The Role Of Flow In Creating E-loyalty: The Case Of Online Hotel Booking Websites

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THE ROLE OF FLOW IN CREATING E-LOYALTY: THE CASE OF ONLINE HOTEL BOOKING WEBSITES

by

ANIL BILGIHAN
B.S. Bilkent University, 2007
M.S. University of Delaware, 2009

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the College of Education at the University of Central Florida Orlando, Florida

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Major Professors: Fevzi Okumus, Khaldoon Nusair
ABSTRACT

This dissertation aims to examine the concept of “online customer experience”, “flow”, and its role in influencing online customers’ loyalty to a hotel booking website. To achieve this aim, a model was developed, which proposed that online flow is generated by both hedonic and utilitarian website features. A model was developed based on literature review to measure the relationships between the constructs. To initiate this research, a survey approach was taken. After conducting a pilot study, a marketing company was contacted to distribute the link for the online questionnaire. Five hundred and eleven (511) questionnaires were completed by guests who booked a hotel room online. Participants completed the self-administered online questionnaire by answering questions related to their last hotel booking experience.

Study results found that hedonic and utilitarian website features affect the flow experience positively. Results highlight that hedonic website features has a stronger effect on the flow experience compared to utilitarian ones. In addition, the results revealed that hedonic features positively impact brand equity and utilitarian features impact trust towards the hotel booking website. Further, both trust and brand equity have significant and positive relationship with e-loyalty. However, according to study results, flow experience does not have a direct significant effect on e-loyalty. The study findings suggest that consumers who are able to achieve a state of flow while shopping online will perceive higher brand equity and trust. Therefore, their perceptions of the brand are improved. With enhanced levels of trust and brand equity, consumers are more likely to build bonds and stay loyal to the hotel booking website. It is important to note that
enhancing the brand equity and trust via hedonic and utilitarian website features is important to increase loyalty because flow experience does not directly influence loyalty.

This study contributes to existing research on flow experience in several ways. Firstly, it developed and tested a model with precursors of flow experience in e-commerce by establishing a link between website features and flow experience. Antecedents and consequences of flow experience can help researchers understand when this experience occurs and what to expect from this optimal experience in online environments. Thus, this study makes a contribution to the existing literature by examining the effects of features of the website on flow experience. It is worth noting that in the model, hedonic website features had the largest impact on flow experience. This is particularly an important contribution, considering that precious related research examined variables such as attractiveness, novelty, playfulness, personal innovativeness, content of the website, interactivity, teleperesence and perceived ease of use as the precursors of flow experience, but they have not examined the website characteristics that derives from shopping orientations. Study results can give hotel booking website designers and marketers a better understanding of the online consumer experiences and loyalty.
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CHAPTER 1
INTRODUCTION

Introduction

The flow concept has been recently proposed as an important construct for understanding consumers’ online shopping experiences. Although widely studied in marketing research, no previous research has examined the flow experience in a hotel website setting. This study intends to examine the concept of “online customer experience,” “flow,” and its role in influencing online customers’ loyalty to a hotel booking website. Flow is the enjoyable experience that people feel when acting with total involvement (Hung, Chou, & Ding, 2012) and serves as a foundation to examine consumers’ online shopping experience (Novak & Hoffman, 2000). This study attempts to determine the antecedents of the “flow” experience in online hotel booking websites.

In e-commerce, brand equity is one of the most important aspects of marketing and promotion (Park, Nah, DeWester, Eschenbrenner, & Jeon, 2008); the latest developments in e-commerce environments present new opportunities to build brand equity in online environments (Sriram, Balachander, & Kalwani, 2007). Trust is an essential component for building e-commerce relationships (Palvia, 2009). Therefore, it anticipates investigating the precursors of brand equity and trust to an online hotel booking website by integrating an online customer experience model. This chapter explores the concept of online shopping orientations, flow theory, brand equity, trust to an online booking website, and e-loyalty. Later, it introduces the concept of e-commerce,
particularly in the area of online hotel booking. Finally, the chapter discusses research contributions, outlines the research problem, and introduces the research questions.

**Background**

This dissertation focuses on the antecedents and consequences of the “flow experience” in online retailing environments within the hotel room booking context. “Flow” is the enjoyable, absorbing, and captivating state that people experience when acting with total involvement. A review of earlier research indicates that the application of the concept of flow to understand the online consumer experience is a promising but underdeveloped field (Guo, 2004, Nusair & Parsa, 2011). Scholars have agreed that flow is a valuable construct for explanation of consumer behavior in the computer-mediated environments. However, the issue of how flow can truly facilitate particular Internet shopping behaviors has not been satisfactorily investigated (Bridges & Florsheim, 2008; Smith & Sivakumar, 2004; Wang, Baker, Wagner, & Wakefield, 2007).

Previous research indicates that flow is positively correlated with purchase and revisit intentions in online environments (Hausman & Siekpe, 2009); therefore, it is a vital construct for e-commerce. Nevertheless, the roles of online customer experiences, as well as the mechanism through which they may affect online performance, have not received sufficient attention in academic marketing literature, especially in online hotel booking context. This knowledge gap portrays an essential research opportunity since growing practitioner literature emphasizes experience-based differentiation as a key
strategy for gaining a sustainable competitive advantage in the e-commerce context (Pentina, Amialchuk, & Taylor, 2011).

The Internet has changed how people shop, including the tasks of booking hotel rooms, vacation packages, airline tickets, and rental cars. This dissertation concentrated on the “flow experience” in online hotel booking website settings. The term flow was first coined by Csikszentmihalyi (1975) to describe the situation in which people act with a sense of total control, concentration, and deep involvement. Flow is the enjoyable and captivating experience that people often undergo when acting with total involvement. This ultimate experience is described as engrossing and intrinsically rewarding. A review of prior research suggests that the application of the concept of flow experience to understand the online consumer experience has not been fully conceptualized (Guo, 2004), especially in the context of travel (Nusair & Parsa, 2011).

Consumers’ interactions with hotel brand-related stimuli on the website can lead to online flow (Hoffman & Novak, 1996, 2009; Huang, 2003; Novak, Hoffman, & Duhachek, 2003; Skadberg & Kimmler, 2004). The overarching question addresses how hotel booking websites can design website interfaces that facilitate consumers in reaching a state of flow during website visits, as well as the consequences of this optimum experience in e-commerce contexts, especially in online hotel booking. Therefore, this dissertation attempts to answer the following questions:

1. What are the dynamics of flow experience in online hotel booking?
2. What are the antecedents of flow experience in online hotel booking?
3. What are the consequences of this optimal buying experience?
4. How could hoteliers develop booking webpages that create flow experience?

5. How does this ultimate experience lead to loyalty to the brand and how does it impact brand equity in online contexts?

These research questions are essential in adding to the e-commerce literature for various reasons. Firstly, the Internet is a unique distribution channel (Butler & Peppard, 1998; Hoffman & Novak, 1996; Schlosser, 2003); consequently it is critical to investigate its impact on consumer behavior (Barwise, Elberse, & Hammond, 2002). In e-commerce, shopping is mediated by the interactive Internet where customers act as both users and consumers (Koufaris, 2002). Consumers both experience the website characteristics as Internet users and use it as a shopping medium as customers. Hoffman and Novak (1996) suggested that it was essential to study flow in interactive, computer-mediated environments to understand this dual role of online consumers.

As a corollary of the experience-driven economy, the notion of online flow has attracted both practitioners and academicians. In online shopping, consumers might seek utilitarian benefits, such as ease-of-use. Similarly, they might seek hedonic benefits, such as visually appealing website designs that provide enjoyment of the online experience (Loiacono, Watson, & Goodhue, 2002). It is vital to grasp that there are consumers who are seeking the “full experience” (Loiacono et al., 2002). Those consumers are the ones who simply enjoy “strolling down the aisles” and want to be entertained along the way. In order to satisfy those consumers, the website must establish a pleasant experience. Therefore, the website must be visually appealing (Geissler, Zinkhan, & Watson, 2006; Elliot & Speck, 1998; Ha & Litman, 1997). Comparable to a brick-and-mortar store, the
combination of a pleasant atmosphere (Grove, Fisk, & Dorsch, 1998; Kotler, 1973) and image (Zimmer & Golden, 1988) endeavors to entrance a consumer through an emotionally appealing (De Pelsmacker & Van Den Bergh, 1997; Richins, 1997) site that encourages continued browsing (Csikszentmihalyi, 1977; Novak & Hoffman, 1997; Venkatesh, 1999, 2000; Venkatesh & Speier, 1999). Thus, customers are the “audience,” interacting with or observing a myriad of theatrical phenomena that mingle to create an experience (Grove et al., 1998; Pine & Gilmore, 1998).

Furthermore, it is also important to consider that contrary to the initial predictions of significant increases in both e-commerce spending and changes in consumers’ buying habits, e-commerce has indicated growth and volume at merely satisfactory levels (Guo, 2004). In spite of the anticipated incentive and customer value of utilizing online technology, customer acceptance of the Internet as a major and routine shopping place is still not revolutionary (Barwise et al., 2002). Investigating flow as an optimum shopping experience is theorized to lead to intention to return to a site, which appears to contribute to utilization of e-commerce (Hoffman & Novak, 1996). This relationship may help to increase understanding of the underpinnings of the underwhelming growth and volume in e-commerce.

The e-commerce phenomenon in the travel context also has its challenges. Compared to hotel-owned websites, websites of online travel agents still handle a significant portion of online reservations (Law & Cheung, 2006). Carroll and Siguaw (2003) stated that hotel-owned websites are in a disadvantageous position in the travel market. With the intention of avoiding the issue, travelers are encouraged to book a room
directly on the hotel-owned websites (Morosan & Jeong, 2008). Nevertheless, hotel-owned websites are still not capturing the desired share of room bookings (Miller, 2004). Using hotel-owned websites to retain loyal e-consumers is crucial in maintaining a competitive advantage in a marketplace being dominated by online travel agencies (Miller, 2004). Thus, the primary goal of this study is to develop an exploratory framework of hotel website loyalty antecedents by investigating the mediating role of the flow experience.

**Problem Statement**

As the number of Internet users continues to grow, opportunities for online shopping continue to expend as well (Lee & Overby, 2006). Progress in information and web technologies has opened numerous opportunities for e-commerce (Luo, Chen, Ching, & Liu, 2011). Cowles, Kiecker, and Little (2002) claim e-commerce research is supposed to consider the motivations or desired value behind consumer use of the medium. Shoppers choose and return to retailers who offer superior value (Woodruff, 1997); therefore, hotel-owned booking websites should design and ultimately deliver a value proposition that is most appealing to e-customers. Many researchers have classified consumer value (Kahle, Beatty, & Homer, 1986; Rokeach, 1973; Sheth, Newman, & Gross, 1991). It was proposed that further studies should focus on measuring consumer values of online shopping, both hedonic and utilitarian, as well as explore the relationships between consumer value of online shopping and consumption behaviors (Chung & Park, 2009). Hedonic and utilitarian values of online shopping come from the
various features of the e-commerce website and play a pivotal role in experience-driven economy in the e-commerce context. None of the empirical studies have verified whether utilitarian and hedonic features of an e-commerce website affect the flow experience, brand equity, or trust. Deeper insight into flow theory in online dynamics is greatly needed in the experience economy and e-commerce contexts.

The theoretical understanding of online shopping has received much attention. Less focus has been given to the formation of the online customer experience such as flow (Rose, Clark, Samouel, & Hair, in press). Consequently, this dissertation attempts to tackle questions such as “What are the factors contribute to flow in online hotel room booking?”, “What are the antecedents and consequences of this optimal shopping experience?”, and “Does flow have positive effect on brand equity and trust?”

**Purpose of the Study**

E-commerce strategists have highlighted the necessity for hotels to develop websites that generate bookings, as well as the importance of understanding how a website attracts and encourages online bookings (Jeong, Oh, & Gregoire, 2005). Although hotel reservations constitute the second most frequently purchased travel product online (Card, Chen, & Cole, 2003), only limited research has been devoted to a comprehensive examination of factors that influence e-loyalty in hotel websites. Therefore, the purpose of this dissertation is to develop an explanatory framework of an online hotel booking website that enhances trust and also encourages customer loyalty. In order to achieve that goal, it will focus on the flow experience by addressing antecedents
of flow and its relative outcome on e-loyalty in hotel booking website settings. In order to achieve this purpose, hedonic and utilitarian features of the booking website, the concept of flow, brand equity, and trust are integrated into a new framework to understand this important topic. As a result, it is anticipated that the relative effects and importance of various antecedents will emerge to help explain e-loyalty. The broad intent of this dissertation is to provide a greater conceptual understanding and empirical validation of relational behaviors in a B2C online hotel booking setting. To this end, the primary aim of this dissertation is to develop a theory-based model of the flow experience in a way that provides sufficient explanatory power while permitting operationalization for testing in an online hotel booking website.

The research objectives of this dissertation are outlined in an effort to gain a clearer understanding of the flow experience and e-loyalty in the online hotel room booking context. Further objectives of the study aim to investigate the specific items that define the flow experience in hotel booking websites. Another objective is to explore the impact of hedonic and utilitarian features of the hotel booking website on the flow experience with the intention of providing both theoretical and managerial advancements into the e-commerce literature. Finally, it targets to identify the possible relationships among flow, brand equity, trust, and e-loyalty.
Significance of the Study

This dissertation provides inquiry into the antecedents and consequences of the flow experience in the hotel room booking context. A review of previous research suggests that applying the notion of flow to understand the online consumer experience is a promising but underdeveloped field. People experience flow in many activities. Flow has been found to be positively related to desirable outcomes of interacting with computers and the Internet, such as loyalty, satisfaction, exploratory behavior, revisit and purchase intentions, and attitude toward websites (Hung et al., 2012; Koufaris, 2002; Novak, Hoffman, & Yung, 2000; Skadberg & Kimmel, 2004; Zhou & Lu, 2011). The significance of this dissertation comes from investigating the effect of flow, characteristics of flow activity, and flow experiences during online hotel room booking. These concepts are investigated in terms of the desirable interaction outcomes of trust, brand equity, and e-loyalty. Achieving these results will help an online hotel booking website to gain competitive advantage. The flow experience is a wholesome occurrence people sometimes undergo when interacting with information technology. If the relationship between the flow experience and the outcome variables is established, the implications regarding how to best design human computer interaction to foster this flow experience will be of interest of both researchers and practitioners. Customer interactions with an organization’s website create opportunities for positive experiences that can lead to long-term relationship building (Rose, Hair, & Clark, 2011).

The principal contribution of this dissertation is the development and testing of a theoretically grounded model to explain the concept of the flow experience. This
dissertation attempts to make several contributions to the research on flow in the online context. It will help practitioners to gain a deeper understanding of e-loyalty; furthermore, it will highlight the antecedents of the flow experience that will help practitioners to design websites that help to build brand equity, increase trust, and enhance customer loyalty. It (a) includes a validity study of utilitarian and hedonic website features and flow measures in online settings; (b) tests a comprehensive model of flow, including the underlying dimensions of flow and the mediating variables of brand equity and trust; (c) examines the applicability of flow in online hotel booking environments; and (d) investigates the effects of flow on loyalty in online hotel booking. The study will propose a measurement instrument for website characteristics, which is greatly needed in online hotel booking. The fundamental objective is to offer information that will not only enhance understanding of the role of both hedonic and utilitarian website features on flow experience, but also facilitate the design of hotel booking websites that provide an optimal online shopping experience and possibly lead to customer loyalty, enhanced brand equity, and increased trust.

**Definition of Terms**

**Brand equity** represents added value with a brand that endows a product (Farquhar, 1989).

**e-Loyalty** is the term that extends traditional brand loyalty to the technology-mediated online consumer experience. This concept is usually defined as the intention to
revisit the same hotel booking website and make a reservation in the near future (Cyr, Bonanni, Bowes, & Ilsever, 2005).

**Flow** is the holistic sensation that people feel when they act with total involvement (Csikszentmihalyi, 1977).

**Hedonic features** provide unique consumption experiences such as emotional responses.

**Utilitarian features** increase the user’s task performance while encouraging efficiency (Van der Heijden, 2004).

**Trust** is the willingness of a consumer to be vulnerable to the actions of an Internet merchant in an Internet shopping transaction, based on the expectation that the Internet merchant will behave in certain agreeable ways, irrespective of the ability of the consumer to monitor or control the Internet merchant (Lee & Turban, 2001).

**Hypotheses and Conceptual Framework**

H1: Hedonic features of a hotel booking website positively impact flow experience.

H2: Utilitarian features of a hotel booking website positively impacts flow experience.

H3: Hedonic features of a hotel booking website positively impact brand equity.

H4: Utilitarian features of a hotel booking website positively impact trust.

H5: Flow experience positively impacts brand equity.

H6: Flow experience will positively impact trust.
H7: Flow experience positively impacts loyalty to the website.

H8: Brand equity positively impacts loyalty to the website.

H9: Trust positively impacts loyalty to the website.

*Figure 1.* Antecedents of flow.

*Figure 2.* Antecedents of e-loyalty.
Research Questions

As briefly outlined in prior sections, this dissertation aims to answer the following questions:

1. What are the dynamics of flow experience in online hotel booking?
2. What are the antecedents of flow experience?
3. What are the consequences of this optimal shopping experience?
4. How could hoteliers develop booking webpages that create flow experience?
5. What are the factors contribute to flow in online hotel room booking?
6. Does flow have positive effect on brand equity and trust?

Limitations

It is believed that the use of a limited population sample restricts the generalizability of the study results. The length of the questionnaire and the completion time might have created questionnaire-fatigue and may have influenced the validity of participant’s responses. In addition, it was assumed that respondents completed the questionnaire objectively. Finally, the focus of this study involved the hotel-owned booking websites. Thus, the findings of this study may not be generalizable to other online travel contexts.
Dissertation Structure

This dissertation includes a literature review that examines the antecedents and consequences of flow experience. Antecedents of online flow have roots in the characteristics of the e-commerce website. The literature review starts with an explanation of the characteristics of the website indicating reliance on the shopping values that are sought by consumers. Two significant shopping values and features of the hotel booking websites, hedonic and utilitarian, will be investigated as the precursors of the flow experience. Consequences of flow, which include trust, brand equity, and e-loyalty, are investigated. Later, a methodology section that discusses scale development, sampling techniques, and data analysis techniques is included. This section is followed by results and discussions. Finally, implications, conclusions, and limitations are discussed.
CHAPTER 2
LITERATURE REVIEW

The current chapter begins by exploring the background of e-commerce in the travel context and later discusses the origin and definition of flow and e-loyalty in particular. Next, it explains the theoretical underpinnings of this dissertation and the justification for its proposed hypotheses and the development of its constructs.

**e-Commerce and Travel Industry**

The worldwide number of Internet users reached 2.27 billion in 2011 (Internet World Stats, 2012). Simultaneously, in the past 15 years, e-commerce has leapt forward remarkably (Kim, Ma, & Kim, 2006), increasing sales by more than 19% each year (Internet Retailer, 2011). Goldman Sachs (2011) predicted that worldwide retail web sales will reach nearly $1 trillion by 2013. Forrester Research (2009) stated that 63% of U.S. online consumers made at least one web-based purchase in 2009. It is also predicted that online shoppers in the United States will spend $327 billion in 2016, accounting for 9% of total retail sales (Forrester Research, 2012).

This phenomenon was also adopted by consumers who seek hotel reservations. In fact, travel is one of the most accepted products sold over the Internet (O’Connor, 2001). Earlier studies supported the adoption of online booking; for instance, Yesawich (2000) highlighted that 6 out of 10 consumers are interested in purchasing travel services online, while Rayman-Bacchus and Molina (2001) revealed about half of those with Internet access regularly browse the Internet to retrieve travel-related information. Recent studies
and marketing reports also found that 70% of holiday shoppers made purchases online in 2011 (InternetRetailer, 2011). The Nielsen Company (2010) surveyed over 25,000 respondents and reported that of all Internet users, 32% intended to purchase airline tickets online and 26% intended to book hotel rooms online.

Online room reservations are rapidly taking over the role of traditional distribution channels such as global distribution systems (GDS) and traditional offline travel agencies (Jeong et al., 2005). The Internet has become a vital distribution channel for the lodging industry by accounting for roughly 16% of all revenues generated in the U.S. lodging industry (Chiang & Jang, 2007). The lodging industry has evidently benefited from the boom of e-commerce. Typically, hotel reservations have ranked as one of the most popular items to be purchased online. Out of 627 million online shoppers, more than 86 million made hotel bookings online (ACNielsen, 2005). It is expected that the Internet will increasingly account for much more than the current percentage of all hotel bookings (Blachford, 1999; Watkins, 2000). Doolin, Burgess, and Cooper (2002) suggested that the Internet is a competitive marketing channel in the hospitality and tourism industry that removes potential geographical and physical barriers. Travelers have increasingly chosen to conduct their business online in lieu of visiting a travel agent. Connolly, Olsen, and Moore (1998) concluded that the Internet allows potential customers to learn about hotel facilities and compare prices without contacting either a hotel’s sales representative or a travel agent. Successfully adopting a more effective e-commerce channel has become a significant matter for hospitality businesses (Kim et al., 2006).
Furthermore, e-commerce channels provide additional advantages for hotels; for example, O’Connor and Frew (2004) identified that the cost reduction earned by using electronic strategies in a cheaper distribution system is a key advantage for hoteliers. Additionally, the Internet has been used as a distribution channel by hoteliers to differentiate themselves from their competitors (Pernsteiner & Rauseo, 2000). De Kare-Silver’s electronic shopping test assesses the consumer’s propensity to purchasing using the Internet. He suggested several factors that should be considered in the electronic shopping test: (a) product characteristics, which addresses whether “the product need[s] to be physically tried, or touched before it is bought;” (b) familiarity and confidence, which “considers the degree the consumer recognizes and trusts the product or brand;” and (c) consumer attributes, which “shape the buyer’s behavior – are they amenable to online purchases in terms of access to the technology, skills available and do they no longer wish to shop for a product in a traditional retail environment?” Typical results from the evaluation highlighted that travel had a score of 31 (2nd most suitable product for e-commerce after books). De Kare-Silver stated that any product scoring over 20 has good potential, since the score for consumer attributes is likely to increase through time.

Although e-commerce can bring various benefits to the lodging industry, hotels still have to tackle substantial challenges since online travel agent websites handle a significant portion of online reservations (Law & Cheung, 2006). Carroll and Siguaw (2003) noted that hotels are drawn into a difficult situation in the travel market due to the fact that online travel agents are selling large volume of hotel rooms. In order to prevent this occurrence, customers are persuaded to reserve a room directly on the hotel-owned
websites (Morosan & Jeong, 2008). The number of travel websites and consumers’ willingness to book hotel arrangements online are both increasing; however, hotel-owned websites are not capturing the desired share of room bookings. Therefore, using proprietary websites to retain loyal e-consumers has become a critical strategy for hotels in order to maintain a competitive advantage in a marketplace that is dominated by online travel agencies, or OTAs (Miller, 2004). Hotel-owned websites are losing ground to online travel agencies or intermediary travel websites. From 1999 to 2002, hotel-owned websites have gone from acquiring 57% to 51% of total online hotel room bookings (Starkov & Price, 2003). Further emphasis to hotels’ profits is created in the average room rate that the hotels receive through the various online distribution channels. To illustrate this discrepancy, the average room rate booked directly at the hotel’s website is roughly $110.00; on the other hand, travel intermediary websites on average offered $76.80 (Starkov, 2002).

Even though hotel reservations comprise the second most frequently purchased travel product online (Card et al., 2003), only limited research has been devoted to a comprehensive examination of factors that influence e-loyalty in hotel websites. It is vital for hoteliers to understand how to develop booking websites that ensure customer loyalty. Thus, it is important to develop an exploratory framework of hotel website loyalty antecedents.

The most important source of industry’s failure to take advantage of the direct sales opportunity provided via the Internet is the combination of a lack of understanding of the phenomenon of online distribution and limited efforts to identify the impact of the
Internet on e-consumer purchasing behavior (Starkov, 2002). Hoteliers who understand the need to exploit the capability of the Internet are under pressure to define viable frameworks for improving their proprietary websites by ensuring e-loyalty (Miller, 2004).

As a contemporary marketing channel, the Internet differs from the traditional commerce structures in various ways. When customers shop in a brick-and-mortar store (e.g., travel agency), the shopping experience is enriched due to the stimulation of the senses with colorful displays, ambient music, inviting scents, and interaction with salespeople or other customers/guests. These real experiences are absent in online environments; however, e-commerce offers other advantages to consumers such as convenience, cost, and time savings. In recent years, marketers have attempted to enhance shopping experience in online contexts, as shopping enjoyable and convenience are crucial to online customer satisfaction (Lee, Pi, Kwok, & Huynh, 2003). A well-designed, interactive user interface may overcome some of the limitations of traditional e-commerce by creating an enjoyable shopping experience (Koufaris 2002; Lohse & Spiller, 1998; Teng et al., 2012).

A unique characteristic of online shopping suggests that customers have to base their judgments on service or product information presented (e.g. room pictures, virtual tours) on the websites. Specifically, consumer purchases are usually based on appearance, a metric elicited through tools such as pictures, images, quality information, and video clips of the product (Hong, Thong, & Tam, 2004; Kolesar & Galbraith, 2000). Consequently, the promise of e-commerce and online hotel room reservation depends to a great extent on user interfaces and how people interact with computers (Griffith, Krampf,
& Palmer, 2001; Hong et al., 2004). Moreover, the characteristics of information presentation, navigation, and order fulfillment in an interactive shopping medium are considered more important factors in building e-commerce trust than in traditional retailing (Alba et al., 1997; Reynolds, 2000).

However, while the information content of websites is an important determinant of consumers’ online shopping behavior, limited research was found on how booking websites increase consumers’ loyalty, or which features of these sites matter the most. A VFM Interactive survey (2005) revealed that visuals were very important to online hotel shoppers, while Law and Huang (2006) determined that content richness and functionality of the website played an important role as well. The Internet allows for still photos, elaborate graphics, virtual tours, and videos, but a balance must be struck between providing these features and the time taken for a website to load (Ryan & Valverde, 2003). This resonates with the findings from Chu (2001) that highlighted that consumers prefer to have informative, interactive, and attractive travel websites. Therefore, this dissertation addresses the important issues of how the features of the website affect consumers’ loyalty to commercial websites and provides both theoretical and empirical analyses to explain consumers’ loyalty to an online hotel booking website.

The Internet facilitates building relationships over time. Many studies have indicated that retaining existing customers online is a major challenge (Boyer & Hult, 2005). It is challenging to maintain user loyalty in e-commerce transactions primarily because of the low switching costs when competition is only a click away (Chang & Chen, 2009). Therefore, as competition increases among hotel booking websites, the
pressure is not only attracting new customers, but also keeping existing ones. Consequently, it is vital for hotels to develop websites that lock customers in a relationship.

Lately, research has been cultivated regarding two classifications of online behavior: experimental-oriented (hedonic) shopping behaviors, and utilitarian-oriented (functional) behaviors that shape the features of the booking websites (Nusair & Parsa, 2011). Attributes of hedonic shopping include social interaction, entertainment, information availability, extrinsic motivation, efficiency, and expressions of accomplishment. Research confirms that both hedonic and utilitarian shopping orientations can possibly affect a customer’s reaction towards online shopping (Fiore & Jin, 2003). Eventually, the degree to which an online booking website satisfies a customer’s experiential-oriented or utilitarian-oriented needs influences the amount of money the consumer spends in online environments.

E-commerce marketers commonly seek to deliver a convenient, safe, and pleasant online environment, appropriate to consumers’ functional needs. However, these environments might also attempt to form an experience that inspires more escapist elements of flow, a sense of deep involvement that is intrinsically enjoyable, because they believe that this enriched experience leads to greater levels of online buying (Bridges & Florsheim, 2008).

Research has indicated that the shopping experience offers a blend of utilitarian and hedonic shopping value to consumers (e.g., Babin, Darden, & Griffin, 1994; Babin & Darden, 1995). Utilitarian value is cognitive in nature, goal-directed, and associated with
task-oriented activities, while hedonic value is associated with the emotional aspects and entertainment purposes of the shopping experience (Babin et al., 1994; Holbrook & Hirschman, 1982). Consequently, customers recognize utilitarian value by acquiring the product that necessitated the shopping trip as a result of focusing on their commitment to the goal of shopping while simultaneously perceiving the hedonic value associated with the enjoyment and entertainment of the shopping experience itself.

The e-Commerce of Hotel Rooms

By 2000, most hotel companies were aware that the Internet would provide substantial opportunities to extend a “brand lock” on the consumer. Therefore, hotels started placing hotel room inventory online for consumers to access through their websites (Miller, 2004). It is evident that the Internet has offered significant advantages to hotels as a marketing tool; however, the lodging industry has struggled with the implications of travelers booking rooms online (O’Connor, 2003). The Internet as a distribution channel of hotel rooms has reformed the environment for consumers on top of the hotel industry. Today, hotel establishments are finding it more challenging to control their inventory and to sustain a competitive advantage through their branded websites. One of the reasons for the occurrence of this phenomenon is derived from the greater access to information endowed to customers, who have become more empowered since the advent of the Internet (Fuchs & Schreier, 2011; Ostrom & Iacobucci, 1995). Customers can easily initiate and control information, thus altering the traditional supply-and-demand balance. Furthermore, with the astonishing amount of information provided
by different travel sites, consumers are spending more time browsing the Internet in search of relevant information and competitive prices (Miller, 2004). Subsequently, in a domain where information surplus is quickly overtaking information scarcity, customers are wearying the traditional buyer-seller relationship (Frank, 1997).

Four primary distribution channels are used in the lodging industry regarding transaction cost: (a) traditional travel agent ($13.50), (b) online travel agent ($10.50), (c) central reservation system (CRS; $8.50), and (d) hotel proprietary websites ($1.50). Clearly, the lowest-cost available channel in the industry is the hotel-branded proprietary website. The difference between selling hotel rooms through a traditional travel agent and through the hotel brand’s website is approximately $12 per transaction (Starkov, 2002).

Likewise, O’Connor (2003) conducted a study by collecting room rates from 25 proprietary websites of international hotel chains and four intermediary websites; the mean room rate quoted from hotels’ proprietary websites was $159 in comparison to $152 from the intermediary website Expedia. Intermediary websites such as Expedia purchase large blocks of rooms from hoteliers at substantial discounts and sell them to the e-consumer at a markup of 15% to 30% (Miller, 2004). Therefore, hoteliers are struggling to survive in online environment (Starkov, 2002).

**Online Experience**

Pine and Gilmore (1999) advocate that offering a unique buying experience is the key to winning the hearts and minds of consumers. Their study designated that consumers appreciate the experience more than the actual tangible value. Consequently, experience
becomes a vital element of the overall product or service being purchased (Rust & Lemon, 2001). Therefore, researchers have begun to examine the consumer’s shopping experience via the Internet in relation to the “flow” construct, implying that it is possible to measure the extent and intensity of the consumer’s experience in online environments (Novak et al., 2000).

Lately, enhancing experience and loyalty have served as noteworthy marketing goals (Verhoef et al., 2009). Gabisch (2011) suggested that having an optimal experience on a brand’s website is a critical factor in successfully managing loyalty because experiencing online flow significantly leads enhanced loyalty. Csikszentmihalyi developed the concept of flow to represent a “peculiar dynamic state the holistic sensation that people feel when they act with total involvement” (Csikszentmihalyi 1975, p. 36) and an “ordered, negentropic state of consciousness” (Csikszentmihalyi 1988, p. 34). In this state, actions transit seamlessly into another, displaying both an inner logic of their own as well as harmony. The actor experiences a smooth transition and total control of his or her actions without distraction.

The characteristics of flow experience as portrayed by Csikszentmihalyi (1988) contain: (1) *focused concentration on task at hand*, also referred to as attention and immersion; (2) “*merging of activity and awareness,” or mergence; (3) *a sense of being in control*; (4) *transformation of time that makes time appear to pass very slowly or very rapidly compared to ordinary experience*, also known as time distortion and time dissociation; (5) *a loss of self-consciousness and feeling of transcendence of self*; and (6) an *autotelic experience*, which is intrinsically rewarding.
In Information Systems (IS) research, flow has been integrated into studies of computer-mediated communication (Trevino & Webster, 1992) and human-computer interaction (Ghani & Deshpande 1994; Webster, Trevino, & Ryan, 1993). Flow theory has been applied to studying computer-mediated communications, including a variety of Internet activities (Chen, Wigand, & Nilan, 1999; Hoffman & Novak, 1996; Koufaris, 2002) that can also include activities on tourism websites (Skadberg & Kimmel, 2004; Skadberg, Skadberg & Kimmel, 2005). Flow variables or similar variables have been reported to hold relationships with attractive outcomes in e-commerce context, such as positive effects (Chen, 2006), positive perceptions of and attitudes toward websites (Agarwal & Karahanna, 2000; Huang, 2003), exploratory behavior with increased learning (Skadberg & Kimmel, 2004), and future intentions to revisit and purchase (Koufaris, 2002; Siekpe 2005; Wu & Chang, 2005). More than 50 empirical studies revealed that the flow experience positively affects desirable attitudes towards e-retailers (Guo, 2004).

Flow has arisen as a vital construct to understanding consumer behaviors in online contexts (Hoffman & Novak, 1996; Novak et al., 2000). Shin (2006) found a positive correlation between flow experience and satisfaction in online contexts. The role of flow may vary in relation to the shopping values obtained by consumers. Previous research has implied that customers utilize two different sets of values in making shopping decisions: *hedonic* and *utilitarian* (Babin et al., 1994; Babin & Darden, 1995).

Hedonic values are those obtained from the symbolic, imaginary, multisensory, fantasy-related, intrinsic, and emotive feeling one gets from having a particular product.
Utilitarian values are derived from the acquisition of products or information in an efficient manner; they can be viewed as reflecting a more task-oriented, directed, purchase-specific, cognitive, and non-emotional outcome (Babin et al., 1994; Holbrook & Hirschman, 1982). Utilitarian values are linked to cognitive aspects of attitudes, such as economic benefit (Zeithaml, 1988), convenience, time savings (Jarvenpaa & Todd, 1997; Teo, 2001), accessibility, and availability. Understanding the notion of shopping orientations is important to highlighting the significance of hedonic and utilitarian features of websites. Therefore, the following section investigates shopping orientations.

**Shopping Orientations**

Holbrook (1986) conceptualizes shopping value as a significant outcome or demanded benefit pursued by the customer. According to Parsasuraman and Zinkhan (2002), the Internet is a channel that enables users to engage in various types of behaviors, such as exploring (e.g., browsing through destination websites), searching for specific information (e.g., reading hotel reviews for a specific locale), entertaining oneself (e.g., looking at pictures or taking virtual tours of a hotel room), or shopping (e.g., booking a hotel room). It was proposed that the degree to which a hotel booking website can fulfill the utilitarian and hedonic consumer needs will influence the perception of website quality (Nusair, Yoon, & Parsa, 2008). Web usage behaviors are expected to be motivated by both the hedonic and utilitarian benefits a customer gains from using a website (Childers, Carr, Peck, & Carson, 2001).
Hedonic shopping orientations are linked to the benefits that a consumer obtains when the Web is used for the enjoyment of the online experience itself; on the other hand, utilitarian shopping orientations are associated with achieving a specific goal, including the purchase of an item (Fischer & Arnold, 1990). The hedonic orientations in online environments are founded on fun and amusement via interacting with the web, whereas utilitarian shopping orientations are focused on achieving a specific goal (Babin et al., 1994; Holbrook & Hirschman, 1982). Literature indicates that hedonic and utilitarian orientations influence the value derived by the customer with regards to online purchasing (Eroglu, Machleit, & Davis, 2003; Menon & Kahn, 2002).

It is important to note that both values could be satisfied by the same e-commerce website. For instance, while booking a hotel room online, the utilitarian value might be derived from efficiency and the ease of product acquisition, while the experiential value might be originated from the excitement that a virtual tour causes. Similarly, a consumer might visit a hotel booking site with a specific purchase goal in mind (booking a room for specific dates), but may be attracted by an online shopping recommendation for a “golf package” (an unplanned purchase). In other words, online shopping experience is created by both utilitarian and hedonic outcomes in the same purchase episode (Brown, Pope, & Voges, 2003).

Cronin, Brady, and Hult (2000) revealed that value judgments affect satisfaction, loyalty, preference, and other valuable outcomes in the context of offline consumer behavior. Regarding e-commerce, research has started to emerge in the marketing literature. However, it remains to be seen as to whether the in-store customer value
dimensions identified in the retailing literature are equally relevant within an online shopping context, such as dimensions reflected by the website features. If this case holds true, it is important to determine the extent to which these differences in value dimensions influence the flow experience, trust, and brand equity.

Value has been conceptualized as the tradeoff between quality and price (Bolton & Drew, 1991); however, recent literature has claimed that value is more complex and that other dimensions of this construct should be taken into account by scholars (Grewal, Iver, Krishnan, & Sharma, 2003; Holbrook, 1994). Utilitarian and hedonic values are the most accepted value dimensions (Babin et al., 1994).

The following section investigates the aforementioned shopping orientation dimensions in online travel shopping and also provides a snapshot of the utilitarian and hedonic shopping orientations in e-commerce context.

Shopping Orientation in Online Travel Shopping

Shopping orientation influences travelers’ intentions to shop for travel products online (Jensen, 2012). Travelers look for both utilitarian and hedonic features in online booking channels. The number of hotel rooms sold online is expected to increase in the future (Morrison, Jing, O’Leary, & Lipping, 2001; Xiang & Gretzel, 2010) as consumers make online room reservations and related purchases online instead of relying on travel agencies to undertake the process for them (Morrison et al., 2001). Researchers justify this phenomenon by emphasizing the fact that since the advent of the Internet, consumers have had more travel products from which to choose, more information, and often lower
prices than they could attain through conventional travel agents (Anchar & Walden, 2002; Beldona, Morrison, & O’Leary, 2005; Jun, Vogt, & MacKay, 2007; Xiang & Gretzel, 2010).

Earlier research categorized shoppers into four groups on the foundation of their attitudes toward shopping: the economic shopper, the personalizing shopper, the ethical shopper, and the apathetic shopper (Stone, 1954). Bellenger and Korgaonkar (1980) categorized shoppers into two distinct groups, convenience and recreational shoppers, according to their time-saving orientation and information-seeking tendencies. Convenience shoppers either dislike or are neutral toward the act of shopping; on the other hand, recreational-oriented shoppers enjoy the act of shopping as a leisure-based activity. Similarly, Babin et al. (1994) classified two main shopping motivations: hedonic and utilitarian. Utilitarian shoppers shop with a goal in mind, whereas hedonic shoppers shop for fun.

Utilitarian Shopping Orientations

Earlier studies have classified the Internet as an ideal online channel for utilitarian-oriented shoppers (Donthu & Gilliland, 1996). A website is labeled as utilitarian-oriented when it not only saves time and effort but also reduces risks (Klein, 1998). The purpose of a utilitarian information system is to increase the user’s task performance while encouraging efficiency. The ultimate goal of a utilitarian system is to provide instrumental value to the user. These systems are ordered, reliable, functional, practical, and necessary for the user. On the other hand, hedonic systems are pleasant,
entertaining, fun, exciting, delightful, and thrilling for the user. The utilitarian or hedonic nature of a system can be identified by examining the tactics that system developers employ to encourage use. An important tactic that developers employ is to align system functionality with task requirements, while also providing as little distraction as possible to help the user perform his or her task. In completing utilitarian tasks, the interaction with the system is subordinate to the achievement of external goals.

Utilitarian behaviors have been portrayed as goal-oriented, deliberate, and based on a rational view of consumer behaviors (Batra & Ahtola, 1991; Engel, Blackwell, & Miniard, 1995). Consumers find utilitarian value when navigation needs are accomplished and goals are completed successfully, rather than concentrating on the experience itself (Babin et al., 1994). Consumers with a utilitarian orientation place high value on time allocations and regard time as a resource to be managed carefully (Cotte & Ratneshwar, 2003); additionally, they prefer to purchase products and services online because of the convenience and money-saving benefits derived from such a purchase (Huang, 2005). For utilitarian users, web designers need to be aware of the availability of information and intuitive design interfaces that facilitate the use of the site for information searches (Wolfinbarger & Gilly, 2001). Online hotel booking attracts utilitarian customers, as they can save money and time by easily comparing competitors’ prices without leaving their desks (Mathwick, Malhotra, & Rigdon, 2001).

Utilitarian value is delineated as a general valuation of functional benefits and sacrifices. It is pertinent for task-specific use of online shopping, such as purchase deliberation, in which a consumer considers the product, service, and price features
before actually making a purchase (Hoffman & Novak, 1996). Utilitarian value contains cognitive aspects of attitude, such as economic value for the money (Zeithaml, 1988) as well as judgments of convenience and time savings (Jarvenpaa & Todd, 1997; Teo, 2001). For example, consumers may shop online because of the convenience of locating and comparing different hotel brands and rooms, evaluating price/quality ratios, and conserving temporal and psychological resources (Grewal et al., 2003; Mathwick et al., 2001).

In a study by Overby and Lee (2006), utilitarian value was found to have a stronger role than hedonic value in the formation of preference for an Internet retailer, explaining approximately 41% in the variation in e-retailer preference as compared to hedonic value’s explaining only 3% in preference. It appears that consumers perceive both utilitarian value and hedonic value to be important in their preferences for retailers and future intentions, although utilitarian value was the stronger predictor. It appears that online consumer shoppers turn to the Internet primarily for utilitarian reasons, such as price savings and convenience (Overby & Lee, 2006). However, due to the intangible characteristics of hotel rooms, the phenomenon might differ in online hotel booking context.

Hedonic Shopping Orientations

Earlier research recognized that online shopping activity may be triggered as much by impulses as by rational thinking about the conveniences of e-commerce. Interactive features of e-commerce sites might arouse unregulated buying activities by
undermining consumer self-regulation (Kim & LaRose, 2004). The purpose of hedonic systems is to provide self-fulfilling, rather than instrumental, value to the user. Hedonic information systems are strongly connected to leisure activities with a focus on fun-based aspects of using information systems, encouraging prolonged rather than productive use (Van der Heijden, 2004). The term hedonic is derived from the word hedonism, a term used to denote the doctrine that pleasure or happiness is the chief good in life. Hedonic systems aim to provide self-fulfilling value to the user. The value of a hedonic system is a function of the degree to which the user experiences fun when using the system. To have a pleasurable experience, individuals often seek sensations on multiple sensory channels (Holbrook & Hirshman, 1982). Therefore, developers employ tactics that are classified as the inclusion of hedonic content: animated images and a focus on colors, sounds, and esthetically appealing visual layouts. The dominant design objective is to encourage prolonged use. Van der Heijden (2004) found out that hedonic value can play a pivotal role to increase acceptance of otherwise utilitarian information systems. The user acceptance of hedonic and utilitarian systems proceeds along two different belief configurations. Therefore, if people reject a utilitarian system, system developers may want to add hedonic features to invoke the other configuration to achieve user acceptance.

An early study addressing consumer engagement in compulsive shopping (O’Guinn & Faber, 1989, p. 147) stated that “compulsive buyers buy not so much to obtain utility or service from a purchased commodity as to achieve gratification through the buying process itself.” These authors define compulsive consumption as “an
uncontrollable drive or desire to obtain, use, or experience a feeling, substance, or activity that leads an individual to repetitively engage in a behavior that will ultimately cause harm to the individual and/or to others” (p. 148). The desired feelings associated with compulsions such as those described by O'Guinn and Faber (1989) include fantasies that permit escape from negative feelings.

Hedonic shopping orientations signify the excitement, entertainment, fun, amusement, and sensory stimulation that consumers experience in return for expending resources such as time and money (Holbrook & Hirschman, 1982). The hedonic aspects of website quality was examined with factors such as fun, playfulness, pleasure, enjoyment, increased arousal, heightened involvement, perceived freedom, fantasy fulfillment, and escapism (Huang, 2005; Koufaris, 2002). Bai et al. (2008) indicated that the quality of a website derived from hedonic design has a “direct and positive impact on customer satisfaction.”

Hedonic features of a website are critical for online shopping (Nusair et al., 2008). Additionally, social cognitive theory has indicated that these interactive features systematically undermine the three subfunctions of self-regulation (LaRose, 2001): self-monitoring, judgmental process, and self-reactive influence. Website quality features that undermine self-regulation are called hedonic shopping features. For instance, the excitement generated by an alert in a social networking website of new products may overwhelm self-monitoring of one’s spending behavior. Online hotel booking attracts hedonic customers as they can take virtual tours of the rooms; look at the pictures of the property; and provide the dimensions of fun, excitement, playfulness, pleasure,
entertainment, thrill, enjoyment, increased arousal, heightened involvement, perceived freedom, fantasy fulfillment, and escapism.

Hedonic value serves as an overall assessment of experiential benefits and sacrifices such as entertainment and escapism. Consumers frequently shop for an appreciation of the experience itself more willingly than simply for task completion (Babin et al., 1994). Hedonic value dimensions have been the subject of much research in the in-store shopping literature and have begun to be recognized as important elements of online shopping (Hoffman & Novak, 1996). Similar to offline shopping, e-shoppers also seek entertainment and want a non-routine shopping experience that allow them to become absorbed and get away from the mundane (Kim, 2002; Mathwick et al., 2001).

Wolfinbarger and Gilly (2001) state that consumers shop for both hedonic and utilitarian reasons in online environments. These consumers may obtain hedonic value through stimulation, arousal, playfulness, and positive effect. They may also attain utilitarian value if they are goal-focused, task-oriented, and receive convenience, accessibility, selection, availability of information, and are not required to make a commitment. All of these features are associated with perceived ease of use, freedom, and control. Research focusing on linking utilitarian and hedonic shopping value to a comprehensive group of important outcomes such as flow, loyalty, trust, and brand equity is scarce. Additional research is needed considering the importance of building customer loyalty (Jones, Reynolds, & Arnold, 2006; Reynolds & Arnold, 2000; Reynolds & Beatty, 1999).
A comparison of hedonic and utilitarian e-shopping behaviors is shown in Table 1. Hedonic shopping behavior is commonly referred to as experiential, whereas utilitarian shopping behaviors are referred to as task-orientated and goal directed behaviors. The purpose of the hedonic behavior is for entertainment, while the purpose of utilitarian behavior is for goal attainment and efficiency. Interfaces for hedonic behavior include symbolism and imagery, whereas utilitarian interfaces include product information in e-commerce.

Table 1

*Hedonic and Utilitarian Online Shopping Behavior*

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Hedonic</th>
<th>Utilitarian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Names</td>
<td>Experiential</td>
<td>Task-oriented, goal directed</td>
</tr>
<tr>
<td>Purpose</td>
<td>Entertainment</td>
<td>Efficiency, goal attainment</td>
</tr>
<tr>
<td></td>
<td>Product involvement</td>
<td>Accessibility, convenience</td>
</tr>
<tr>
<td>Preferences</td>
<td>Social interaction</td>
<td>Product selection</td>
</tr>
<tr>
<td></td>
<td>Positive Surprise</td>
<td>Information availability</td>
</tr>
<tr>
<td>Outcome</td>
<td>Fun, the experience itself</td>
<td>Commitment to goal</td>
</tr>
<tr>
<td>Interface</td>
<td>Symbolic and imagery</td>
<td>Product information</td>
</tr>
<tr>
<td>Stimulation</td>
<td>Sensory</td>
<td>Product attribute information</td>
</tr>
<tr>
<td>Information Search</td>
<td>Non-directed, on-going</td>
<td>Directed, purchase-specific</td>
</tr>
<tr>
<td>Site Navigation</td>
<td>Navigational</td>
<td>Goal-directed</td>
</tr>
<tr>
<td>Motivation</td>
<td>Intrinsic</td>
<td>Extrinsic</td>
</tr>
</tbody>
</table>


Based on a literature review of the online shopping behaviors, it is suggested that a website should be designed based on hedonic and utilitarian aspects. Previous research (e.g. Childers et al., 2001; Ha & Stoel, 2009; Mahfouz, Philaretou, & Teocharous, 2008; Shen & Khalifa, 2008) classified the features of e-commerce websites as explicitly
functional or hedonic. Functional features of the website are imperative for e-retailers. These features were outlined as physical presence (Rafaeli & Noy, 2005), utilitarian facet (Ha & Stoel, 2009), or shopping as problem-solving (Childers et al., 2001). Those features are aligned with a utilization strategy (Fan & Poole, 2006) that suggests designing, enabling, and enhancing valuable, functional, and user-friendly tools. Characteristics of the utilitarian features include accessibility, ability to effectively search for information, and the provision of comprehensive product and service information. In the context of online hotel booking, the focus should be on effective search systems, orderly presentation of complete and consistent information, and reliable and effective systems.

On the other hand, hedonic features focus on fun, fantasy-driven, and arousal-laden shopping (Childers et al., 2001). The hedonic features represent the interactive and social aspect of an e-commerce website (Ha & Stoel, 2009). Accordingly, hotel companies should be mindful of the social richness (Lombard & Ditton, 1997), the possibility for the consumer to be an actor in the virtual environment, and the multi-way communication between different social avatars that can shape the social online experience (Mahfouz et al., 2008).

In summation, utilitarian and hedonic design features exist in the context of hotel room-related e-commerce. These features are expected to create a flow experience while both browsing and shopping. The next section investigates flow theory in general as an outcome of hedonic and utilitarian features. Ghani and Deshpande (1994) highlighted the two significant characteristics of flow: enjoyment and concentration. As discussed in this
section, hedonic characteristics might be related to enjoyment, while utilitarian
characteristics might be linked to concentration.

**Flow Theory**

Flow is the enjoyable and engrossing experience that people feel when acting with
total involvement. An analysis of previous research suggests that the application of the
notion of flow in understanding the online consumer experience is a promising but
underdeveloped field. The flow experience is portrayed as both engrossing and
intrinsically rewarding (Csikszentmihalyi, 1975). Usually, when people experience flow,
they act with a sense of total control, concentration, and deep involvement.

It is apparent that the Internet has affected how people shop. It is a different
distribution channel in its own right (e.g., Butler & Peppard, 1998; Hoffman & Novak,
1996; Schlosser, 2003); consequently, it is critical to study its impact on consumer
behavior (Barwise et al., 2002). In e-commerce, shopping is mediated by the interactive
Internet. In online environments, customers behave as both consumers and Internet users
(Koufaris, 2002). Hoffman and Novak (1996) suggested that it is essential to study flow
in interactive, computer-mediated environments to understand this dual role assumed by
online consumers. Studying flow as an optimal experience may help us understand how
e-commerce companies achieve competitive advantage.
Background to Flow

Flow “is the crucial component of enjoyment” (Csikszentmihalyi, 1975, p. 11). It signifies a “peculiar dynamic state—the holistic sensation that people feel when they act with total involvement” (p. 36) and an “ordered, negentropic state of consciousness” (p. 34). Once people experience flow, actions transit seamlessly into another, displaying an inner logic of their own. The term negentropic refers to being in harmony and a lack of chaos. The actor experiences a smooth transition and total control of his or her actions without distraction. The term flow was coined by the respondents in Csikszentmihalyi’s study in referring to an “autotelic experience.”

Csikszentmihalyi (1988) defined the dimensions of the flow experience as focused concentration, “merging of activity and awareness,” perceived control, time distortion, and loss of self-consciousness (“a transcendence of self”). Thus, “consciousness is in harmony and the self—invisible during the flow episode—emerges strengthened” and “the negentropic quality of the flow experience makes it autotelic, or intrinsically rewarding” (p. xx). The term “autotelic,” derived from the Greek words auto (self) and telos (goal, purpose), therefore means with one’s own purposes. Differently stated, the activity “required formal and extensive energy output on the part of the actor, yet provided few if any conventional rewards” (Csikszentmihalyi 1975, p. 10).

Hoffman and Novak (1996) defined online flow as the state occurring during network navigation. This state is characterized by a seamless sequence of responses facilitated by machine interactivity that are intrinsically enjoyable, accompanied by a loss of self-consciousness, and self-reinforcing. Further, they purported that “creating a
commercially compelling website depends on facilitating a state of flow”. Many marketers are convinced that consumers will make more online purchases if they enter a state of flow (Bridges & Florsheim, 2008). Consequently, marketers promote stickiness by providing online features (e.g., advergames) intended to induce flow while potential customers are visiting their websites. It is proved that exploration and positive attitude are linked to both flow and increased likelihood of online buying (Goldsmith & Bridges, 2000). Furthermore, flow in online environments reduces the possibility of undesirable consequences, such as negative attitudes and website avoidance (Dailey, 2004).

Consumers seek utilitarian benefits, including ease-of-use and satisfactory outcomes, as well as hedonic benefits, which provide enjoyment of the experience when shopping online (Sénécal et al., 2002). In earlier eras of the Internet, customers were delivered information and were provided with order-taking services. The main goal was to satisfy utilitarian needs, such as the purchase of commodities, for which competition is based on price and availability (Benjamin & Wigand, 1995). Contemporary research comes to the conclusion that such functional attributes no longer exclusively drive online buying; indeed, as online customers become more experienced, they increasingly seek hedonic value in e-commerce (Bridges & Florsheim, 2008). For instance, user interfaces that increase shopping pleasure and enjoyment considerably influence customer satisfaction (Szymanski & Hise, 2000). Immersive and hedonic aspects of the Internet are valued by online customers, but flexible navigation, convenience, and substitutability of the website visit for personal examination of a product, which are utilitarian benefits, are also important elements for online shoppers (Childers et al., 2001).
Babin and Attaway (2000) highlighted that positive mindsets toward a shopping website is associated with both hedonic and utilitarian shopping value. A potential customer who has positive feelings about a particular site is both more satisfied and more likely to buy and maintain loyalty to the site than one who does not. Feelings of control and enjoyment while using the Internet are also positively related to intentions to purchase (Dabholkar, 1996), as shorter waiting times are associated with a site’s interactive speed. Such attributes have been described elsewhere as elements of online flow.

Hoffman and Novak (1996) proposed that e-commerce websites would benefit by facilitating the experience of flow and called marketers to think about how consumers experience this environment. Subsequent research has expanded the theory of flow. Table 2 represents the research on flow experience by examining the antecedents and outcomes of the flow experience.
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Consistent with Hoffman and Novak's (1996) proposition that flow is commercially compelling, Park (2000) proposes that e-commerce may be improved by fostering interest and excitement. Korzaan (2003) found out that enhancing the senses of control, challenge, and stimulation increases the likelihood of purchase in online environments. A number of studies have observed that increasing a website visitor's perception of interactivity leads to greater perceived control and interest (Alba et al., 1997; Ghose & Dou, 1998; Weinberg, Berger & Hanna, 2003). Huang (2003) found that complexity makes a website appear more useful, but also more distracting, while novelty excites curiosity but undermines hedonic benefits. Hence, studies propose that the inclusion of many elements of flow may manipulate online buying (refer to Table 2 to various outcomes of flow). Therefore, it is vital to consider elements of flow as they relate to the online environment, potentially increasing the understanding of how being in a state of flow might impact buying behaviors and the nature of relationship between the hotel website and customer. Some elements of flow may lead to greater likelihood of online purchase and loyalty to the e-commerce website. A difficult or challenging interaction may negatively affect the online experience (Sénécal et al., 2002). Therefore, utilitarian features are anticipated to positively affect the online experience. Hedonic elements are also likely to enhance enjoyment of the online experience. Consequently, it is important to develop and test a structural model of flow in online shopping environments that includes both hedonic and utilitarian features of website as antecedents of flow.
Flow experience has been considered as a critical precursor of consumers’ subjective enjoyment of website use (Csikszentmihalyi, 1993; Koufaris, 2002; Lu, Zhou, & Wang, 2009; Siekpe, 2005; Wu & Chang, 2005). It was also revealed that computer-mediated environments expedite flow experiences (Hoffman & Novak, 1996). Hoffman and Novak (1996) widened the applicability of flow to the e-commerce context by implying that the success of online marketers depends on their ability to create opportunities for consumers to experience flow. In the condition of using the website to enter a flow state, e-shoppers ultimately enhance their subjective well-being through accumulated ephemeral moments. Several studies have inspected flow in numerous conditions, such as human-computer interaction (Ho & Kuo, 2010; Hsu & Lu, 2004; Trevino & Webster, 1992; Webster et al., 1993) and web use (Chen et al., 1999, 2000; Pace, 2004). The concept has also been regarded as a useful insight into consumer behavior (Chen et al., 1999; Hoffman & Novak, 1997; Shin & Kim, 2008). Table 2 represents the flow investigations in various conditions.

Flow experience has been found to foster learning and changes in attitudes and behaviors (Webster et al., 1993). In the e-commerce context, it is hypothesized that such a flow experience can attract consumers and significantly affect subsequent attitudes and behaviors (Novak et al., 2000). Previous research found that flow experience is a significant determinant of consumer attitudes toward the focal website and the focal firm (Mathwick & Rigdon, 2004). Therefore, flow experience increases the intention to revisit and spend additional time on the website (Kabadayi & Gupta, 2005). There is also a strong relationship between the flow experience and subsequent online behaviors (Chen
et al., 1999; O’Cass & Carlson, 2010; Skadberg & Kimmel, 2004). Celsi, Rose, and Leigh (1993) revealed that people who experience flow have a tendency to replicate or re-experience that state. Ilsever, Cyr, and Parent (2007) suggested that in the e-commerce context, consumers who experience flow while shopping would consider revisiting the website or repurchasing from it in the future. Consequently, a consumer who experiences flow will attempt to reengage and revisit the activity that delivered the flow experience.

In addition, it was found that the flow experience prolongs Internet and website use (Nel et al., 1999; Rettie, 2001). Hsu and Lu (2004) confirmed that the flow experience is significantly related to positive behavioral intentions. Similarly, studies found that experiencing flow positively affects behavioral intentions such as an increase in the likelihood of purchasing from a website (Korzaan, 2003). Flow experience was also found to increase the transaction intentions of members when they are in online travel communities (Wu & Chang, 2005) and was found to lead to more impulsive buying (Koufaris, 2002). This experience is positively correlated with recognition of marketing promotions. When the flow experience occurs, the consumer becomes entirely focused on his or her shopping activity. As purported by Koufaris (2002), consumers who are able to focus their attention on an online shopping website should also be more likely to notice marketing promotions on the website. The following section will discuss the influence of hedonic and utilitarian activities on online flow experience.
The Influence of Hedonic and Utilitarian Activities on Online Flow Experiences

Novak et al. (2003) investigated the influence of utilitarian (goal-oriented) and hedonic (experiential) activities on online flow experiences. The authors posited that goal-oriented Internet encounters occur when respondents have a distinct or identifiable purpose for their browsing. Responses typical of this type of web experience involve activities such as making travel reservations. Furthermore, the researchers defined the dimension of “getting information,” which refers to the respondents’ collection and learning of new information. Many respondents reported using the Internet for retrieving information through tasks such as searching for the availability of activities in a specific destination. Later, Novak et al. defined the “involvement” dimension, which refers to the relative level of concentration and interest aroused by the web experience. Examples of this type of response included “I was completely absorbed by the site,” “I was very involved in my searching,” and “I often feel totally immersed when browsing.” Disorientation was another dimension that referred to the various losses in perceptual processing people often experience while on the Internet, such as “I lost myself in the site.” Positive affect encompassed the positive thoughts indicative of an enjoyable experience. Typical positive responses included “interesting,” “fun and exciting,” and “I was having a great time on XYZ’s site.” On the other hand, negative affect reflected unenjoyable experiences with the website. Process referred to the respondent’s perception that his or her experience was productive, while experiential Internet encounters were characterized by a lack of specificity of task. This experience occurred when the
respondent was “surfing” with no preconceived purpose for his or her Internet experience.

The aforementioned constructs are important in e-commerce, as the nature of the consumer experience has already been studied extensively in traditional offline settings. Therefore, the current research aimed to focus on the creation of flow in an e-commerce context that sought to increase compelling online consumer experiences. Flow is a broad construct that relates to other important online constructs including involvement, telepresence (Steuer, 1992), and playfulness. Therefore, it is necessary to investigate its role systematically in online environments.

Although it has been established that consumers experience flow while interacting with computers (e.g., Chen et al., 1999; Trevino & Webster, 1992; Webster et al., 1993) and while using the web (Novak et al., 2000), consumer researchers do not yet have a comprehensive understanding of the specific activities during which consumers actually experience flow on the web (Novak et al., 2003). Research has yet to explore this and other important issues, including whether (a) flow derives from the specific functions of the website, (b) flow affects loyalty to a website, or (c) flow affects brand equity and behavioral intentions.

The next section investigates the general concept of brand equity. Brand equity is the added value with that a brand endows a product (Farquhar, 1989). Building brand equity is vital for a hotel in online environments since a strong brand name can facilitate consumers to differentiate and convey the quality of a product (Aaker, 1996). In order to explain the final exogenous variable, e-loyalty, it is important to understand the concept
of brand equity, as research suggests that loyalty is an important outcome of brand equity (e.g. Aaker, 1996; Page & Lepkowska-White, 2002) and a vital component of e-commerce success (Cognitiative, 1999).

**Brand Equity**

Brand equity is among the most significant aspects of marketing and promotion (Park, Nah, DeWester, Eschenbrenner, & Jeon, 2008). A brand is expressed as “a promise of benefits to a customer or consumer” (Raggio & Leone, 2007) and “a name, symbol, design, or mark that enhances the value of a product beyond its functional purpose” (Farquhar, 1990). The notion of brand equity emerged in the 1980s; various definitions were subsequently suggested (Aaker, 1991; Dyson, Farr, & Hollis, 1996; Kapferer, 2008; Keller, 1993). Usually, brand equity is defined as “the ‘added value’ with which a given brand endows a product” (Farquhar, 1990). Therefore, brand equity is the strength of one’s attitude toward a brand. It is significant for practitioners; as the Director of Global Interactive Marketing for the Coca-Cola Company stated, “so much of our metrics aren’t about sale, but they’re about brand love. Brand value and brand love are our key metrics” (Capps, 2007, p. 6).

Businesses are investing in virtual environments to enrich and enhance customer experience via interactive and hands-on activities with the intention of enhancing the value of the brand. Brand equity has been recognized as a competitive advantage that requires constant maintenance and progress in order to attain rewarding, longstanding outcomes in the marketing environment (Sriram et al., 2007). This strategic asset could
endow a competitive advantage by creating a brand platform that can be leveraged for new product introductions, increasing resilience in industry downturns or crises, and creating resistance or barriers to competition (Farquhar, 1990).

E-commerce environments offer new opportunities to create and maintain brand equity through engagement in the flow experience (Park et al., 2008). Through the immersive nature of virtual environments in e-commerce, customers can acquire greater brand awareness and associations. Once customers experience flow, they enhance their recognition and recall of a particular brand, which positively influences their attitudes towards a particular brand (Park et al., 2008). The rich and interactive experiences positively impact customers’ evaluations of a brand through more intense affective and cognitive experiences. As previous research has indicated that non-attribute product factors were more influential than product attributes (Park & Srinivasan, 1994), the experience in virtual environments may positively influence brand equity more so than the actual product features. Hotel booking websites offer opportunities for customers to engage in the flow experience, which can subsequently affect brand equity.

Park et al. (2008) investigated enhancing brand value via flow experience in virtual contexts. They concluded that in virtual contexts, flow experience yields to various positive consequences including cognitive, task-related, and behavioral outcomes. In the setting of marketing, relevant outcomes from these categories that are of particular interest include persuasion, attitude belief, product belief, product awareness, attitude towards brand, attitude change, purchase consideration, customer confidence, purchase intention, user satisfaction, and behavior change. Thus, consequences of flow
experience in an e-commerce setting may offer chances to enhance an e-retailer’s marketing efforts.

Brand equity theory suggests that consumers fancy associating themselves with products and services that feature a strong brand (Allen, Mahto, & Otondo, 2007; Keller, 1993). Brand equity influences attitudes and behaviors (Allen et al., 2007; Keller, 1998), attracts customers for repeat visits and purchases (Mummalaneni, 2005), and influences the intention of brand loyalty in the service industry (Taylor, Hunter, & Lindberg, 2007). Previous researchers have claimed that brand equity directly influences brand loyalty (Nam, Ekinci, & Whyatt, 2011). Furthermore, recent studies have found that the flow experience influences brand equity in virtual contexts (Nah, Eschenbrenner, DeWester, & Park, 2010).

The next section examines the concept of trust in e-commerce. Understanding the notion of trust is vital for e-commerce researchers and practitioners, as the actual website usage is determined by trust of the website, which in turn is expected to have major impacts on loyalty.

**Trust in e-Commerce**

Consumers often hesitate to transact with online vendors because of uncertainty about vendor behavior. The potential of B2C commerce can only be reached if consumers feel comfortable transacting over the medium with unfamiliar vendors (Gefen & Straub, 2003). Yet, “almost 95% of consumers have declined to provide personal information to websites”—63% of these consumers indicated this occurs “because they do not ‘trust’
those collecting the data” (Hoffman, Novak & Peralta, 1999, p. 82). Trust plays a pivotal role in helping consumers overcome perceptions of risk and insecurity. Trust creates a situation in which consumers feel comfortable sharing personal information, making purchases, and building behaviors essential to the widespread adoption of e-commerce. Therefore, trust is critical to both researchers and practitioners (McKnight, Choudhury, & Kacmar, 2002).

Morgan and Hunt (1994) theorize that trust plays a vital role in the process of relationship development and performance. According to Morgan and Hunt (1994), in order to harvest efficiency, productivity, and effectiveness of relational outcomes, trust should be present. Trust is a significant factor for the success of e-commerce. Consumers are concerned with presenting credit card information to e-commerce websites simply because they lack enough trust to engage in business relationships involving financial transactions (Salam, Iyer, Palvia, & Singh, 2005). Many customers still may not trust vendors when shopping online. Therefore, it is precisely the development of exchange relationships that are central to understanding the role of trust and trust mechanisms in the context of e-commerce (Salam et al., 2005).

It is hard to imagine an exchange relationship that could be developed without trust. Trust is an essential component for a long-term business relationship (Palvia, 2009). Web vendors are interested in building exchange relationships with their users. The focal point of trust in building long-term relationships has been stressed frequently in marketing literature (e.g., Anderson & Weitz, 1989; Dwyer, Schurr, & Oh, 1987; Morgan & Hunt, 1994). Trust exists to the extent that the customer believes its partner to be
honest and benevolent (Geyskens, Steenkamp, Scheer, & Kumar, 1996). Research indicates that the more consumers trust a service provider, the more likely they are to continue the relationship (de Ruyter et al, 2001).

At the back of every consumer’s mind lays a thought about whether to continue and complete the transaction or to cancel it due to the trust factor. Trust is not something which is present in a vendor’s website from the inception; it is a characteristic that develops with the passage of time as consumers return to make additional purchases from the same vendor. If this consumer experience turns out to be positive, it results not only in trust, but also in the consumer’s good perception of a particular vendor. Buyers and sellers should decide to trust each other when making a transaction. Most often, the buyer’s decision is conscious; at other times, it is unconscious, based on internal feelings of trustworthiness about the merchant. On the other hand, many people trust the merchant based on beliefs and feelings, but more importantly work to gather positive feedback from others in terms of experiences and testimonials. Without trust, e-commerce is incomplete and cannot reach its fullest potential.

The user interface of a website is expected to affect trust directly in e-commerce (Gummerus, Liljander, Pura, & Van Riel, 2004). Roy, Dewit, and Aubert (2001) revealed that utilitarian features of a website, such as ease of navigation, affect consumers’ establishment of trust towards an e-commerce company. Cyr (2008) examined the effects of website user interface design factors on trust across three developed countries: Canada, Germany, and China. The findings of this study suggest that user interface design
variables are key antecedents to website trust. McKnight et al. (2002) also found out that the utilitarian features of a website have direct impact on trust.

Consumer trust in online environments can be outlined as the beliefs regarding certain characteristics of an e-supplier as well as its possible behavior in the future (Coulter & Coulter, 2002). Lee and Lin (2005) implied that trust encourages purchasing and influences attitudes towards purchasing from e-retailers. Loyalty contributes to the ongoing process of maintaining a valued and important relationship that has been created by trust (Chaudhuri & Holbrook, 2001). Cyr (2008) found that website trust is strongly related to loyalty. In addition, Kim, Jin, and Swinney (2009) conducted a longitudinal study in the U.S. and found that online customer trust is strongly related to loyalty.

In a recent study, Eid (2011) found out that user interface quality positively impacts trust. Eid’s measurement of interface quality includes both hedonic and utilitarian features. He (2011) synthesized the empirical findings of previous trust studies in the context of e-commerce. The results of the meta-analysis suggested that trust is a key intervening mechanism of shaping one’s behaviors in the e-commerce context. The broad range of antecedents of trust in the e-commerce context contains affective and cognitive features. Similarly, Wang, Guo, Niu, and Li (2011) suggested that enjoyment and usability of an e-commerce website impacts trust. The next section will investigate e-loyalty, since flow has been found to be positively related to desirable outcomes of interacting with computers and the Internet, such as loyalty, satisfaction, exploratory behavior, revisiting and purchase intentions, and attitude toward websites (Hung, Chou,

**e-Loyalty**

The notion of e-loyalty extends traditional brand loyalty to the technology-mediated online consumer experience (Corstjens & Lal, 2000; Reicheld & Schefter, 2000; Schultz & Bailey, 2000). The term e-loyalty is specified as the “intention to revisit a website” (Corstjens & Lal, 2000; Gommans, Krishnan, & Scheffold, 2001). Further, loyal behavior may involve repurchasing in online environments (Srinivasan, Anderson, & Pannavolu, 2002). This dissertation defines e-loyalty as the perceived loyalty towards a hotel booking website (www.hilton.com) with intent to either revisit the site or make a reservation from it in the future. Creating loyal customers is vital to firm strategy and survival (Taylor & Baker, 1994), and has the capability to increase revenues and profitability (Aaker, 1996; Heskett, 2002; Srinivisan et al., 2002). Loyalty is derived from ease of ordering, product information and selection, on-time delivery, customer confidence, adequate privacy policies, online resources, and e-commerce quality (Wolfinbarger & Gilly, 2000). In online settings, Luarn and Lin (2003) highlighted that “understanding how or why a sense of loyalty develops in customers remains one of the crucial management issues of our day” (p. 156).

The literature considers the measurement of customer loyalty in two dimensions (e.g., Kandampully & Suhartanto, 2003). The behavioral dimension focuses on a customer's actual loyalty behaviors, such as repeat purchases from the same brand and
providing positive WOM (Word of Mouth). On the other hand, the attitudinal dimension describes the consumers’ intention to engage in such loyalty behaviors. Even though these two dimensions fail to capture all four developmental stages of customer loyalty that Oliver (2009) contends, researchers and practitioners utilize them because they still tend to capture the most important aspect of loyalty from a company's perspective. The following section will discuss customer loyalty in the online hotel booking context.

**e-Loyalty in the Hotel e-Commerce**

Customer loyalty in the hotel industry is usually defined as the tendency of the guest to hold an approving disposition toward the hotel brand or company, which is exhibited through a sustained commercial relationship over time with the brand or company. Srinivasan et al. (2002) defined e-loyalty as a “customer’s favorable attitude toward the e-retailer that results in repeat buying behavior” (p. 42). Researchers addressed whether consumer loyalty has any relationship to consumer’s price sensitivity (Krishnamurthi & Raj, 1991; Mela, Gupta, & Lehmann, 1997; Wernerfelt, 1991); it was generally concluded that increases in consumer loyalty reduce consumer’s price sensitivity (Krishnamurthi & Papatla, 2003). Both of these assertions bring credence to the argument that hoteliers can positively impact the capture rate of online room bookings as compared to third-party travel sites.

The conventional methods of attracting consumers in brick-and-mortar commerce, such as atmosphere, placement of goods, and lighting are not applicable in e-commerce contexts. Therefore, interaction, participation, immersion, engagement, and
emotional hooks are important in e-commerce. Consequently, hoteliers are advised to think of consumers as actors in a play, not mere observers. Ideas suggesting how companies can discover the theater of online buying are beginning to be explored as consumers have become more experienced and demanding. Added values on an e-commerce site are likely to meet the needs of contemporary consumers and therefore yield repeat and longer visits. As a result, companies need to think outside of traditional website development. As Khaslavsky and Shedroff (1999) suggested, companies should learn from sources such as movie-making, games, and architectural design for ideas related to seductive website design. In this context, the terms of aesthetics and hedonism are used more broadly than the usual notion of visual beauty or theory of the beautiful. The narrow meaning is represented in purely visual aspects, often related to the principles of design (balance, emphasis, harmony, proportion, rhythm, and unity). Visuals create first impressions; therefore, pleasing the consumer with visuals is important in e-commerce contexts as it results in a desire to explore further.

**Research Model and Hypotheses**

Based on extensive examination of the literature, certain aspects have to be taken into account when developing the research model in order to investigate the flow experience in online hotel booking. Firstly, hotel booking website developers should be concerned about the utilitarian (functional) features (Bridges & Florsheim, 2008) to facilitate both flow experience and trust towards the booking website. Next, the hedonic features should not be disregarded (Childers et al., 2001) when determining how to best
foster flow experience and brand equity. These two categories that comprise flow are the key variables influencing customer loyalty to a hotel booking website. The resulting flow experience is an essential variable leading to the trust to the website (Dailey, 2004). Flow experience is also expected to lead to brand equity (Nah et al., 2010) and loyalty (Ilsever et al., 2007). Both brand equity and trust have the potential to affect the final outcome, loyalty (Aaker & Joachimsthaler, 2000; Clarke, 2001; Cyr, 2008; de Ruyter et al, 2001; Kim et al., 2009; Nam et al., 2011). Lastly, among the precursors, hedonic features are expected to affect brand equity (Lowry, Vance, Moody, Beckman, & Read, 2008). Finally, utilitarian features have the potential to impact trust of the website (McKnight et al., 2002).

This dissertation aims to develop a research model for understanding the customer perception of hotel online booking. It proposes a model to understand the flow experience in online hotel booking settings. Thus, the purpose of this study is to propose and test a theory-based model consisting of antecedents and consequences of the flow experience in online booking websites. The specific objectives of this study are to (a) assess the effectiveness of hedonic and utilitarian features of the website on the flow experience, (b) test the mediating role of flow, and (c) test the impact of brand equity and trust on loyalty.

This dissertation aims to empirically address the following questions: (1) Are hedonic features of a hotel booking website significant enough to influence flow? (2) Are utilitarian features of a hotel booking website significant enough to influence flow? (3) Is flow a significant antecedent of loyalty to a website? (4) Which features of an online
hotel booking website are more important for establishing the flow experience? (5) Are hedonic features connected to brand equity? (6) Do utilitarian features influence trust? (7) Does the flow experience effect loyalty to the online booking website? Figure 3 depicts the proposed hypotheses.

![Figure 3. Theoretical research model.](image)

The concept of online flow has been drawing attention from both practitioners and academicians as a consequence of the experience-driven economy. In online shopping, consumers might seek utilitarian benefits, such as ease-of-use; similarly, they might also seek hedonic benefits such as visually appealing website designs, which provide enjoyment of the online experience. Various elements of utilitarian and hedonic features of a website might create flow experiences (Sénécal et al., 2002). Following Sénécal et al.
(2002) as well as Bridges and Florsheim (2008), it is hypothesized that hedonic and utilitarian elements of the website will influence flow experience.

Hedonic elements are usually not directly related to purchase, but they foster pathological Internet use and create flow (Bridges & Florsheim, 2008). For instance, user interfaces that make shopping enjoyable, pleasing, and pleasurable prominently influence customer satisfaction (Szymanski & Hise, 2000). Childers et al. (2001) stated that immersive, hedonic characteristics of the web are valued by customers.

Hedonic elements of a website are likely to enhance enjoyment of the online experience. Babin et al. (1994) found that consumption activities may produce hedonic outcomes. Hedonic elements include fun and playfulness (Babin et al., 1994); outcomes include arousal, heightened involvement, fantasy, and escapism. Consumers look for both hedonic and utilitarian reasons in offline settings as well as online settings (Wolfinbarger & Gilly, 2001). Online shoppers may obtain experiential, or hedonic, value, through stimulation and arousal, playfulness, and positive affect.

Hedonic features are also related to perceived enjoyment of the website and are used to measure the affective aspect of a website’s appeal (Hampton-Sosa & Koufaris, 2005). It has been used broadly in research on the acceptance and use of websites, either as a precursor of flow or as a component to the Technology Acceptance Model (Agarwal & Karahana, 2000; Davis, Bagozzi, & Washaw, 1992; Koufaris, 2002; Koufaris, Kambil, & LaBarbera, 2001). Hedonic website features might create a flow experience (Sénécal et al., 2002). Greater perception of interactivity leads to an increased achievement of flow experience as well (Ghani & Deshpande, 1994; Koufaris, 2002; Novak et al., 2000;
Skadberg & Kimmel, 2004; Trevino & Webster, 1992). Based on the arguments about the
hedonic features of a website and flow experience it was posited;

*H1: Hedonic features of a hotel booking website positively impact flow
experience.*

Childers et al. (2001) hypothesized that different webmospheres (e.g., hedonic vs.
utilitarian appealing web-shopping environments) yield differentiation in the importance
of usefulness, ease of use, and enjoyment. Utilitarian performance is judged according to
whether the particular purpose is accomplished (Davis et al. 1992; Venkatesh, 2000).
Huang (2003) indicated that flow elicits favorable web evaluations for the utilitarian
aspects. Previous research has signified that better user perceptions of utilitarian features
(e.g., easier navigation) in the online environment correspond with a greater opportunity
to achieve flow (Ghani & Deshpande, 1994; Koufaris, 2002; Novak et al., 2000;
found that utilitarian features stimulate the flow experience. Previous studies indicate that
if consumers perceive utilitarian aspects of the website, they are more likely to
experience flow. Therefore, it is proposed:

*H2: Utilitarian features of a hotel booking website positively impact flow
experience.*

The latest advancements in technology have augmented the contact of consumers
to websites and digital brands. The Internet not only represents a new channel of
communication and distribution for a brand, but also offers a new context for an offline
brand, which may have positive or negative effects for overall brand image. Research on
brand equity has followed two different trends. The first research trend investigated the consequences of brand equity, revealed either by preferences (Park & Srinivasan, 1994) or choice (Kamakura & Russel, 1993) of the consumer. The other stream of research investigated the antecedents of brand equity: a set of strong, positive, and unique associations to the brand (Aaker, 1991; Keller, 1993). Through exposure, the hedonic features of the website are expected to have a positive impact on brand equity. Lowry et al. (2008) found that website quality forms an aesthetics perspective that impacts brand image. Therefore, it was proposed:

**H3:** Hedonic features of a hotel booking website positively impact brand equity.

A successful e-commerce website is one that magnetizes customers and makes them feel that the site is trustworthy, dependable, and reliable (Liu & Arnett, 2000). Website design quality positively affects subsequent user trust. Ha and Stoel (2009) indicated that trust and enjoyment are the critical beliefs about online shopping and e-shopping quality. Although many consumers use the Internet, they may not prefer to make purchases online due to beliefs about the safety of conducting business over the Internet (Gefen & Straub, 2003). Consumers' trust towards e-retailers is possible when consumers believe that the technology usage is reliable and credible (McKnight & Chervany, 2001). Trust is a significant construct for business relationships and transactions (Moorman, Zaltman, & Deshpande, 1992; Warrington, Abgrab, & Caldwell, 2000); furthermore, its role in online shopping contexts is more critical than in brick-and-mortar stores (Reichheld & Schefter, 2000). This is mainly due to the unique characteristics of the online shopping environment that results in greater uncertainty and
heightened risk in online buying decisions. It is evident that trust is successful in reducing uncertainty and risks (Pavlou, 2003; Suh & Han, 2003) and creating a sense of safety. Thus, trust plays an important role in consumers’ shopping behaviors in the e-commerce context.

Hampton-Sosa and Koufaris (2005) discovered a difference in the way online customers use travel sites as opposed to other websites. They indicated that searching for travel products is a much more complex process since it involves a lot of experimentation with multiple variables. Furthermore, it is also usually an iterative process, one in which a user makes multiple attempts until finding the right travel product. Therefore, utilitarian features of the website play a significant role in this process.

Previous research has indicated that improvements in the ease of usage and overall utility of websites nurture trust in the minds of customers (Roy et al., 2001). In the context of hotel websites, Essawy (2006) revealed that “uninformative” websites create mistrust between consumers and the website. His interviews uncovered that in order to create trust, hotel websites should avoid technical jargon such as rack rates, RO, and leisure break family. Hotel booking websites that enhance utilitarian features are expected to create trust. A website is labeled as offering utilitarian benefits when the following quality dimensions are present: saving time and effort, reducing risk, and increasing the likelihood of finding a superior alternative (Klein, 1998). The purpose of a utilitarian information system is to increase the user’s task performance while encouraging efficiency. The user interface of a website is expected to affect trust directly in e-commerce (Gummerus et al., 2004). Roy et al. (2001) revealed that utilitarian
features of the website, such as ease of navigation, affect the consumer establishment of trust towards an e-commerce company. Cyr (2008) suggests that user interface design variables are key antecedents to website trust. McKnight et al. (2002) also discovered that the utilitarian features of the website have direct impact on trust. Similarly, Lowry et al. (2008) reported that utilitarian website quality features such as navigation and functionality positivity impact trust. Therefore, it was proposed:

\[ H4: \text{Utilitarian features of a hotel booking website positively impact trust.} \]

The broaden-and-build theory of positive emotions purports that when people experience positive emotions, they become associated with greater feelings of “self-other” overlap and “oneness” (Fredrickson, 2001; Fredrickson, Tugade, Waugh, & Larkin, 2003; Waugh & Fredrickson, 2006). When people experience positive emotions, autonomic arousal takes place, which leads to cognitive broadening. In this process, one’s attention, thinking, and behavioral repertoires (e.g., exploration, play) are broadened or expanded (Fredrickson et al., 2003). The flow experience can be intrinsically rewarding or considered an autotelic experience (Heckman, 1997). Consequently, the positive emotions that can arise from the flow experience of interacting with a hotel booking website can not only increase consumer learning about the brand, but also strengthen consumer association with the brand. Nah et al. (2010) found a positive relationship between the flow experience and brand equity in virtual contexts. Thus, building on the broaden-and-build theory of positive emotions, it is expected that the positive emotions that emerge from the flow experience of interacting with the booking website can have a positive impact on brand equity. Park et al. (2008) avowed that the immersive nature of
virtual environments is an opportunity for businesses to build and maintain brand equity. Recent studies found that the flow experience influences brand equity in virtual contexts (Nah et al., 2010). Therefore, it was proposed:

**H5: Flow experience positively impacts brand equity in online hotel booking.**

Flow in online environments reduces the possibility of undesirable consequences, such as negative attitudes and website avoidance (Dailey, 2004). Hampton-Sosa and Koufaris (2005) empirically examined the effect of a firm’s website on a customer’s development of trust beliefs after a visit to the website. Particularly, they examined the impact of website appeal and usability on the initial trust beliefs of customers with respect to an online company. Their findings revealed that website appeal is a significant predictor of trust, which in turn has a significant effect on intention to use the website in the future. Their findings indicate that flow is a predictor of trust in e-commerce websites. Thus, it is expected that flow would influence trust:

**H6: Flow experience will positively impact trust in online hotel booking.**

Flow is one of the positive psychological concepts related to intrinsic motivational factors. Flow theory includes perceived enjoyment, concentration, and perceived control. Perceived enjoyment has been found to have a significant impact on users’ acceptance (Davis et al., 1992; Koufaris, 2002; Van der Heijden, 2004). Users are intrinsically motivated to adopt technology when using technology for enjoyment. Yang and Lin (2011) found a positive relationship between flow experience and the intention to use a product or service in the website context. Perceived enjoyment is one of the key determinants of behavioral intention to use PCs (Davis et al., 1992). Likewise, in the
context of web services, Van der Heijden (2004) found that perceived enjoyment has a direct influence on user intentions. Other studies (e.g., Venkatesh, 2000; Venkatesh, Speier, & Morris, 2002; Sun & Zhang, 2004; Yi & Hwang, 2003) have also theorized that perceived enjoyment has an indirect impact on behavioral intentions. Recent research has recommended that flow experience can be either an independent variable or a mediating variable measuring the behavioral intention (Huang, Backman, & Backman, 2012).

Richard and Chandra (2005) discovered that flow experiences strongly affect behavioral intentions in online environments. Similarly, Huang, Beckman, and Beckman (2012) confirmed that flow experience positively impacts the behavioral intentions in the virtual travel context. Celsi, Rose, and Leigh (1993) found that people who experience flow have a tendency to replicate or re-experience that state. Ilsever, Cyr, and Parent (2007) suggested that customers who experience flow while shopping online would be likely to either consider return visits to the website or purchase from the site in the future. Therefore, a consumer who experiences flow will attempt to reengage and revisit the activity that delivered the flow experience. Nel et al. (1999) and Rettie (2001) indicated that flow experience appeared to prolong Internet and website use. Hsu and Lu (2004) demonstrated that flow experience is positively and significantly related to intention to play an online game.

Smith and Sivakumar (2004) proposed that the flow experience impacts Internet shopping behaviors, including the intent to repurchase. Similarly, in a study of online tourism Wu and Chang (2005) confirmed that “flow was positively related to transaction intentions” (p. 942). Rose et al. (in press) studied the implications for enhancing loyalty
and repeat business from online channels. Their study indicates that in order to build customer loyalty in online contexts, e-retailers must provide a compelling online customer experience (flow) continuously over time. Moreover, many companies pay special attention to developing their websites to enhance the overall customer experience, because customers’ interactions with online environmental settings influence both emotional response and behavior (Lee & Jeong, 2012). Siekpe (2005) investigated “intention to purchase” and “intention to return” as the measurement outcomes of flow, which essentially equates to e-loyalty. Ilsever et al. (2007) proposed that the flow experience will impact e-loyalty in the e-commerce context. Zhou and Lu (2011) identified the significant effects of the flow experience on loyalty. Teng, Huang, Jeng, Chou, & Hu (2012) have identified the flow experience as a predictor of online customer e-loyalty. Based on this work, and the earlier elaboration of flow and e-loyalty, the final hypothesis is offered:

H7: Flow experience positively impacts loyalty to the hotel booking website.

Brand equity is the added value with which a brand endows a product (Farquhar, 1989). From the consumer’s perception, this added value can be perceived in terms of enhancing a consumer’s ability to interpret and store large amounts of information about a product. Additionally, a strong brand name can facilitate consumers to differentiate and convey the quality of a product (Aaker, 1996). Research has indicated that consumers consider and choose highly familiar brands over less familiar brands (Baker, Hutchinson, Moore, & Nedungadi 1986; Nedungadi, 1990). Additional research highlighted the positive correlation between brand equity and customer loyalty (Aaker & Joachimsthaler,
Recently, Nam et al. (2011) found that brand equity directly influences brand loyalty. Thus, it was proposed:

**H8: Brand equity positively impacts loyalty to the hotel booking website.**

Trust in a company can play a significant role in determining a customer’s actions regarding the company’s website. Trust is often defined as a belief. More specifically, it is a composite of the customer’s beliefs in the company’s benevolence, integrity, and ability. According to the theory of planned behavior, one’s beliefs are significant predictors of one’s intentions and subsequent actions. Therefore, customers’ beliefs regarding the trustworthiness of a company should affect their intentions to use the company’s website.

Empirical research has shown that trust increases customer intentions to purchase a service or product from a company on the Internet (Jarvenpaa, Tractinsky, & Saarinen 1999; Lynch, Kent, & Srinivasan, 2001). Perceptions of company trustworthiness can increase a customer’s intention to return to a company both offline and online (Diamantopoulos & Winklhofer, 2001; Fukuyama, 1995; Gefen, 2002; Lynch et al., 2001). It is hypothesized that customers who trust a company are more likely to use the website, whether for a repeat visit to the site or to make an actual purchase. The more a consumer trusts a service provider, the more likely he or she will continue the relationship (de Ruyter et al, 2001). Cyr (2008) found website trust is strongly related to loyalty. Kim et al. (2009) reported that online customer trust is strongly related to loyalty. Therefore:

**H9: Trust positively impacts loyalty to the hotel booking website.**
Summary

The research objectives of this dissertation are outlined in an effort to gain a clearer understanding of the flow experience and e-loyalty in the online hotel room booking context. The study also intends to investigate the specific items that define the flow experience” in hotel booking websites. Another objective is to explore the impact of hedonic and utilitarian features of the hotel booking website on flow experience with the further intention of providing both theoretical and managerial advancements into the e-commerce literature. Finally, the research targets to identify the possible relationships among flow, brand equity, trust, and e-loyalty.

Many e-commerce companies have taken large steps to increase convenience to their customers by providing utilitarian features like express checkouts and recommender systems. Recent studies have shown that utilitarian features were not sufficient in contemporary e-commerce contexts. Emotional experiences that were driven by hedonic website features such as shopping enjoyment are vital to retain customers. Therefore, research advises that online stores should provide website features that meet with value to their customers to increase the flow experience.

Given the importance of flow in online environments, it is vital to examine the factors that are antecedents to flow and the outcomes of flow. This dissertation offers a theoretical model to understand why an online customer stays loyal to a hotel booking website. The dependent variable in the model is loyalty. The research framework developed in this dissertation offers a new avenue for both researchers and practitioners by introducing hedonic theory into the e-shopping context. The model identifies the
website characteristics that contribute to the online flow experience. By identifying previously unexplored antecedents of flow, it opens up new territory for the designers of hotel booking websites. Built on a foundation of various marketing and IS (Information Systems) theories, the research framework not only captures the online flow in e-shopping, but also reflects the concepts of trust, brand equity, and e-loyalty as consequences of the online flow experience. The main contribution of the framework is the guidance and unique perspective it offers for supporting and enriching emergent research agendas in e-commerce, as all such agendas ultimately lead to the issue of behavioral intentions and e-loyalty to the website being developed, managed, or evaluated. Results of research efforts that follow the framework’s blueprint are expected to indicate that both hedonic and utilitarian features of the e-commerce website lead to flow. Furthermore, from the marketing aspect of flow theory, it is expected to yield brand equity, trust and e-loyalty.

Literature highlights the importance of creating stickiness to the website. It is also evident that brand equity is an important goal for brands. Further, in computer-mediated environments, trust towards a website is vital. The literature review indicated that maintaining simplicity and focusing on utilitarian features are important steps for e-commerce companies to take. However, focusing purely on utilitarian aspects is not sufficient for success, as customers also value hedonic features of the website. E-retailers put effort into providing a convenient, safe, and pleasant online environment, appropriate to addressing shoppers' functional goals. Nevertheless, research indicates that they might also try to create an experience that encourages more escapist elements of flow.
E-retailers have a difficult path to follow: on one hand, they are advised to keep things simple, but at the same time they are also recommended to include hedonic features to their websites to create flow and prevent the boredom that can encourage consumers to switch to a competitor’s website. Findings from the literature review advocates that e-retailers should encourage visitors to reach a state of flow, an enjoyable condition in which users may lose their sense of time and place. E-retailers can assume that reaching a state of flow will increase consumers’ trust and loyalty to the brand’s website. Flow is expected to increase when the website provides characteristics that serve both utilitarian and hedonic goals.

Based on the postulated terms, a conceptual framework (Figure 3) and corresponding research hypothesis were proposed. The method used to make these determinations is described in the following chapter.
CHAPTER 3
METHODOLOGY

Introduction

This chapter provides a description of the research methodology. As mentioned previously, the research on e-commerce in hotel settings has lacked thorough empirical investigation on flow experience. Therefore, the current study intends to examine the flow concept as well as investigate the antecedents and outcomes of the online flow experience in online hotel room booking settings. As such, structural equation modeling (SEM) was selected to analyze these casual relationships. This chapter provides a detailed description of the data collection procedures and measures as well as the data analysis technique used to test the research hypotheses.

Instrument/Measures

A standardized, self-administered questionnaire was developed from an extensive literature review. All variables were adopted from previous studies. Later, a focus group that consisted of industry professionals, doctorate students, undergraduate students, and academicians was asked to evaluate the questionnaire items. A pilot study that also served as the first phase of the study was employed before implementing the final questionnaire. The online questionnaire included sections for each of the constructs and also featured a section designed to collect demographic information. The completed questionnaires of selected respondents were used to check for face validity (Hair, Black, Babin & Anderson, 2010) in order to (a) identify whether there were any problems with
the design of the questionnaire, (b) determine if there were any grammatical or spelling errors, and (c) ensure that respondents understand the directions and questions. Based on the results of these steps, minor revisions were made before distributing the final questionnaire for the second phase of the study.

The questionnaire, located in Appendix B, consisted of four sections. The first section consisted of a single qualifier question that asked whether the respondent booked a hotel room online in the previous 12 months. The second section asked general travel-related questions, such as the respondent’s balance of leisure or business travel, as well as the average number of hotel stays and nights accrued yearly. The third section contained construct-based questions. Finally, the last section solicited demographic information from the respondents.

Based on similar research, most of the constructs item measures utilized a 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). For the hedonic and utilitarian features of the website, semantic differential scales were also deployed. Table 3 shows the constructs, measurement items, and their sources deployed in this study.
Table 3

**Summary of the Constructs**

<table>
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<tr>
<th>Construct</th>
<th>Definition</th>
<th>Question Items</th>
<th>Origin</th>
</tr>
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| **Flow**  | The holistic sensation that people feel when they act with total involvement (Csikszentmihalyi, 1977). | **SET 1**  
I experienced flow last time when I booked my hotel room online at this website  
In general, I experience ‘‘flow’’ when I book my hotel room online at this website  
Most of the time I book my hotel room online at this website; I feel that I am in flow  
Last time I booked my hotel room at this website, I was fully engaged  
Last time I booked my hotel room at this website, I was fully involved  
Last time I booked my hotel room at this website, I had full concentration  
Last time I booked my hotel room at this website, it was an enjoyable experience.  
**SET 2**  
When using the website to book a room, I felt in control  
I felt I was able to interact online with the website.  
When using the website, I thought about other things.  
When using the website, I was aware of distractions.  
When using the booking website, I was totally absorbed in what I was doing.  
Using the booking website excited my curiosity.  
Using the booking website aroused my imagination.  
The booking website was fun to use. | Huang (2006), self-created |
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<th>Construct</th>
<th>Definition</th>
<th>Question Items</th>
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| Hedonic Features| Features that provide unique consumption experiences such as emotional responses. | **SET 1** Pleasant – Unpleasant  
Nice – Awful  
Entertaining–Weary  
Agreeable–Disagreeable  
Fun – Not Fun  
Exciting – Dull  
Delightful – Not Delightful  
Thrilling – Not Thrilling | Huang (2003); Wolfinbarger & Gilly (2003) |
|                 | **SET 2** This site was beautiful  
This site was creative  
This site showed good pictures of the hotel  
This site almost said, “come in and book your room”  
The colors that are used on the website were attractive  
Overall, I found that the site looked attractive  
The website was innovative |                                                                                   |                   |
| Utilitarian Features | Features that increase the user’s task performance while encouraging efficiency (Van der Heijden, 2004). | **SET 1** Ordered – Chaotic  
Wise – Foolish  
Reliable – Unreliable  
Correct – Wrong  
Functional – Not Functional  
Necessary – Not Necessary  
<table>
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<th>Construct</th>
<th>Definition</th>
<th>Question Items</th>
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<tr>
<td><strong>SET 2</strong></td>
<td><strong>This site was convenient to use</strong></td>
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<td></td>
<td><strong>It was easy to search for information</strong></td>
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<td></td>
<td><strong>This website allowed product comparisons</strong></td>
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<td></td>
<td><strong>This site offered the best price/rate</strong></td>
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<tr>
<td></td>
<td><strong>This site allowed price comparisons</strong></td>
<td>-</td>
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<td></td>
<td><strong>This site doesn’t waste my time</strong></td>
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<td></td>
<td><strong>I can go to exactly what I want quickly</strong></td>
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<td></td>
<td><strong>I find the website to be easy to use</strong></td>
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<tr>
<td><strong>Trust</strong></td>
<td>Willingness of a consumer to be vulnerable to the actions of an Internet merchant in an Internet shopping transaction, based on the expectation that the Internet merchant will behave in certain agreeable ways, irrespective of the ability of the consumer to monitor or control the Internet merchant (Lee &amp; Turban, 2001).</td>
<td><strong>This hotel booking website is trustworthy</strong></td>
<td>Morgan &amp; Hunt (1994)</td>
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<td></td>
<td></td>
<td><strong>I trust this hotel booking website keeps my best interests in mind</strong></td>
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<td><strong>This hotel booking website will always be honest with me</strong></td>
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<td><strong>I believe in the information that this hotel booking website provides</strong></td>
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<td></td>
<td></td>
<td><strong>This hotel booking website is genuinely concerned about its customers</strong></td>
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<td>Construct</td>
<td>Definition</td>
<td>Question Items</td>
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<tr>
<td><strong>Brand Equity</strong></td>
<td>Added value with that a brand endows a product (Farquhar, 1989).</td>
<td>It makes sense to book hotel rooms from this website instead of any other websites, even if they are the same.</td>
<td>Yoo et al. (2001)</td>
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<td></td>
<td></td>
<td>Even if another hotel website has same features as this website, I would prefer to book through this website.</td>
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<td></td>
<td>If there is another brand as good as this website, I prefer to book through this website.</td>
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<td>If another hotel website is not different from X in any way, it seems smarter to book through X.</td>
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<tr>
<td><strong>e-Loyalty</strong></td>
<td>The term that extends traditional brand loyalty to online consumer experience where online shopping is technology mediated. Usually defined as the intention to revisit the same hotel booking website and make reservation in the near future (Cyr, Bonanni, Bowes &amp; Ilsever, 2005).</td>
<td>I seldom consider switching to another hotel booking website.</td>
<td>Chang and Chen (2009) and Li et al. (2006)</td>
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<td></td>
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<td>As long as the present service continues, I doubt that I would switch websites.</td>
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<td>I try to use the website whenever I need to book a hotel room.</td>
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<td></td>
<td></td>
<td>I like using this website.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>To me this site is the best hotel booking website to do business with.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>I believe that this is my favorite hotel booking website.</td>
<td></td>
</tr>
</tbody>
</table>
Methods

First, approval from the Institutional Review Board (IRB; refer to Appendix A) was obtained prior to conducting the study. Upon IRB approval, a convenience sample of students participated in the pilot test (Study Phase 1). The sample for the pilot test was recruited through an e-mail sent to 2,500 college students from two U.S. institutions. This e-mail invitation contained a link to the online questionnaire. Constructs in the proposed model were evaluated by using multiple item measures. All measures were modified to reflect the context of online hotel booking. Upon consent, the level of agreement regarding the dimensions of the flow experience was measured from respondents through a self-administered questionnaire. Similarly, measures of brand equity, e-loyalty, and trust were also gathered in the questionnaire. All measures used a 7-point Likert scale and semantic differential scales, with the exception of demographic items.

The constructs with the highest reliability scores were conveyed to the main study (Study Phase 2). The target population evaluated in this study was adult travelers in the U.S. who made an online hotel booking in the past 12 months through a hotel-owned website. A marketing company was conducted to send the questionnaire to randomly selected respondents from all across the U.S. The sampling frame was comprised of respondents who booked a hotel room online through a hotel-owned website. The formal criteria for the selection of the sampling frame consist of hotel guests 18 years of age or older who have stayed a minimum of one night at a respective hotel and booked the stay online via a hotel-owned website. At the end of the questionnaire, respondents were also asked to evaluate the length of the questionnaire.
Data Analysis Technique

After the pilot study concluded (Study Phase 1), data were imported into SPSS Version 20 in order to check for errors, ensure that scores were not missing, and identify outliers. Additional procedures were taken to verify that the data did not violate any statistical assumptions (e.g., normality, homogeneity, or linearity).

Next, it was necessary to check the reliability of the scale. Since the items in the questionnaire had not been explored in the context of online hotel booking websites, a main issue concerned the scale’s internal consistency, the degree to which the items that comprised the scale joined together. Internal consistency was checked using the Cronbach’s alpha coefficient. Ideally, the Cronbach’s alpha scale for internal consistency should be above .70 (Pallant, 2005). Items that cause the scale to yield a coefficient below the recommended alpha level can be removed in order to improve the scale’s reliability. Internal consistency was not an issue since all of the constructs had high Cronbach’s alpha scores. The Cronbach’s alpha score for the hedonic features scale was .93. Additional coefficients were .94 for the respective scales representing utilitarian features and flow, and .90 for each of the scales representing trust, loyalty, and brand equity, respectively.

Subsequently, this step was followed by exploratory factor analysis (EFA) in order to explore the underlying structure or relationships of this set of variables. When possible, this technique searched for ways to reduce or summarize the data into a smaller set of factors (Hair et al., 2010). This analysis technique was utilized at this phase of the data analysis since previous studies had not been conducted in the online hotel booking
setting. Therefore, it was considered appropriate to determine how well the composite variables measured the constructs of interest in the new setting. Since multiple constructs were previously identified, confirmatory factor analysis (CFA) was then used to confirm how well the measured variables represented the constructs (Hair et al., 2010). Since this study combines exploratory and confirmatory factor analysis, it is recommended that factor analysis be conducted using separate data sets (Hair et al., 2010). The separate data sets allow the researcher to test the theoretical construct under consideration. Using the same data set would merely fit EFA results directly into the CFA. Therefore, an initial sample examined with EFA was subsequently followed by a drawn sample used to perform the CFA.

The next step was to analyze the data to test the proposed framework and hypotheses through structural equation modeling (SEM). SEM used various types of models to depict both latent and observed relationships among variables in order to provide a quantitative test for a theoretical model hypothesized by a researcher (Schumacker & Lomax, 2004). This technique allows researchers to simultaneously test a set of interrelated hypotheses by estimating the relationships among multiple independent and dependent variables in a structural model (Gefen, Straub, & Boudreau, 2000). The data was analyzed using SEM in AMOS 20. The following section addresses the advantages of using SEM and presents the model fit indices used as guidelines for interpreting the findings.
Advantages of SEM

Two major advantages of using SEM for this study are measurement precision and simultaneous analysis. First, traditional data analysis, such as univariate analysis of variance and linear regression, assumes that measurement error is non-existent, which is nearly impossible when using indirectly measured constructs (Byrne, 2001). In contrast, SEM techniques assume imperfect measurement and analyze measurement errors associated with all variables (Gefen et al., 2000). Second, SEM allows the researchers to investigate a set of interrelated research hypotheses simultaneously and comprehensively. A complete picture of the research model is presented and tested through a series of regression equations that represent the relationships between different constructs (Gefen et al., 2000). SEM was preferred over other statistical techniques because it allows the simultaneous modeling of relationships among several independent and dependent variables (Gerbing & Anderson, 1988). Based on these reasons, SEM was chosen for data analysis in the current study.

Goodness of Model Fit

The aim in SEM model-generating is to not only find a model that fits the data statistically well, but also reveal practical and substantive theoretical meanings (Schumacker & Lomax, 2004). Specification search (the process of finding the best-fitting model) implies that if the data do not initially fit, then the model can be modified to provide a more appropriate fit (Marcoulides & Drezner, 2003). According to Schumaker and Lomax (2004), a researcher typically uses three criteria in judging the
statistical significance and substantive meaning of a theoretical model. The first criterion comprises the non-statistical significance of the chi-square test and the root-mean-square error of approximation (RMSEA) values, which are measures of global fit. A RMSEA value of $\leq 0.08$ was considered acceptable.

The second criterion is the statistical significance of individual parameter estimates for the paths in the model, which are critical values computed by dividing the parameter estimates by their respective standard errors. This is referred to as a $t$-value (or critical value) and is typically compared to a tabled $t$ value of 1.96 at a 0.05 level of significance. The third criterion is the magnitude and direction of the parameter estimates, particularly concerning whether a positive or a negative coefficient makes sense for the parameter estimate. For example, a theoretically significant coefficient may not be practically meaningful.

Fit Indices

In order to test the goodness of model fit in SEM, a number of fit index statistics were deployed. In general, there are three types of fit indices: absolute, incremental, and parsimony. Absolute indices indicate how well the researcher’s theoretical model fits the sample data (Hair et al., 2010). Examples include the $\chi^2$ statistic, the goodness-of-fit index (GFI), the root-mean-square error of approximation (RMSEA), and the root-mean-square residual (RMR). Incremental fit indices differ from absolute indices in that they assess how well the proposed model fits relative to some alternative baseline model (Hair et al., 2010). Common examples include the normed fit index (NFI), the Tucker-Lewis
index (TLI) and the comparative fit index (CFI). Lastly, parsimony fit indices help the researcher to make side-by-side comparisons of models in order to select the best model (Hair et al., 2010). These typically include the adjusted goodness of fit index (AGFI) and the parsimony normed fit index (PNFI). Gefen et al. (2000) and Schumacker and Lomax (2004) have suggested that four of these measures should be reported: the chi-square ($\chi^2$) degrees-of-freedom ratio, the GFI, the NFI and the AGFI.

Additionally, Schumacker and Lomax (2004) and Byrne (2001) have proposed using the RMSEA. Also, Hair et al. (2010) suggests using the SRMR. Therefore, this study utilized several indices used as recommended by Hair et al. (2010) and Schumacker and Lomax (2004): the $\chi^2$ statistic as well as the GFI, RMSEA, SRMR, NFI, CFI and AGFI. The chi-square goodness of fit statistic tests the difference between the observed covariance matrix and the population covariance matrix (Bollen, 1989). The difference should be zero for a perfect model fit. A value that is significant, relative to the degrees of freedom, indicates that observed and implied variance-covariance matrices differ. A non-significant chi-square value indicates that the two matrices are similar and that the implied theoretical model significantly reproduces the sample variance-covariance relationships in the matrix (Schumacker & Lomax, 2004). The GFI measures the proportion of variance and covariance that can be explained by the proposed model (Schumacker & Lomax, 2004). The AGFI is adjusted for a model’s degrees of freedom, relative to its number of variables. Both the AGFI and GFI indices range from 0 to 1, where 1 indicates a perfect fit. Consequently, for a well-fitted model, the GFI should be larger than .90 and the AGFI should be bigger than .80 (Gefen et al., 2000).
The RMSEA measures how well a model would fit the population covariance with optimal parameter values. A value less than .05 or .08 indicates a good model fit (Schumacker & Lomax, 2004). The SRMR measures the overall residual values, which are deviations from an individual covariance term. Typically, a SRMR value over .1 suggests a problem with fit (Hair et al., 2010). The NFI rescales $\chi^2$ into a range that extends from 0 (no fit) to 1 (perfect fit; Bentler & Bonett, 1980). The NFI is used to measure the normed difference between the null model and the hypothesized model. NFI values that are close to .95 reflect good model fits (Schumacker & Lomax, 2004). The CFI is an incremental fit index that tends to be insensitive to model complexity. CFI values above .90 are usually associated with a good model fit (Hair et al., 2010). Hair et al. (2010) suggest that a discrete set of rules does not exist that distinguishes a good model fit from a poor model fit across all situations. Rather, they suggest using multiple indices of differing types; adjusting the cutoff values based on sample size, degrees of error, and model complexity; comparing similar models whenever possible; and being cautious of finding a better fit at the expense of finding the most appropriate theory.

In summary, this chapter provided a description of the research methodology used in this study. The following chapter will provide details of the results.
CHAPTER 4
RESULTS

This chapter reports the results of the study. The chapter provides the results from the pilot study (Study Phase 1), which included descriptive statistics, exploratory and confirmatory factor analysis, and model validity and reliability results. The proposed framework data analyzed through structural equation modeling (SEM) are also explored. Later, it presents the results from the primary data collection (Study Phase 2).

Study Phase One: Pilot Study

Prior to collecting data for the main study, a pilot study (Study Phase 1) was conducted in order to determine face validity, which involved (a) identifying whether any problems existed regarding the design of the questionnaire, (b) determining if there were any grammatical or spelling errors, and (c) making sure that respondents understood the directions and the questions.

Instrument / Measures

A standardized, self-administered questionnaire was developed from an extensive literature review. The study was pretested as a pilot study (Study Phase 1) using completed questionnaires from selected respondents. The questionnaire, located in Appendix B, consisted of four sections. The first section consisted of a single qualifier question that asked whether the respondent booked a hotel room online in the previous 12 months. The second section asked general travel-related questions, such as the
respondent’s balance of leisure or business travel, as well as the average number of hotel
stays and nights accrued yearly. The third section contained construct-based questions.
Finally, the last section solicited demographic information from the respondents.

Based on similar research, most of the constructs item measures utilized a 7-point
Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). For the hedonic
and utilitarian features of the website, semantic differential scales were also deployed. A
semantic differential response format can serve as an alternative to negations for reducing
the acquiescence bias (Friborg, Martinussen, & Rosenvinge, 2006). In measuring positive
psychological constructs, a semantic differential format is effectively deployed (Friborg
et al., 2006). Semantic differential question types do not label each rating point with an
individual descriptive like a Likert scale. Instead, it places one statement on the far left of
the scale and places the opposite of that statement on the far right. It uses a numbering
system within the scale; the respondent is then asked to select the number on the scale
where they fall between the two statements.

The lengthy questionnaire instrument (83 individual items) and subsequently long
estimated completion time (15 minutes) have the potential for questionnaire fatigue and
may further influence the validity of participant’s responses. In order to reduce
comprehension errors, it was decided to employ only positively-worded statements
(Buttle, 1996). The unintended consequences of this procedure are potentially increasing
systematic response bias caused by respondent yea-saying and nay-saying (Churchill,
1979). However, it was believed that this step was necessary in order to avoid data
quality problems as well as dimensionality and validity issues.
As previously described, the first section of the questionnaire displayed the consent and asked the qualifier question of whether the respondent booked a hotel room online in the prior 12 months. If they did not book a hotel room, the questionnaire skipped to demographic questions and later terminated; otherwise, if the respondent did book a hotel room online in the prior 12 months, the instrument moved to the next section.

In the second section, participants were asked to reflect upon items such as usual level of hotel (e.g. luxury, upscale, midscale, or economy), respondents’ personal level of innovativeness, memberships in hotel frequent guest programs, and other similar issues. Later, in the third section, participants were asked to reflect on their latest online hotel booking experiences. Participants were asked to indicate their levels of agreement with statements about the flow experience, brand equity, loyalty, trust, and hedonic-versus-utilitarian feature assessment that occurred during their last online hotel booking. Finally, in the last section, various personal data metrics of participants were captured through a series of questions pertaining to consumer demographics.

A sample of U.S. college students comprised the sample for the first phase of the study. The online, self-administered questionnaire was developed and sent by e-mail to a systematic random sample of 2,500 students at two U.S. universities in May 2012. The researcher sent the first request on May 12 and received 421 responses as of May 19th. The second request was sent on May 20 and yielded 83 additional responses. A total of 504 responses were received, which equates to a response rate of about 20%. Out of 504 respondents, 254 of them booked a hotel room online in the last year. After removing results from surveys that were either incomplete or otherwise missing data, a total of 242
complete responses were available for subsequent data analysis. The next section discusses the measurement items for the constructs that were used in the study.

Measures for Utilitarian and Hedonic Features of the Website

The literature revealed a number of items that traditionally have been used to measure both hedonic and utilitarian features of e-commerce websites. For the first phase of the study, two different sets of items were deployed.

As explained in previous chapters, users visit e-commerce websites not only for utilitarian purposes, but also for entertainment. Through the inclusion of website features that cause users to perceive a site as abundant, interactive, or novel, a website can be created that provides users with opportunities to experience flow. Utilitarian performance results from users visiting a site out of necessity rather than for recreation; therefore, this aspect of performance is judged according to whether the particular purpose is accomplished (Davis et al., 1992; Venkatesh, 2000). On the other hand, the hedonic aspect of a website is evaluated by users based on their assessment regarding the amount of fun, playfulness, and pleasure they experience or expect from the site. It is related to the website’s entertainment value derived from its sensory attributes, from which users obtain consummatory affective gratification (Batra & Ahtola, 1990, Crowley, Spangenberg, & Hughes, 1992). A website performs well in the hedonic aspect when users perceive the site to be enjoyable in its own right, apart from any performance consequences that may be anticipated (Davis et al., 1992; Igbaria, Schiffman, & Wieckowski, 1994; Venkatesh, 2000). Both website feature dimensions (hedonic and
utilitarian) were measured using a 15-item, two-factor, 7-point semantic differential web performance scale adopted from Huang (2003).

As suggested by the literature, the 7-point semantic differential web utilitarian performance scale included items such as wisdom, reliability, effectiveness, and correctness, whereas items such as pleasant, nice, entertaining, agreeable, and soothing provided an assessment of hedonic performance. Later, the items were shown to 8 industry professionals, 2 academicians, and 12 e-commerce shoppers (graduate and undergraduate students). As a result, minor modifications were made to the wording of the original measurements. Respondents were asked to rate the performance of the website they used in their booking process in terms of either an overall site evaluation or their feelings toward the site using the expressions in Table 4. Cronbach’s alpha scores were later calculated in order to assess the reliability of the measures.

The second set of measurement items for hedonic and utilitarian website features were adopted from Wolfinbarger and Gilly (2003)’s study. Similarly, the items were exposed to industry leaders and e-commerce shoppers to be tailored to the online hotel booking context. Minor wording changes were made to the constructs, which are presented in Table 5. Cronbach’s alpha scores were later calculated in order to assess the reliability of the measures.
### Table 4

**Hedonic and Utilitarian Feature Measurement Items**

<table>
<thead>
<tr>
<th>Type</th>
<th>Code</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hedonica</td>
<td>HED1_1</td>
<td>Pleasant – Unpleasant</td>
</tr>
<tr>
<td></td>
<td>HED1_2</td>
<td>Nice – Awful</td>
</tr>
<tr>
<td></td>
<td>HED1_3</td>
<td>Entertaining–Weary</td>
</tr>
<tr>
<td></td>
<td>HED1_4</td>
<td>Agreeable–Disagreeable</td>
</tr>
<tr>
<td></td>
<td>HED1_5</td>
<td>Fun – Not Fun</td>
</tr>
<tr>
<td></td>
<td>HED1_6</td>
<td>Exciting – Dull</td>
</tr>
<tr>
<td></td>
<td>HED1_7</td>
<td>Delightful – Not Delightful</td>
</tr>
<tr>
<td></td>
<td>HED1_8</td>
<td>Thrilling – Not Thrilling</td>
</tr>
<tr>
<td>Utilitarianb</td>
<td>UTIL1_1</td>
<td>Ordered – Chaotic</td>
</tr>
<tr>
<td></td>
<td>UTIL1_2</td>
<td>Wise – Foolish</td>
</tr>
<tr>
<td></td>
<td>UTIL1_3</td>
<td>Reliable – Unreliable</td>
</tr>
<tr>
<td></td>
<td>UTIL1_4</td>
<td>Correct – Wrong</td>
</tr>
<tr>
<td></td>
<td>UTIL1_5</td>
<td>Functional – Not Functional</td>
</tr>
<tr>
<td></td>
<td>UTIL1_6</td>
<td>Necessary – Not Necessary</td>
</tr>
<tr>
<td></td>
<td>UTIL1_7</td>
<td>Practical – Impractical</td>
</tr>
</tbody>
</table>

*Cronbach's α = .93. *Cronbach's α = .94.
Hedonic and Utilitarian Website Feature Measurement Items

<table>
<thead>
<tr>
<th>Type</th>
<th>Code</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hedonic</td>
<td>HED2_1</td>
<td>This site was beautiful</td>
</tr>
<tr>
<td></td>
<td>HED2_2</td>
<td>This site was creative</td>
</tr>
<tr>
<td></td>
<td>HED2_3</td>
<td>This site showed good pictures of the hotel</td>
</tr>
<tr>
<td></td>
<td>HED2_4</td>
<td>This site almost said, “come in and book your room”</td>
</tr>
<tr>
<td></td>
<td>HED2_5</td>
<td>The colors that are used on the website were attractive</td>
</tr>
<tr>
<td></td>
<td>HED2_6</td>
<td>Overall, I found that the site looked attractive</td>
</tr>
<tr>
<td></td>
<td>HED2_7</td>
<td>The website was innovative</td>
</tr>
<tr>
<td>Utilitarian</td>
<td>UTIL2_1</td>
<td>This site was convenient to use</td>
</tr>
<tr>
<td></td>
<td>UTIL2_2</td>
<td>It was easy to search for information</td>
</tr>
<tr>
<td></td>
<td>UTIL2_3</td>
<td>This website allowed product comparisons</td>
</tr>
<tr>
<td></td>
<td>UTIL2_4</td>
<td>This site offered the best price/rate</td>
</tr>
<tr>
<td></td>
<td>UTIL2_5</td>
<td>This site allowed price comparisons</td>
</tr>
<tr>
<td></td>
<td>UTIL2_6</td>
<td>This site doesn’t waste my time</td>
</tr>
<tr>
<td></td>
<td>UTIL2_7</td>
<td>I can go to exactly what I want quickly</td>
</tr>
<tr>
<td></td>
<td>UTIL2_8</td>
<td>I find the website to be easy to use</td>
</tr>
</tbody>
</table>

*Cronbach’s $\alpha = .91$.  \textsuperscript{b}Cronbach’s $\alpha = .90$.

Measures for Flow Experience

Flow experience was measured with two different scales for the pilot study. The first measurement items adopted a seven-item scale following a narrative description of flow. Chen et al. (1999) have successfully used this approach in eliciting examples of experiences of flow among web users. Later, this measurement scale was adopted by many researchers (e.g. Kiili, 2005; Novak et al., 2000, 2003; Sicilia, Ruiz, & Munuera, 2005). Several researchers investigating flow have employed this technique of presenting
study participants with a description of the phenomenon before eliciting their experiences (Chen et al., 1999, 2000; Jackson, 1996; Novak et al., 2000).

Wengraf (2001) stresses the importance of explaining the phenomenon to participants in their own language or dialect, as opposed to the language of the researcher and research community. Confusions could have resulted from engaging potential informants in a discussion about flow without first explaining the meaning of the term (Pace, 2004). Therefore, the following short narrative description of flow was presented to the participants:

The word “flow” is used to describe a state of mind sometimes experienced by people who are totally involved in some activity. One example of flow is the case where a user is shopping online and achieves a state of mind where nothing else matter but the shopping; you engage in online shopping with total involvement, concentration and enjoyment. You are completely and deeply immersed in it. Many people report this state of mind when web pages browsing, on-line chatting and word processing.

Table 6 illustrates the first set of measurement items for flow. For refinement of the measurement items, they were revealed to the focus group. Additional items were added and some minor wording changes were made. Cronbach’s alpha scores were calculated in order to assess the reliability of the measure.

The second set of measurement items for the flow experience was adopted from Huang (2006) as self-report flow scales (Ghani & Deshpande, 1994; Novak et al., 2000; Trevino & Webster, 1992; Webster et al., 1993). This method is applicable when studying subjective states such as flow (Webster et al., 1993). There are two adaptations of this method. The first one evaluates the overall flow by presenting brief descriptions of flow events; in response, participants present personal examples of flow events and
provide a rating (Privette, 1983), or they rate the overall flow experienced while using the web (Novak et al., 2000). Alternatively, the second method measures the components of flow with the use of Likert-type statements (Trevino & Webster, 1992; Webster et al., 1993) or bipolar semantic-differential scale items (Ghani & Deshpande, 1994). The self-report scaling method is used to measure flow in order to capture the subjective state while minimizing interference. Table 7 illustrates the second set of measurement items of flow experience and the Cronbach’s alpha reliability score of the measure.

Table 6

*Flow Experience Measurement Items, Set 1*

<table>
<thead>
<tr>
<th>Code</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLO1_1</td>
<td>I experienced flow last time when I booked my hotel room online at this website.</td>
</tr>
<tr>
<td>FLO1_2</td>
<td>In general, I experience “flow” when I book my hotel room online at this website.</td>
</tr>
<tr>
<td>FLO1_3</td>
<td>Most of the time I book my hotel room online at this website; I feel that I am in flow.</td>
</tr>
<tr>
<td>FLO1_4</td>
<td>Last time I booked my hotel room at this website, I was fully engaged.</td>
</tr>
<tr>
<td>FLO1_5</td>
<td>Last time I booked my hotel room at this website, I was fully involved.</td>
</tr>
<tr>
<td>FLO1_6</td>
<td>Last time I booked my hotel room at this website, I had full concentration.</td>
</tr>
<tr>
<td>FLO1_7</td>
<td>Last time I booked my hotel room at this website, it was an enjoyable experience.</td>
</tr>
</tbody>
</table>

*Note.* Cronbach’s $\alpha = .94.$
Table 7

*Flow Experience Measurement Items, Set 2*

<table>
<thead>
<tr>
<th>Code</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLO2_1</td>
<td>When using the website to book a room, I felt in control.</td>
</tr>
<tr>
<td>FLO2_2</td>
<td>I felt I was able to interact online with the website.</td>
</tr>
<tr>
<td>FLO2_3</td>
<td>When using the website, I thought about other things.</td>
</tr>
<tr>
<td>FLO2_4</td>
<td>When using the website, I was aware of distractions.</td>
</tr>
<tr>
<td>FLO2_5</td>
<td>When using the booking website, I was totally absorbed in what I was doing.</td>
</tr>
<tr>
<td>FLO2_6</td>
<td>Using the booking website excited my curiosity.</td>
</tr>
<tr>
<td>FLO2_7</td>
<td>Using the booking website aroused my imagination.</td>
</tr>
<tr>
<td>FLO2_8</td>
<td>The booking website was fun to use.</td>
</tr>
</tbody>
</table>

*Note.* Cronbach’s α = .80.

Measures for Trust

Items for trust were adopted from Morgan and Hunt (1994) with minor changes made to tailor the items for the e-commerce online hotel booking context. Table 8 shows the measurement items and calculated reliability level.

Table 8

*Trust Measurement Items*

<table>
<thead>
<tr>
<th>Code</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRU_1</td>
<td>This hotel booking website is trustworthy</td>
</tr>
<tr>
<td>TRU_2</td>
<td>I trust this hotel booking website keeps my best interests in mind</td>
</tr>
<tr>
<td>TRU_3</td>
<td>This hotel booking website will always be honest with me</td>
</tr>
<tr>
<td>TRU_4</td>
<td>I believe in the information that this hotel booking website provides</td>
</tr>
<tr>
<td>TRU_5</td>
<td>This hotel booking website is genuinely concerned about its customers</td>
</tr>
</tbody>
</table>

*Note.* Cronbach’s α = .90.
Measures for Loyalty

Items for loyalty were adopted from Chang and Chen (2009) and Li et al. (2006); similarly, minor wording changes were made for these items. Table 9 shows the loyalty measurement items and their reliability score.

Table 9

*Loyalty Measurement Items*

<table>
<thead>
<tr>
<th>Code</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELOY_1</td>
<td>I seldom consider switching to another hotel booking website.</td>
</tr>
<tr>
<td>ELOY_2</td>
<td>As long as the present service continues, I doubt that I would switch websites.</td>
</tr>
<tr>
<td>ELOY_3</td>
<td>I try to use the website whenever I need to book a hotel room.</td>
</tr>
<tr>
<td>ELOY_4</td>
<td>I like using this website.</td>
</tr>
<tr>
<td>ELOY_5</td>
<td>To me this site is the best hotel booking website to do business with.</td>
</tr>
<tr>
<td>ELOY_6</td>
<td>I believe that this is my favorite hotel booking website.</td>
</tr>
</tbody>
</table>

*Note.* Cronbach's $\alpha = .90.$

Measures for Brand Equity

Items for brand equity were adopted from Yoo, Donthu, and Lee (2001). Cronbach’s alpha scores were calculated in order to assess the reliability of the brand equity measurement. To answer these items, respondents were asked to think about the hotel brand with which they booked their room and indicate a level of agreement. In the case of item BE_4, the fill-in-the-blank hotel brand was represented by X. Table 10 shows the loyalty measurement items and their reliability score.

As Gaskin (2012) explains, EFA is a statistical approach to determining the correlation among the variables in a dataset. This analysis groups variables based on
strong correlations. It is the proper technique to detect “misfit” variables. EFA prepares the variables to be used for cleaner structural equation modeling. Therefore, in order to identify misfit variables, the factorability of the 37 items was examined in the EFA.

Table 10

*Brand Equity Measurement Items*

<table>
<thead>
<tr>
<th>Code</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE_1</td>
<td>It makes sense to book hotel rooms from this website instead of any other websites, even if they are the same.</td>
</tr>
<tr>
<td>BE_2</td>
<td>Even if another hotel website has same features as this website, I would prefer to book through this website.</td>
</tr>
<tr>
<td>BE_3</td>
<td>If there is another brand as good as this website, I prefer to book through this website.</td>
</tr>
<tr>
<td>BE_4</td>
<td>If another hotel website is not different from X in any way, it seems smarter to book through X.</td>
</tr>
</tbody>
</table>

*Note.* Cronbach’s α = .90.

Table 11 represents the rotated component matrix of items deployed in the study phase one. Due to a low number of items, HEDO1, HEDO2, FLO5, LOY4 were removed from analysis. Secondly, the Kaiser-Meyer-Olkin measure of sampling adequacy was .87, which was above the recommended value of .60. Bartlett’s test of sphericity was significant, $\chi^2(561) = 8,899.12, p < .01$. The diagonals of the anti-image correlation matrix were all over .50, supporting the inclusion of each item in the factor analyses. The six factors explained 76.3% of the variance (see Appendix D for a table outlining the total variance explained by the factor analysis). An approximately normal distribution was evident for the composite score data in the current study; thus, the data were suited for parametric statistical analyses. Regression factor score distributions for all factors were normally distributed. Table 12 summarizes the constructs that emerged in factor analysis.
Table 11

Rotated Component Matrix of Items Deployed in Pilot Study

<table>
<thead>
<tr>
<th>Item</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>UTIL1_4</td>
<td>.84</td>
</tr>
<tr>
<td>UTIL1_5</td>
<td>.83</td>
</tr>
<tr>
<td>UTIL1_3</td>
<td>.82</td>
</tr>
<tr>
<td>UTIL1_6</td>
<td>.81</td>
</tr>
<tr>
<td>UTIL1_8</td>
<td>.74</td>
</tr>
<tr>
<td>UTIL1_7</td>
<td>.69</td>
</tr>
<tr>
<td>UTIL1_1</td>
<td>.66</td>
</tr>
<tr>
<td>UTIL1_2</td>
<td>.51</td>
</tr>
<tr>
<td>HEDO1_3</td>
<td>.80</td>
</tr>
<tr>
<td>HEDO1_9</td>
<td>.77</td>
</tr>
<tr>
<td>HEDO1_7</td>
<td>.76</td>
</tr>
<tr>
<td>HEDO1_6</td>
<td>.76</td>
</tr>
<tr>
<td>HEDO1_5</td>
<td>.72</td>
</tr>
<tr>
<td>HEDO1_8</td>
<td>.66</td>
</tr>
<tr>
<td>HEDO1_4</td>
<td>.55</td>
</tr>
<tr>
<td>FLO1_2</td>
<td>.88</td>
</tr>
<tr>
<td>FLO1_3</td>
<td>.88</td>
</tr>
<tr>
<td>FLO1_1</td>
<td>.86</td>
</tr>
<tr>
<td>FLO1_4</td>
<td>.78</td>
</tr>
<tr>
<td>FLO1_6</td>
<td>.66</td>
</tr>
<tr>
<td>TRU2</td>
<td>.76</td>
</tr>
<tr>
<td>TRU1</td>
<td>.73</td>
</tr>
<tr>
<td>TRU3</td>
<td>.72</td>
</tr>
<tr>
<td>TRU4</td>
<td>.72</td>
</tr>
<tr>
<td>TRU5</td>
<td>.70</td>
</tr>
<tr>
<td>LOY2</td>
<td>.86</td>
</tr>
<tr>
<td>LOY1</td>
<td>.79</td>
</tr>
<tr>
<td>LOY5</td>
<td>.76</td>
</tr>
<tr>
<td>LOY6</td>
<td>.73</td>
</tr>
<tr>
<td>LOY3</td>
<td>.66</td>
</tr>
<tr>
<td>BE4</td>
<td>.83</td>
</tr>
<tr>
<td>BE3</td>
<td>.82</td>
</tr>
<tr>
<td>BE2</td>
<td>.74</td>
</tr>
<tr>
<td>BE1</td>
<td>.73</td>
</tr>
</tbody>
</table>

*Note.* Extraction method used was Principal Components Analysis. Rotation method used was Varimax with Kaiser Normalization.
Table 12

Summary of the Constructs Used

<table>
<thead>
<tr>
<th>Construct</th>
<th>Question Items</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow</td>
<td>I experienced flow last time when I booked my hotel room online at this website. In general, I experience “flow” when I book my hotel room online at this website. Most of the time I book my hotel room online at this website; I feel that I am in flow. Last time I booked my hotel room at this website, I was fully engaged.</td>
<td>Huang (2006); self created</td>
</tr>
<tr>
<td></td>
<td>Agreeable–Disagreeable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exciting – Dull</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delightful – Not Delightful</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thrilling – Not Thrilling</td>
<td></td>
</tr>
<tr>
<td>Utilitarian Features</td>
<td>Ordered – Chaotic</td>
<td>Huang (2003)</td>
</tr>
<tr>
<td></td>
<td>Reliable – Unreliable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Correct – Wrong</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Functional – Not Functional</td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>I trust this hotel booking website keeps my best interests in mind</td>
<td>Morgan &amp; Hunt (1994)</td>
</tr>
<tr>
<td></td>
<td>This hotel booking website will always be honest with me</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I believe in the information that this hotel booking website provides</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This hotel booking website is genuinely concerned about its customers</td>
<td></td>
</tr>
<tr>
<td>Brand Equity</td>
<td>It makes sense to book hotel rooms from this website instead of any other websites, even if they are the same. Even if another hotel website has same features as this website, I would prefer to book through this website. If there is another brand as good as this website, I prefer to book through this website. If another hotel website is not different from X in any way, it seems smarter to book through X.</td>
<td>Yoo et al. (2001)</td>
</tr>
<tr>
<td>e-Loyalty</td>
<td>As long as the present service continues, I doubt that I would switch websites. To me this site is the best hotel booking website to do business with. I believe that this is my favorite hotel booking website.</td>
<td>Chang and Chen (2009) and Li et al. (2006)</td>
</tr>
</tbody>
</table>
Demographic Information of Pilot Study Respondents

The demographic characteristics of the pilot study sample are described in Table 13. The gender distribution among respondents was even: 52% were female and 48% were male. A large proportion of the respondents (47%) was 25 years or younger. Almost 35% of the respondents were between 26 and 35 years of age. A resounding majority of the respondents of the pilot study was single (75%). About 20% of the respondents were married. Results indicated that the largest proportion of the respondents had an income of $25,000 or less (47%), followed by $25,001 to $50,000 (26%).

Table 14 provides the distribution of nights per year spent in a hotel. The pilot study respondents were light travelers. A total of 38% of respondents stayed in a hotel between 1 and 5 nights per year; another 31% of respondents stayed between 6 and 10 nights.

Table 15 provides an indication of the sources of information respondents utilized prior to making a hotel reservation. Hotel website-based research was the most prevalent ($M = 5.08$), followed by online travel agency websites ($M = 5.05$). Social networking sites scored the lowest as an information-gathering tool ($M = 2.07$).
Table 13

*Demographic Characteristics of Pilot Study Respondents*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>52.0</td>
</tr>
<tr>
<td>Male</td>
<td>48.0</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>25 or younger</td>
<td>47.0</td>
</tr>
<tr>
<td>26-35</td>
<td>37.8</td>
</tr>
<tr>
<td>36-45</td>
<td>7.6</td>
</tr>
<tr>
<td>46-55</td>
<td>4.4</td>
</tr>
<tr>
<td>56-65</td>
<td>2.2</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>20.6</td>
</tr>
<tr>
<td>Separated</td>
<td>0.0</td>
</tr>
<tr>
<td>Divorced</td>
<td>3.3</td>
</tr>
<tr>
<td>Widowed</td>
<td>0.0</td>
</tr>
<tr>
<td>Single</td>
<td>75.0</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>1.1</td>
</tr>
<tr>
<td>Personal Annual Income</td>
<td></td>
</tr>
<tr>
<td>$25,000 or less</td>
<td>46.7</td>
</tr>
<tr>
<td>$25,001-$50,000</td>
<td>26.1</td>
</tr>
<tr>
<td>$50,001-$75,000</td>
<td>8.7</td>
</tr>
<tr>
<td>$75,001-$100,000</td>
<td>7.6</td>
</tr>
<tr>
<td>$100,001-$150,000</td>
<td>2.2</td>
</tr>
<tr>
<td>$150,001-$200,000</td>
<td>0.0</td>
</tr>
<tr>
<td>$200,001-$250,000</td>
<td>0.0</td>
</tr>
<tr>
<td>$250,001 or more</td>
<td>1.1</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>7.6</td>
</tr>
</tbody>
</table>
Table 14

Average Nights Spent in a Hotel Per Year

<table>
<thead>
<tr>
<th># of Nights</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>38.3</td>
</tr>
<tr>
<td>6-10</td>
<td>30.8</td>
</tr>
<tr>
<td>11-15</td>
<td>9.4</td>
</tr>
<tr>
<td>16-20</td>
<td>9.4</td>
</tr>
<tr>
<td>20-25</td>
<td>2.8</td>
</tr>
<tr>
<td>26-30</td>
<td>1.9</td>
</tr>
<tr>
<td>31-35</td>
<td>2.8</td>
</tr>
<tr>
<td>36-40</td>
<td>1.9</td>
</tr>
<tr>
<td>41-45</td>
<td>0.0</td>
</tr>
<tr>
<td>46-50</td>
<td>0.9</td>
</tr>
<tr>
<td>51-55</td>
<td>0.0</td>
</tr>
<tr>
<td>56-60</td>
<td>0.9</td>
</tr>
<tr>
<td>Over 60</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Table 15

Research Resources Used Prior to Purchase

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel Website (e.g. <a href="http://www.marriott.com">www.marriott.com</a>, <a href="http://www.hilton.com">www.hilton.com</a>)</td>
<td>5.08</td>
</tr>
<tr>
<td>Third Party Review Sites (i.e. Tripadvisor.com, Hotels.com, Igougo.com)</td>
<td>4.87</td>
</tr>
<tr>
<td>Online Travel Agency Websites (i.e. Expedia, Travelocity, Priceline)</td>
<td>5.05</td>
</tr>
<tr>
<td>Social Networking Sites (i.e. Facebook, MySpace, LinkedIn)</td>
<td>2.07</td>
</tr>
</tbody>
</table>

The percentages of respondents who cited that they either did or did not belong to hotel frequent guest programs were gathered. Most of the respondents (57%) did not belong to any hotel frequent guest program, as compared to those who did belong to a program (43%). Results regarding respondents’ preferred channel for booking are indicated in Table 16. Respondents indicated a preference of booking their hotel rooms through an Internet travel agency such as Expedia.com (48.6%). The next most utilized
channel was hotel-owned websites (41.1%). Using a travel agent, calling the hotel’s toll-free number, or using an organization’s travel agent ranked as the least preferred reservation channels among pilot study respondents. These results might be due to the fact that the pilot study respondents were college students.

Table 16

*Preferred Reservation Channel*

<table>
<thead>
<tr>
<th>Channel</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book online over the hotel website (i.e. Hilton.com)</td>
<td>41.1</td>
</tr>
<tr>
<td>Book online through an Internet travel agency (i.e. Expedia.com)</td>
<td>48.6</td>
</tr>
<tr>
<td>Use a travel agent</td>
<td>0.9</td>
</tr>
<tr>
<td>Call a toll free (800) reservation number of the hotel</td>
<td>0.9</td>
</tr>
<tr>
<td>Call the hotel directly</td>
<td>2.8</td>
</tr>
<tr>
<td>Use my organization's travel agent</td>
<td>0.9</td>
</tr>
<tr>
<td>Other</td>
<td>4.7</td>
</tr>
</tbody>
</table>

Table 17 represents the type of the hotel in which respondents stayed during their last visit. Most of the respondents stayed in an upscale hotel (43.9%), followed by a midscale hotel (36.5%).

Table 17

*Hotel Type of Last Stay*

<table>
<thead>
<tr>
<th>Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxury (i.e. Four Seasons, Ritz Carlton)</td>
<td>9.4</td>
</tr>
<tr>
<td>Upscale (i.e. Hyatt, Marriott)</td>
<td>43.9</td>
</tr>
<tr>
<td>Midscale (i.e. Courtyard, Holiday Inn Express, Comfort Inn, La Quinta, Days Inn)</td>
<td>36.5</td>
</tr>
<tr>
<td>Economy (i.e. Ramada, Super 8, Motel 6, Econo Lodge)</td>
<td>7.5</td>
</tr>
<tr>
<td>Other</td>
<td>2.8</td>
</tr>
</tbody>
</table>
Measurement Model (CFA)

This section discusses the measurement model, CFA. It is the next step after EFA to determine the factor structure of the dataset (Gaskin, 2012). In the EFA, the factor structure was explored; in the CFA, the intent was to confirm the factor structure extracted in the EFA. A two-step approach to model construction and testing was adopted (Anderson & Gerbing, 1988). First, the measurement model was “purified” by eliminating measured variables that were not determined to fit well by an initial confirmatory factor analysis (CFA) model. Table 15 provides the variables that were used in the final CFA model. Second, a theoretical base model was fitted and a series of revised models was created to address the measured variables retained in the first step.

Following Anderson and Gerbing (1988), the first assessment should address the existence of any structural model with an acceptable goodness-of-fit. Thus, a measurement model that included correlations among the latent factors was deployed. After assessing the measurement model, as Fornell and Larcker (1981) suggested, SEM was utilized.

The goodness-of-fit measures were used to assess the overall model fit for confirmatory factor analysis (CFA). Items with low loadings were eliminated. As indicated by the results of the pilot study, the overall fit indices for the proposed (base) model were acceptable, even considering the sample size. These indices included a $\chi^2$-to-df ratio of 5.16, RMSEA of .10, NFI of .94, CFI of .92, GFI of .81, RFI of .92, and PNFI of .82. CFA was performed to assess reliability, convergent validity, and discriminant validity for six measured constructs using AMOS 20 and confirmed the six distinct
factors that emerged in the EFA. The reliability coefficients of all constructs were above the .80 threshold as suggested by Chen & Hitt (2002). The average variance extracted (AVE) was used to assess convergent validity. AVE values ranged from .65 to .84 (Table 23), which is an indication that convergent validity was not an issue (Garbarino & Johnson, 1999). Discriminant validity was assessed by comparing the AVE with the squared correlation between constructs (Fornell & Larcker, 1981). The squared correlations between pairs of constructs were less than the AVE, suggesting discriminant validity.

In order to address possible multicollinearity issues, for every latent variable a composite score was created. The VIF values of the exogenous latent variables were then compared to the threshold value of 4. VIF values varied from 1.28 to 2.11; therefore, multicollinearity was not an issue (see Table 18).

Table 18

*Multicollinearity Statistics*

<table>
<thead>
<tr>
<th>Model</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLOW_TOTAL_AVG</td>
<td>.64</td>
<td>1.57</td>
</tr>
<tr>
<td>UTIL_TOTAL_AVG</td>
<td>.69</td>
<td>1.46</td>
</tr>
<tr>
<td>HEDO_TOTAL_AVG</td>
<td>.47</td>
<td>2.11</td>
</tr>
<tr>
<td>BE_TOTAL_AVG</td>
<td>.78</td>
<td>1.28</td>
</tr>
<tr>
<td>TRUST_TOTAL_AVG</td>
<td>.54</td>
<td>1.87</td>
</tr>
</tbody>
</table>
Figure 4. CFA measurement model.

Table 19

Validity Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>CR</th>
<th>AVE</th>
<th>MSV</th>
<th>ASV</th>
<th>TRU</th>
<th>FLO</th>
<th>UTIL</th>
<th>HED</th>
<th>LOY</th>
<th>BE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRU</td>
<td>.88</td>
<td>.66</td>
<td>.48</td>
<td>.39</td>
<td>.81</td>
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<td></td>
<td></td>
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<td>FLO</td>
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<td>.52</td>
<td>.92</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>UTIL</td>
<td>.93</td>
<td>.76</td>
<td>.48</td>
<td>.35</td>
<td>.69</td>
<td>.55</td>
<td>.87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HED</td>
<td>.92</td>
<td>.70</td>
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<td>.60</td>
<td>.58</td>
<td>.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOY</td>
<td>.92</td>
<td>.80</td>
<td>.43</td>
<td>.29</td>
<td>.66</td>
<td>.49</td>
<td>.58</td>
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<tr>
<td>BE</td>
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<td>.36</td>
<td>.29</td>
<td>.60</td>
<td>.47</td>
<td>.56</td>
<td>.57</td>
<td>.48</td>
<td>.85</td>
</tr>
</tbody>
</table>

Note. CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Squared Variance, ASV = Average Shared Squared Variance, TRU = Trust, FLO = Flow, UTIL = Utilitarian Features, HED = Hedonic Features, LOY = Loyalty, BE = Brand Equity.
Table 20

*Item Loadings and Reliability Scores*

<table>
<thead>
<tr>
<th>Construct</th>
<th>Variables</th>
<th>Standardized Loadings</th>
<th>Construct Reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow</td>
<td>FLO1_1</td>
<td>.96</td>
<td>.95</td>
<td>.84</td>
</tr>
<tr>
<td></td>
<td>FLO1_2</td>
<td>.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FLO1_3</td>
<td>.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FLO1_4</td>
<td>.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilitarian Features</td>
<td>UTIL1_1</td>
<td>.83</td>
<td>.92</td>
<td>.76</td>
</tr>
<tr>
<td></td>
<td>UTIL1_3</td>
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<tr>
<td></td>
<td>UTIL1_4</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>UTIL1_5</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Hedonic Features</td>
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<td>.91</td>
<td>.69</td>
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<tr>
<td></td>
<td>HEDO1_4</td>
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<tr>
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<td>HEDO1_6</td>
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<td></td>
</tr>
<tr>
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<td>HEDO1_7</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>HEDO1_8</td>
<td>.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Equity</td>
<td>BE1</td>
<td>.71</td>
<td>.90</td>
<td>.71</td>
</tr>
<tr>
<td></td>
<td>BE2</td>
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</tr>
<tr>
<td></td>
<td>BE3</td>
<td>.93</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>BE4</td>
<td>.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>TRU2</td>
<td>.80</td>
<td>.88</td>
<td>.65</td>
</tr>
<tr>
<td></td>
<td>TRU3</td>
<td>.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRU4</td>
<td>.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRU5</td>
<td>.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyalty</td>
<td>LOY2</td>
<td>.74</td>
<td>.92</td>
<td>.79</td>
</tr>
<tr>
<td></td>
<td>LOY5</td>
<td>.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LOY6</td>
<td>.98</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Structural Model

With satisfactory results in the measurement model, the structural model was examined to test the relationships among constructs, which are outlined in Table 21 and displayed visually in Figure 5. The goodness-of-fit measures were used to assess the overall structural model fit for the hypotheses summarized in Table 22. As indicated by the results of the study, the overall fit indices for the proposed model highlighted the need for an alternative model, with a $\chi^2$-to-df ratio of 5.55, RMSEA of .10, NFI of .90, CFI of .92, GFI of .80, RFI of .88, PNFI of .85, and IFI of .70. In addition, the explained variances were 46% for flow experience, 33% for brand equity, 49% for trust, and 33% for e-loyalty. As Marcoulides and Drezner (2003) offered, a specification search (the process of finding the best-fitting model) was necessary with the pilot study since the data did not initially fit. The next section discusses the alternate model.

Table 21

*Structural Model Hypotheses*

<table>
<thead>
<tr>
<th>Item</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: HED $\rightarrow$ (+) FLO</td>
<td>Hedonic features of a hotel booking website positively impact flow experience</td>
</tr>
<tr>
<td>H2: UTIL $\rightarrow$ (+) FLO</td>
<td>Utilitarian features of a hotel booking website positively impacts flow experience</td>
</tr>
<tr>
<td>H3: HED $\rightarrow$ (+) BE</td>
<td>Hedonic features of a hotel booking website positively impacts brand equity</td>
</tr>
<tr>
<td>H4: UTIL $\rightarrow$ (+) TRUST</td>
<td>Utilitarian features of a hotel booking website positively impacts trust</td>
</tr>
<tr>
<td>H5: FLOW $\rightarrow$ (+) BE</td>
<td>Flow experience positively impacts brand equity</td>
</tr>
<tr>
<td>H6: FLOW $\rightarrow$ (+) TRU</td>
<td>Flow experience positively impacts trust</td>
</tr>
<tr>
<td>H7: FLO $\rightarrow$ (+) LOY</td>
<td>Flow experience positively impacts loyalty to the website</td>
</tr>
<tr>
<td>H8: BE $\rightarrow$ (+) LOY</td>
<td>Brand equity positively impacts loyalty to the website</td>
</tr>
<tr>
<td>H9: TRU $\rightarrow$ (+) LOY</td>
<td>Trust positively impacts loyalty to the website</td>
</tr>
</tbody>
</table>
Table 22

Results of Structural Model Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Estimate</th>
<th>SE</th>
<th>CR</th>
<th>p</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: HED → (+) FLO</td>
<td>.60</td>
<td>.07</td>
<td>9.06</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H2: UTIL → (+) FLO</td>
<td>.55</td>
<td>.08</td>
<td>6.74</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H3: HED → (+) BE</td>
<td>.40</td>
<td>.05</td>
<td>7.38</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H4: UTIL → (+) TRUST</td>
<td>.53</td>
<td>.06</td>
<td>9.23</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H5: FLOW → (+) BE</td>
<td>.15</td>
<td>.04</td>
<td>4.11</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H6: FLOW → (+) TRU</td>
<td>.26</td>
<td>.03</td>
<td>7.62</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H7: FLO → (+) LOY</td>
<td>.34</td>
<td>.04</td>
<td>8.45</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H8: BE→ (+) LOY</td>
<td>.41</td>
<td>.06</td>
<td>6.78</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H9: TRU→ (+) LOY</td>
<td>.81</td>
<td>.10</td>
<td>7.91</td>
<td>***</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Note. CR = Composite Reliability.
*p < .05. **p < .01. ***p < .001.

Figure 5. Proposed model
Alternate Model

The alternative structural model was examined to test the relationship among constructs listed in Table 23 and displayed visually in Figure 6. The goodness-of-fit measures were used to assess the overall structural model fit. Two additional paths were hypothesized between (a) hedonic features and trust, and (b) utilitarian features and brand equity. As indicated by the results in Table 24, the overall fit indices for the proposed alternative model were acceptable, with a $\chi^2$-to-df ratio of 4.80, RMSEA of .09, NFI of .92, CFI of .93, GFI of .80, RFI of .90, PNFI of .70, and IFI of .70. In addition, the explained variances were 46% for flow experience, 39% for brand equity, 54% for trust, and 34% for e-loyalty.

Table 23

<table>
<thead>
<tr>
<th>Item</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: HED $\rightarrow$ (+) FLO</td>
<td>Hedonic features of a hotel booking website positively impact flow experience</td>
</tr>
<tr>
<td>H2: UTIL $\rightarrow$ (+) FLO</td>
<td>Utilitarian features of a hotel booking website positively impacts flow experience</td>
</tr>
<tr>
<td>H3: HED $\rightarrow$ (+) BE</td>
<td>Hedonic features of a hotel booking website positively impacts brand equity</td>
</tr>
<tr>
<td>H4: UTIL $\rightarrow$ (+) TRU</td>
<td>Utilitarian features of a hotel booking website positively impacts trust</td>
</tr>
<tr>
<td>H5: FLOW $\rightarrow$ (+) BE</td>
<td>Flow experience positively impacts brand equity</td>
</tr>
<tr>
<td>H6: FLOW $\rightarrow$ (+) TRU</td>
<td>Flow experience positively impacts trust</td>
</tr>
<tr>
<td>H7: FLO $\rightarrow$ (+) LOY</td>
<td>Flow experience positively impacts loyalty to the website</td>
</tr>
<tr>
<td>H8: BE $\rightarrow$ (+) LOY</td>
<td>Brand equity positively impacts loyalty to the website</td>
</tr>
<tr>
<td>H9: TRU $\rightarrow$ (+) LOY</td>
<td>Trust positively impacts loyalty to the website</td>
</tr>
<tr>
<td>H10: HED $\rightarrow$ (+) TRU</td>
<td>Hedonic features of a hotel booking website positively impacts trust</td>
</tr>
<tr>
<td>H11: UTIL $\rightarrow$ (+) BE</td>
<td>Utilitarian features of a hotel booking website positively impacts brand equity</td>
</tr>
</tbody>
</table>
### Table 24

**Results of Alternate Model Hypothesis Testing**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Estimate</th>
<th>SE</th>
<th>CR</th>
<th>p</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: HED → (+) FLO</td>
<td>.55</td>
<td>.06</td>
<td>8.66</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H2: UTIL → (+) FLO</td>
<td>.61</td>
<td>.08</td>
<td>7.52</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H3: HED → (+) BE</td>
<td>.35</td>
<td>.05</td>
<td>6.46</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H4: UTIL → (+) TRU</td>
<td>.45</td>
<td>.06</td>
<td>7.65</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H5: FLOW → (+) BE</td>
<td>.06</td>
<td>.04</td>
<td>1.57</td>
<td>.12</td>
<td>No</td>
</tr>
<tr>
<td>H6: FLOW → (+) TRU</td>
<td>.12</td>
<td>.04</td>
<td>3.53</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H7: FLO → (+) LOY</td>
<td>.33</td>
<td>.04</td>
<td>8.43</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H8: BE → (+) LOY</td>
<td>.44</td>
<td>.06</td>
<td>7.29</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H9: TRU → (+) LOY</td>
<td>.92</td>
<td>.11</td>
<td>8.39</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H10: HED → (+) TRU</td>
<td>.32</td>
<td>.05</td>
<td>6.72</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H11: UTIL → (+) BE</td>
<td>.35</td>
<td>.06</td>
<td>5.36</td>
<td>***</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Note. CR = Composite Reliability.*

*p < .05. **p < .01. ***p < .001.*

---

**Figure 6.** Alternate model.
The Main Study (Phase 2)

Procedure for Data Collection

The questionnaire was finalized based on the feedback obtained from the Study Phase 1. Measurement items with higher reliability scores were included in the final questionnaire. A self-administered online questionnaire was created and delivered using the Qualtrics software. A marketing company was contacted to distribute the link for the online questionnaire. The questionnaire was sent to 20,000 randomly selected individuals in the U.S. who were interested in purchasing travel products. After a month, 1,298 responses were collected with a response rate of 6.5%.

The first question of the questionnaire was for screening purposes to ensure that only those subjects who had booked a hotel room in the past year from a hotel-owned website would complete the rest of the survey. Only 40% of the respondents booked a hotel room online in the last year; therefore, 520 respondents remained for the purpose of conducting data analysis. After inputting the data into SPSS, it was determined that nine questionnaires were missing responses to a substantial number of questions and were therefore removed. This brought the total number of usable questionnaires to 511. In the context of SEM, recommendations for an appropriate sample size range from as low as five respondents for each observed variable to as high as 100 (Jaccard & Wan, 1996). For data analysis purposes, 350 of the subjects were randomly selected. Table 25 reports the descriptive statistics of measurement items.
## Descriptive Statistics of Measurement Items

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLO1_1 I experienced flow last time when I booked my hotel room online at this website.</td>
<td>4.25</td>
<td>1.82</td>
</tr>
<tr>
<td>FLO1_2 In general, I experience “flow” when I book my hotel room online at this website.</td>
<td>4.20</td>
<td>1.78</td>
</tr>
<tr>
<td>FLO1_3 Most of the time I book my hotel room online at this website; I feel that I am in flow.</td>
<td>4.21</td>
<td>1.73</td>
</tr>
<tr>
<td>FLO1_4 Last time I booked my hotel room at this website, I was fully engaged.</td>
<td>4.49</td>
<td>1.70</td>
</tr>
<tr>
<td>FLO1_5 Last time I booked my hotel room at this website, I had full concentration.</td>
<td>4.66</td>
<td>1.67</td>
</tr>
<tr>
<td>FLO1_6 Last time I booked my hotel room at this website, it was an enjoyable experience.</td>
<td>4.82</td>
<td>1.42</td>
</tr>
<tr>
<td>HEDO1_2 Awful:Nice</td>
<td>5.68</td>
<td>1.16</td>
</tr>
<tr>
<td>HEDO1_3 Weary:Entertaining</td>
<td>4.94</td>
<td>1.34</td>
</tr>
<tr>
<td>HEDO1_4 Diagreeable:Agreeable</td>
<td>5.59</td>
<td>1.20</td>
</tr>
<tr>
<td>HEDO1_5 Aggravating:Soothing</td>
<td>4.99</td>
<td>1.27</td>
</tr>
<tr>
<td>HEDO1_6 Not Fun:Fun</td>
<td>4.76</td>
<td>1.44</td>
</tr>
<tr>
<td>HEDO1_7 Dull:Exciting</td>
<td>4.77</td>
<td>1.41</td>
</tr>
<tr>
<td>HEDO1_8 Not Delightful:Delightful</td>
<td>4.98</td>
<td>1.41</td>
</tr>
<tr>
<td>HEDO1_9 Not Thrilling:Thrilling</td>
<td>4.56</td>
<td>1.42</td>
</tr>
<tr>
<td>UTIL1_1 Chaotic:Ordered</td>
<td>5.69</td>
<td>1.26</td>
</tr>
<tr>
<td>UTIL1_3 Unreliable:Reliable</td>
<td>5.86</td>
<td>1.19</td>
</tr>
<tr>
<td>UTIL1_4 Ineffective:Effective</td>
<td>5.88</td>
<td>1.23</td>
</tr>
<tr>
<td>UTIL1_5 Wrong:Correct</td>
<td>5.82</td>
<td>1.27</td>
</tr>
<tr>
<td>UTIL1_6 Not Functional:Fuctional</td>
<td>5.97</td>
<td>1.18</td>
</tr>
<tr>
<td>UTIL1_7 Not Necessary:Necessary</td>
<td>5.55</td>
<td>1.36</td>
</tr>
<tr>
<td>UTIL1_8 Impractical:Practical</td>
<td>5.88</td>
<td>1.27</td>
</tr>
<tr>
<td>TRU2 I trust this hotel booking website keeps my best interests in mind.</td>
<td>5.16</td>
<td>1.36</td>
</tr>
<tr>
<td>TRU3 This hotel booking website will always be honest with me.</td>
<td>5.14</td>
<td>1.29</td>
</tr>
<tr>
<td>TRU4 I believe in the information that this hotel booking website provides.</td>
<td>5.42</td>
<td>1.21</td>
</tr>
<tr>
<td>TRU5 This hotel booking website is genuinely concerned about its customers.</td>
<td>5.05</td>
<td>1.42</td>
</tr>
<tr>
<td>Item</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>BE1 It makes sense to book hotel rooms from this website instead of any other websites, even if they are the same.</td>
<td>4.92</td>
<td>1.45</td>
</tr>
<tr>
<td>BE2 Even if another hotel website has same features as this website, I would prefer to book through this website.</td>
<td>4.92</td>
<td>1.46</td>
</tr>
<tr>
<td>BE3 If there is another brand as good as this website, I prefer to book through this website.</td>
<td>4.77</td>
<td>1.42</td>
</tr>
<tr>
<td>BE4 If another hotel website is not different from X in any way, it seems smarter to book through X.</td>
<td>4.95</td>
<td>1.43</td>
</tr>
<tr>
<td>LOY1 I seldom consider switching to another hotel booking website.</td>
<td>4.29</td>
<td>1.57</td>
</tr>
<tr>
<td>LOY2 As long as the present service continues, I doubt that I would switch websites.</td>
<td>4.72</td>
<td>1.50</td>
</tr>
<tr>
<td>LOY3 I try to use the website whenever I need to book a hotel room.</td>
<td>4.80</td>
<td>1.55</td>
</tr>
<tr>
<td>LOY4 To me this site is the best hotel booking website to do business with.</td>
<td>4.58</td>
<td>1.58</td>
</tr>
<tr>
<td>LOY5 I believe that this is my favorite hotel booking website.</td>
<td>4.54</td>
<td>1.57</td>
</tr>
</tbody>
</table>

Individual Characteristics

As noted in Table 26, participants were evenly split between females (50.3%) and males (49.7%). Most were married (58.0%) and distributed evenly in terms of age. A total of 21.1% of the respondents held a bachelor’s degree, whereas 27.1% held a master’s degree. The largest proportion of respondents (28.3%) reported a personal annual income in the range of $25,001 to $50,000.
Table 26

Demographic Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>174</td>
<td>49.7</td>
</tr>
<tr>
<td>Male</td>
<td>176</td>
<td>50.3</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 or younger</td>
<td>18</td>
<td>5.1</td>
</tr>
<tr>
<td>26-35</td>
<td>90</td>
<td>25.7</td>
</tr>
<tr>
<td>36-45</td>
<td>70</td>
<td>20</td>
</tr>
<tr>
<td>46-55</td>
<td>71</td>
<td>20.3</td>
</tr>
<tr>
<td>56-65</td>
<td>81</td>
<td>23.1</td>
</tr>
<tr>
<td>66 or older</td>
<td>19</td>
<td>5.4</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>203</td>
<td>58</td>
</tr>
<tr>
<td>Separated</td>
<td>8</td>
<td>2.3</td>
</tr>
<tr>
<td>Divorced</td>
<td>27</td>
<td>7.7</td>
</tr>
<tr>
<td>Widowed</td>
<td>3</td>
<td>0.9</td>
</tr>
<tr>
<td>Single</td>
<td>94</td>
<td>26.9</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>13</td>
<td>3.7</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>38</td>
<td>10.9</td>
</tr>
<tr>
<td>Associate degree</td>
<td>36</td>
<td>10.3</td>
</tr>
<tr>
<td>Some college</td>
<td>47</td>
<td>13.4</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>74</td>
<td>21.1</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>95</td>
<td>27.1</td>
</tr>
<tr>
<td>Doctorate Degree</td>
<td>56</td>
<td>16</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>0.9</td>
</tr>
<tr>
<td>Personal Annual Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$25,000 or less</td>
<td>74</td>
<td>21.1</td>
</tr>
<tr>
<td>$25,001 - $50,000</td>
<td>99</td>
<td>28.3</td>
</tr>
<tr>
<td>$50,001-$75,000</td>
<td>51</td>
<td>14.6</td>
</tr>
<tr>
<td>$75,001-$100,000</td>
<td>27</td>
<td>7.7</td>
</tr>
<tr>
<td>$100,001 - $150,000</td>
<td>31</td>
<td>8.9</td>
</tr>
<tr>
<td>$150,001- $200,000</td>
<td>13</td>
<td>3.7</td>
</tr>
<tr>
<td>$200,001-$250,000</td>
<td>3</td>
<td>0.9</td>
</tr>
<tr>
<td>$250,001 or more</td>
<td>9</td>
<td>2.6</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>33</td>
<td>9.4</td>
</tr>
</tbody>
</table>
Table 27 reports respondent characteristics in the area of innovativeness. On the 7-point Likert scale, responses were slightly skewed towards more innovative, as the mean scores for items related to innovativeness ranged from 4.31 to 4.42.

Table 27

*Innovativeness Characteristics of the Respondents*

<table>
<thead>
<tr>
<th>Statement</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>INNO_1 I am usually one of the first people I know to use new technologies.</td>
<td>4.39</td>
<td>1.68</td>
</tr>
<tr>
<td>INNO_2 I like new technologies and use them before most people I know.</td>
<td>4.42</td>
<td>1.65</td>
</tr>
<tr>
<td>INNO_3 I love new technologies and am among the first to experiment with and use them.</td>
<td>4.31</td>
<td>1.69</td>
</tr>
</tbody>
</table>

Table 28 reports trip-related information of the respondents. Out of the 350 online hotel shoppers surveyed, the majority of the respondents (56.9%) stayed 1 to 5 nights for business activities. Similarly, for leisure trips, almost half of the respondents (48.9%) stayed 1 to 5 nights per year in a hotel for leisure purposes. Almost half of the respondents (48.0%) reported membership in a hotel frequent guest program. The most common type of hotel during respondents’ reported last stay was at the midscale level (i.e. Courtyard, Holiday Inn Express, Comfort Inn, La Quinta, Days Inn); these kinds of stays accounted for 43.4% of the respondents. Luxury hotels (i.e. Four Seasons, Ritz-Carlton) comprised the least common type of hotel at which respondents stayed last, capturing only 7.1% of the respondents.
### Table 28

**Trip Related Information**

<table>
<thead>
<tr>
<th>Item</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Hotel Nights Per Year, Business</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>199</td>
<td>56.9</td>
</tr>
<tr>
<td>6-10</td>
<td>57</td>
<td>16.3</td>
</tr>
<tr>
<td>11-15</td>
<td>28</td>
<td>8</td>
</tr>
<tr>
<td>16-20</td>
<td>10</td>
<td>2.9</td>
</tr>
<tr>
<td>20-25</td>
<td>5</td>
<td>1.4</td>
</tr>
<tr>
<td>26-30</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td>31-35</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>41-45</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>46-50</td>
<td>4</td>
<td>1.1</td>
</tr>
<tr>
<td>56-60</td>
<td>4</td>
<td>1.1</td>
</tr>
<tr>
<td>60+</td>
<td>4</td>
<td>1.1</td>
</tr>
<tr>
<td><strong>Average Hotel Nights Per Year, Leisure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>171</td>
<td>48.9</td>
</tr>
<tr>
<td>6-10</td>
<td>91</td>
<td>26</td>
</tr>
<tr>
<td>11-15</td>
<td>45</td>
<td>12.9</td>
</tr>
<tr>
<td>16-20</td>
<td>16</td>
<td>4.6</td>
</tr>
<tr>
<td>20-25</td>
<td>9</td>
<td>2.6</td>
</tr>
<tr>
<td>26-30</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td>36-40</td>
<td>3</td>
<td>0.9</td>
</tr>
<tr>
<td>41-45</td>
<td>3</td>
<td>0.9</td>
</tr>
<tr>
<td>56-60</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Hotel Frequent Program Member?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>168</td>
<td>48</td>
</tr>
<tr>
<td>No</td>
<td>170</td>
<td>48.6</td>
</tr>
<tr>
<td><strong>Type of Hotel During Last Stay</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luxury (i.e. Four Seasons, Ritz Carlton)</td>
<td>25</td>
<td>7.1</td>
</tr>
<tr>
<td>Upscale (i.e. Hyatt, Marriott)</td>
<td>107</td>
<td>30.6</td>
</tr>
<tr>
<td>Midscale (i.e. Courtyard, Holiday Inn</td>
<td>152</td>
<td>43.4</td>
</tr>
<tr>
<td>Express, Comfort Inn, La Quinta, Days Inn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economy (i.e. Ramada, Super 8, Motel 6, Econo Lodge)</td>
<td>46</td>
<td>13.1</td>
</tr>
<tr>
<td>Other</td>
<td>19</td>
<td>5.4</td>
</tr>
</tbody>
</table>
Factor Analysis

Constructs deployed in this study were derived from the literature from other disciplines such as information systems and consumer behavior. Since these dimensions have not been previously used in an online hotel booking setting, it was decided to use EFA to uncover the underlying items of guests’ hotel booking experiences. EFA helps to analyze the structure of the interrelationship among the items by defining sets of variables, or factors, that are highly interrelated (Hair et al., 2010). EFA provided insight into the structure of the measurement items and the proposed model by establishing the factors and indicators to be used. CFA was then used to perform an exact test on the measurement theory by identifying the association between indicators and constructs (Hair et al., 2010). In other words, CFA allows the researcher to specify the items associated for each construct and the correlations between these constructs.

Three main steps are necessary for conducting EFA. The first step involves an assessment of the suitability of the data for factor analysis. The second step is factor extraction and the final step encompasses factor rotation and interpretation. Two issues were considered when determining suitability of the data: sample size and the strength of the relationship among the variables (Pallant, 2005). In determining the sample size, two issues were taken into account. First, since this study combines exploratory and confirmatory factor analysis, it is recommended that factor analysis be conducted using separate data sets (Hair et al., 2010). It is also recommended that a sample size of 150 be utilized for EFA, given that there are several high-loading marker variables with
coefficients above .80 (Tabachnick & Fidell, 2001). Therefore, an EFA sample ($n = 150$) was randomly drawn from the data set; results of the exercise are located in Table 29.

Secondly, in order to address the concerns of the inter-correlations among items, two statistical measures were generated to help assess the factorability. These measures were Kaiser-Myer-Olkin (KMO) and Bartlett’s Test of Sphericity (Pallant, 2005). To determine if the data was suitable for EFA, the correlation matrices were examined. Thereafter, the KMO measure of sampling and Bartlett’s Test of Sphericity were calculated. The KMO measure of sampling adequacy was .91, above the recommended value of .60, and Bartlett’s Test of Sphericity was significant, $\chi^2(666) = 6,709.64, p < .01$. The diagonals of the anti-image correlation matrix were all over .50, supporting the inclusion of each item in the factor analyses. An approximately normal distribution was evident for the composite score data in the current study; thus, the data were well-suited for parametric statistical analyses. The six factors explained 83.0% of the variance (see Appendix E for a table outlining the total variance explained by the factor analysis).
Table 29

*Rotated Component Matrix for Main Study*

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTIL1_3</td>
<td>.89</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>UTIL1_4</td>
<td>.87</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>UTIL1_5</td>
<td>.83</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>UTIL1_6</td>
<td>.81</td>
<td></td>
<td></td>
<td></td>
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<td>UTIL1_8</td>
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<tr>
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<td>.76</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
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<td>UTIL1_2</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td>.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>HEDO1_7</td>
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<td>.80</td>
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</tr>
<tr>
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<td>.79</td>
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</tr>
<tr>
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<tr>
<td>HEDO1_2</td>
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<td></td>
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<tr>
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<td>.62</td>
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<td>FLO1_1</td>
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<tr>
<td>FLO1_2</td>
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<td></td>
<td>.84</td>
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<td></td>
</tr>
<tr>
<td>FLO1_3</td>
<td></td>
<td></td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLO1_5</td>
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<td></td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>FLO1_4</td>
<td></td>
<td></td>
<td>.82</td>
<td></td>
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<td></td>
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<tr>
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<td>.53</td>
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<tr>
<td>TRU2</td>
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<td></td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td>TRU3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.80</td>
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</tr>
<tr>
<td>TRU4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.79</td>
<td></td>
</tr>
<tr>
<td>TRU5</td>
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<td></td>
<td></td>
<td></td>
<td>.71</td>
<td></td>
</tr>
<tr>
<td>TRU1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.59</td>
<td></td>
</tr>
<tr>
<td>LOY2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.86</td>
</tr>
<tr>
<td>LOY1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.82</td>
</tr>
<tr>
<td>LOY4</td>
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<td></td>
<td></td>
<td></td>
<td>.79</td>
</tr>
<tr>
<td>LOY5</td>
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<td></td>
<td></td>
<td></td>
<td>.76</td>
</tr>
<tr>
<td>LOY3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.60</td>
</tr>
</tbody>
</table>
Furthermore, the interpretation of the six factors (hedonic features, utilitarian features, flow, brand equity, trust, and loyalty) did not differ from the initial framework. Factor 1, utilitarian features, was represented by eight items: reliability, effectiveness, correctness, functional, practical, ordered, necessary, and wise, plus an additional item from the trust construct. Factor 2, hedonic features, consisted of nine items: entertaining, exciting, thrilling, delightful, fun, soothing, nice, agreeable, and pleasant. Factor 3, flow, maintained six items that emerged in the pilot study. Factor 4, trust, consisted of five items. Factor 5, loyalty, also consisted of five items. Finally, Factor 6, the brand equity construct, consisted of the four original items measuring this construct.

Confirmatory Factor Analysis (CFA)

CFA was used to assess the items of each construct more rigorously using the correlation matrix of the items. In particular, CFA is used to identify unidimensionality of each construct or find evidence that a single trait or construct underlies a set of unique measures (Anderson & Gerbing, 1988). As mentioned previously, EFA explores the data and offers information about how many factors (or constructs) are needed to best represent the data. These emerging factors are derived after statistical analysis, not from
theory. CFA, on the other hand, allows the researcher to specify the number of existing factors as well as a mapping of variables to factors before results are computed (Hair et al., 2010). CFA provides a more rigorous interpretation of dimensionality than does EFA. Therefore, CFA will be used as a confirmatory test of the measurement theory and will specify the series of relationships that suggest how the measured variables represent the latent factor that is not directly measured (Hair et al., 2010). Accordingly, CFA will be used as confirmatory test of the results of the aforementioned EFA to and validate the proposed flow experience framework.

Measurement Model Fit Statistics

The measurement model was estimated using CFA. The model was then purified by eliminating poorly fitting measured variables according to an initial model. CFA was run on the randomly selected data \( n = 350 \) using AMOS version 20. Since the multivariate normality assumption was not violated, the maximum likelihood method (MLE) of estimation was deployed. The MLE technique was selected because the data met the model assumptions, which include multivariate normality, no missing data, no outliers, and continuous variables (Hair et al., 2010). Based on the recommendation of Hair et al. (2010) and Schumacker and Lomax (2004), the appropriateness of model fit was assessed using \( \chi^2 \), RMSEA, NFI, CFI, and SRMR. Generally, having a \( \chi^2 \)-to-df ratio of less than 3; RMSEA less than .08; NFI greater than .95; CFI greater than .95 and SRMR less than .08 indicate a good model fit.
Utilizing the EFA results, items were assessed using CFA and were found to have a good model fit with the greatest variance explained after modifying the base model. As suggested by the modification indices, some of the error terms (UTIL_3 – UTIL_4 and FLO_4 – FLO_5) in the same latent construct were correlated. The measurement model fit statistics included a $\chi^2$-to-df ratio of 2.56, RMSEA of .07, NFI of .93, CFI of .95, and SRMR of .08. These scores indicate a reasonable level of model fit (Schumacker & Lomax, 2004). Graphical representations of the base model and purified model are located in Figures 7 and 8, respectively, while a comparison of fit between the base and “purified” CFA models is located in Table 30.
Figure 7. Base CFA model.
Figure 8. Purified CFA model.
Table 30

CFA Model Comparison

<table>
<thead>
<tr>
<th>Fit Statistic</th>
<th>Base Model Value</th>
<th>Purified Model Value</th>
<th>Desired Good Fit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$/df test</td>
<td>3.73</td>
<td>2.56</td>
<td>&lt; 3.00</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.08</td>
<td>0.06</td>
<td>&lt; .08</td>
</tr>
<tr>
<td>NFI</td>
<td>0.87</td>
<td>0.93</td>
<td>&gt; .90</td>
</tr>
<tr>
<td>CFI</td>
<td>0.90</td>
<td>0.95</td>
<td>&gt; .90</td>
</tr>
<tr>
<td>SRMR</td>
<td>0.08</td>
<td>0.07</td>
<td>&lt; .08</td>
</tr>
<tr>
<td>RFI</td>
<td>0.85</td>
<td>0.92</td>
<td>&gt; .90</td>
</tr>
<tr>
<td>IFI</td>
<td>0.90</td>
<td>0.95</td>
<td>&gt; .90</td>
</tr>
</tbody>
</table>

Convergent validity, the extent to which items of a specific construct should converge or share a high proportion of common variance (Hair et al., 2010), was assessed using three methods. These include factor loadings, average variance extracted (AVE), and construct reliability (CR). High factor loadings indicate that the items are converging on a common point, the latent construct. Two rules of thumb generally apply to factor loadings: indication of statistical significance and having standardized loading estimates of .50 or higher (Hair et al., 2010). The AVE is the average percentage of variation extracted (or explained) among the items of a latent construct (Hair et al., 2010). An AVE of .50 or higher suggests adequate coverage.

Another indicator of convergent validity is construct reliability (CR). CR is a measure of reliability and internal consistency of the measured variables representing a latent construct (Hair et al., 2010). Reliability scores greater than .70 suggest good reliability (Hair et al., 2010). Based on the previously presented guidelines the overall convergent reliability scores, located in Table 31, are acceptable, meaning that the measures consistently represent the same latent construct.
Table 31

*Validity Scores*

<table>
<thead>
<tr>
<th>Construct</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE</td>
<td>.91</td>
<td>.78</td>
</tr>
<tr>
<td>UTIL</td>
<td>.94</td>
<td>.79</td>
</tr>
<tr>
<td>HEDO</td>
<td>.91</td>
<td>.72</td>
</tr>
<tr>
<td>FLO</td>
<td>.88</td>
<td>.71</td>
</tr>
<tr>
<td>LOY</td>
<td>.94</td>
<td>.85</td>
</tr>
<tr>
<td>TRU</td>
<td>.95</td>
<td>.82</td>
</tr>
</tbody>
</table>

*Note.* CR = Composite Reliability, AVE = Average Variance Extracted.

Structural Equation Model

SEM involves developing measurement models to define latent variables, then establishing relationships or structural equations among the latent variables. The structural model was based on the measurement model obtained in the CFA results. Six latent constructs (hedonic features, utilitarian features, flow, brand equity, trust, and loyalty) and 21 observed variables were used to test the model. In SEM, the significance of the path coefficient in the model provides support for hypothesized relationships among the constructs. Similar to CFA, since the normality assumption was met, the maximum likelihood estimate method using AMOS 20 was used to test the theoretical model.

The goodness-of-fit measures were used to assess the overall structural model fit. The overall fit indices for the proposed (base) model was acceptable, with a $\chi^2$-to-df ratio equal to 2.70, RMSEA of .07, NFI of .93, CFI of .95, IFI of 0.95, and RFI of 0.91. All the fit indices for the base model indicated an acceptable structural model fit. Specification
search, the process of finding the best-fitting model, was not needed for the main study as the data initially fit the model (Marcoulides & Drezner, 2003).

Testing of Hypotheses

Hypothesis testing involves (a) confirming that a theoretical specified model fits sample variance-covariance data, and (b) testing structural coefficients for significance (Schumacker & Lomax, 2004). Accordingly, the path relationships between the latent variables were examined. Nine hypothesized paths were tested for significance in the current research. These nine hypothesized paths can be found in Table 21.

Nine paths among the six latent variables were tested; item loadings for these variables are found in Table 32. The significance of the path depends on a $t$-value that is equivalent to the parameter estimate divided by the standard error of the parameter estimate. Additionally, the sign (+/-) indicates the nature of the relationship between variables.

Results of the study, as shown in Figure 9, indicate that eight of the paths were significant in the structural model. Seven of the paths were significant at $p < .001$, one path was significant at $p < .01$, and one path was not significant.
Figure 9. Final model

*p < .01, **= p < .001, ns = not significant
Table 32

*Item Loadings for the Model*

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTIL1_5 ← UTIL</td>
<td>.94</td>
</tr>
<tr>
<td>UTIL1_4 ← UTIL</td>
<td>.86</td>
</tr>
<tr>
<td>UTIL1_3 ← UTIL</td>
<td>.88</td>
</tr>
<tr>
<td>UTIL1_8 ← UTIL</td>
<td>.86</td>
</tr>
<tr>
<td>HEDO1_9 ← HEDO</td>
<td>.76</td>
</tr>
<tr>
<td>HEDO1_8 ← HEDO</td>
<td>.91</td>
</tr>
<tr>
<td>HEDO1_7 ← HEDO</td>
<td>.89</td>
</tr>
<tr>
<td>HEDO1_2 ← HEDO</td>
<td>.76</td>
</tr>
<tr>
<td>FLO1_6 ← FLO</td>
<td>.92</td>
</tr>
<tr>
<td>FLO1_5 ← FLO</td>
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<tr>
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</tr>
<tr>
<td>BE2 ← BE</td>
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</tr>
<tr>
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<tr>
<td>TRU5 ← TRU</td>
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<td>TRU4 ← TRU</td>
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<tr>
<td>TRU3 ← TRU</td>
<td>.95</td>
</tr>
<tr>
<td>TRU2 ← TRU</td>
<td>.89</td>
</tr>
</tbody>
</table>

Table 33 depicts the results of the hypothesis tests. Hypothesis 1, predicting a positive relationship between hedonic features of the website and flow, was supported. The results revealed a path coefficient between the two constructs of .64, which was positively significant at $p < .001$. 
Table 33

*Path Estimates*

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Estimate</th>
<th>SE</th>
<th>CR</th>
<th>p</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: HED → (+) FLO</td>
<td>.64</td>
<td>.07</td>
<td>8.65</td>
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</tr>
<tr>
<td>H2: UTIL → (+) FLO</td>
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<td>.07</td>
<td>3.13</td>
<td>**</td>
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</tr>
<tr>
<td>H3: HED → (+) BE</td>
<td>.27</td>
<td>.06</td>
<td>4.39</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H4: UTIL → (+) TRUST</td>
<td>.55</td>
<td>.05</td>
<td>10.33</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H5: FLOW → (+) BE</td>
<td>.38</td>
<td>.04</td>
<td>9.59</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H6: FLOW → (+) TRU</td>
<td>.42</td>
<td>.05</td>
<td>7.96</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H7: FLO → (+) LOY</td>
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<td>.06</td>
<td>1.47</td>
<td>0.14</td>
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</tr>
<tr>
<td>H8: BE → (+) LOY</td>
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<td>.07</td>
<td>7.87</td>
<td>***</td>
<td>Yes</td>
</tr>
<tr>
<td>H9: TRU → (+) LOY</td>
<td>.24</td>
<td>.06</td>
<td>3.73</td>
<td>***</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Note. CR = Composite Reliability.*  
*p < .05. **p < .01. ***p < .001.*

Hypothesis 2, which predicted a positive relationship between utilitarian features of the website and flow, was also supported. The path coefficient between the two constructs was .23, significant at $p < .01$.

Hypothesis 3, which showed an expectation of a positive relationship between hedonic features of the website and brand equity, was supported. The path coefficient between the two constructs was 0.270, significant at $p < .001$. Furthermore, Hypothesis 4 predicted a positive relationship between utilitarian features of the website and trust. This hypothesis was supported, as the path coefficient between the two constructs was .55 and yielded significance at $p < .001$.

Hypothesis 5, which predicted a positive relationship between flow and brand equity, was supported. The path coefficient between the two constructs was .38 and was significant at $p < .001$. Additionally, Hypothesis 6, which predicted a positive
relationship between flow and trust, was supported with a path coefficient of .42 and significance at $p < .001$. However, Hypothesis 7, which predicted a positive relationship between flow and loyalty, was not supported.

Hypothesis 8, which predicted a positive relationship between brand equity and loyalty, was supported. The path coefficient between the two constructs was .57, which was significant at $p < .001$. Finally, Hypothesis 9, which predicted a positive relationship between trust and loyalty, was supported. The path coefficient between the two constructs was .24, significant at $p < .001$.

**Summary**

In this chapter, results of the study were presented. This chapter included a discussion of the pilot study, procedures for data collection, sample characteristics, the measurement model evaluation, and structural equation evaluation in terms of model fit. The results have indicated support for the following hypotheses: H1, H2, H3, H4, H5, H6, H8 and H9. However, H7 was not supported. The next chapter will discuss study results and offers emergent conclusions.
CHAPTER 5
DISCUSSION AND CONCLUSIONS

The primary aim of this dissertation was to investigate the concept of flow experience and its role in influencing brand equity, trust, and loyalty to a hotel booking website. A theoretical model and questionnaire was developed based on the results of an extensive literature review. Based on this research, hypotheses were developed and investigated in order to determine the antecedents and consequences of the flow experience. This chapter summarizes the methods utilized, discusses the study results, draws conclusions, provides suggestions for future research, and states limitations.

The research objectives of this dissertation were outlined in an effort to gain a clearer understanding of the flow experience and e-loyalty in the online hotel room booking context. Different theories regarding flow from information systems, consumer science, and marketing literature were integrated into the proposed model. The study intended to investigate the specific items that define the flow experience within hotel booking websites. Another objective was to explore the impact of hedonic and utilitarian features of hotel booking websites on flow experience with the intention of providing both theoretical and managerial advancements into the e-commerce literature. Finally, it identified the possible relationships among flow, brand equity, trust, and e-loyalty.

Summary of Methods and Results

A standardized questionnaire was developed and distributed to the sampling frame through a filed intercept methodology to capture data regarding respondents’ hotel
booking experiences. The questionnaire was designed and pre-tested for use to capture information about the hedonic and utilitarian features of the booking website, flow experience, trust, brand equity, e-loyalty, and individual demographic characteristics. A marketing company was contacted to distribute the link for the online questionnaire. In the first step, the questionnaire was sent to a sample of 20,000 randomly selected individuals in the U.S. who were interested in purchasing travel products. After a month, 1,298 responses were collected, yielding a response rate of 6.5%. The first question of the instrument served as a screener to ensure that only those respondents who had booked a hotel room in the past year from a hotel-owned website would complete the rest of the questionnaire. Only 40% of the subjects had booked a hotel room online in the last year; therefore, 520 respondents remained in the sample to be analyzed. After inputting the data into SPSS, it was determined that nine questionnaires were missing responses to a substantial number of questions and were therefore removed. This brought the total number of usable questionnaires to 511. Of these responses, 350 of the subjects were randomly selected for use in the SEM data analysis, since 150 of the responses were needed to conduct an exploratory factor analysis.

**Discussion of Results**

The overall model fit was assessed using multiple fit indices as suggested by Hair et al. (2010) and Schumacker and Lomax (2004). The study reported the following fit indices for the model: $\chi^2$-to-df ratio = 2.56, Root Mean Square Error of Approximation (RMSEA) = .07, Normed Fit Index (NFI) = .93, Comparative Fit Index (CFI) = .95, and
Standardized Root Mean Square Residual (SRMR) = .08. A complete discussion of the results for the nine hypotheses is provided in the following section.

Relationship Between Hedonic Website Features and the Flow Experience

The hedonic aspect of web performance is the evaluation of a website based on the assessment by users regarding the amount of fun, playfulness, and pleasure they experience or anticipate from the website. Hedonic features of the website reflects a website’s entertainment value derived from its sensory attributes, from which users obtain consummatory affective gratification (Batra & Ahtola, 1990, Crowley et al., 1992). A website performs well in the hedonic aspect when users perceive the site to be enjoyable in its own right, apart from any performance consequences that may be anticipated (Cobanoglu & Dede, 2005; Cobanoglu & Hamilton, 2002, 2003; Davis et al., 1992; Igbaria et al., 1994; Venkatesh, 2000). These hedonic features of the website create a flow experience. The findings of this study suggest that hotel booking websites could create positive shopping experiences if they focus on hedonic features of the website such as virtual tours and innovative website designs. Hedonic features are found to be the features that present a fun, exciting, entertaining, exciting, delightful, nice, pleasant, and soothing shopping experience.

Online booking websites are advised to pay special attention to develop their websites to enhance customers’ overall online experience with the brand. Whether products and services are provided in the traditional or virtual environment, customers’ interactions with environmental settings influence their emotional responses as well as
purchase behaviors (i.e., Donovan & Rossiter, 1982; Williams & Dargel, 2004). For example, a website’s design and graphic presentations are comparable to the overall ambience of the physical environment that affects customers’ perceptions. Previous research confirmed the significant effect of aesthetics on people’s pleasure when they interact with electronic devices (Jordan, 1998). For instance, according to Fogg et al. (2002), nearly one-half of online customers focus on the overall appearance of a website rather than on its contents when they first view a website. Schenkman and Jönsson (2000) also identified aesthetics of a website as an essential determinant of customers’ overall impressions as well as their website preferences. A well-designed website, such as one with a creative and a distinctive layout, can attract more customers and encourage them to return to the website. However, a poorly-designed website can prevent customers from returning to the same website (Park, Gretzel, & Sirakaya-Turk, 2007). Therefore, a lodging company’s website should provide a pleasant and visually attractive online environment that provides customers with the impression that the website is effective and reliable; in return, those hedonic characteristics are found to influence the flow experience positively.

Color combinations and background images of a website have significant effects on customers’ choices of websites (Mandel & Johnson, 2002). Color combinations, font type and size, animations, sound effects, and clarity of the overall layout contribute to a website’s visual attractiveness (Park et al., 2007). Jeong, Oh, and Gregoire (2003) determined potential consequences of lodging website quality. In their study, use of color combinations was found to influence behavioral intentions and have a relationship with
both information completeness and ease of use among the websites of economy hotels. Jeong and Choi (2005) also studied the effects of different picture presentations on hotels’ websites as related to online customers’ behavior intentions and found customers were more favorable to pictures of hotel facilities containing people than those without people. An additional lodging-related study by Baloglu and Pekcan (2006) assessed website design characteristics, including interactivity, navigation, and functionality to determine e-marketing practices among Turkish upscale lodging websites.

Similar to the way a hotel’s employees might provide a good impression to guests, a well-designed hotel website can provide good impressions about the property to online customers before guests actually experience or stay at the property. Rosen and Purinton (2004) investigated the influence of sensory stimuli on online stores’ profits and customers’ return intentions. In addition, Liu and Arnett (2000) determined the success of websites in the e-commerce environment. In order to determine the website’s success, Liu and Arnett examined four components: information quality, system use, playfulness, and system design quality. Playfulness, containing enjoyment, excitement, feeling, charming, and escaping were found to be significant attributes of the overall website success. Additionally, delivering a memorable customer experience was more important in the online atmosphere than in the offline environment. Part of these memorable experiences can be developed through the Internet’s unique influence in the distribution of word-of-mouth information. This information can enable a company to create a distinctive value by utilizing the website, such as providing valuable information about
products, creating interactivity with customers, and offering an enjoyable and experiential website.

Relationship Between Utilitarian Website Features and the Flow Experience

Utilitarian features are the goal-directed website design features. These features represent an assessment of a website based on the evaluation by users regarding the instrumental benefits they obtain from its non-sensory attributes. They are related to the performance perception of usefulness, value, and wisdom (Batra & Ahtola, 1991). These features call users to visit a website out of necessity instead of recreation needs; consequently, this characteristic of performance is evaluated according to whether the particular purpose is accomplished (Davis et al., 1992; Venkatesh, 2000). However, it was found that when creating flow experience, utilitarian features are also important. Therefore, it is crucial to note that it is not only the hedonic features that create flow experience, but also the critical utilitarian elements. Huang’s (2003) findings were similar to those in the current study, as he found a high positive correlation between utilitarian features of the website and the flow experience. Reliable, effective, functional, practical, ordered, necessary, wise, and correct features are needed to create a flow experience online.

It is found that greater user perception of the utilitarian features in online hotel booking corresponds with a greater opportunity to achieve flow. Consistent with previous research (e.g. Choi et al., 2007; Ghani & Deshpande, 1994; Koufaris, 2002; Novak et al., 2000; Skadberg & Kimmel, 2004; Trevino & Webster, 1992) utilitarian features stimulate
the flow experience in e-commerce; this phenomenon also applies for online hotel booking. If consumers perceive utilitarian aspects of the website, they are more likely to experience flow.

Relationship Between Hedonic Website Features and Brand Equity

Brand equity is stimulated by what consumers have experienced, learned, and felt about the brand over time. Therefore, the notion of brand equity is subjective and related to the personality, history, and preferences of individual customers. Aesthetics of the website are found to be positively correlated with brand equity (De Angeli, Hartmann, & Sutcliffe, 2009).

In online environments, brand equity literature highlights the importance of website design in forming and sustaining a positive attitude towards a brand and its products through hedonic features (De Angeli et al., 2009). The findings of this dissertation suggest similar insights in that hedonic features can facilitate positive brand equity in e-commerce in the context of online hotel booking. In other words, hedonic features of the website were found to create positive brand image. If the hotel booking websites create visually appealing and exciting websites, they will enhance their brand images. It is noteworthy to consider that advancements in web technologies have extended the contact of consumers to brands in online environments. Hedonic website features are posing opportunities for hoteliers to enhance their brand equities. An aesthetically appealing website with hedonic features will create a better perception of brand in online environments.
Relationship Between Utilitarian Website Features and Trust

It was found that utilitarian features are important keys to build trust in online environments. In order to build trust, websites are advised to focus on utilitarian features such as the inclusion of price comparison features, user-friendliness, and providing updated information. This finding is consistent with previous research as the utilities of websites foster trust in the minds of customers (Lowry et al., 2008; McKnight et al., 2002; Roy et al., 2001). Klein (1998) states that a website is labeled as offering utilitarian benefits when it can help save time and effort, reduce risk, and increase the likelihood of finding a superior alternative (Klein, 1998). Enhancements in utilitarian website features (e.g., ease of use) develop trust in the minds of customers. Hotel booking websites that enhance utilitarian features create trust. Therefore, online hotel booking websites are advised to offer utilitarian benefits to their consumers such as saving time and effort. This is particularly important since trust still is a significant barrier to e-commerce adoption.

Relationship Between the Flow Experience and Brand Equity

It was found that flow experience enhances brand equity. The positive emotions that arise from the flow experience of interacting with a hotel booking website increases consumer learning about the brand as well as strengthens association with the brand. The immersive nature of virtual environments is an opportunity for hotel brands to build and maintain brand equity. Nah et al. (2010) utilized the theories of flow, positive emotions, and brand equity to investigate the impacts of flow experience on brand equity. Their results further suggested that the flow experience influences perceptions of brand equity,
which in turn influences behavioral intention associated with the brand. In order to build strong brand equity, hotel booking websites are advised to offer flow experience to their users. Once consumers are in the flow state, their perception towards the brand will increase.

Relationship Between the Flow Experience and Trust

Previous research indicated that flow in online environments reduced the possibility of undesirable consequences, such as negative attitudes and website avoidance (Dailey, 2004). The findings of this study empirically showed that flow experience in e-shopping increases trust. Research indicates that a website’s design aesthetics or visual aesthetics are important for gaining the trust of customers (Karvonen, 2000). Design aesthetics elements embrace color, photographs, font style, and layout. Previous studies have highlighted that design aesthetics affect perceived usefulness and ease of use of a website (Tractinsky, 2004). It is important to recognize that websites serve as the communication bridges between companies and customers. The importance of flow experience comes into play when physical appearances or direct contact between the company and consumers is not available. This issue yields a reason for e-commerce companies to depend heavily on their websites to create flow and attract potential customers. Therefore, applying the flow experience could be an effective method of developing trust.

Previous studies suggested various drivers of trust in online environments: perceived site quality (McKnight et al., 2004; Wakefield, Stocks, & Wilder, 2004),
website quality (Kim, Xu, & Koh, 2004) and perceptions about the website (Koufaris & Hampton-Sosa, 2004). Further, recent studies extended TAM (Technology Acceptance Model) with additions of utilitarian and hedonic factors in the context of e-commerce. For example, Moon and Kim (2001) recommended e-commerce websites to deploy both utilitarian and hedonic dimensions. Later, Cyr, Head, and Ivanov (2006) indicated that these dimensions can be created in an aesthetically rich form for consumers to enjoy. Childers et al. (2001) highlighted that an interactive shopping experience was expected to result in perceived usefulness and ease of use of the website. Koufaris and Hampton-Sosa (2004) included variables of perceived usefulness, ease of use, and security control as precursors of initial trust. Flow experience creates trust towards the website, so consumers who experience flow tend to trust the online hotel booking company. Zhou (2012) also found a positive correlation between trust and flow. Once the consumer feels absorbed with the booking experience, he or she will tend to trust the hotel company in online environments.

Relationship Between the Flow Experience and e-Loyalty

Flow experience was not found to have a direct impact on loyalty. Literature highlighted mixed findings on the impact of flow experience on loyalty. For example, Nah et al. (2010) found that the flow experience does not directly influence behavioral intention; instead, the influence of flow on behavioral intention takes place through brand equity. On the other hand, Ilsever et al. (2007) suggested that customers who experience flow while shopping online would be likely to consider return visits to the website or
purchasing from it in the future. In the context of online hotel booking, flow experience does not impact loyalty directly. However, the flow experience impacts loyalty though its impact on loyalty and trust. Attitudes toward the hotel brand appear enhanced when consumers participate in the flow experience; however, this optimal experience does not have a direct effect on loyalty to the website.

Drawing from the marketing, consumer psychology, and information systems literature, the argument is raised here that if online shoppers experiences flow, they will develop trust of the website; also, the perceived brand equity will increase to a higher level than that of those online shoppers who do not enter a state of flow. When online shoppers achieve a state of flow during the shopping experience, the theory suggests that they are more likely to be motivated to continue the experience and engage with the website. However, the case was different in the online hotel booking context, which contrasts with previous conclusions regarding the relevance of the flow experience in explaining loyalty. It is also important to note that for the pilot study, this hypothesis was supported. This finding opens new venues for future research to investigate out whether generational differences yield different outcomes on flow.

Relationship Between Brand Equity and e-Loyalty

Current study findings confirm those of previous studies suggesting that brand equity positively impacts loyalty. The case is the same for online environments in hotel booking contexts. In the online booking context, strong brand equity enables guests to differentiate and convey the quality of the service they will receive from the hotel brand.
Research indicates that consumers consider and choose highly familiar brands over less familiar brands (Baker, Hutchinson, Moore, & Nedungadi 1986; Nedungadi, 1990). Consequently, building strong online brand equity impacts loyalty in hotel booking websites. Previous research also highlights the positive correlation between brand equity and customer loyalty (Aaker & Joachimsthaler, 2000; Clarke, 2001; Nam et al., 2011). Added value of the brand enhances loyalty in e-commerce environments.

Relationship Between Trust and e-Loyalty

Trust is formally considered to denote consumer beliefs about certain characteristics of the supplier, primarily regarding integrity, benevolence, competence, and predictability (Gefen et al., 2003). As portrayed in the literature review, there is a positive effect of trust on customer loyalty in traditional retailing environments. Similarly, Lin and Wang (2006) verified that trust has a positive effect on customer loyalty in e-commerce. In the same vein, Yee and Faziharudean (2010) confirmed that trust has a positive effect on customer loyalty. Customers who do not trust an e-commerce website would not be loyal to that website, even though they might be satisfied with the product or services delivered.

Cyr, Haasnein, Head, and Ivanov (2007) investigated e-loyalty within an e-services context and found that a higher level of trust results in higher loyalty towards e-services websites. Furthermore, Floh and Treiblmaier (2006) researched the antecedents of e-loyalty such as trust, quality of the website, quality of the service, and overall satisfaction in the online banking environment. Their findings indicate that trust is as a
major antecedent of loyalty. In light of this research, our findings confirms previous studies that investigated the effect of trust on loyalty in traditional retailing environments. The case is the same in online environments. Palvia (2009) highlights the importance of trust for building a long-term business relationship. The more a consumer trusts a service provider, the greater the likelihood that the customer will continue the relationship (de Ruyter et al., 2001). Trust has a positive effect on loyalty (Cyr et al., 2007). Thus, trusted hotel booking websites should be used more often and evoke a higher degree of loyalty.

The findings of this dissertation offer a new avenue for both researchers and practitioners by introducing hedonic theory and flow theory into the online hotel booking context. The model identifies the website characteristics that contribute to the online flow experience. By identifying previously unexplored antecedents of flow, it opens up new territories for the designers of hotel booking websites. Built on a foundation of various marketing and IS theories, the research framework not only captured the online flow in e-shopping, but also reflected the concepts of trust and brand equity as consequences of the online flow experience. The main contribution of the framework is the guidance and unique perspective it offers for supporting and enriching emergent research agendas in e-commerce, as all such agendas ultimately lead to the issue of behavioral intentions and e-loyalty to the website being developed, managed, or evaluated.

**Implications for Research**

Although this study examined the flow experience in hotel booking websites, the hypotheses may be generalizable to other e-commerce contexts to some extent. This
study contributes to extant research on flow experience in several ways. Previous studies in the fields of psychology and marketing have applied the flow construct to study how it influences customers’ assessment and behaviors (Korzaan, 2003; Novak et al., 2000). However, the ways in which e-commerce websites could foster flow was not well explored. Furthermore, previous studies have not investigated the impact of various website features on the flow experience. Therefore, this study tested a model with precursors to the flow experience in e-commerce by establishing a link between website features and the flow experience. It examined the key antecedents and consequences of the flow experience in the e-commerce context by empirically testing a theoretical model. This study has described an empirical study in which construct scales were developed and validated. Future studies could use the measurement items for constructs derived from the study.

From a theoretical perspective, results have shown the importance of two different dimensions of website features; namely, utilitarian and hedonic. They were both found to positively influence the online flow experience. Flow experience is an important construct for e-commerce since the service economy has shifted toward an experience-centric focus (Ding et al., 2010). The key antecedents and consequences of flow experience can help researchers understand when this experience occurs and what to expect from the optimal level of this experience. Thus, this study makes a contribution to the existing literature by examining the effects of various website features on flow experience. It is worth noting that in the model, hedonic website features had the largest impact on flow experience. This is a particularly important contribution, considering that
previous related research examined variables such as attractiveness, novelty, playfulness, personal innovativeness, content of the website, interactivity, telepresence, and perceived ease of use as the precursors to flow experience (Hoffman & Novak, 2009) but did not examine the website characteristics that are derived from shopping orientations. Hence, this study advances our understanding of how flow experience results from different features of a website.

As Hoffman and Novak (2009) noted, the trends in technology are growing, resulting in new digital applications and the opening of doors to a host of exciting new research opportunities for marketing and consumer behavior scholars. It is important to note that the online experience is a consumption event in and of itself, making it more interesting than traditional e-commerce websites for many consumers. Online shopping generates flow only under limited conditions (Hoffman & Novak, 2009); the model in the current study highlighted the importance of not only hedonic features but also utilitarian features. It was established in this study that flow produces trust and leads to brand equity.

The primary goal of this dissertation was to develop a theory-based model of flow experience in a B2C online travel context. The focus of this study was the hotel-owned booking website. The results of this study should open doors to additional research; for instance, future research may consider the applicability of this model to other e-commerce contexts, such as online retailing. Future research might consider why the flow experience only mediates e-loyalty, as the direct impact of the flow experience to loyalty was not significant. Furthermore, future research is recommended to examine the
generalizability of the model by replicating the same study. It is also advised that since the findings revealed that flow experience does not impact e-loyalty directly, future studies may build models with different dependent variables such as intention to purchase.

**Implications for Practice**

Research findings can advance marketers’ and developers’ understanding of the online customer experience, as the empirical results reveal the significance and magnitude of the relationships among flow experience, brand equity, and trust. Firms should design and create unique experiences to sustain competitive advantages (Barney, 1991; Newbert, 2007). The findings of this study showed that hedonic features of websites are more important to creating the flow experience in online contexts. Online booking website developers should focus on hedonic aspects of the website if they want to engage the users in the flow experience. However, it is important to note that utilitarian features are also critical in contributing to creating flow. (Davis et al., 1992; Igbaria et al., 1994; Venkatesh, 2000).

The traditional approaches to attract customers in brick-and-mortar commerce are not applicable in online hotel booking contexts. Therefore, interaction, participation, immersion, engagement, and emotional hooks become important in the online setting. Accordingly, hoteliers are advised to think of consumers as actors in a play and not mere observers. It is suggested that marketers and website developers learn from successful sources such as movie-making, game creation, and architectural design for ideas related
to seductive website design (Khaslavsky & Shedroff, 1999). Hedonic features create first impressions; therefore, pleasing the consumer with visuals is important in e-commerce contexts as it results in a desire to explore further.

These hedonic features of the website were found to create a flow experience. Therefore, it is suggested that hotel booking websites could create positive shopping experiences if they focus on hedonic features of the website such as virtual tours and innovative website designs. A lodging company’s website should create a pleasant and visually attractive online environment that provides customers with the impression that the website is effective and reliable; in return, those hedonic characteristics will influence the flow experience positively. Similar to the way in which a hotel’s employees might provide a good impression to guests, a well-designed hotel website can provide good impressions about the property to online customers before guests actually experience or stay at the property.

Consumers may visit a hotel booking with a specific purchase goal in mind, such as booking a room for specific dates, but may be attracted by an online shopping recommendation for an unplanned purchase, such as a golf package. This suggests that the online shopping experience reflected multiple shopping orientations, simultaneously combining the pursuit of utilitarian and hedonic outcomes (Brown, Pope, & Voges, 2003). For instance, Affinia Hotels are trying to create flow experience during an online booking by allowing their customers to customize the color of the booking website (see Appendix F) and attempting to encourage unplanned purchases such as fitness kits, in-room mini-golf kits, and universal chargers (Affinia, 2012). In order to create positive
online brand equity, e-marketers should consider integrating hedonic features to their websites, whereas they are being advised to implement a website with utilitarian features to develop trust. Flow experience builds both brand equity and trust to the e-retailer. The findings suggest that online hotel booking may be improved by fostering the flow experience.

As the e-commerce matures, the key aspects of the online shopping have shifted from static websites to more interactive websites. Previously, it was difficult to find websites that would facilitate the flow experience. The advent of Web 2.0, Flash, Ajax, Silverlight, and online widgets has provided tools to help websites enhance customers’ web experiences. From a managerial perspective, the results of this study show that hotel booking websites need to be concerned with customers’ flow experience if they wish to develop and increase their brand equity and trust towards the website. Based on the findings, managers are advised to invest in booking websites to enrich and enhance customer experiences via interactive and hands-on activities with the intention of enhancing the value of the brand.

In online environments, brand equity literature highlights the importance of website design in forming and sustaining a positive attitude toward a brand and its products through hedonic features (De Angeli et al., 2009). The findings of this dissertation suggest similar insights that hedonic features can facilitate positive brand equity in e-commerce in the context of online hotel booking. In other words, hedonic features of the website were found to create positive brand image. If the hotel booking websites create visually appealing websites, they will enhance brand image. It was found
that utilitarian features are critical to create trust. Websites should include price comparison features, be designed in a user-friendly fashion, and provide up-to-date information.

Research indicates that website’s design or visual aesthetics are important for gaining the trust of customers (Karvonen, 2000). Design aesthetics elements embrace color, photographs, font style, and layout. Previous studies highlighted that design aesthetics affect perceived usefulness and ease of use of a website (Tractinsky, 2004). It is important to recall that websites are the communication bridges between e-retailers and customers. The importance of flow experience comes into play when physical appearances or direct contact between the company and consumers is not available. This issue yields a reason for e-retailers to depend heavily on their websites to create flow and attract potential customers. Therefore, applying the flow experience could be an effective method of developing trust. Flow experience creates trust towards the website, as consumers who are experiencing flow tend to trust the e-retailer. The findings of the current study reflect those of Zhou (2012), who also found a positive correlation between trust and flow.

Findings of this dissertation confirm previous studies that brand equity positively impacts loyalty. The case is the same in online environments. The more a consumer trusts a service provider, the more likely that customer will continue the relationship (de Ruyter et al., 2001). Trust has a positive effect on loyalty (Cyr et al., 2007). Thus, trusted online booking websites should be used more often and also should evoke a higher degree of loyalty.
The findings suggest that users who are able to achieve a state of flow while shopping online will perceive higher brand equity and trust. Therefore, their perceptions of the brand are enhanced. With heightened levels of trust and brand equity, these consumers are more likely to stay loyal to the website. It should be noted that enhancing brand equity and trust is important to increasing loyalty because flow experience does not directly influence loyalty.

**Limitations and Future Research**

Growing trends in technology result in new digital applications and the opening of doors to a host of exciting new research opportunities for marketing and consumer behavior scholars. This dissertation has described an empirical study in which construct scales were developed and validated to assess the online flow and features of online booking websites. Future studies could adopt the measurement items for constructs derived from the study.

The findings of this study should open doors to additional research; for instance, future research may consider the applicability of this model to other e-commerce contexts such as online retailing. Future research might also consider the underpinnings of a non-significant relationship between flow experience and loyalty. Furthermore, future research is recommended to examine the generalizability of the model by replicating the same study. It is also advised that since the findings revealed that flow experience does not impact e-loyalty directly, future studies may test models with different dependent variables such as intention to purchase.
In the current research, only a limited number of flow antecedents were reported. Therefore, it is advised to test the influence of other variables on the flow experience. Moreover, some other variables might moderate flow experience. Potential variables include the personality traits of the respondents as well as respondents’ familiarity with e-shopping. Finally, additional research may consider manipulating the flow experience with experimental designs.

Though there has been research on many of the specific items under investigation, this study is one of the first to comprehensively examine the online flow experience by incorporating hedonic and utilitarian features of the website. This study will likely encounter a number of limitations which can potentially affect the findings. It is believed that the use of a limited industry category (i.e., hotels) and population sample curtails the generalizability of these findings to other industry segments.

The length of the questionnaire and the completion time might have created questionnaire fatigue and may have influenced the validity of participant’s responses. In general, feedback from participating respondents did not mention that this was a concern. It is conceivable that reliability may also be affected due to participants’ Internet experience levels, moods and attitudes, and willingness to answer the questions honestly and accurately. The sample was drawn from a marketing company. Therefore, the findings cannot be generalized beyond that target population. In addition, it was assumed that respondents completed the questionnaire objectively. Finally, the focus of this study was the hotel owned booking websites. Thus, the findings of this study cannot be generalized to other online travel contexts.
APPENDIX A
IRB APPROVAL
Approval of Exempt Human Research

From: UCF Institutional Review Board #1
FWA00000351, IRB000001138

To: Fehmi A. Bilgihan and Co-PIs: Fevzi Okumus, Khaldoon Nusair

Date: May 31, 2012

Dear Researcher:

On 05/31/2012, the IRB approved the following activity as human participant research that is exempt from regulation:

- **Type of Review:** Exempt Determination
- **Project Title:** The Role of Flow in Creating e-Loyalty: The Case of Online Hotel Booking Websites
- **Investigator:** Fehmi A. Bilgihan
- **IRB Number:** SBE-12-08408
- **Funding Agency:** N/A
- **Grant Title:** N/A
- **Research ID:** N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in IRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Signature applied by Patricia Davis on 05/31/2012 11:02:58 AM EDT

IRB Coordinator
APPENDIX B
SURVEY INSTRUMENT
Flow Experience and Online Loyalty

Please help a PhD (doctoral) student with his research,

Anil Bilgihan, a PhD student at the University of Central Florida’s Rosen College of Hospitality Management is working on his dissertation that looks at factors affecting loyalty to an online hotel booking website (e.g. hilton.com, hyatt.com, etc….)

We appreciate that you take a few minutes to complete the survey form. It should take approximately 10 minutes of your time to complete this online survey. The study results will be kept strictly confidential.

You should be at least 18 years old to participate.

The participation on this study is voluntary. We trust that you will enjoy completing it. The benefits and knowledge acquired through the present study will contribute to the tourism and hospitality industry, students, educators, customers and information technology (IT) executives and vendors.

We appreciate so much the fact that you are taking part of your precious time to fill out this survey. If you have any questions or problems, please contact Anil Bilgihan at anil@knights.ucf.edu or call 717 715 2050.

Anil Bilgihan, PhD student, University of Central Florida

Fevzi Okumus, PhD, University of Central Florida

Kal Nusair, PhD, University of Central Florida

Have you ever booked a hotel room online from a hotel’s website in the last 12 months?

 ogł Yes
 ogł No

If No Is Selected, Then Skip to End of Survey
On average how many nights a year do you spend in a hotel?

- 1-5
- 6-10
- 11-15
- 16-20
- 20-25
- 26-30
- 31-35
- 36-40
- 41-45
- 46-50
- 51-55
- 56-60
- Over 60 nights

Of that amount, how many nights have you stayed (Please input numbers)

- For business ____________________
- For pleasure ____________________

On average, how much do you pay (in US $) per night for a hotel room excluding tax? (Please input numbers)

- For business ____________________
- For pleasure ____________________
If you research a hotel before making a reservation, how often do you use the following, regardless of whether you actually book online or not:

<table>
<thead>
<tr>
<th></th>
<th>Never (1)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Always (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel Website (e.g. <a href="http://www.marriott.com">www.marriott.com</a>, <a href="http://www.hilton.com">www.hilton.com</a>)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Third Party Review Sites (i.e. Tripadvisor.com, Hotels.com, Igougo.com)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Online Travel Agency Websites (i.e. Expedia, Travelocity, Priceline)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Social Networking Sites (i.e. Facebook, MySpace, LinkedIn)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Do you belong to any hotel frequent guest programs?
- ☐ Yes
- ☐ No

Please indicate your level of technology adoption
- ☐ 1 I am usually one of the last people who one who try new technology
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7 I am usually one of the first one tries new technologies
What is your preferred channel to make your hotel reservation? (only check one)

- Book on-line over the hotel website (i.e. Hilton.com)
- Book on-line through an Internet travel agency (i.e. Expedia.com)
- Use a travel agent
- Call a toll free (800 ) reservation number of the hotel
- Call the hotel directly
- Use my organization's travel agent
- Other ____________________

What was the type of last hotel you stayed?

- Luxury (i.e. Four Seasons, Ritz Carlton)
- Upscale (i.e. Hyatt, Marriott)
- Midscale (i.e. Courtyard, Holiday Inn Express, Comfort Inn, La Quinta, Day's Inn)
- Economy (i.e. Ramada, Super 8, Motel 6, Econo Lodge)
- Other ____________________
Flow Experience

Flow experience: Instructions: The word “flow” is used to describe a state of mind sometimes experienced by people who are totally involved in some activity. One example of flow is the case where a user is shopping online and achieves a state of mind where nothing else matter but the shopping; you engage in online shopping with total involvement, concentration and enjoyment. You are completely and deeply immersed in it. Many people report this state of mind when web pages browsing, on-line chatting and word processing.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I experienced flow last time I booked my hotel room online.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>In general, I experience “flow” when I book my hotel room online.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Most of the time I shop online, I feel that I am in flow.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Please think of your last online hotel booking process when you answer the following questions. Please indicate your level of agreement with the following statements.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>When using the Hotel website to book a room, I felt in control.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I felt that I had no control over my interaction with the site.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The site allowed me to online computer interaction.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>When using the Hotel booking website, I thought about other things.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>When using the Hotel booking website, I was aware of distractions.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>When using the Hotel booking website, I was totally absorbed in what I was doing.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Using the Hotel booking website excited my curiosity.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Using the Hotel booking website aroused my imagination.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The Hotel booking website was fun to use.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Please think of your last online hotel booking process when you answer the following questions. Please indicate your level of agreement with the following statements.

<table>
<thead>
<tr>
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<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>This online shopping experience was truly a joy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I continued to shop (e.g. purchasing a golf package), not because I had to, but I wanted to.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This shopping experience truly felt like an escape (e.g. checking out the pictures).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compared to other things I could have done, the time spent online shopping was enjoyable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I enjoyed being immersed in exciting new products (e.g. packages, new hotel restaurants).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I enjoyed being immersed in exciting features (e.g. checking out pictures, taking a virtual tour of the room).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I enjoyed shopping experience for its own sake, not just for the services I may have purchased.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I had a good time because I was able to act on the “spur-of-the-moment”.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
During the online room booking, I felt the excitement of the hunt.

While shopping online, I was able to forget my problems.

This shopping experience was a very nice time out.
Please think of your last online hotel booking process when you answer the following questions. Please indicate your level of agreement with the following statements.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I accomplished just what I wanted to on this online hotel booking.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I bought what I really needed.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>While shopping, I found just the item(s) I was looking for.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I was disappointed because I had to go to another hotel booking website(s) to complete my shopping.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I will use this website to book hotel rooms on a regular basis.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I will frequently use this hotel booking website in future.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I will strongly recommend others to use this hotel booking website.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My attention was completely focused on the content when I visited the hotel booking website.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I knew clearly what I wanted to do when I visited the hotel booking website.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
I was able to express my ideas without hesitation when I visited the hotel booking website.  
I had the feeling of having experienced a personal situation when I visited the hotel booking website.  
I enjoyed my experience when I visited the hotel booking website.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
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<tr>
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<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>
Please think about the hotel brand (e.g. Hilton, Hyatt, Ritz Carlton) you booked your room and indicate your level of agreement with the following statements. (Hotel brand is identified with the letter "X")

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It makes sense to book hotel rooms from X website instead of any other brand, even if they are the same.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Even if another hotel website has same features as X, I would prefer to book through X's website.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>If there is another brand as good as X, I prefer to book through X's website.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>If another brand is not different from X in any way, it seems smarter to purchase X.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Please indicate your level of agreement with the following statements thinking about your last online hotel room booking.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
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<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I seldom consider switching to another hotel booking website</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>As long as the present service continues, I doubt that I would switch websites</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I try to use this website whenever I need to book a hotel room</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I like using this website</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>To me this site is the best hotel booking website to do business with</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I believe that this is my favorite hotel booking website</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Please indicate your level of agreement with the following statements thinking about your last online hotel room booking.

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<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is really fun to shop at this website</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The website almost says, “come in and shop”</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Booking a hotel room at this website is exciting me</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The website doesn't waste my time</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I can go to exactly what I want quickly in this website</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The organization and layout of the website facilities searching for products</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The website gives me enough information so that I can identify the item to the same degree as if I am in the travel agent</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The website is ready and willing to respond to customer needs</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The website has reasonable room rates</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Customer service personnel are always willing to help you</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Inquiries are answered promptly when you have a problem; the website shows sincere interest in solving it</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The site is a wonderful way to book rooms online</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>I purchase services online</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>I will continue booking rooms online in the future</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The screen design (i.e., colors, boxes, menus, etc.) is attractive</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The site looks professionally designed</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The graphics are meaningful</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>The overall look and feel of the site is visually appealing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
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Demographics  Please select only ONE answer or fill in the blank. Are you:

- [ ] Male
- [ ] Female
What is your age?

- 25 or younger
- 26-35
- 36-45
- 46-55
- 56-65
- 66 or older

Please indicate your marital status:

- Married
- Separated
- Divorced
- Widowed
- Single
- Prefer not to answer

What is your level of education?

- High School
- Associate degree (2 year)
- Some college
- Bachelor’s Degree (4 year)
- Master’s Degree
- Doctorate Degree
- Other: ____________________
What is your approximate personal annual income?

- $25,000 or less
- $25,001 - $50,000
- $50,001-$75,000
- $75,001-$100,000
- $100,001 - $150,000
- $150,001- $200,000
- $200,001-$250,000
- $250,001 or more
- Prefer not to answer
In what state do you currently reside?

- Alabama
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- South Dakota
Please indicate your occupation.

- Management, professional, and related occupations
- Service occupations
- Sales and office occupations
- Farming, fishing, and forestry
- Construction, extraction, and maintenance occupations
- Production, transportation, and material moving occupations
- Government occupations
- Technology Occupations
- Student
- Retired
- Unemployed
- Other

Any comments/questions:
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ITEM CORRELATION MATRIX FOR MEASUREMENT DEVELOPMENT
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Extraction Method: Principal Component Analysis.
APPENDIX E
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Extraction Method: Principal Component Analysis.
APPENDIX F
SCREENSHOT OF A HOTEL WEBSITE THAT AIMS TO CREATE FLOW
REFERENCES


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