3-1. Overall Data Analysis in the Research Study

Steps	Description	Data Analysis
Step 1.	Exploring and defining individual factors based on literature review and pilot study	Descriptive Statistics
Step 2.	Missing Data Analysis	Descriptive Statistics Detection and Imputation
Step 3.	Examine Outliers, Normality Distributions	Descriptive Statistics, Box Plots, Skewness & Kurtosis, and Mahalanobis d-squared (D^2)
Step 4.	Factor Analysis (Maximum Likelihood Method and Varimax Rotation Method)	Kaiser-Meyer-Olkin, Measure of Sampling Adequacy, Barlett's Test of Sphericity
Step 5.	Reliability Analysis	Cronbach's Alpha
Step 6.	Examine the differences in traveler gratification factors, satisfaction, and purchase intentions between the control and treatment groups	MANOVA and univariate F-test of significance to check differences among variables
Step 7.	Examine the relationships between variables through Path Analysis - parameter estimates, direct, indirect, and total effects between variables	A path model with Maximum Likelihood estimation and Sobel tests for Mediation tests

Multivariate Analysis of Variance (MANOVA)

MANOVA was considered an appropriate statistical technique because the study includes more than one dependent variable. To avoid running multiple ANOVA for each dependent variable, MANOVA was chosen because it is more powerful, testing whether mean differences exist among independent variables and examining the combination of dependent variables and interactions that may likely occur (Hair et al., 1998; Stevens, 2009). MANOVA was conducted to examine the differences between websites with, versus those without embedded social media channels, taking into account all dependent variables, which were specific gratifications sought by travelers (perceived informativeness, perceived enjoyment, and perceived social interaction), traveler satisfaction, and purchase intentions. In MANOVA, null hypotheses are tested in the equality of vectors of means on various dependent variables for two groups in the study, whereas in univariate tests was considered to interpret group mean differences across two groups (Hair et al., 2010).

The assumptions of MANOVA (Stevens, 2009, p.217) that will be considered in this study include:

1. "The observations are independent." To meet this assumption, subjects will be randomly assigned, so that subjects are not susceptible to the influence of other subjects. This also reduces the type 1 error in the study.
2. "The observations on the dependent variables follow a multivariate normal distribution in each group. This assumption also reduces the type 1 error, with Skewness having a small effect on power, but with the Platykurtosis attenuating power." Levene's

test was checked with significance greater than .05. Due to the purpose of the study, a multivariate two-group randomized design was preferred. Box's M test was assessed to test the presence of heteroscedasticity and for the multivariate test for homogeneity of variance.

3. "The population covariance matrices for the p dependent variables are equal." In order to meet this assumption, group sizes were divided equally between the pretest and post-test experimental studies. This assumption reduces type 1 error and enhances statistical power.

The outliers were examined at the univariate, bivariate, and multivariate levels. The overall differences were identified by the value and significance level of Wilks Lambda, using alpha values of 0.05. The F-values and corresponding p-values were used to determine significance. The Hotelling's T^2 was obtained by replacing the means of each variable with the vectors of mean for each group. In addition Hotelling's T^2 controls the Type I error and produces the overall "greatest group difference" across all dependent variables.

Path Analysis

Path analysis is implemented based on bivariate correlations among variables to estimate the relationships in a system of structural equations (Hair et al., 2010; Pedhazur, 1997). Path analysis is "part of SEM family and the path model is a structural model for observed variables" (Kline, 2005, p. 66). To determine the strength of paths between traveler gratifications, satisfaction, and purchase intentions, a path analysis was preferred because it fits the purpose of this study. The path analysis was also used to specify the direct, indirect, and total effects between traveler gratification variables, satisfaction, and

purchase intentions. The assumptions of path analysis were assessed based on Pedhazur (1997) before proceeding with the data analysis using AMOS. The following assumptions were considered in the study:

- The variables in the model had relationships that were linear, additive, and causal. Any interactions, curvilinear, or multiplicative relation were omitted.
- There was no correlation between each residual and the variables that proceeded in the model.
- The model had a one-way causal flow, because the conceptual model for path analysis which indicated a one-way causal flow.
- The variables in the model were measured on an interval scale, as mentioned in the instrument development section, and all the variables in the study were measured using a Likert scale.
- The variables in the model were measured without error.

These assumptions as described above are necessary to make casual conclusions from path analysis and some conditions above were difficult to control. However, the random assignment of participants in the experimental study strongly supports the casual effect of the website differences on the five outcome variables. A path analysis approach was used to describe the correlation matrices hypothesized in the proposed study and to test the significance between the variables. The initial process in path analysis was the specification of a structural model with all the casual relations among variables described in the model (Kline, 2005). A path model is a structural model for observed variables and is represented in a reticular action modeling (RAM) (Kline, 2005), with paths between

the website (with treatment and without treatment), traveler gratifications (PI, PE, and PS), traveler satisfaction (TS), and purchase intentions (PIN). Using AMOS statistical software, the Maximum Likelihood (ML) estimation method was used to estimate the path coefficients in the proposed model. Kline (2005) says that in "ML estimation in Structural Equation Modeling (SEM) is a full information method that estimates the model parameters simultaneously" (p. 112).

The hotel website (with treatment and without treatment) was classified an exogenous dichotomous variable, gratification factors were considered mediator variables, and traveler satisfaction and purchase intentions each were regarded endogenous variables. Kline (2005) says the "indirect effects are just as path coefficients that are estimated statistically as the product of direct effects, either standardized or unstandardized that comprise them" (p. 128). The total effects are the "sum of all direct and indirect effects of one variable on another" (Kline, 2005, p. 129). The direct, indirect, and total effects were assessed to analyze whether the hotel website, when embedded with social media channels, directly influences the gratification factors, traveler satisfaction, and purchase intentions, or indirectly influences purchase intentions and traveler satisfaction through gratification factors. Furthermore, this analysis was done to identify the direct and indirect paths between the gratification factors, traveler satisfaction, and purchase intentions.

All the variables in the study were measured in a Likert scale and were adopted from widely accepted studies. An appropriate missing data analysis was conducted using the four-step process recommended by Hair et al. (2010). The outliers were examined at the univariate, bivariate, and multivariate level before any further analysis. At the

univariate level, the outliers were detected with Box tests, univariate normality curves, and Skewness and Kurtosis values, as described in the Results section below. At the bivariate level, scatterplots and relationships between variables were detected. The multivariate outlier detection used Mahalanobis d-squared values. The study also includes a desirable sample size with an approximately equal number of subjects in each group.

The purpose of this study is to examine the influence of embedded social media channels on hotel websites. The model proposed in the study was based on a strong theoretical foundation, so the empirical standards were used to test the hypotheses rather than the model fit. Hair et al. (2010) and Kline (2005) suggested that relying on model fit indices in SEM analysis does not mean one model is better than another, and does not ensure that the results are theoretically meaningful. In assessing the model fit, various statistical properties, characteristics, and limitations of fit indices were examined, using the recommendations of Hair et al. (2010), Kenny (2011), Kline (2005) and Kline (1991). Multiple indices values were evaluated and reported to assess the models in the study. In context, the study hypotheses are meant to provide estimates of the magnitude and significance of paths between gratification factors, traveler satisfaction, and purchase intentions. The following table provides a list of goodness-of-fit (GOF) indices and the desired cutoff criteria values that were used to measure and assess the model fit.

Using these fit indices values, the hypothesized model were evaluated to choose an appropriate model fit in the results section below. The list of Goodness-of-Fit indices was provided in Table 3-2.

Table 3-2. List of Goodness-of-Fit Indices

Fit Indexes	Cutoff Criteria	Comment
Absolute/predictive Fit Indices		
Model Chi-Square (χ^2_M)	$p > 0.05$	For badness-of-fit, model chi-square is affected by sample size (N)
Normed Chi-Square (NC)	χ^2: df <3 or 2	In the order of 3:1 or less are considered better fit
Root Mean Square Error of Approximation (RMSEA)	< .05	RMSEA < .05 indicates good fit and between .05 and .08, reasonable fit, and a badness-of-fit index
Standardized Root Mean Square Residual (SRMR)	<0.05	Badness-of-fit index, measure of mean absolute correlation residual
Goodness of Fit (GFI)	≥ 0.9 for good fit	Sensitive to sample size due to the effect of N on sample distributions
Incremental/comparative Fit Indices		
Normed Fit Index (NFI)	≥ 0.9 for good fit	Sample based, more complex models will have higher index values
Comparative Fit Index (CFI)	≥ 0.9 for good fit	Insensitive to model complexity, improved version of NFI
Parsimony Fit Indices		
Adjusted Goodness of Fit Index (AGFI)	≥ 0.9 for good fit	Tries to take into account differing degrees of model complexity - poor performance in simulation studies

Note: Sources from Hair et al. (2010), Kenny (2011), and Kline (2005)

Mediation in the Path Model

In the path model, website (with embedded social media channels and without embedded social media channels) was considered as an exogenous variable. The gratification factors—perceived informativeness, perceived enjoyment, and perceived social interaction—were considered as mediating variables between website and endogenous variables, traveler satisfaction and purchase intentions. Mediation analysis was conducted to examine significant indirect paths between website, gratification factors, travelers' satisfaction, and purchase intentions. To assess the mediation, Baron and Kenny's steps of mediation were considered (Kenny, 2012). To test the mediation influences, Sobel Test was conducted using a SOBEL calculator that was offered online by Soper (2012), and significance measured based on Sobel (1982). The Sobel test statistic and its significant values were used to estimate the mediation influences.

Sobel tests were conducted to test the following mediation influences in the model:

- Influence of website type on traveler satisfaction, through the mediation influences of gratification factors.
- Influence of website type on travelers' purchase intentions, through the mediation influences of gratification factors.
- Influence of gratification factors on purchase intentions, through the mediation influences of traveler satisfaction.

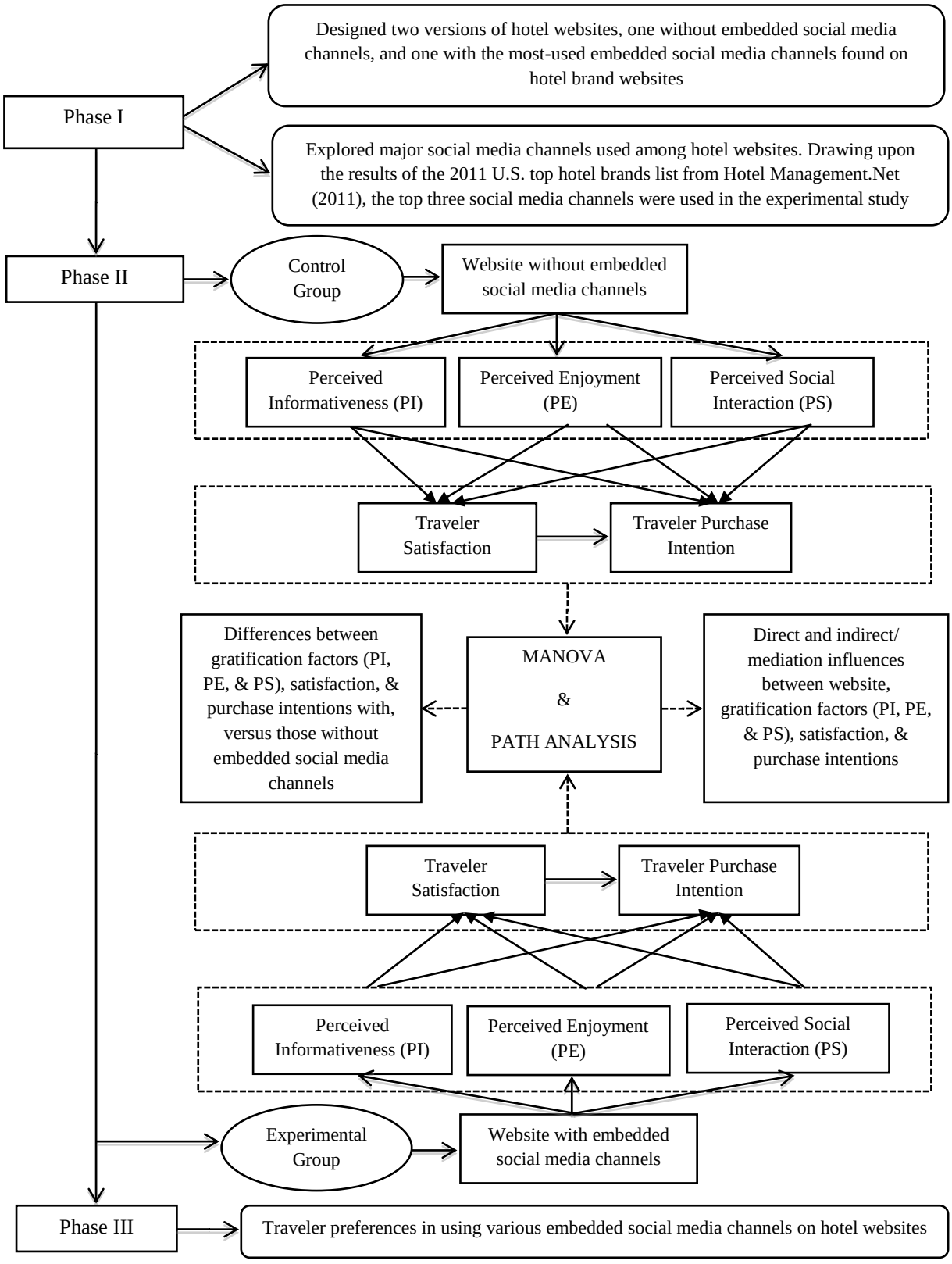


Fig 3-3: Detailed Research Framework

CHAPTER IV

RESULTS

This purpose of this chapter is to present the results of the study and includes the following sections: missing data analysis, demographic profile of respondents, descriptive statistics, sampling adequacy, frequency analysis, reliability analysis, and factor analysis. Later, hypotheses will be tested by using the MANOVA, and Path Analysis.

Missing Data Analysis

Of the 434 responses collected during the experimental study, twelve responses were deleted for excessive missing data, 15% to be exact (Hair et al. 2010). During the experimental study, Qualtrics software statistics regarding surveys' started and completed were assessed for every session of experimental study, to collect equal samples in two groups. Table 4-1 provides the descriptive statistics and the percentage of cases with missing data for each variable in both the treatment and control groups. In most multivariate analysis, it is assumed that the raw data files have no missing values (Hair et al., 2010; Kline, 2005).

Furthermore, very low levels of missing values with strong relationships were found among the variables by examining Pearson Correlation Coefficients among variables. Using Hair et al. (2010) recommendations for missing data, a mean substitution technique imputation method with mean of the item from all other participants was applied, since a complete case method was not preferred in this case. All cases (N=422) with complete information were used for further data analysis.

Table 4-1. Summary Statistics of Missing Data for Original Sample (N=422)

Variable	Number of Cases	Mean	Standard Deviation	*Missing Data* Number	*Missing Data* Percent
PI1	422	6.18	.935	0	NA
PI2	422	6.21	.740	0	NA
PI3	421	6.07	.809	1	<1
PI4	418	6.22	.836	4	<1
PE1	422	5.40	1.117	0	NA
PE2	422	5.06	1.161	0	NA
PE3	422	5.24	1.167	0	NA
PE4	420	5.60	1.058	2	<1
PE5	420	5.58	1.156	2	<1
PS1	420	3.86	1.646	2	<1
PS2	420	4.13	1.558	2	<1
PS3	420	3.77	1.599	2	<1
PS4	422	3.50	1.642	0	NA
PS5	420	3.26	1.633	2	<1
TS1	420	6.15	.898	2	<1
TS2	421	6.09	.929	1	<1
TS3	421	6.12	.902	1	<1
PIN1	421	5.45	1.213	1	<1
PIN2	421	5.56	1.244	1	<1
PIN3	422	5.49	1.302	0	NA

Outliers - Detection and Retention

A univariate distribution of observations for each variable was examined to detect the outliers in the data. Using SPSS, scatterplots and box plots for each variable were examined to see variable relationships among exogenous and endogenous variables. A multivariate method of outlier detection, the Mahalanobis D^2 test was used for multivariate outliers. The Mahalanobis distance (D) "indicates the distance in standard deviation units between a set of scores (vector) for an individual case and the sample means for all variables (centroids)" (Kline, 2005, p. 51). Using the example established by Stevens (2009), the D^2 values were generated for each individual case to compare the values for each case. The values of D^2 measures were divided by the number of variables (D^2/df). Consequently, observations that have values exceeding 3 or 4 at a conservative level of significance (.001), a total of 44 additional responses (24 in the treatment and 20 from the control group), were deleted (Hair et al., 2010). Therefore, remaining 187 observations in the treatment and 191 in the control group (N=378) were retained.

Factor Analysis

Using the pilot study results, all the traveler gratification variables proposed in the instrument development were included for collecting data and to measure the exogenous variables— perceived informativeness (PI), perceived enjoyment (PE), and perceived social interaction (PS). The testing assumptions of factor analysis were assessed based on the recommendations of Hair et al. (2010). The path structure had a strong conceptual foundation and was also tested in the pilot study to perform further analysis. The Bartlett's test of Sphericity suggested that the data was suitable for conducting factor

analysis and was statistically significant with a chi-square value of 3188.32, $p < .001$. This test also indicates the presence of sufficient correlations among the variables and that the correlation matrix was not an identity matrix (Hair et al., 2010). The last assumption for the appropriateness of factor analysis was assessed using Measure of Sampling Adequacy (MSA), which is a "measure that quantifies the degree of inter correlations among the variables" (Hair et al., 2010).

An exploratory factor analysis was performed to validate if the gratification variables were measured correctly and were related to each factor. The principle component analysis method was implemented using Varimax Rotation with a factor loadings cut-off score of 0.50 for retaining items. Three factors were extracted among fourteen items in the model. Hair et al. (2010) suggested retaining the factors with eigenvalues greater than 1.0, factors based on research objectives, prior research, and variance explained by factors that are 60% or higher. The Kaiser-Meyer-Olkin (KMO) MSA value for the 14 items in the model was .866 with 70.92% of total variance, and was explained by three factors (PI, PE, and PS) which have eigenvalues greater than 1.0. To be exact, the KMO value for PI was .759, for PE it was .882, and for PS, .852.

The communality value for PI4 (.463) is less than .50 and does not have sufficient information to include in the factor (Hair et al., 2010). Therefore, PI4 was deleted from the factor because it was considered "of minor importance" in the current study. The KMO value of this updated factor model was .857. Table 4-2 summarizes the results of factor analysis with the re-specified model.

Table 4-2. Factor Analysis Results

Traveler Gratification Factors & Items	Factor Loadings[a] PI	PE	PS	Communality
Perceived Informativeness				
PI1	.775			.554
PI2	.883			.774
PI3	.868			.783
Perceived Enjoyment				
PE1		.802		.672
PE2		.831		.726
PE3		.858		.784
PE4		.838		.741
PE5		.820		.693
Perceived Social Interaction				
PS1			.805	.663
PS2			.837	.726
PS3			.873	.782
PS4			.888	.783
PS5			.863	.752
KMO-MSA Values	.682	.882	.852	
Barlett's Test of Sphericity	.000 (Sig.)	.000 (Sig.)	.000 (Sig.)	
Eigenvalues	1.642	2.976	4.958	
% of variance explained[b]	12.628	22.893	38.139	
Cumulative variance (%)	73.661	61.033	38.139	

[a]Varimax rotation method; [b] Maximum Likelihood extraction method
Note: PI = Perceived Informativeness; PE = Perceived Enjoyment; PS = Perceived Social Interaction

The total variance explained by the updated model was 73.66% of the model. Consulting the Hair et al. (2010) assessment of the factor model, all the variables have KMO values that exceeded .50, factors with eigenvalues greater than 1, communalities greater than .50, and factor loadings greater than .50.

Reliability Analysis

The reliability analysis was computed to test the consistency of the measuring instrument with the multiple-item scales in the study. The Cronbach's alpha value for all the factor-based composite scales was .887. Table 4-3 summarizes the Cronbach's alpha measure of reliability for each factor. The Cronbach's alpha for traveler gratifications of perceived informativeness was .822, perceived enjoyment was .904, and perceived social interaction was .912. The endogenous variables were also measured with, traveler satisfaction's Cronbach's alpha value of .880 and for purchase intentions with a value of .898. According to Hair et al. (2003, 2010), these values are significantly above the recommended value of .70 and are considered very good (alpha coefficient .8 to <.9) and excellent (.9 and above). Because of the results of factor and reliability analysis the items were combined to represent the factor for further data analysis.

Table 4-3. Reliability Analysis with Cronbach's Alpha

Factors	Number of Variables	Cronbach's Alpha
Perceived Informativeness (PI)	3	.822
Perceived Enjoyment (PE)	5	.904
Perceived Social Interaction (PS)	5	.912
Traveler Satisfaction (TS)	3	.880
Purchase Intentions (PIN)	3	.898

Demographic Profile of Respondents

Table 4-4 shows the demographic profile of respondents in the study. The majority of respondents were male, at 63.8%, while 34.9% were females. The education level of most respondents (94%) was reported as either senior (57.4%) or a junior (36.5%).

A significant majority of respondents (81%) reported that they use embedded social media channels such as Facebook, Twitter, and YouTube. The majority of respondents (71.2%) reported that they prefer using Social Networking Sites (SNSs) when embedded in hotel websites. The remaining respondents were divided as follows, saying they preferred embedded links to video-sharing websites (47.9%), user-generated content websites (37.6%), travel blogs (36.2%), multi-media websites (25.1%), and travel forums (20.9%). On average, most respondents (68.8%) made hotel reservations online at least one to three times in the past year, and (11.4%) reported making them four to six times a year, and 2% more than seven times a year. Table 4-5 summarizes the usage and preferences of embedded social media channels.

Table 4-4. Respondents' Demographic Profile (N=378)

Category	Frequency (n)	Percentage (%)
Gender:		
Male	241	63.8
Female	132	34.9
No Response	5	1.3

Category	Frequency (n)	Percentage (%)
Education Level:		
Senior	217	57.4
Junior	138	36.5
Sophomore	14	3.7
Freshman	6	1.6
No Response	3	.8

Table 4-5. Respondents Usage and Preferences of Using Embedded Social Media Channels

Category	Frequency (n)	Percentage (%)*
Usage of embedded social media channels on websites		
Yes	306	81.0
No	63	16.7
No Response	9	2.4
Preferences in using embedded social media channels on hotel/travel websites		
Social Networking Sites (Ex: Facebook)	269	71.2
Video Sharing websites (Ex: YouTube)	181	47.9
User-Generated Review Sites (Trip Advisor)	142	37.6
Blogs/Micro-blogging (Ex: Twitter)	137	36.2
Multi-media Sites (Ex: Pandora Radio)	95	25.1
Forums (Ex: Virtual Tourist)	79	20.9

***** Percentage may not total a 100% because of no responses.
Note: Respondents could select multiple preferences in using embedded social media channels

Descriptive Statistics

Before testing the research hypotheses, assumptions for the multivariate analysis were tested. Table 4-6 presents the results of descriptive statistics with Kurtosis and Skewness for each variable for the hotel website embedded with social media channels (treatment) and the hotel website without embedded social media channels (control). All the items in the survey instrument were measured in a Likert scale from 1 (Strongly Disagree) to 7 (Strongly agree). The mean values ranged from 3.14 to 6.30 and the standard deviations from 0.60 to 1.66. The values of Skewness and Kurtosis were mostly in the range of +1 and -1 (as shown in Table 4-6), which is considered a conservative and acceptable amount of variation (Brown, 1996). However, values in the range of +2 and -2 are also considered acceptable in most cases (George & Mallery, 2005; Pallant, 2001).

Multivariate Analysis of Variance (MANOVA)

MANOVA is a "structured method for specifying the comparisons of group differences on a set of dependent measures while maintaining statistical efficiency" (Hair et al., 2010). For the purposes of this study, all the gratification factors (PI, PE, and PS), traveler satisfaction, and purchase intentions were treated as a set of dependent measures and the type of hotel website was treated as the independent variable or fixed factor.

The Box's M Test of the Equality of Covariance Matrices result was non-significant (p = .396) and the assumption of homogeneity of variance-covariance matrices among all the dependent variables was not violated.

Table 4-6. Descriptive Statistics and Normality Analysis
for Both Treatment and Control Groups

Item	Groups	Mean	SD	Skewness		Kurtosis	
				Statistic	SE	Statistic	SE
	1	6.26	0.75	-0.99	0.17	1.49	0.35
PI1	2	6.28	0.64	-0.35	0.17	1.65	0.35
	1	6.28	0.64	-0.35	0.17	-0.70	0.35
PI2	2	6.29	0.60	-0.37	0.17	0.18	0.35
	1	6.13	0.74	-0.30	0.17	-0.89	0.35
PI3	2	6.17	0.67	-0.43	0.17	0.005	0.35
	1	5.51	1.06	-0.70	0.17	0.515	0.35
PE1	2	5.49	0.97	-0.70	0.17	0.93	0.35
	1	5.26	1.06	-0.22	0.17	-0.38	0.35
PE2	2	5.11	1.03	-0.18	0.17	-0.13	0.35
	1	5.38	1.10	-0.70	0.17	0.37	0.35
PE3	2	5.31	1.07	-0.53	0.17	-0.01	0.35
	1	5.73	0.98	-0.63	0.17	-0.04	0.35
PE4	2	5.63	0.93	-0.67	0.17	0.69	0.35
	1	5.66	1.08	-0.66	0.17	-0.38	0.35
PE5	2	5.71	1.01	-0.84	0.17	1.09	0.35
	1	4.12	1.59	-0.09	0.17	-0.77	0.35
PS1	2	3.84	1.64	-0.09	0.17	-1.07	0.35
	1	4.32	1.48	-0.30	0.17	-0.47	0.35
PS2	2	4.11	1.55	-0.23	0.17	-0.75	0.35
	1	3.93	1.57	-0.14	0.17	-0.82	0.35
PS3	2	3.71	1.55	-0.04	0.17	-0.64	0.35
	1	3.73	1.66	0.05	0.17	-1.07	0.35
PS4	2	3.41	1.58	0.10	0.17	-0.96	0.35
	1	3.54	1.66	0.15	0.17	-0.90	0.35
PS5	2	3.14	1.52	0.30	0.17	-0.78	0.35
	1	6.26	0.72	-0.68	0.17	0.11	0.35
TS1	2	6.20	0.72	-0.57	0.17	0.00	0.35
	1	6.22	0.73	-0.78	0.17	0.61	0.35
TS2	2	6.18	0.69	-0.54	0.17	0.19	0.35
	1	6.23	0.76	-0.98	0.17	1.37	0.35
TS3	2	6.16	0.72	-0.68	0.17	0.46	0.35
	1	5.49	1.16	-0.97	0.17	0.89	0.35
PIN1	2	5.58	1.06	-0.91	0.17	1.45	0.35
	1	5.60	1.18	-1.11	0.17	1.27	0.35
PIN2	2	5.72	1.06	-0.84	0.17	0.36	0.35
	1	5.52	1.25	-0.99	0.17	0.99	0.35
PIN3	2	5.65	1.11	-0.91	0.17	0.59	0.35

Note: PI1 - PI3 - Variables of Perceived Informativeness; PE1 - PE5 - Variables of Perceived Enjoyment; PS1 - PS5 - Variables of Perceived Social Interaction; TS1 - TS3 - Variables of Traveler Satisfaction; and PIN1 - PIN3 - Variables of Purchase Intentions

The tests of between-subjects influences were reviewed using Levene's test to examine whether the dependent variables differ for the independent variable. The Levene's test showed that there is no violation of homogeneity of variances, since this was not significant for all the dependent variables ($p > .05$). A table of the MANOVA results is provided below.

Table 4-7. Multivariate F-test of Significance

Test	Value	F	Hypothesis df	Error df	Sig	Partial Eta Squared
Pillai's Trace	.021	1.628	5.000	372.000	$.152^{NS}$	.021
Wilk's Lambda	.979	1.628	5.000	372.000	$.152^{NS}$	.021
Hotelling's Trace	.022	1.628	5.000	372.000	$.152^{NS}$	.021
Roy's Largest Root	.022	1.628	5.000	372.000	$.152^{NS}$	.021

Note. NS = Non-Significant at $p < .05$

The Wilk's lambda measure was used to assess the multivariate significance, because the research design requires adequate sample, no violations of assumptions, and approximately equal cell sizes (Hair et al., 2010). The one-way MANOVA revealed an insignificant multivariate main influence: the travelers who used the hotel website with embedded social media channels, versus travelers who used the hotel website without embedded social media channels, $F(1, 376) = 1.628$, $p = .152^{NS}$; Wilk's $\lambda = .979$, partial $\varepsilon^2 = .021$. The MANOVA results have been provided in Table 4-7.

Given the non-significance of the MANOVA test, the univariate influences among gratification factors, traveler satisfaction, and purchase intentions were examined. The univariate tests were examined as they were relevant to apriori hypotheses in the study. For the purpose of this study, the influences between all individual dependent variables were observed to test the hypotheses. The results for univariate F-test statistics were presented in Table 4-8.The univariate F-test results reveal that only perceived social interaction was significant ($F(1, 376) = 7.660$; $p < .05$; partial $\varepsilon^2 = .011$).Therefore, perceived social interaction significantly influences the travelers who used the hotel website with embedded social media channels (treatment group), versus those who used the hotel website without embedded social media channels (control group).

Table 4-8. Univariate F-test of Significance

Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Perceived Informativeness	.066	1	.066	.188	.665	.000
Perceived Enjoyment	.516	1	.516	.663	.416	.002
Perceived Social Interaction	7.660	1	7.660	4.130	.043*	.011
Traveler Satisfaction	.212	1	.212	.500	.480	.001
Purchase Intentions	.791	1	.791	.720	.397	.002

* *Note*: $p < .05$.

Consequently, the results of the univariate F-test of significance supported that there was a difference in the travelers' perceived social interaction between hotel websites that use embedded social media channels and versus those without them.

However, there was no difference between the two kinds of websites in terms of the travelers' perceived informativeness, perceived enjoyment, traveler satisfaction, and purchase intentions.

Table 4-9. Tests of Between-Subjects Effects for Perceived Social Interaction

Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
PS1	7.413	1	7.413	2.830	.093*^{MS}	.007
PS2	4.474	1	4.474	1.925	.166	.005
PS3	4.574	1	4.574	1.855	.174	.005
PS4	9.575	1	9.575	3.650	.057*^{MS}	.010
PS5	14.190	1	14.190	5.628	.018*	.015

Note: PS1 - PS5: Variables of Perceived Social Interaction

p <.05;^{MS} p<.*10* (MS - Marginal Significance)

The study found that travelers experienced higher levels of perceived social interaction while using hotel websites with embedded social media channels versus those without embedded social media channels. Table 4-9 provides the univariate F-test results for individual variables. The survey results suggest that PS5, "talk with other people online" was significant at (p< .05). The other variables that were marginally significant (at p <.10) were PS4, "find people using the website" and PS1, "know what other people said about hotel."

Path Analysis Results

The initial path model was a recursive model that was hypothesized to examine the influence of embedded social media channels. It examined the relationships between gratification factors (PI, PE, and PS), traveler satisfaction (TS), and purchase intentions (PIN) in the treatment group, and the control group. These paths were included in the previously-explained path model with maximum likelihood (ML) estimates of model parameters using AMOS 19.

Assessing Model Fit of the Hypothesized Path Model

Path analysis was conducted to assess the overall model fit of the hypothesized path model. The just-identified path model with all possible paths between the variables was necessarily perfect, with Chi-Square (χ^2) value of 0.00, and 0 degrees of freedom (*df*). Kline (2005) suggested model trimming by analyzing the just-identified model and simplifying it by eliminating non-significant paths. The model trimming was conducted not to search for relationships rather to improve the model fit based on theoretical justification (Hair et al., 2010). In the full path model, direct paths between the exogenous variable, website type and endogenous variables, traveler satisfaction and purchase intentions were non-significant. Therefore, the two direct paths from website type to traveler satisfaction and to purchase intentions were deleted to simplify the model. Also, the error variances between the mediation variables were allowed to covariate.

The overall fit for the hypothesized path model indicates excellent fit, χ^2 (2) = 1.907, p = .148.The fit indices values of the path model were assessed as mentioned in

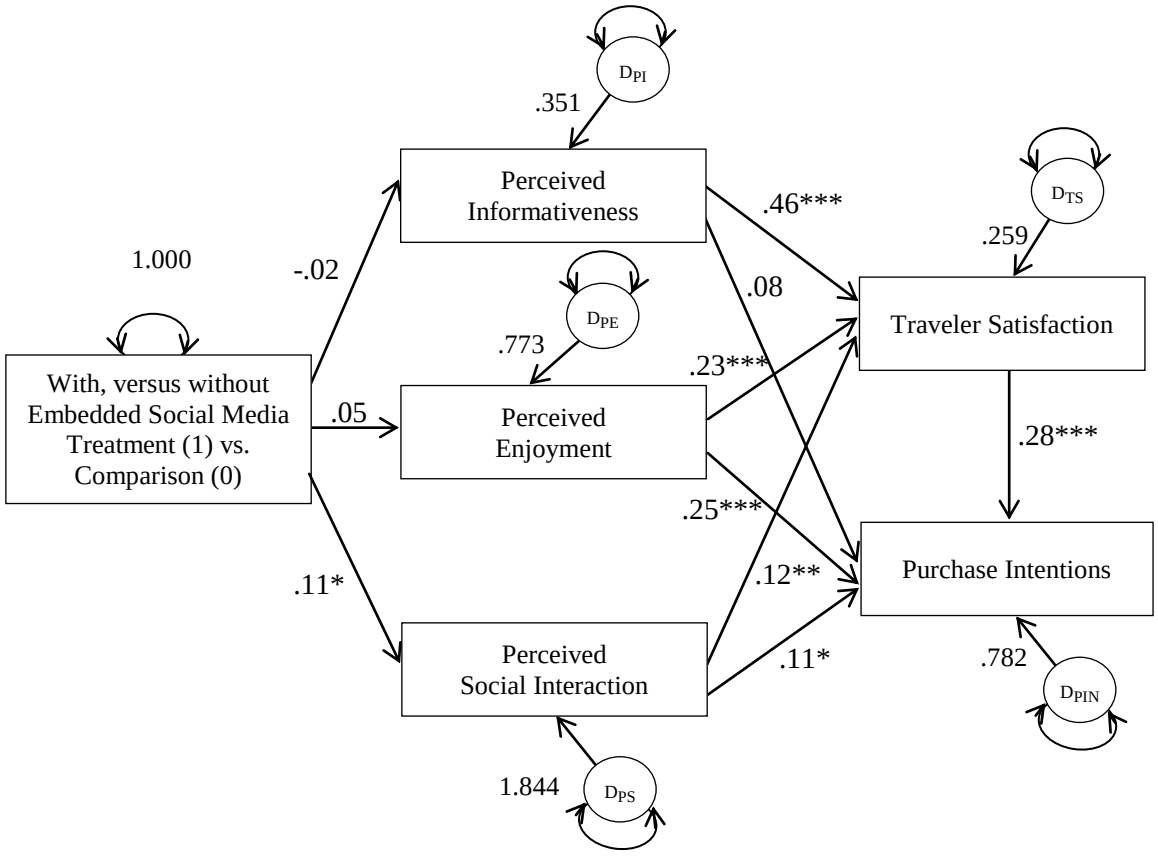
Table 4-10. The Normed Chi-Square (NC), a ratio of Chi-Square (χ^2) to degrees of freedom (*df*), was less than the criteria for a model fit (< 3). The value of the Root Mean Square Error of Approximation (RMSEA) (.049) was less than the cutoff criteria range of .05, so it was considered close approximate fit (Kline, 2005). The value of the Square Root Mean Square Residual (SRMR) was .008 and indicated that the model was a perfect fit. The Goodness-of-Fit (GOF) index was .997. The other incremental indices—Normed Fit Index (NFI), Comparative Fit Index (CFI), and the parsimony fit index of the Adjusted Goodness-of-Fit (AGFI) index—were ≥ 0.9, and are considered a good fit. All nine indices reported for the overall model suggested that the hypothesized model was a good fit. The summary of fit indices for the overall model fit is presented in Table 4-10.

Table 4-10. Summary of Fit Indices for the Path Model

Fit Indices	**Hypothesized Path Model**	**Cutoff Criteria of Model Fit Indices**
Chi-Square (χ^2)	3.815^{ns}	-
Degrees of Freedom (*df*)	2	-
NC (χ^2 : *df*)	1.907	< 3
RMSEA	.049	<.05
SRMR	.008	<.05
GFI	.997	≥ 0.9
NFI	.991	≥ 0.9
CFI	.995	≥ 0.9
AGFI	.965	≥ 0.9

^{ns} not significant, $p > .05$

Figure 4-1. Standardized Path Coefficients for the Structural Model



Significance: *$p < .05$; ** $p < .01$; *** $p < .001$

Table 4-11. Maximum Likelihood Parameter Estimates for the Path Model

Parameter	Unstandardized Estimate	S.E.	Standardized Estimates
Direct Effects			
Website → PI	-.02	.06	-.02
Website → PE	.09	.09	.05
Website → PS	.29*	.14	.11
PI → TS	.51***	.05	.46
PI → PIN	.15	.09	.08
PE → TS	.17***	.03	.23
PE → PIN	.29***	.06	.25
PS → TS	.06**	.02	.12
PS → PIN	.08*	.04	.11
TS → PIN	.45***	.09	.28

Parameter	Unstandardized Estimate	S.E.
Variances and Covariances		
Website	.25***	.02
D_{PI} → D_{PE}	.20***	.03
D_{PE} → D_{PS}	.30	.06
D_{PI} → D_{PS}	.09	.04
D_{PI}	.35***	.03
D_{PE}	.77***	.06
D_{PS}	1.84***	.13
D_{TS}	.26***	.02
D_{PIN}	.78***	.06

Note: PI = Perceived Informativeness; PE = Perceived Enjoyment; PS = Perceived Social Interaction; TS = Traveler Satisfaction; PIN = Purchase Intentions

Significance: *$p < .05$; ** $p < .01$; *** $p < .001$

Hypothesis Tests

Hypothesis 1: Perceived Informativeness

The results of this study indicated that the Hypothesis 1 was not supported. The embedded social media channels on the hotel websites do not increase traveler perceived informativeness, there is no direct influence of hotel website with embedded social media channels on travelers' perceived informativeness.

Hypothesis 2: Perceived Enjoyment

The results of this study indicated that the hypothesis 2 was not supported. The hotel websites with embedded social media channels did not increase or directly influence traveler perceived enjoyment, compared to the hotel website without embedded social media channels.

Hypothesis 3: Perceived Social Interaction

The results of this study revealed that the Hypothesis 3 was supported. The travelers' perceived social interaction was significantly increased by embedding social media channels on hotel websites. There was a significant direct influence between the website with embedded social media channels and travelers' perceived social interaction, predicting a .11-*SD* increase.

Hypothesis 4: Traveler Satisfaction

The results of this study indicated that the Hypothesis 4 was not supported. The embedded social media channels on a hotel website do not increase traveler satisfaction. Despite this finding, traveler satisfaction was significantly influenced by all the gratification factors—perceived informativeness (β =.46), perceived enjoyment (β =.23), and perceived social interaction (β =.12).

Hypothesis 5 - *Purchase Intentions*

The results of this study revealed that the embedded social media channels of the hotel website do not increase purchase intentions of the travelers. Therefore, travelers who use a hotel website with embedded social media channels do not have higher levels of purchase intentions than those who use a website without embedded social media channels. However, purchase intentions were directly influenced by perceived enjoyment (β =.25), perceived social interaction (β =.11), and traveler satisfaction (β =.28). Therefore, a one-*SD* increase in traveler satisfaction when using a hotel website predicts a .28-*SD* increase in purchase intentions.

Effects of Mediators on Satisfaction and Intentions

This part of the section summarizes the effects of the three mediating variables (perceived informativeness, perceived enjoyment, and perceived social interaction) on the two outcomes (traveler satisfaction and purchase intentions).

Indirect Influence of Informativeness

The Sobel tests of mediation were not significant between website and traveler satisfaction, through informativeness. Also, there is no mediation influence between website and purchase intentions through informativeness. The path between perceived informativeness and traveler satisfaction indicated a large direct influence (β = .46) and was the most statistically significant reading of the direct influences of perceived informativeness. Therefore, a one-*SD* increase on the traveler's perceived informativeness of the hotel website predicts a .46-*SD* increase on traveler satisfaction, controlling for the other two gratification factors. Although it was not influenced by website, informativeness predicted satisfaction, β = .46, $p < .001$. However, informativeness did not influence purchase intentions directly, β = .08, n.s., but it influenced those intentions indirectly through satisfaction, according to the Sobel test, $p < .01$. These findings show that the perceived informativeness of the hotel website influences traveler satisfaction and indirectly influences purchase intentions through traveler satisfaction.

Indirect Influence of Enjoyment

There was a significant direct influence between the travelers' perceived enjoyment and purchase intentions (β =.25), and also between perceived enjoyment and traveler satisfaction (β =.23). Therefore, a one-*SD* point increase in the perceived enjoyment of the hotel website predicts a .25-*SD* increase in purchase intentions and at the same time predicts a .23-*SD* increase in traveler satisfaction. The paths between

perceived enjoyment and traveler satisfaction, as well as perceived enjoyment and purchase intentions, were statistically significant at $p < .0001$. The mediating influence was not confirmed and Sobel tests of mediation were not significant between website and traveler satisfaction, through perceived enjoyment.

Similarly, there is no mediation influence through perceived enjoyment between website and purchase intentions. Nevertheless, the mediating influence of traveler satisfaction between perceived enjoyment and purchase intentions was significant by the Sobel test at $p< .001$. The perceived enjoyment of the hotel website itself directly influences traveler satisfaction and purchase intentions. Besides, traveler satisfaction is a strong mediator between perceived enjoyment and purchase intentions. The perceived enjoyment of the hotel website itself influences both traveler satisfaction and purchase intentions directly as well as indirectly. However, travelers did not experience higher levels of perceived enjoyment while using hotel websites with embedded social media channels, versus websites without them.

Indirect Influence of Social Interaction

There was a significant direct influence between perceived social interaction and traveler satisfaction ($\beta = .12$), and between perceived social interaction and purchase intentions ($\beta = .11$). The paths between website and perceived social interaction, and the path between perceived social interaction and two outcomes variables were significant. The Sobel test of mediation was marginally significant (MS) ($p = .08^{*MS}$) between website and traveler satisfaction, mediated through perceived social interaction.

Furthermore, the Sobel tests of mediation between website type and purchase intentions, through perceived social interaction have not been confirmed. However, the Sobel tests suggested that there is a mediation influence between perceived social interactions and purchase intentions through satisfaction. Travelers' satisfaction was a strong mediator between perceived social interaction and purchase intentions, with Sobel test of significance at $p < .001$. The higher levels of social gratifications influence travelers' satisfaction and purchase intentions directly and indirectly through traveler satisfaction. Table 4-12 below summarizes the effect decomposition of the just-identified path model.

The Mediating Influence of Traveler Satisfaction on Purchase Intentions

The results of this study confirmed that traveler satisfaction was a strong mediator between the gratification factors and purchase intentions. The total influence between traveler satisfaction and purchase intentions was identical to its direct influence. The squared multiple correlation (R^2) value of traveler satisfaction was .387. The gratification factors of perceived informativeness and perceived enjoyment and its influences on traveler satisfaction were statistically significant at $p < .0001$, and perceived social interaction was statistically significant at $p < .001$. The traveler perceived social interaction was influenced by embedding social media channels on hotel website. In summary, the travelers' perceived informativeness, perceived enjoyment, and perceived social interaction of the hotel website largely influences traveler satisfaction. However, the hotel website with embedded social media channels directly influences perceived social interaction and these fulfilled social gratifications of the traveler influences

satisfaction and purchase intentions directly, and indirectly influences purchase intentions through traveler satisfaction.

Table 4-12. Effect Decomposition for the Path Model

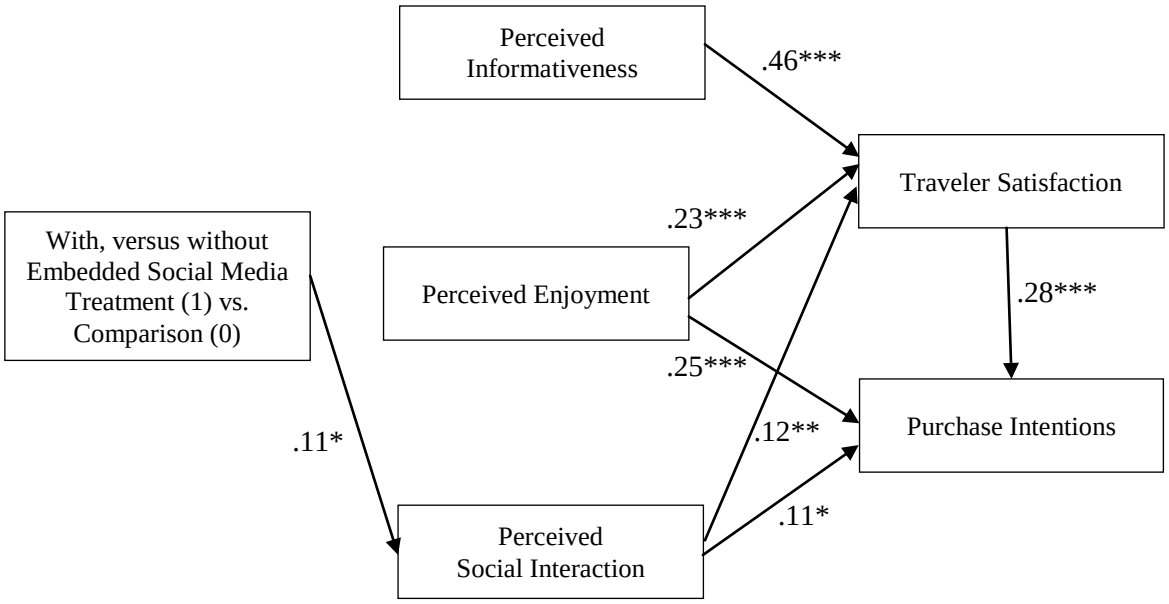
Variable	Exogenous Variable		Endogenous Variables			
	Website		Traveler Satisfaction		Purchase Intentions	
	Unst.	St.	Unst.	St.	Unst.	St.
Perceived Informativeness						
Direct effect	-.02	-.02	.51	.46	.15	.08
Total indirect effects	-	-	-	-	.23	.13
Total effect	-.02	-.02	.51	.46	.37	.21
Perceived Enjoyment						
Direct effect	.09	.05	.17	.23	.30	.25
Total indirect effects	-	-	-	-	.07	.06
Total effect	.09	.05	.17	.23	.37	.31
Perceived Social Interaction						
Direct effect	.29	.11	.06	.12	.08	.11
Total indirect effects	-	-	-	-	.03	.03
Total effect	.29	.11	.06	.12	.11	.14
Traveler Satisfaction						
Direct effect	-	-	-	-	.45	.28
Total indirect effects	.02	.02	-	-	-	-
Total effect	.02	.02	-	-	.45	.28
Website						
Direct effect	-	-	-	-	-	-
Total indirect effects	-	-	.02	.02	.06	.03
Total effect	-	-	.02	.02	.06	.03

Note: Unst - Unstandardized; St - Standardized

Indirect Influences of Gratification Factors on Purchase Intentions

The Sobel tests of mediation suggest that travelers purchase intentions were indirectly influenced by gratification factors—perceived informativeness, perceived enjoyment, and perceived social interaction—through traveler satisfaction. The perceived informativeness does not influence purchase intentions directly, however indirectly influenced purchase intentions, through traveler satisfaction. The Squared Multiple Correlations value of purchase intentions was .286. Consequently, a total of 29% variance in purchase intentions is explained by the gratification factors and traveler satisfaction. In addition, embedded social media channels directly influence perceived social interaction of the traveler, but does not influence purchase intentions indirectly through perceived social interaction. Therefore, purchase intentions of the traveler depend on the process, and social gratifications obtained through the hotel website. The traveler satisfaction plays a major role that mediates its influence between perceived informativeness and purchase intentions.

Figure 4-2. Full Structural Model with only Significant Paths



Significance: *$p < .05$; ** $p < .01$; *** $p < .001$

CHAPTER V

DISCUSSION AND IMPLICATIONS

The primary purpose of this study is to explore how embedded social media channels influence travelers' perceptions of host travel websites. Therefore the study examined three major gratification factors that online users seek while browsing hotel websites: perceived informativeness (PI), perceived enjoyment (PI), and perceived social interaction (PS) and their influence on traveler satisfaction and purchase intentions. In the Uses and Gratifications (U&G) approach, these gratifications were based on three key dimensions related to consumer use of the Internet and websites: content gratifications, process gratifications, and social gratifications (Stafford et al., 2004; Stafford, 2008).

O'Conner and Frew (2002) found that brand hotel websites sell more hotel rooms and provide the highest growth and volume compared to most third-party hotel reservation websites. However, the popularity of social media websites among users has encouraged organizations to integrate various embedded social media channels on their corporate websites. Gelman and Stern (2006) said that the "difference between significant and non-significant is not itself statistically significant and statistical significance is not the same as practical importance" (p. 328).

Among five hypotheses proposed in this study, four of them were not statistically significant (at $p < .05$). Nonetheless, these results have provided significant implications and insights of practical importance toward the use of embedded social media channels on host websites. Furthermore, the results of this study raise vital questions that should be addressed in future studies.

In the hotel industry, McCarthy et al. (2010) found that travelers were visiting various social media and search engine websites to make their hotel purchase decisions. Xiang and Gretzel (2010) recommend that tourism organizations embrace social media and integrate social media components on their corporate websites. Consequently, this study focused on finding empirical evidence to answer this critical question: does embedding social media channels on hotel websites influence traveler satisfaction and purchase intentions? To examine the perceptions of travelers when using the hotel website with embedded social media channels, this study adopted the gratification factors from a widely-studied approach in the mass media and communications field, the U&G approach.

In order to answer the research questions, this study used two approaches to examine the influence of embedded social media on travelers' perceptions of a hotel website. The first approach examined differences and the second approach examined the direct and indirect relationships between gratification factors (PI, PE, and PS), traveler satisfaction, and purchase intentions among travelers that use hotel websites with embedded social media channels, in contrast with those without them. Two "real-time" hotel websites were designed just for the purpose of this experimental study. One of the hotel websites was embedded with the top three social media channels predominantly

used among hotel brand websites— Facebook, Twitter, and YouTube (Appendix F). The second website was identically designed except that it had no embedded social media channels on the hotel website.

In the experimental study, subjects were randomly assigned to access the travel websites based on a scenario designed to identify gratifications factors when using a website. Later, gratifications obtained after using the hotel website—satisfaction, and purchase intentions— were measured. The study has provided new insights and added initial empirical findings in the context of hotel websites concerning travelers' behavior while using embedded social media channels.

Results and Conclusions

The results of this study have revealed that only perceived social interactions were influenced by embedding social media channels on the host websites. Regarding the effects of the experimental modifications of the website, the results indicated that the two outcome variables—traveler satisfaction and purchase intentions—were not directly influenced, although there was a marginal indirect influence of embedded social media channels on travelers' satisfaction, through perceived social interaction.

Travelers' satisfaction was influenced by all three gratification factors observed in this study: perceived informativeness, perceived enjoyment, and perceived social interaction. Travelers' purchase intentions were directly influenced by two gratification factors (perceived enjoyment and perceived social interaction) and were indirectly influenced by all three gratification factors through satisfaction, while the third gratification factor, informativeness influenced purchase intentions only through travelers' satisfaction. The gratification factors—enjoyment and social interaction—influenced purchase intentions both directly and indirectly through satisfaction as predicted by the U&G perspective. By comparison, informativeness influenced purchase intentions only through travelers' satisfaction.

Consequently, this study closes with a discussion about why some of the hypotheses were not supported, theoretical and managerial implications, and strategies to provide social gratifications for customers through embedded social media channels.

Table 5-1. Hypotheses Test Results Based on MANOVA

Research Hypotheses	Result
H_1: Travelers will experience higher levels of perceived informativeness while using hotel websites with embedded social media channels versus websites without embedded social media channels.	Not Supported
H_2: Travelers will experience higher levels of perceived enjoyment while using hotel websites with embedded social media channels versus websites without embedded social media channels.	Not Supported
H3: Travelers will experience higher levels of perceived social interaction while using hotel websites with embedded social media channels versus websites without embedded social media channels.	Supported
H4: Travelers who use a hotel website with embedded social media channels will have higher levels of satisfaction than those who use a website without embedded social media channels.	Not Supported
H_5: Travelers who use a hotel website with embedded social media channels will have higher levels of purchase intentions than those who use a website without embedded social media channels.	Not Supported

Discussion of Findings

Based on the findings, adding embedded social media channels does not directly increase travelers' perceived informativeness. On the other hand, the content gratification of perceived informativeness was found to have a large influence on travelers' satisfaction. Later, the perceived informativeness of the hotel website had an indirect influence on purchase intentions through travelers' satisfaction. Therefore, taking into account the experimental settings, one explanation might be that embedded social media channels do not increase travelers' perceived informativeness in the first visit to a host website. However, the embedded social media channels may influence perceived informativeness under different conditions, possibly travelers who choose to return or frequently revisit host websites.

In the hotel industry, host websites should provide a central, easily navigable hub for accessing information necessary for travelers in their initial visit, such as hotel description, room availability, guest room amenities and facilities, room rates, location, area information, and promotions. The content gratifications of the travelers' need to be fulfilled during their first visit, because satisfaction with the content of the host website indirectly influences purchase intentions. Furthermore, travelers who choose to return to a host website may possibly explore information that is available in the embedded social media channels, such as reviews and comments.

The study also found that travelers' perceived enjoyment did not increase significantly by embedding social media channels on hotel websites. Nevertheless, the gratification of perceived enjoyment is very important, as the study found, because

perceived enjoyment had an intermediate influence on purchase intentions and travelers' satisfaction. Furthermore, the travelers' perceived enjoyment had an indirect influence on purchase intentions through satisfaction. One theory about why embedded social media did not seem to contribute much to travelers' perceived enjoyment of the host website might be that they were too focused on other sources of entertainment on the site during their first visit.

Travelers seeking entertainment gratifications during their initial visit emphasized that their perceived enjoyment came primarily from the host website itself. However, in a situation when travelers choose to return or frequently revisit a host website, they may explore embedded social media channels more, and that in turn may influence their perceived enjoyment. Consequently, to satisfy the travelers' entertainment, most hotel websites include elements of entertainment like photo galleries, video galleries, and virtual tours. Responding to travelers' need for entertainment, some hotels are also integrating music, games, and live streams that enhance travelers' perceived enjoyment. These factors may be more influential than the entertainment gratifications provided by the embedded social media channels during travelers' first visit to the host website.

Next, the study found that the embedded social media channels did not directly influence travelers' satisfaction during their first visit to the host website, though the embedded social media channels marginally influenced travelers' satisfaction indirectly through perceived social interaction. The results of this study suggest that travelers' satisfaction has an intermediate direct influence on purchase intentions and is a strong mediator between the three gratification factors and purchase intentions. The travelers'

perceived informativeness, enjoyment, and social interaction during travelers' initial visit to the host website play a major role in travelers' satisfaction.

Travelers 'satisfaction was not influenced by embedded social media channels because travelers looked for informativeness, enjoyment, and social interaction gratifications from the host website itself. Perhaps only a small portion of travelers seeking social gratifications opted to use embedded social media channels during their first visit, thus, resulting in the marginal influence that social media had on the satisfaction of travelers. This early role of social media during the first visit to the website might also explain why the embedded social media channels did not influence travelers' purchase intentions through satisfaction. There is still a possibility, however, that embedded social media channels may increase the likelihood that travelers will revisit that particular host website again in the future.

To sum up, it was found in the current study that the travelers' purchase intentions were not significantly increased by the presence of embedded social media channels during the first visit to a host website. However, the perceived enjoyment and social interaction directly and indirectly influenced purchase intentions through satisfaction. The findings indicate that travelers initially seek entertainment and social gratifications on the host website while making purchase decisions, but those may not be enhanced by embedding social media channels, at least not during the initial visit to the hotel website. It is possible however that during repeated visits to the host website, the presence of embedded social media channels may enhance traveler purchase intentions through satisfaction or may directly enhance traveler purchase intentions, but this is beyond the scope of the current study.

Theoretical Implications

In the travel and hotel industry, the influence of embedded social media channels on host websites has not been widely explored empirically. With regard to the direct use of social media websites, the results from non-experimental studies suggest that websites such as Facebook, Twitter, and others have a significant influence on travelers' satisfaction and purchase intentions (DEI Worldwide, 2008; McCarty et al., 2010; Travelport, 2010; Xiang & Gretzel, 2010). The findings of this study offer a new understanding of this subject, showing empirically that embedded social media channels enhance only travelers' perceived social interaction during their first visit to the host website. This study verified other studies which had adopted the U&G approach, confirming that perceived informativeness, enjoyment, and social interaction of the host website directly influence travelers' satisfaction and indirectly influence purchase intentions through satisfaction.

The results of the current study offer new knowledge concerning the insignificant direct influence of embedded social media channels on travelers' perceived informativeness, suggesting that the host website itself plays a primary role during their first visit. Integrated information on the host website that includes information from user-generated content may be important for travelers seeking social gratifications, apart from the social interaction gratifications themselves (Ferguson & Perse, 2000; Quan-Haase & Young, 2010; Shao, 2009). In the hotel industry, the current results are also consistent with a few other studies that concluded that the informativeness of the website directly influenced travelers' satisfaction and indirectly influenced purchase intentions through traveler satisfaction (Bai et al., 2008; Law & Bai, 2008).

The current study offers a new proof that the travelers' perceived enjoyment came primarily from the host website itself. Therefore, this study provides additional support to other researchers who suggest that entertainment gratifications are directly influenced by the content of the host website, in particular such aspects as humor, fun, and enjoyment (Huang, 2008; Stafford & Stafford, 2001). The results are also consistent with earlier studies that found a direct influence of perceived enjoyment on satisfaction and purchase intentions (Cheung & Lee, 2009; Kaye & Johnson, 2004; Luo et al., 2011; Nyland, 2007; Sangwan, 2005; Smock et al., 2011). The results also support the findings of Shao (2009) who states that "entertainment gratifications are more important in triggering media use" (p. 11).

This study revealed new knowledge about the importance of social gratifications among travelers. The results show that travelers who seek social gratifications obtain slightly higher levels of perceived social interactions on host websites embedded with social media channels, compared to host websites that lack social media channels. The differences in travelers' perceived social interaction were consistent with the results of other non-experimental studies that utilize the U&G approach. Online users prefer to use host websites for interaction, to connect with people, and to view other people in the network (Cheung & Lee, 2011; Johnson & Yang, 2009; Kaye, 1998; Stafford & Stafford, 2011; Stafford, 2008).

The embedded social media channels on the host website enhance travelers' perceived social interaction, which leads to repeat visits to engage with and get involved in social communities (O'Connor, 2008; Qu & Lee, 2011; Xiang & Gretzel, 2010). In addition, Qu and Lee (2011) empirically found that online socialization among travelers

influences their sense of participation and identification with the online community. Repeated visits to the specific host website to seek social gratifications may eventually increase purchase intentions, through travelers' satisfaction.

The current results are consistent with the findings from some studies utilizing the U&G approach that suggest that social gratifications play a vital role among customers who use the web for seeing, interacting, and connecting with other people in the network (Kaye, 1998; Stafford & Stafford, 2001). In the narrower context of Twitter and virtual communities, some researchers suggest that users seek social gratifications and get motivated when they fulfill their social needs and motives, and this may influence their satisfaction and purchase intentions (Cheung & Lee, 2009; Sangwan, 2005). Based on the current findings, such projected scenario is perhaps overly optimistic. It can only be hypothesized that repeated visits to the host website may eventually enhance purchase intentions through travelers' satisfaction when travelers seek to fulfill social gratifications.

Considering that the presence of embedded social media had no measurable influence on travelers' satisfaction and purchase intentions, it can be concluded that the hotel website itself plays the major role in influencing satisfaction and purchase intentions (O'Conner & Frew, 2002). Yet, when hotel organizations attempt to improve their main websites, they should consider travelers who seek to fulfill social gratifications. Even though social gratifications do not directly influence purchase intentions during the first visit to the host website, they may eventually influence travelers' perceptions of social gratifications and improve the rate of repeated visits to the host website (Hanson & Haridakis, 2008; Wu et al., 2010).

The findings of the current study are consistent with previous U&G research studies that found that satisfaction directly influenced purchase intentions and was a strong mediator between gratification factors and purchase intentions (Cheung & Lee, 2009; Huang, 2008; Luo, 2002; Shao, 2009; Teraumpon, 2009). Several previous studies also found that perceived informativeness, perceived enjoyment, and perceived social interaction of the host website influence satisfaction and purchase intentions (Eighmey & McCord, 1998; Huang, 2008; Johnson & Yang, 2009; Ko et al., 2005; Kaye & Johnson, 2004; Luo et al., 2011; Shao, 2009). The findings from the current study confirm the direct and mediating role of travelers' satisfaction with regard to purchase intentions in the context of hotel industry (Jeong et al., 2003; Law & Bai, 2008; Bai et al., 2008).

Managerial Implications

Industry Preferred Embedded Social Media Channels

Nowadays, managers in the hotel industry often want to know whether other hotel brands are embedding social media channels on their websites, and, if so, which channels are most frequently used by the competitors. Furthermore, they want to know which social media channels they need to integrate based on travelers' preferences.

To help with answers on these questions, it was found that 94% of major hotel brand websites are already using embedded social media channels on their corporate websites (Hotel Management.net, 2011). In this study, 81% of respondents reported that they utilize embedded social media channels. This study found that Facebook, Twitter, and YouTube were the most frequently available embedded social media websites. The respondents in this study prefer using embedded channels from Social Networking Sites (SNSs), video sharing websites, and user-generated sites. Therefore, hotel managers should use these selected channels to offer content, process, and social gratifications.

The Importance of Embedding Social Media to Enhance Perceived Social Interaction

Most managers in the hotel industry are wondering whether embedded social media channels on host websites make a difference in customer purchase decisions. The current study did not find a clear connection between social media and purchasing decisions; however it did provide valuable insights and clarified the importance of travelers' perceived social interaction. The emergence of embedded social media

channels on websites and their integration on hotel websites will have a significant influence on travelers who seek social gratifications. The U.S. Travel Association (2009) reports that more travelers are using online travel agency websites than host websites, and hotel reservations are the most purchased online travel products, after airline reservations. As more travelers these days spend their time on various social media channels (Nielsen, 2011), it appears that social gratifications will continue grow as a factor enhancing travelers' participation and involvement on host websites.

Travelers who fulfill their social gratifications on a specific host website may revisit the website whenever there is a need for social gratification. Over time, repeated visits may enhance travelers' satisfaction and eventually increase purchase intentions. Since more travelers are seeking social information on host websites today than ever before (Xiang & Gretzel, 2010), it is vital for hotel websites to integrate unique social information that adds value to appeal to this growing group of travelers that are seeking social gratifications. Hotel organizations should focus on engaging their customers by improving Social Customer Relationship Management (Social CRM) and social customer analytics to fulfill social gratifications their customers are seeking.

Significance of Host Websites in regard to Content and Process Gratifications

Currently, most hotel organizations have created social media profiles on various channels, especially Facebook. While most organizations are managing their Facebook page as a "one-stop" host website, some may not recognize the true significance of the host brand website. They lack a complete understanding of why travelers visit host

websites and what gratifications they are seeking, which, in turn, prevents enhancing travelers' experiences with the host website. To clear up this confusion, the results of this study confirm that a host website plays a central role in fulfilling travelers' content and process gratifications, or, to put it another way, the "website medium determines the intersection of information and entertainment" (Eighmey & McCord, 1998).

It should be noted that a small percentage of travelers are currently seeking social gratifications before content and process gratifications while making purchase decisions (McCarthy et al., 2010). As more travelers start using social media, this percentage of travelers seeking content, process, and social gratifications on embedded social media channels may significantly increase in the near future (Nielsen, 2010a; Xiang & Gretzel, 2010). To address these concerns, managers should focus on developing and integrating social media elements on host websites as returning or frequent visitors may possibly seek content, process, and entertainment gratifications by utilizing embedded social media channels.

The option to embed multimedia applications on host sites enables managers to integrate social media elements, which will enhance their host website, creating a "power house" to fulfill traveler's content, process, and social gratifications. The ability to upload videos to various video sharing sites like YouTube, Vimeo, and Viddler has enhanced the way host websites are perceived among travelers today. Meanwhile, new social media channels have been introduced in the market to meet the process gratifications of travelers, such as Pinterest, Tagged, and Google+ (Hitwise, 2012). It is important that travel organizations create and integrate timely videos and multimedia applications like audio clips, pictures, customized virtual games, interactive contests, and

puzzles, which are relevant to travelers seeking entertainment gratifications. This particular group of travelers is often looking for enjoyment and humor, and an effective use of these multimedia applications can creatively and innovatively promote the organization's brand, enhance user experience, and encourage satisfied travelers to become brand ambassadors for other new travelers on the host and/or social media websites.

Managing Social Media Websites

One key issue among managers is their need to understand how to better manage their social media websites. The bottom-line question for every manager is whether managing social media increases organizations revenue and adds more customers. They want to know the difference between first time and repeated users, and they want to know the Return-On-Investment (ROI) for managing social media websites. As Montalvo (2011) explains, managing social media requires expertise in the fields of communications, marketing, public relations, information systems, and strategic management. Many organizations are now focusing on developing their social media websites as a one-stop service provider, believing that this will generate revenue and reduce their marketing budget. The manager's role in social media is to engage and co-create the organization's brand in social media from a customer perspective (McCarthy, 2010).

The ROI on using or managing social media among organizations may take some time, since first-time users or new customers first seek gratifications on host websites,

and they may revisit the website only when these gratifications have been fulfilled. The repeat visits among travelers seeking social gratifications may possibly lead to purchase intentions and positive word-of-mouth. It is not easy to simply budget social media managing expenses like other marketing expenses; however, efficient and effective use of social media requires people who can use them appropriately. Depending on the number of new and repeat customers using social media channels, organizations should allocate budget to enhance Social CRM. For small and medium-sized organizations, it is recommended that social media be used for customer engagement and participation, to enhance brand awareness and create a sense of belongingness among customers.

The Web 2.0 as it currently exists is designed for customers, whereas Web 3.0, "the semantic and intelligent web" that is emerging, will use "WWW data to dynamically synthesize useful information" and will offer organizations better opportunities and resources for reaching customers (Kambil, 2008). However, organizations should conduct customer research and utilize present opportunities to explore social information among customers, in order to ascertain lifetime customer value, social influence, and potential preferences in seeking gratifications.

Limitations and Suggestions for Future Research

The limitations of the study come from the sample and applied design. The sample consisted of students in the business college in West Virginia University and was not generalizable to entire body of travelers. In addition to this limitation, only 82% reported using websites for making travel reservations in the past year, which left 18% of survey respondents, who reported that they do not use hotel websites very often to make their reservations. The findings and implications of this study became more appropriate because the sample group all sought the gratification factors from the purchasing scenario that was examined in the study.

The study used a convenience sampling method, which may have biased some of the findings in the study. The option for students to get extra credit to participate in the research study may have motivated them to participate in this study more readily than they would have. Also, the sample included more males than females, and the number of females in the treatment and control group may have affected the homogeneity of the sample. In addition, the outliers in the sample that were not included (10.5%) could have contained a few influential cases. It should be noted though, many common criticisms and pitfalls for this kind of experimental studies were considered and necessary precautions were taken to avoid them.

Still, the study had to remain inflexible on two points, specifically the time respondents spent on the hotel website, and the lack of access or liberty to compare the hotel website to other hotels in the area. The other important limitation is that the experimental design implied only first time visit to the host website.

To address the limitation of the current study, future research endeavors can examine the influence of embedded social media channels under different conditions, such as repeat visits. More research is needed to ascertain whether new or repeating customers primarily use embedded social media channels. Furthermore, it should be defined whether the use of embedded social media channels on host websites depends on the brand of the hotel. The motivations of the subjects with regard to extra credit offered for participating in the study and purchasing scenario designed from the common traveler profile may have influenced the subjects, which, in turn, may have biased the final results of the study.

The experimental design used in this study did not truly reflect real life experience, but can be applied to certain conditions travelers experience while using the host websites. The conditions provided below can be derived from the common characteristics of the respondents, the treatment variable, and the purchasing scenario.

- The travelers are first time users of the specific host website with embedded social media channels.
- Travelers used in the study belonged to a certain age group, specifically Generation Z or Internet Generation.
- Travelers made a purchase on the host website without comparing and checking for other hotel websites in the region.
- Travelers made reservations based on the common traveler profile used in the purchasing scenario in the study.
- Travelers did not make decisions based on the brand of the hotel or a previous visit to a hotel website or property.

The hotel website embedded with social media channels did not increase travelers' perceived informativeness and perceived enjoyment. Some travelers may have found the host website so entertaining and informative that they did not have the need to use the embedded social media channels. These results lead to the following question: does the hotel website play a significant role in fulfilling travelers' content gratifications? Similarly, does perceived enjoyment of the hotel website play a role in fulfilling travelers' process gratifications? Since more hotel organizations are using social media channels, especially Facebook as a one-stop shopping site, do social media websites directly influence traveler satisfaction and purchase intentions? Finally, it should be asked, with the emergence of social media applications and embedded links, does a traveler who prefers not to use social media feel annoyed or deterred by host websites with embedded with social media channels?

In the future, studies should delve into the described above limitations by conducting studies with diverse and large sample populations of travelers. Since four hypotheses were not supported in the current study, future studies could further assess the influences of each gratification factor, traveler satisfaction, and purchase intentions when websites are embedded with other social media channels. The difference in gratification factors should be measured among frequent or repeating travelers visiting a host website to measure the cumulative influence of embedded social media on traveler satisfaction and purchase intentions. Also, the influence of traveler demographics on gratification factors, traveler satisfaction, and purchase intentions when using embedded social media channels should be addressed in future studies. In addition, further studies should focus on the influence of individual social media channels on host websites. Finally, this study

recommends a further periodical research to discover other significant gratifications, which could influence travelers' experiences on host travel and hotel websites.

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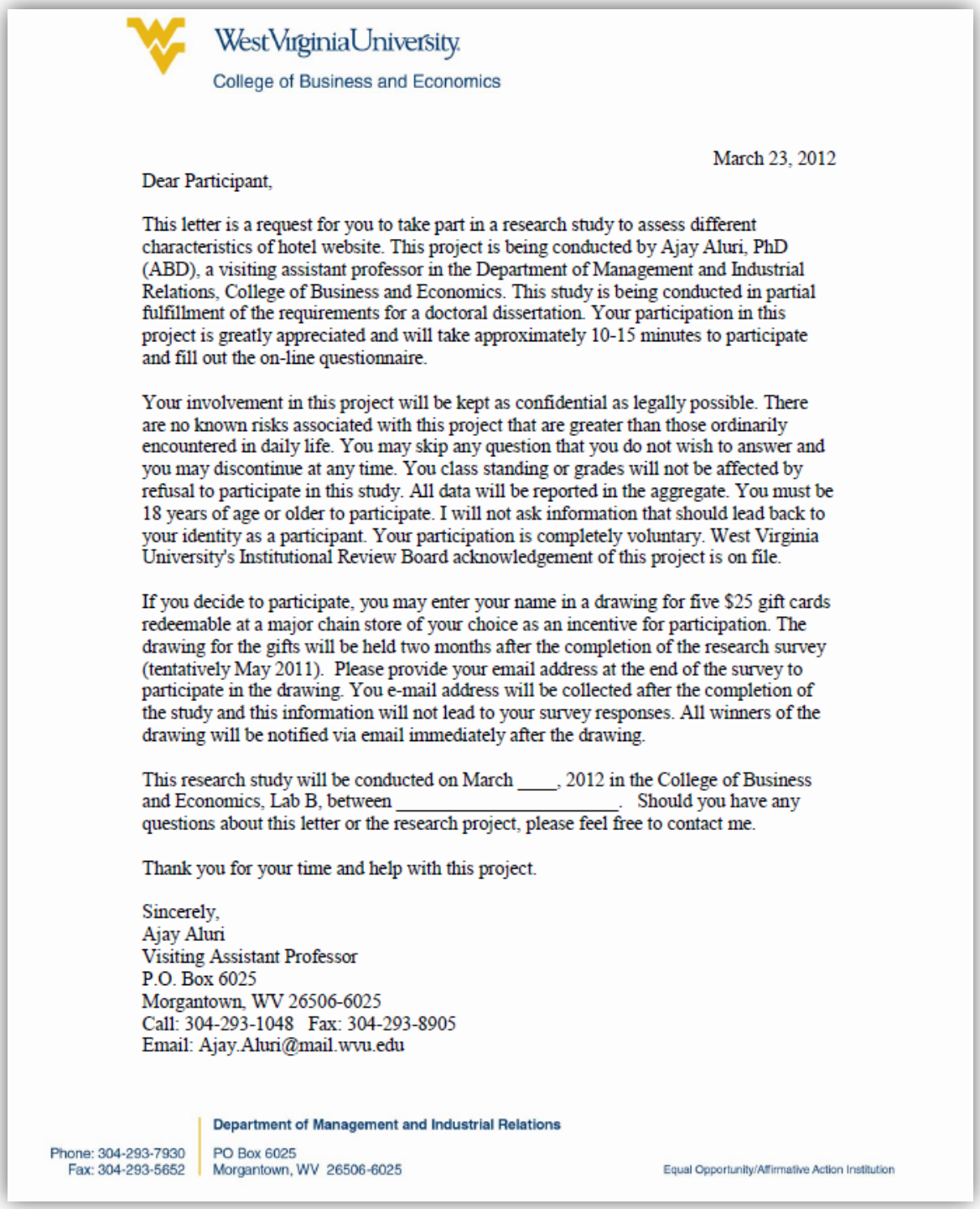
APPENDIX A
CONSENT FORM



WestVirginiaUniversity.
College of Business and Economics

March 23, 2012

Dear Participant,

This letter is a request for you to take part in a research study to assess different characteristics of hotel website. This project is being conducted by Ajay Aluri, PhD (ABD), a visiting assistant professor in the Department of Management and Industrial Relations, College of Business and Economics. This study is being conducted in partial fulfillment of the requirements for a doctoral dissertation. Your participation in this project is greatly appreciated and will take approximately 10-15 minutes to participate and fill out the on-line questionnaire.

Your involvement in this project will be kept as confidential as legally possible. There are no known risks associated with this project that are greater than those ordinarily encountered in daily life. You may skip any question that you do not wish to answer and you may discontinue at any time. You class standing or grades will not be affected by refusal to participate in this study. All data will be reported in the aggregate. You must be 18 years of age or older to participate. I will not ask information that should lead back to your identity as a participant. Your participation is completely voluntary. West Virginia University's Institutional Review Board acknowledgement of this project is on file.

If you decide to participate, you may enter your name in a drawing for five $25 gift cards redeemable at a major chain store of your choice as an incentive for participation. The drawing for the gifts will be held two months after the completion of the research survey (tentatively May 2011). Please provide your email address at the end of the survey to participate in the drawing. You e-mail address will be collected after the completion of the study and this information will not lead to your survey responses. All winners of the drawing will be notified via email immediately after the drawing.

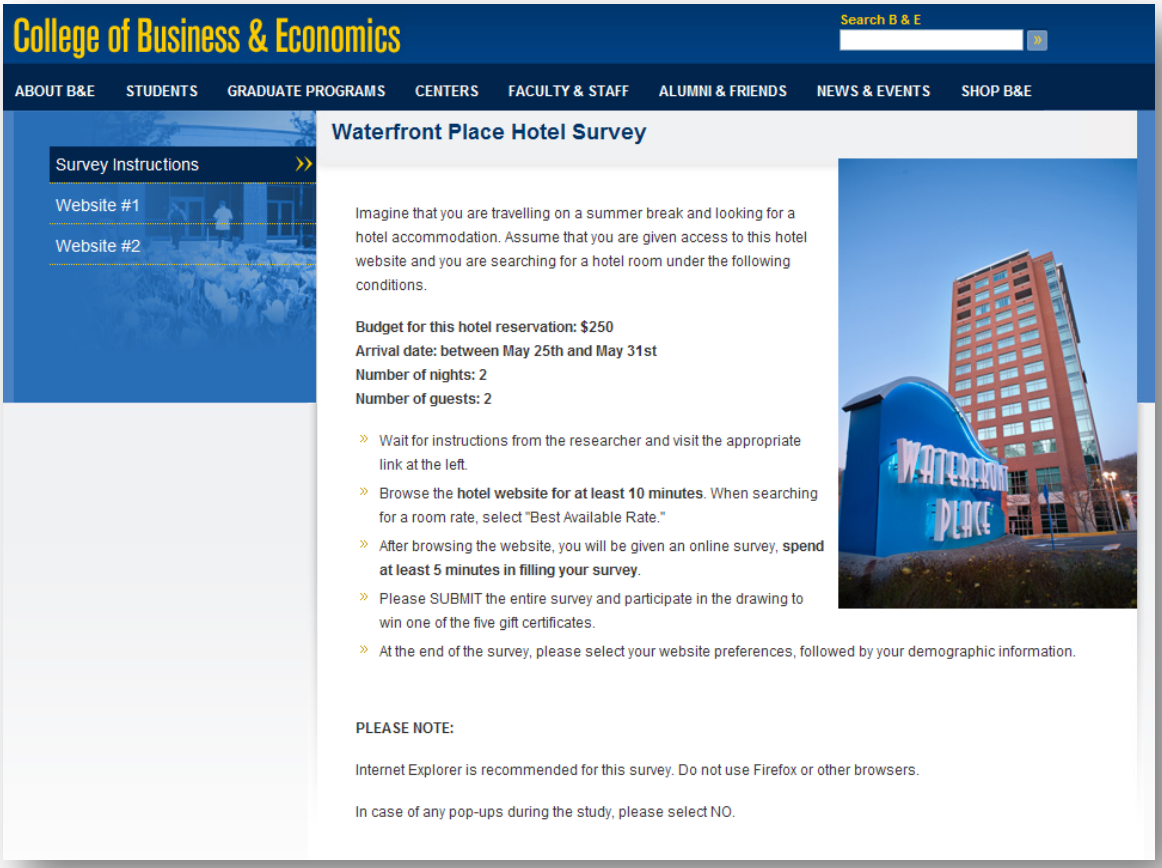
This research study will be conducted on March ____, 2012 in the College of Business and Economics, Lab B, between _____. Should you have any questions about this letter or the research project, please feel free to contact me.

Thank you for your time and help with this project.

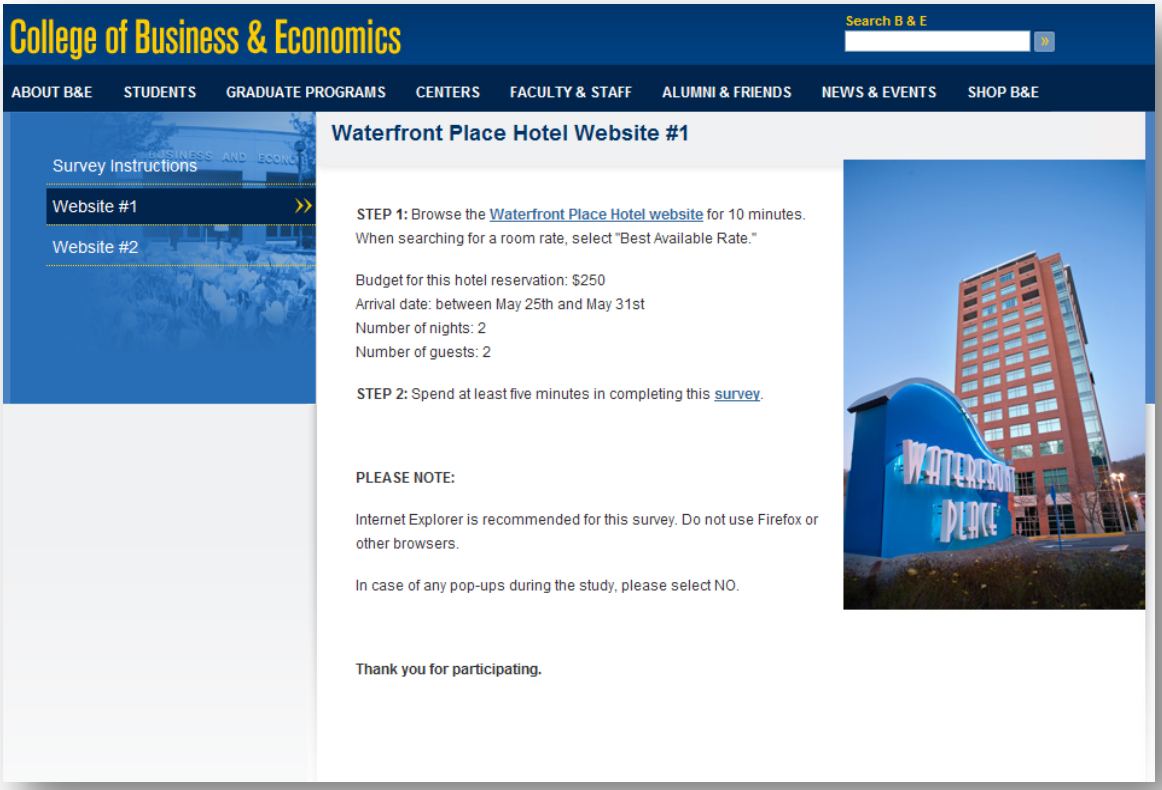
Sincerely,
Ajay Aluri
Visiting Assistant Professor
P.O. Box 6025
Morgantown, WV 26506-6025
Call: 304-293-1048 Fax: 304-293-8905
Email: Ajay.Aluri@mail.wvu.edu

Department of Management and Industrial Relations
Phone: 304-293-7930
Fax: 304-293-5652
PO Box 6025
Morgantown, WV 26506-6025
Equal Opportunity/Affirmative Action Institution

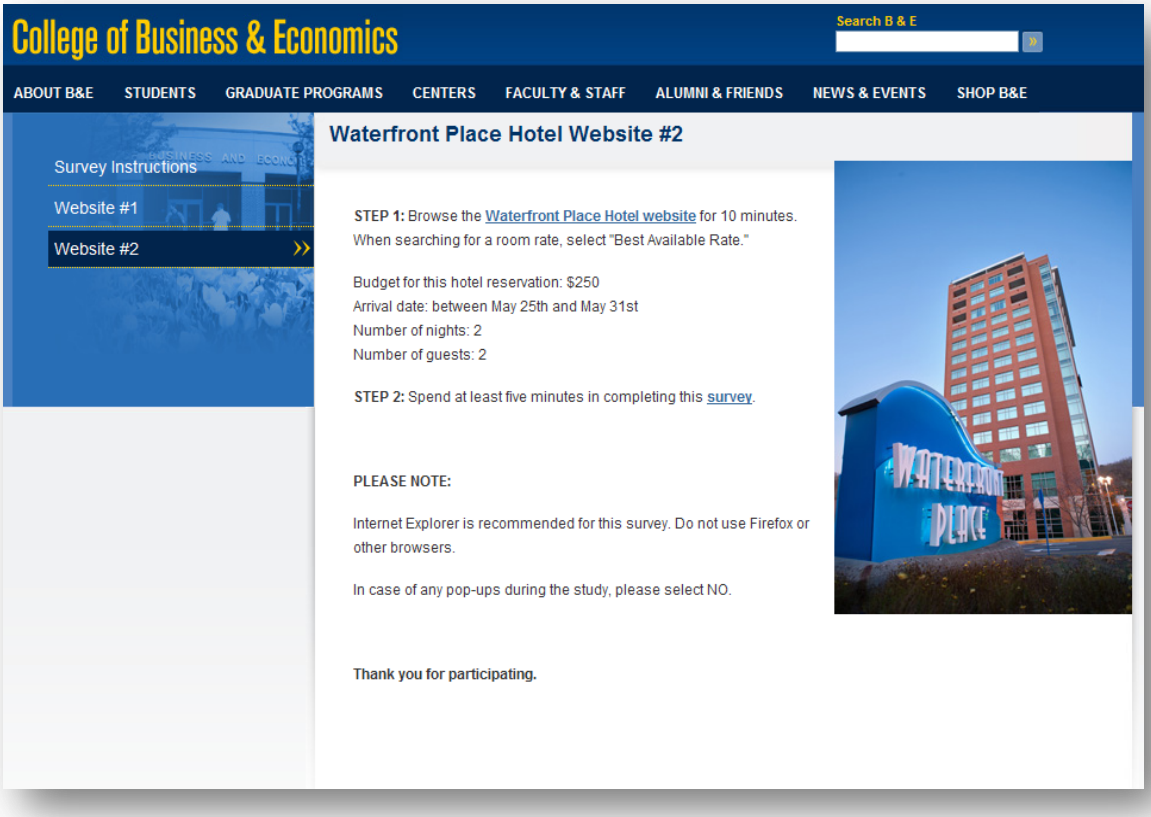
APPENDIX B
RESEARCH WEBPAGE WITH INSTRUCTIONS



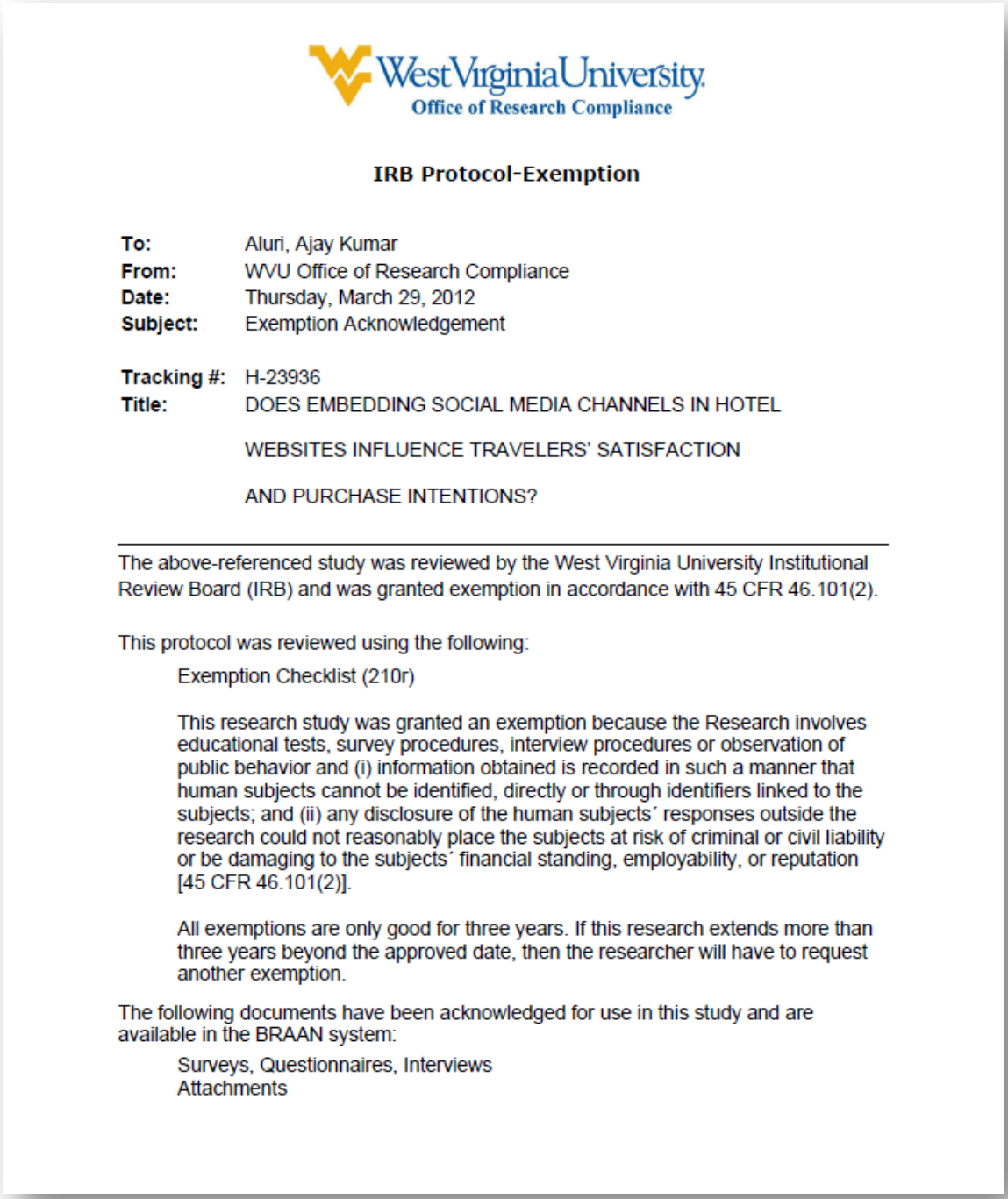
APPENDIX C
RESEARCH WEBSITE #1 WITH INSTRUCTIONS



APPENDIX D
RESEARCH WEBSITE #2 WITH INSTRUCTIONS



APPENDIX E
IRB PROTOCOL - EXEMPTION



West Virginia University
Office of Research Compliance

IRB Protocol-Exemption

To: Aluri, Ajay Kumar
From: WVU Office of Research Compliance
Date: Thursday, March 29, 2012
Subject: Exemption Acknowledgement

Tracking #: H-23936
Title: DOES EMBEDDING SOCIAL MEDIA CHANNELS IN HOTEL WEBSITES INFLUENCE TRAVELERS' SATISFACTION AND PURCHASE INTENTIONS?

The above-referenced study was reviewed by the West Virginia University Institutional Review Board (IRB) and was granted exemption in accordance with 45 CFR 46.101(2).

This protocol was reviewed using the following:

Exemption Checklist (210r)

This research study was granted an exemption because the Research involves educational tests, survey procedures, interview procedures or observation of public behavior and (i) information obtained is recorded in such a manner that human subjects cannot be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects´ responses outside the research could not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects´ financial standing, employability, or reputation [45 CFR 46.101(2)].

All exemptions are only good for three years. If this research extends more than three years beyond the approved date, then the researcher will have to request another exemption.

The following documents have been acknowledged for use in this study and are available in the BRAAN system:

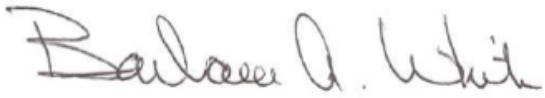
Surveys, Questionnaires, Interviews
Attachments

APPENDIX B-IRBWVU.doc There are couple of questions highlighted in the document that is updated from previous application

Miscellaneous Attachments
Attachments
APPENDIX B-IRBWVU.doc There are couple of questions highlighted in the document that is updated from previous IRB application.

Miscellaneous Attachments
Attachments
WVU_Cover Letter.doc There are no changes in the consent form.

Thank you.



Board Designee: White, Barbara

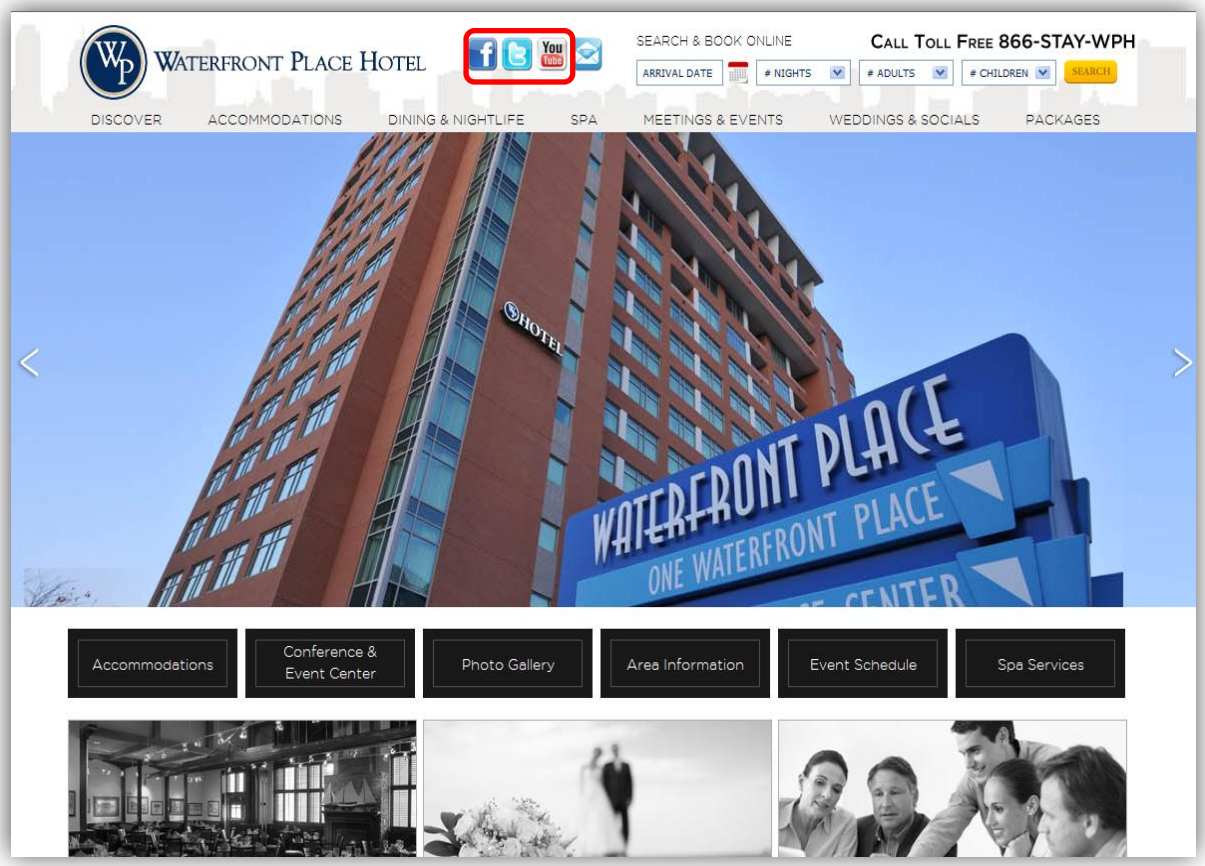
Letter Sent By: White, Barbara, 3/29/2012 9:56 AM

Once you begin your human subject research, the following regulations apply:

1. Any modifications to the study protocol must be reviewed and acknowledged by the IRB prior to implementation.
2. You may not use a modified form until it has been acknowledged by the IRB.

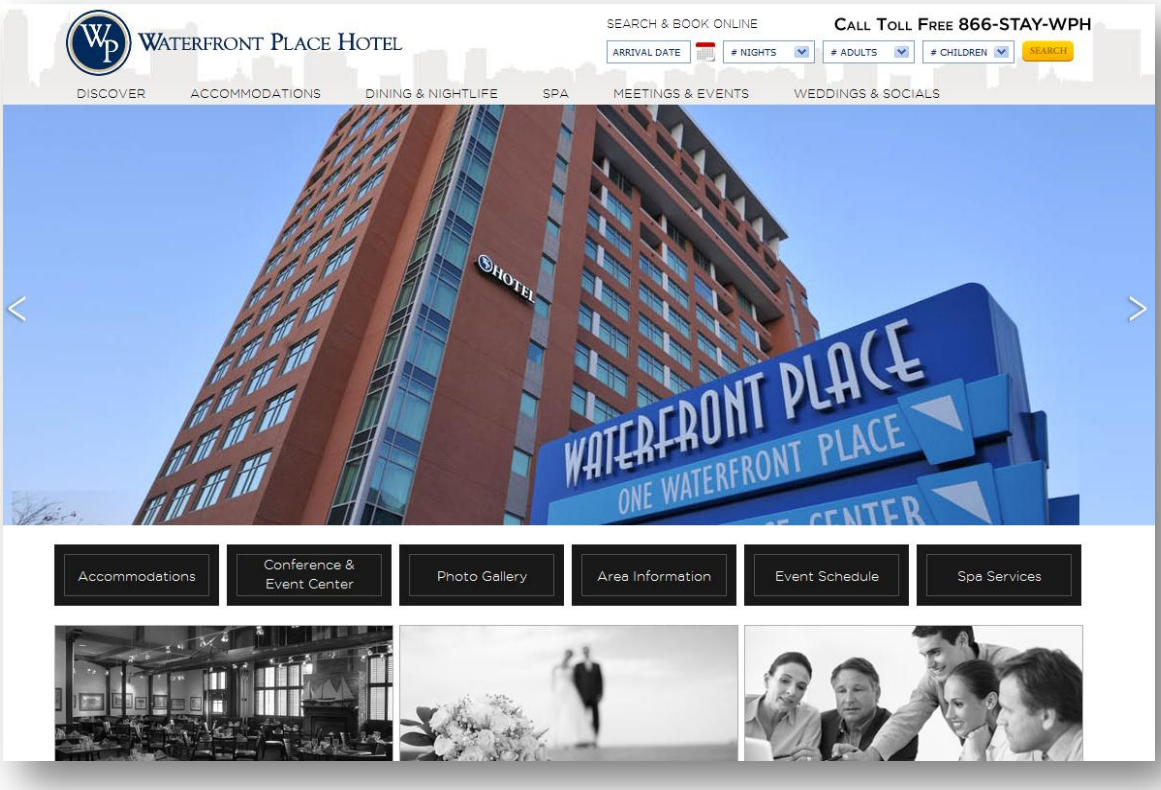
APPENDIX F

HOTEL WEBSITE FOR TREATMENT GROUP
With Embedded Social Media Channels
(Highlighted Below)



APPENDIX G

HOTEL WEBSITE FOR CONTROL GROUP
(Without Embedded Social Media Channels)



APPENDIX H
SURVEY INSTRUMENT

Based on a scale from 1 to 7, where 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, and 7 = strongly agree, to what degree would you agree with the following statements.

I think the hotel website offers information that is	**Strongly disagree**			**→**			**Strongly agree**
PI1. quick and easy access	1	2	3	4	5	6	7
PI2. useful	1	2	3	4	5	6	7
PI3. helpful	1	2	3	4	5	6	7
PI4. informative about hotel services	1	2	3	4	5	6	7

I think the hotel website is	**Strongly disagree**			**→**			**Strongly agree**
PE1. entertaining	1	2	3	4	5	6	7
PE2. fun to use	1	2	3	4	5	6	7
PE3. exciting	1	2	3	4	5	6	7
PE4. enjoyable	1	2	3	4	5	6	7
PE5. cool	1	2	3	4	5	6	7

I think the hotel website provides options to	**Strongly disagree**			**→**			**Strongly agree**
PS1. know what other people said about hotel	1	2	3	4	5	6	7
PS2. express myself freely	1	2	3	4	5	6	7
PS3. meet people with my interests	1	2	3	4	5	6	7
PS4. find people using the website	1	2	3	4	5	6	7
PS5. talk with other people online	1	2	3	4	5	6	7

Given that I have access to the hotel website	**Strongly disagree**			**→**			**Strongly agree**
TS1. If I needed hotel services, I believe that I would be satisfied with this hotel website	1	2	3	4	5	6	7
TS2. Overall, I believe that I would be pleased with this hotel website	1	2	3	4	5	6	7
TS3. My feelings toward this hotel website can be characterized as satisfied	1	2	3	4	5	6	7

Given that I have access to the hotel website	**Strongly disagree**			**→**			**Strongly agree**
PI1. I will choose this hotel website for my travel	1	2	3	4	5	6	7
PI2. If I had needed the hotel stay during the past year, I would have selected this hotel website	1	2	3	4	5	6	7
PI3. In the next year, if I need to choose a hotel I will select this hotel	1	2	3	4	5	6	7

Q1. Do you use social media links available on websites, such as Facebook, Twitter, YouTube, etc…?

- □ Yes
- □ No

Q2. Which of these embedded social media channels do you prefer to use in the hotel or travel website?
(You can choose multiple options)

Sl. no	Social Media Websites	
1.	Social Networking Sites (Ex: Facebook)	□
2.	Video Sharing websites (Ex: YouTube)	□
3.	User-Generated Review Sites (Trip Advisor)	□
4.	Blogs/Micro-blogging (Ex: Twitter)	□
5.	Chat rooms (Ex: Travel Chat Forum)	□
6.	Forums (Ex: Virtual Tourist)	□
7.	Multi-media Sites (Ex: Pandora Radio, LiveSteam etc)	□

Other Social Media Channels and links that you prefer when using the hotel website:
_____

Q3. How often do you make hotel reservations online in a year?

- □ Never
- □ Rarely
- □ Sometimes
- □ Quite Often
- □ Very Often

Demographic Information

Q4. Gender

- □ Male
- □ Female

Q5. Education Level

- □ Freshman
- □ Sophomore
- □ Junior
- □ Senior

VITA

Ajay Kumar Aluri

Candidate for the Degree of

Doctor of Philosophy

Thesis: DOES EMBEDDING SOCIAL MEDIA CHANNELS IN HOTEL WEBSITES INFLUENCE TRAVELER'S SATISFACTION AND PURCHASE INTENTIONS?

Major Field: Human Sciences/Hospitality Administration

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in Human Sciences/ Hospitality Administration at Oklahoma State University, Stillwater, Oklahoma in July, 2012.

Completed the requirements for the Master of Science in International Studies at Oklahoma State University, Stillwater, Oklahoma in 2007.

Completed the requirements for the Bachelor of Technology in Computer Science and Information Technology at Jawaharlal Nehru Technological University, Hyderabad, Andhra Pradesh, India in 2004.

Experience:

2011-present	Visiting Assistant Professor, Department of Management College of Business & Economics, West Virginia University
2010-2011	Instructor, School of Hotel & Restaurant Administration, College of Human Sciences, Oklahoma State University
2009-2010	Research & Teaching Assistant, HRAD College of Human Sciences, Oklahoma State University
2007	Teaching Assistant, School of International Studies, Oklahoma State University

Professional Memberships: HFTP, I-CHRIE, & iHITA

Name: Ajay Kumar Aluri Date of Degree: July, 2012

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: DOES EMBEDDING SOCIAL MEDIA CHANNELS IN HOTEL WEBSITES INFLUENCE TRAVELER'S SATISFACTION AND PURCHASE INTENTIONS?

Pages in Study: 141 Candidate for the Degree of Doctor of Philosophy

Major Field: Human Sciences/Hospitality Administration

Scope and Method of Study: In the Internet world today, social media channels have emerged as a top share of Internet usage, and more travelers have started using them to make their hotel plans and purchases. Because of the recommendations of researchers and practitioners, hotel organizations have already embraced social media and have embedded their links on their host websites. Still, research is lacking concerning how embedded social media channels influence traveler satisfaction and their purchase intentions in the hotel industry. The main purpose of this study was to examine the differences between travelers that use social media channels and those who don't use them. In addition, this study examined how social media channels influences gratification factors, traveler satisfaction, and purchase intentions. A post-test only experimental design was conducted by using two, almost-identical hotel websites, which were created just for this study. A total of 378 responses were analyzed using multivariate analysis of variance and path analysis of structural equation modeling.

Findings and Conclusions: The results of this study revealed that embedded social media channels on the hotel website moderately increased travelers' perceived social interaction. Regarding the effects of experimental modifications of the website, the results indicated that the two outcome variables—traveler satisfaction and purchase intentions—were not directly influenced, although there was a marginal indirect influence of embedded social media channels on travelers' satisfaction, through perceived social interaction. There was no significant difference in perceived informativeness and perceived enjoyment for travelers who used website with embedded social media channels, compared to the website that didn't have them. The perceived enjoyment of the hotel website statistically predicted an increase in traveler satisfaction and purchase intentions. The perceived informativeness of the hotel website strongly influenced traveler satisfaction. Traveler satisfaction was identified as a strong mediator between gratification factors and purchase intentions. Meanwhile, the perceived informativeness, enjoyment, and social interaction of the host website play a major role in travelers' satisfaction during their initial visit to the host website.

ADVISER'S APPROVAL: Dr. Lisa Slevitch