

USING THE S-O-R MODEL TO UNDERSTAND THE IMPACT OF WEBSITE ATTRIBUTES  
ON THE ONLINE SHOPPING EXPERIENCE

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Using Mehrabian and Russell's (1974) stimulus (S) - organism (O) - response (R) model, this study developed online shopping experience framework that explains consumer behavioral responses toward online and offline stores. The results of the examined hypothesized relationships in this study reveal website attributes that create positive affective and attitudinal states and behavioral responses toward the retailers and retailers' websites. Among website attributes, interface design is the strongest predictor of all behavioral responses, while website attributes relating to shopping services and security/privacy affect long term behavioral responses, such as purchase intention and brand loyalty. This study is imperative to practitioners and researchers, as they will help further develop online store environments and online shopping experience.

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## CHAPTER 1

### INTRODUCTION

Consumers become active in seeking product information across all available channels before making purchases and the Internet is reported as the main source for gathering such information (Afef, Jamel-eddine, & Claude, 2010). A company's website is becoming the most direct and interactive contact medium between retailers and consumers. Retailers' online presences not only enable consumers to gain product/services information, but further provide a venue for creating positive shopping experience that drives traffic to online and offline stores. As Park and Stoel (2005) noted, the more information a website provides, the more likely a consumer develops confidence, familiarity, and satisfaction with a retailer. It suggests that a retailer's website is not just a point of purchase; it is a touch point in connecting consumers and building consumer engagement with the retailer.

In order to offer more versatile online store attributes that enhance online shopping experience, many modern retailers, such as Anthropology and H&M, have gone beyond the traditional point of purchase website. Retailers have created additional components to their websites that keep consumers on the website and engaged with the brand for longer periods of time. These components range from fashion blogs and industry news, to featured outfits of the day, that consumers can comment on and share with friends through email or social media. These retailers use their websites as an interactive marketing vehicle to gain new customers as well as provide favorable



online shopping experience that generates positive responses toward the retailers (Ertell, 2010).

Ha and Stoel's (2006) study reported that consumer ability to engage in a website through his or her understanding and control of the experience, led to overall higher levels of satisfaction. Connecting the consumer's need for dominance through the use of a website functions and features can be a strong predictor of behavioral response, which is the result of positive online shopping experience. Additionally, there is extensive research that supports the positive relationship between positive emotions, satisfaction, trust, and purchasing in both store and online environments (Donovan, Rossiter, Marcolyn, and Nesdale, 1994; Menon and Kahn, 2002; Wang, Minor, and Wei, 2011). Consumers demonstrate different responses to given various website attributes and stimuli. Some consumers may respond positively to visual cues, such as website design and navigation, while others respond well to detailed product presentation and company information (Eroglu, Machleit Davis, 2001; Mathwick, Malhotra, and Rigdon, E. 2001). Taking retailers' website environment stimuli into consideration, the stimulus (S) - organism (O) - response (R) model developed by Mehrabian and Russell (1974) is a key component in focusing the various dimensions that may stimulate consumers, as well as postulating the various emotional and behavioral responses of consumers. Used to study the impact of brick-and-mortar (Bitner, 1992; Donovan et al., 2002) and online (Eroglu et al., 2001; Mathwick et al., 2001) shopping environments on consumer responses, this framework is also important to explore online shopping experience. As many retailers attempts to enrich online

shopping experience, it is imperative to identify the key website attributes that create a favorable online shopping experience as a competitive advantage in generating positive behavioral responses towards a retailer's website, ultimately enhancing shopping experience.

### Significance of the Study

In the review of literature on shopping experience associated with retailers' websites, researchers have continually mentioned the need to further study the impacts and connection between online shopping experience and consumer response. A majority of extant studies (e.g. Brakus, Schmitt, and Zarantonello, 2009; Reynolds, Ruiz, and Sicilia, 2006) focus on the fact that consumers are responding to shopping experience, and further studies (Wolfenbarger and Gilly, 2003; Zarantonello and Schmitt, 2010; Chen, Hsu, and Lin, 2010) outline the online shopping experience with intent to purchase online or other form of behavioral responses (e.g., brand loyalty, repatronage intention to website, intention to visit a store). However, little research has been conducted on website attributes as it relates to online shopping experience and how it develops the consumer's internal states that affect behavioral responses toward the retailers. Given that online shopping experience is a key dimension to the consumer's overall experience of the retailer, examining the effects of online shopping experiences on consumer behavioral response will contribute to providing implications for designing online shopping experiences that drive traffic to the retailers' websites, offline stores, and brand loyalty to both academic researchers and practitioners.

## Purposes of Study

The purpose of this study is to explore website attributes that create favorable online shopping experience and investigate its effects on behavioral responses. Three specific objectives to be explored in the study are: (1) to identify the website attributes that create favorable online shopping experience; (2) to examine the effects of those website attributes on consumer internal states of online shopping experience; and (3) to investigate the consequent effects of internal states on behavioral responses toward the retailer. In examining the online shopping experience process, this study incorporated Brakus's (2009) brand experience dimensions into Mehrabian and Russell's (1974) stimulus (S) - organism (O) - response (R) framework and posited website attributes as stimuli, internal states as organism influenced by the stimuli, and behavioral responses as outcome from online shopping experience.

## Operational Definitions

- Online shopping experience: Defined, as well as limited by the various website attributes, online shopping experience is the interaction, observation, and evaluation a consumer has with a retailer's website (Eroglu et al., 2001; Chen et al., 2010; Brakus et al., 2009; Zarantonello and Schmitt, 2010).
- S-O-R: Based on the assumption that the cause of the behavioral changes depends on the quality of the stimulus that communicates with the organism, that is, a consumer's internal state in this study. The constructs of this model are utilized as the

website attributes (stimulus), consumer internal states (organism), and the behavioral outcomes (response) (Mehrabian and Russell, 1974) in this study.

- *Stimulus:* Stimuli as a dimension of online shopping experience relates to aesthetic and sensory perceptions for shopping environments, products, services, and brands (Bloch, Brunel and Arnold, 2003; Brakus et al, 2009). For this study stimulus is represented as website attributes that includes website design, security/privacy, and shopping services.
- *Organism:* Theorized as the emotional and attitudinal state after the introduction of a stimulus, the organism for this study represents the consumer's internal state of mind after viewing the website attributes, which includes pleasure, arousal, and dominance as affective state (Russell and Mehrabian, 1977). Additionally, trust and satisfaction are added to examine the attitudinal states in this study. The addition of the attitudinal state was determined to be a more complete evaluation of the internal state (Sicilia, Ruiz, and Reynolds, 2006).
- *Response:* It refers to behavioral reactions of a consumer shopping experience. Four dimensions of response are explored in this study: intent to visit the store, intent to purchase, intent to re-visit the website, and brand loyalty.
- Website attributes: the dimensions of a website that create the whole shopping experience had by consumers, classified as website design, security/privacy, and shopping services. These website attributes established based on previous literature and were determined to be variables that capture the shopping experience of the website.

- *Website design*: Representative of both aesthetic and functional aspects of the website. Website design describes the layout, navigation of the retailers' websites as well as product information and presentation of merchandises (Loiacono, Watson, and Goodhue, 2002; Yoo and Donthu, 2001; Francis and White, 2002; Chen et al., 2010).
- *Security/privacy*: The websites ability to provide a secure infrastructure for consumers (Chen et al., 2010). It is associated with providing adequate security features for transactions and other informational outputs that keeps the privacy of consumers.
- *Shopping services*: Expanding on the traditional concept of customer service (e.g., sales help, easy and accurate transactions), shopping services cover a vast array of modern technological conveniences, from personal shopping advices, to social networking feeds, fashion blogs, and instant messenger sales help. The shopping service variable is categorized into two dimensions, personalized services, and interactive services.
- P-A-D: Mehrabian and Russell (1974) first developed the Pleasure-Arousal-Dominance scale to measure emotional states. Donovan and Rossiter (1994) first used the P-A-D model to examine the relationship between emotional states provoked by store environment and the consumer behavioral intention in those environments.
  - *Pleasure*: Representing the entertainment aspect of the online shopping experience (Mehrabian and Russell, 1974).

- *Arousal*: Representing the aspects of the experience that catch the attention of the consumer and lead to a positive reaction (Mehrabian and Russell, 1974).
- *Dominance*: It refers to the control that the consumer has over their experience. For this study dominance relates to the usability of the website attributes and experience, as well as the control felt over security and privacy (Mehrabian and Russell, 1974).
- **Trust**: Trust is considered consumer's confident expectations in the security, privacy and reliability of the website (Ha and Stoel, 2009, Delgado-Ballester, Munuera-Aleman, and Yague-Guillen, 2003).
- **Satisfaction**: Satisfaction is the positive outcome of website attributes as a result of the online experience meets or exceeds consumer expectations (Caro and Garcia, 2007).
- **Intent to visit the store**: The consumer's planned decision to visit a retailer's store associated with a website previously visited by the consumer (Danaher, Wilson, and Davis, 2003). Riley (2010) found that consumers often visit a retailer's website as a source of information before deciding what stores to visit. Ha and Stoel's (2009) study referred to this as a part of a consumer's shopping orientation, where they develop an awareness of a brand and there by develop a desire to visit a brick and mortar store associated with that brand.
- **Purchase intent**: Defined as an idea or attitude about a future decision in regards to consumption (Eagly and Chaiken, 1995). Purchase intent relates to consumer

purchase intention on the retailer's website. It is a consumer behavioral response developed by consumer internal states that influenced by website stimuli.

- Intent to revisit the website: A complete cycle with the all channels of the retail structure (Constantinides, 2004; Danaher et al., 2003). The intent to revisit the website describes the consumer behavioral response of returning to the website after first visiting the website and then visiting the store.

- Brand loyalty: When consumers choose to repeat a shopping experience at the retailer's store/website, they are participating in brand loyalty. The continual relationship a consumer has with a brand, a relationship where the consumer favorably chooses one brand over another (Danaher et al., 2003).

## CHAPTER 2

### LITERATURE REVIEW

Retailers' websites are significant venues that enable retailers to interact with consumers while enriching the shopping experiences associated with the retailer. This study approaches the process of forming consumer experiences in the retailer's website within stimulus (S) - organism (O) - response (R) framework. This study proposes that when consumers are exposed to retailers' websites attributes, it develops his or her internal states toward the retailer's website attributes, and the internal states generate consumer behavioral response toward the retailers and retailers' websites. In building theoretical foundations to support the proposed framework, this chapter discusses the following components: online shopping experiences, S-O-R framework, website attributes affecting consumer experience, internal states, and consumer responses toward retailers as a result of online shopping experience.

#### Consumer Experience

The term "experience," in relation to consumers, has many current industry definitions, as well as numerous associations based on the distinctive type of "experience" being defined. Researchers have acknowledged that experience is derived from consumer interaction based on contact, knowledge, and observations (Brakus et al., 2009; Arnould et al., 2002; Brakus et al., 2008; Holbrook, 2000). Shopping experience is more likely to be a spontaneous occurrence influenced by stimuli in the shopping encounters than a deliberate interaction a consumer has. Ultimately, a



consumer forms a relationship with a retailer when he or she first becomes aware of it (Hoch, 2002). When the consumer assesses and observes the retailer's shopping encounter, either direct or indirect relationships are formulated. When evaluating shopping experience, consumers are asked to first reflect on his or her direct and indirect experiences with the retailer (Hoch and Ha, 1986; Brakus et al., 2009). If the consumers are familiar with the retailer or brand, he or she will likely have encountered both direct and indirect experiences with that retailer/ brand with previously formulated judgments, attitudes, preferences, and purchase intentions (Hoch and Deighton, 1989; Hoch and Ha, 1986; Huffman and Houston, 1993).

In the previous literature of consumer experiences, many researchers focused on the sensory and emotional aspects of experience. Brakus et al. (2009)'s brand experience study manifested that experience consisted of four dimensions: sensory, affective, intellectual, and behavioral. The experience dimensions can be associated with shopping experiences while interacting with the retailers' offerings in the shopping environments.

In Brakus et al. (2009)'s study, *sensory* refers to visual, auditory, tactile, gustative and olfactory stimulation by the retailer (Brakus et al., 2009; Zarantonello and Schmitt, 2010). According to Jin and Park (2006), three main factors that encompass the sensory experience are informational content, navigation structure, and graphic style. Though informational content ties into the intellectual dimension of the shopping experience, it is more associated with the information design and how the information is presented in terms of the sensory dimension. *Affective* dimension is associated with

consumer feelings evoked responding to brand stimuli and the emotional attachment the consumer has with the retailer (Brakus et al., 2009; Zarantonello and Schmitt, 2010). Affective dimensions can have powerful, but often faltering effects on consumer behavioral response (Brakus et al., 2009). Though consumers naturally develop emotional responses to retailers, which can increase the consumer's desire to engage with the retailer, it often can be a short lived state as human emotions vary from instance to instance (Brakus et al., 2009). Intellectual dimension, based on convergent and divergent thinking, refers to the ability of the retailer to be engaging to consumers (Brakus et al., 2009; Zarantonello and Schmitt, 2010). One study classified "intellectual engagement" as consumers drive to search for information on the website, particularly with no intent to purchase (Pauwels, Leeflang, Teerling, and Huizingh, 2011). Jin and Park (2006) determined information, especially in the form of customer communication, to be the key predictor in overall customer satisfaction. Furthermore, Pauwels et al. (2011) found that consumers crave intellectual engagement as a part of the consumption process. Informational websites can be a place where customers can be entertained by the retailer through the use of activities and lifestyle stimulus of the website, which makes customers fantasize about the product information offered by the retailer. The intellectual aspect of the shopping experience is an element that has not been widely used, however it adds a level of depth to the shopping experience that keeps consumers engaged with a particular brand (Pauwels et al., 2011). Behavioral dimension is the bodily experiences that are associated with lifestyle and the physical

interaction between consumer and retailer (Brakus et al., 2009; Zarantonello and Schmitt, 2010).

The intensity and the dimensions evoked by each stimulus is a personal encounter and individual consumers respond to the stimuli given by the retailer differently (Zarantonello and Schmitt, 2010). Therefore, online shopping experience needs to be approached through both stimulus, and also the process of forming the experience as a whole. Grounded upon the S-O-R theory, online shopping experience is examined using the following theoretical background.

#### Theoretical Background: Online Shopping Experience

Yielding analytical responses of experience evaluation and shopping involvement, researchers have examined the common variables between online and offline shopping experiences. Based on the previous research online shopping experience has presently been defined as the interaction, observation, and evaluation a consumer has with a retailer's website (Eroglu et al., 2001; Chen et al., 2010; Brakus et al., 2009; Zarantonello and Schmitt, 2010). Some of the pioneers of online retail environment studies, Eroglu et al. (2001) first unraveled that though the online environment is merely a fraction of what the store environment entails, the experience aspect still needs to have as much depth for an online store as is does for the brick and mortar stores.

Eroglu et al. (2001)'s experimental study broke down the stimulus aspect of the online environment into two dimensions, high involvement and low-involvement

interactions. They determined that a website could display simple text view and brand association with a product, that the consumer would be able to identify and most likely purchase a utilitarian product, such as socks, through this retail channel. However, if the website were to involve dynamic merchandise photos, intriguing layout, and more environmental cues representative of the store, the website would be closer to the environmental experience of the store and the hedonic consumer may be more apt to engage in the online environment (Eroglu, 2001). Wang et al. (2011) researched the relationship between consumers and online shopping environments. They hypothesized that the utilitarian aspect of online shopping often exceeds that of regular apparel shopping. Therefore, they claimed that there were two dimensions to website aesthetics, appeal and form. Furthermore, in this study the researchers also looked at how the motivation of the consumer played a part in his or her response to the website environment. The study found that simulated websites with both high aesthetic appeal and high functional appeal that created consumer interest. It implied that though consumers may respond more to functional aspects of experience online, he or she is still interested in the aesthetic appeal of the brand and shopping environment. Many previous studies on brand and retail experience have noted the need for multi-dimensional experiences to engage consumers, and Eroglu et al. (2001) and Wang et al.'s (2011) studies showed how relative those approaches are for online experience as well.

Past literature has identified the importance of utilizing the stimulus-organism-response (S-O-R) framework (Mehrabian and Russell, 1974) in examining store

environment effects on consumer behavior. The framework hypothesizes that environmental cues act as stimuli (stimulus) that affect the consumers' emotional state (organism), which ultimately affects their behavior (response). A model for online shopping experience will be developed in this study by integrating the online shopping experience dimensions into the S-O-R framework as well as taking into account the previous studies on website environment and experience.

In examining online shopping experience, "stimuli" or environmental cues, will be conceptualized as website attributes, more specifically, website design, security/privacy, and shopping services. "Organism" will be described as the internal state, using the Pleasure-Arousal-Dominance scale to measure the affective and emotional state of consumers, as well as a trust and satisfactions scale, which ultimately reflects upon the attitudinal state of the consumers while engaging with particular website attributes given by the retailer. Then finally "response" is outlined by four potential positive consumer behavioral reactions: intent to visit the store, purchase intention, re-patronage of the website, and brand loyalty. Utilizing the S-O-R framework along with the P-A-D scale enables this study to examine website attributes as a retailer's online environmental stimuli, and to explore the psychological process originating from website attributes through overall responses of the shopping experience.

#### Stimuli: Website Attributes

Various studies have focused on different aspects of website stimuli and explored different sets of website attributes. Mathwick and Rigdon (2004) utilized flow theory to

identify consumer experience and behavior when browsing the web. The study determined that shopping experience and attitude is enhanced by three main factors: navigation, technology acceptance, and consumer's perceived control over the experience. Pauwels et al. (2011) expanded further on consumer online experience by identifying that the experience is affected by the consumer online search intention, which encompasses product type, frequency, and length of site visits as well as the specific pages assessed. Lociacono et al.'s (2002) study on WebQual, that is, a measure of website quality, determined that there were twelve website attributes relating to consumers purchase intention and site re-patronage. These attributes included variables such as information fit-to-task, interactivity, trust, response time, ease of understanding, intuitive operations, visual appeal, innovativeness, flow/emotional appeal, consistent image, and online completeness. However, most other studies limited the variables measured and found there to be only a handful of attributes that affect consumers' feelings toward a website and brand. Chen et al. (2010) identified five focal website attributes that contribute to consumer satisfaction in retailers' websites. The study categorized purchase intention to be affected by three main attributes: shopping, technology, and product. The study classified with more specific sub-categories. Chen et al.'s (2010) suggested that usability, delivery, trust, convenience, and security were the key website attributes that affected purchase intentions, and linked to consumers overall satisfaction with the website experience. Yoo and Donthu's (2001) study on evaluating perceived quality of websites identified four attributes: ease of use, aesthetic design, processing speed, and security. Building

on these studies Wolfinbarger and Gilly's (2003) study focused on website quality as being an extension of website design and found that the attributes that identify and predict quality have more depth in variables than the other studies had found.

Consumer online experience is a more intricate process that involves several dimensions of evaluation, from product information to transaction and everything in between.

Going far beyond simply evaluating the design of the website, Wolfinbarger and Gilly (2003) used nine attributes to study website quality: fulfillment/reliability, customer service, personalization, usability, experiential/atmospheric, ease of use, informativeness, selection, and security/privacy. Among nine attributes, four attributes dimensionalized through exploratory factor analysis were: website design, which includes personalization, usability, experiential/atmospheric, ease of use, informativeness, and selection variables; customer service; security/privacy; and fulfillment/reliability.

After reviewing the related studies on online shopping experience and website quality three website attributes have been determined to be relative to the study at hand. Website design will incorporate both aesthetic as well as functional features of the website design experience, as identified by Wolfinbarger and Gilly (2003). This approach is also consistent with Jin and Park's (2006) sensory experience that encompasses aesthetic and functional aspects of website presentation. Security/privacy is associated with attributes affecting consumer trust towards the website. Then shopping services are the retailer's online services including customer services that assist consumer online shopping and purchasing process on the brand's website.

## *Website Design*

Several studies (Loiacono et al., 2002; Yoo and Donthu, 2001; Francis and White, 2002; Chen et al., 2010) have categorized website design as aesthetic and functional variables. Wolfinbarger and Gilly's (2003) study suggested that website design was the overall attributes encompassing both aesthetic and functional aspects. As previous literature suggested, this study will use the website design attributes, classified as both an aesthetic aspect relating to site visual cues such as merchandise presentation, layout design; and a functional aspect, relating to the interface of the site, site usability, merchandise selection, and navigation.

### Aesthetic Design

Wang, Minor, and Wei (2011) measured website sensory attributes as two dimensions of aesthetics. The first being aesthetic formality, which can be measured by "the organization, order and legibility of the website" and aesthetic appeal, which is measured by "the fascination, creativeness and impressiveness of a website as perceived by consumers" (Wang et al., 2011, p.48). Furthermore, the study determined that two types of retail website viewers: task oriented ones and pleasure seeking ones. The study found that no matter the motivation for the website visit the consumers experience resulted in higher satisfaction when the perceived aesthetic value of the website was high (Wang et al., 2011). This study views the aesthetic aspects of website design as the overall look of the website, its continuity of the brand itself, and the website as a cohesive extension of the brand.



The product presentation aspect of the website is much like merchandising the physical floor of the store, it relates to how the product is displayed on the website. Like aesthetic design, the look and feel of the website, in particular products, is a necessary dimension when evaluating the website. Chen et al.'s (2010) study identified the importance of product merchandising on the site. Many studies have either ignored or dismissed the importance of this dimension, often associating it with the aesthetic dimensions. However, product presentation differentiates itself by focusing solely on how the merchandise is portrayed on the website, from the types of models or images used to display it, as well as the tools designed to identify the products for giving informational cues. Steuer (1992) defined image interactivity technology (ITT) as the ability of consumers to have control in modifying the content of a website in real time. This is relative to the customer need to zoom, see alternate angles, and videos of the product in order to get a "tangible" product experience. And the interactive merchandise presentations enrich the amount of product and brand information provided by the website (Constantinides, 2004).

## Interface Design

Interface refers to a point of interaction between components, where by interface design is the process of creating a system that allows the module to connect and communicate effectively to the user (Sanders, 1997). Previous literature (Constantinides, 2004; Nah and Davis, 2002) has attributed the success or failure of online experience to be strongly related to the functionality of the website interface.

Functional aspects of website design can often be identified in terms of usability, which relates to the overall ease of the shopping or browsing experience, from product search to product/price comparisons (Chen et al., 2010). Functional design attributes refer to how the aesthetic and interactive appeal of the website adds to its' user performance capabilities, such as navigation, speed, and accuracy of the site (Chen et al., 2010; Constantinides, 2004). Additionally, Constantinides' study (2004) found that website aesthesis in the layout is the strongest method of keeping consumers focused on and interacting with a website. If the website has enough points of interests with the intricacy to keep consumers entertained while also providing simplicity in navigation to ease frustration, the website can keep consumers longer, typically resulting in greater degrees of positive affective and behavioral responses (Constantinides, 2004). However, another important dimension that has not widely been noted is accessibility, or the ability to find the site and products. Constantinides (2004) pointed out the important need for brands to develop a search strategy as well as a relative address so that consumers have an easier time accessing their sites. In Mathwick and Rigdon's (2004) study on online search experience, they discussed that website flow (consumer's drive for information search) experience can influence many aspects of consumer online brand experience, as well as response, such as satisfaction and purchase intent. They went on further to say that flow is a goal oriented state of mind that can result in pleasurable experience evaluations if the website is functionally designed to allow the customer to have an unspoiled experience. Table 1 provides information of previous studies regarding website design.

Table 1

*Website Design*

<b>Variable</b>	<b>Variable Dimension</b>	<b>Sources</b>
Shopping Experience	Usability and navigation, ease of finding product information.	Zarantonello and Schmitt 2010
Aesthetic Experience	Design and layout of the website.	Zarantonello and Schmitt 2010
Merchandising	How the product is visually displayed.	Chen et al., 2010
Usability	How the consumer accesses the product and navigates the site.	Chen et al., 2010
Website Design	Organization/layout, search function, fun to shop, visually appealing, good selection, professional, in-depth product and brand information, provides personalized information, and easy to navigate.	Wolfenbarger and Gilly, 2003
Website Design	Ease of understanding, interactivity, visual appeal, innovativeness, and consistent.	Lociacono et al., 2002
Aesthetic Design	Site creativity with multimedia and color graphics.	Yoo and Donthu, 2001
Web Store Functionality	Product attribute descriptions, ease of use, design navigation.	Francis and White, 2002
Entertainment	Informativeness and organization	Chen and Wells, 1999
Customer Interface Experience	Flow experienced, usability, and pages assessed.	Pauwels et al., 2011
Website design	Aesthetic layout of the website.	Jin and Park, 2006
Website Design	Pleasure in viewing and browsing the site.	Ha and Stoel, 2009
Website Design	Functional and easy to use site.	Silva and Awli, 2008
Usability	The interaction with the site is clear, understandable, and useful.	Koufaris, 2002
Visual Store	Visual design and layout of the store.	Mollen and Wilson, 2009
Interface	Ease of use, info content, and interactivity.	Alpar, 2001
Online Shopping	Navigation, convenience, and sustainability of personal examination.	Childers et al., 2001
Web Aesthetics	Aesthetic form and appeal.	Wang et al., 2011

## *Security/Privacy*

The security of a website is a vital attribute in building the trustful relationship between retailers and consumers. According to Ertell (2010) about 70% of the web users in the United States are concerned about the safety of their personal information online. The concern grows even more if the company has a lack of brand recognition or physical presence in the retail world, as in a brick and mortar store. Therefore, in order to break down the barriers of what may be influencing customers away from retail websites is to define the needs when it comes to security and privacy. The first aspect in identifying security and privacy needs is providing security for consumers. In the context of ecommerce, security is a confidential infrastructure, which is reliably set up to protect consumer information (Chen et al., 2010). However, consumers may not be aware of the security programs and features unless they are educated, informed, and/or have expert knowledge for the security. The perceived security risk of online shopping may be alleviated for consumers when security measures or features are put in a certain place of the website. Several studies have found that online security has increased in recent years and most of that can be attributed to the detailed information provided on retail websites (Chen et al., 2010; Constantinides, 2004). This includes "structure assurance," which is the infrastructure of the website that provides security and legal protection for customers (Chen et al., 2010). Majority of the security and privacy aspects are related to the website transactions process, and though this study focuses on the cross channel behavior of consumers, it has still been noted that the security measured involved with online transaction lead to the consumer feeling secure

with the brand whether they intend to purchase online or in the store (Ling et al., 2010; Constantinides, 2004). Table 2 provides information of security and privacy variables in online contexts examined in previous studies.

Table 2

*Security/Privacy*

<b>Variable</b>	<b>Variable Dimension</b>	<b>Sources</b>
Security	The ability to handle online transactions and conduct ecommerce professionally.	Chen et al., 2010
Security/Privacy	Feel secure providing personal information, can trust the website, reputable company, well established company, and website instills confidence in customers.	Wolfenbarger and Gilly, 2003
Privacy	Consumers trust about the performance of website during market transactions or consumption behavior.	Ling et al., 2010
Security/Privacy	Having a secure infrastructure to keep consumer's information private.	Jin and Park, 2006
Privacy	The website has good security features, I can trusts the website, privacy is protected.	Ha and Stoel, 2009
Privacy	Information is private and secure.	Silva and Awli, 2008
Security	The extent to which consumers trust the internet to be secure for them to transmit sensitive information.	Ling et al., 2010
Security	Transaction security and customer data safety.	Constantinides, 2004
Credibility/Security	The brand is reputable and provides security measures.	Ba and Pavlou, 2002

*Shopping Services*

Considered a competitive component of brand experience, quality of shopping services has been widely documented as impactful attributes on purchase intention

(Ling, 2010; Chen et al., 2010). Most literature (Ling, 2010; Chen et al., 2010; Wolfinbarger and Gilly., 2003) on website quality and attributes defines shopping services as aspects related to online purchasing; fulfillment, speed of transaction, and easy returns. However, in a multi-channel context, defining shopping services as an aspect of online shopping experience needed to be looked at beyond the traditional dimensions. Therefore, this study has utilized the term shopping services to define any tangible service developed by the brand to enhance the consumer's experience. For example, several of websites are moving beyond basic forms of a website and are trying to build personal relationships between consumers and the retailer. Pappachen and Manatt (2008) found that today's shopper is more self-involved than ever and demands personal attention. From the previous literature as well as the identification of current industry shopping services, this variable has been categorized as, personalized services and interactive services.

### Personalized Services

Providing individualized application of services to consumers has been noted as an important factor of satisfaction in retail service settings (Bitner, Booms, and Tetreault 1990). For this reason brands like Nordstrom and Shoe Dazzle have done everything from developing a "recommended for you" section, to personalized style advice sent to the consumer on a monthly basis. Websites like J.Crew.com have stylists waiting by on instant messenger to answer any immediate questions the consumer may have. While "personalized service refers to any behaviors occurring in the interaction

intended to contribute to the individuation of the customer” (Suprenant and Solomon 1987, p.87), studies have made personal interaction a requirement of personalized service (Mittal and Lassar 1996). However, that not being a viable option for online retailers, e-tail studies have focused on the customization of website content as well as communication with consumers (Wolfenbarger and Gilly, 2003). Therefore, it was identified that one of the major environmental cues missing from an online store environment is the visible presence of sales associates, which makes the previous need for the above shopper services so necessary. Additionally, features like “in-store availability” have become staples on retail websites as many companies are beginning to understand the consumers desire to purchase or at least see the product in the store as well as online. Therefore, for this study, shopping services is more about services associated with how the brand can better engage the customer.

### Interactive Services

Interactive services rely on the websites functional design that allows consumers to be a part of the online environment. Eroglu’s (2001) study on online store environments discusses the importance building online environments that will engage consumers in the website and detract from their physical environment. Retailers can control the environment when the consumer is in the store, however there is no control over the environment a consumer is in when he or she is viewing the website. Therefore, they must develop the interactive services such as zoom and image detail features. Furthermore, websites do not offer the peer validation of other shoppers, like

store environments can, and therefore the need for customer reviews and peer feedback is imperative for the overall experience generated by the website (Eroglu, 2001). Identifying the difference between the types of services will help to better identify the types of attributes that are most important to consumers. Table 3 presents online store shopping service variables in previous studies.

Table 3

*Shopping Services*

<b>Variable</b>	<b>Variable Dimension</b>	<b>Sources</b>
Customer Experience	Additive services such as personalized product recommendations.	Zarantonello and Schmitt 2010
Service Experience	Product support, timely transactions, and order fulfillment.	Zarantonello and Schmitt 2010
Product Factors	Customization.	Chen et al, 2010
Customer Service	Ready and willing to meet customer needs, excellent sales support, appreciates customer business, has customers best interest at heart, and good buying experience.	Wolfenbarger and Gilly, 2003
Order fulfillment	The ability of the website to fulfill the order on time.	Jin and Park, 2006
Customer Service	The company responds to the consumer's needs.	Ha and Stoel, 2009
Customer Service	Speed of delivery, ease of use, and reliability.	Dabholkar, 1996
Service Quality	Info and service quality, system use.	Liu and Arnett, 2000
Services	Easy to contact, easy ordering, easy payment, easy returns, easy to cancel, and quick delivery.	Novak et al., 2000
Online Services	Reliability, responsiveness, competence, ease of use, security, and product portfolio.	Wang et al., 2011



## Organism: Internal States

Theorized as the emotional state after the introduction of a stimulus, the organism for this study represents the affective and attitudinal states of mind of a consumer after construing the website attributes. This is the state when the consumer begins to formulate opinions, thoughts, and emotion towards a retailer. Brakus et al. (2009) identified that the affective and intellectual dimensions of experience are an integral part of experience. Sicilia et al. (2005) determined consumer's perception and attitude towards a retailer were influenced by a consumer's internal and external evaluation of that retailer; additionally, variables such as brand stimulus and intellectual dimensions were used to describe affective and attitudinal formation. The concept was later validated by the theory of attitude characteristics developed by Giner-Sorolla (1999), who identified that attitude is centered around an object (or retailer, for the purpose of this study) and that attitude is assessed in nature. Additionally, Mitchell, and Olson (1981) found that attitude formation was an internal process that ultimately directed behavior. When formulating an attitude towards a retailer the consumer assesses the brand range, individual product specifications including price, packaging, and perceived quality (Mittal 1990). Pleasure, arousal, dominance, trust, and satisfaction are key variable dimensions to the affective and attitudinal states of the consumer and also in predicting consumer response behavior.

### *P-A-D Framework: Affective State*

Developed as a psychology model, several studies have operationalized

Mehrabian and Russell (1974) pleasure-arousal-dominance scale as it relates to consumer's affective state while engaged with website related stimuli. Pleasure relates to how good a consumer feels about the retail environment. While arousal is the extent to which a consumer feels excited or stimulated. Then finally, dominance is an affective state that relates to control in regards to the retail environment. Donovan and Rossiter used the P-A-D model to examine the relationship between affective states provoked by store environment and the consumer behavioral intention in those environments. The study found that pleasure created a willingness to purchase, while arousal created a positive desire to interact with the store environment, as well likelihood to return to the same environment. Furthermore, it has been examined that dominance variable is strongly related to usability attribute of websites, which ultimately affect pleasure and arousal states of consumers while engaging with a retailer (Donovan and Rossiter, 1982; Mathwick and Rigdon, 2004). Foxall and Greenley (2000) note, "Dominance is expected to increase with the openness of consumer behavior settings, the extent to which behavior in the setting is under the control of the consumer rather than some other agent, such as a marketing manager" (p.152). In store retail experiences consumer often share opinions about service aspects of which are ultimately controlled and contained by the structure and design of physical stores (Aubert-Gamet 1997). This often allows for more confliction and less satisfaction on the part of the consumer, as they are not in control of their environment. However, the expanse of online options has allowed retailers to let consumers dominate their experience. New innovations use previously stored data based on the consumer's reference cookies to adjust the content,

and sometimes navigation of web pages to each website visitors' preferences, therefore allowing the consumer to be a co-producer of their environment.

### *Consumer Trust and Satisfaction: Attitudinal State*

The initial and often temporary state of trust and satisfaction developed by a consumer during a shopping experience is known as the attitudinal state (Delgado-Ballester et al., 2003; Pavlou, 2003). Though trust and satisfaction variables have been studied in a wide variety of manners, for this study it is relevant to examine the initial attitudinal state of trust and satisfaction. This is due to the fact that the website attributes are being measured as stimuli, which indicates an initial attitudinal evaluation of the website.

Recently affirmed as "the ultimate goal of brand marketing," the main aspect in creating a strong relationship between a brand and consumer is trust (Hiscock, 2001; Delgado-Ballester et al., 2003). There has been substantial research (Ha and Stoel, 2009; Delgado-Ballester et al., 2003) in the notion of trust and the most common points of definition are in confidence toward retailers. Ultimately a consumer wants to have a sense of predictability with a retailer that satisfies an individual's need for consistency (Morgan and Hunt, 1994). This was previously mentioned as an aspect of website design, a consumer desires the website to be a continuation of a store environment. This not only leads to the consumer's continuity with the shopping experience, but it also allows for the consumer to gain trust in the website. If the website is an obvious extension of the retailer, the consumer is more likely to trust and engage in the website

as well. Therefore, trust is essential in a consumer brand relationship because the accomplishment of the value promise that the retailer represents to the consumer leads him or her to be confident about the occurrence of future satisfaction (Delgado-Ballester et al., 2003). Furthermore, in a digital era, trust extends to the consumers' confidence in website security and privacy (Ha and Stoel, 2009). Pavlou (2003) defined ecommerce trust as "the belief that allows consumers to willingly become vulnerable to web retailers after having taken the retailers' characteristics into consideration" (123). Ultimately, trust is the consumer confidence in a retailer through all situations (Delgado-Ballester et al., 2003; Pavlou, 2003).

Bitner and Hubbert (1994) suggested two types of consumer satisfaction evaluation. When a consumer is asked about their satisfaction with a product purchase they will draw on specific transaction details, however when a consumer is asked about their overall satisfaction they will base the evaluation on their complete collection of knowledge about the brand. It has been defined as the perception of pleasurable fulfillment and occurs when retailer performance matches or is higher than the consumers' expectations (Oliver, 1997). Wallace et al.'s (2004) study on customer retail loyalty found that website design, security/privacy, service aspects and trust, also lead to overall consumer satisfaction. Though satisfaction is a response to trust and website attributes is the highest predictor of consumer response (Mittal and Kamakura, 2001). More importantly it would be the strongest predictor of brand loyalty.

## Response: Behavioral State

Response is the final outcome of the S-O-R framework and is characterized by the predicted consumer behavioral responses as reactions of internal states towards the retailer in this study. Sicilia et al. (2005) suggested that internal dimensions, towards websites can be predictors of intent to visit the store, purchase intention, and overall brand engagement. Ling et al.'s (2010) study on shopping orientations theorized that response behavior, especially in the form of purchase intent is one of the main behavioral outcomes related to internal processing of information, also known as an aspect of affective state. Holbrook and Hirschman (1992) also found that behavioral responses, in regards to a brand, start with an external experience, which influences the internal state, ultimately leading to a consumer's behavioral response. In this study, four dimensions of response toward online brand experience are measured with: intent to visit the store, purchase intent, intent to revisit the website, and customer loyalty.

### *Store Response: Intent to Visit the Store*

A study done by Riley (2010) found that consumers are more likely to browse online before visiting a store than purchasing the item online. The study analyzes how consumers process the attributes of a brand and the website before making the decision to visit the store. Using similar experience factors as the ones already mentioned by previous literature, Riley (2010), found that variables such as website aesthetics, ease of use for the consumer, and depth of engagement positively contributed to the consumer's brand experience. Additionally, relating to the intellectual

and behavioral effects of shopping experience, the study found that the more stimulating the shopping experiences were to the consumer, the more satisfaction the consumer felt with the retailer, creating a positive internal state formation for the retailer. In turn, it has been shown that retaining a positive internal state toward a retailer will lead the consumer to desire the recreation of that positive experience (Ostrom, 1969; Zarantonello and Schmitt, 2010). If a consumer enjoys the experience of a website, they are more likely to visit the store as well as continue that positive experience.

### *Website Response: Purchase and Revisit Intent*

#### Purchase Intention

Eagly and Chaiken (1993) defined purchase intention as "the person's motivation in the sense of his or her conscious plan to exert effort to carry out a behavior" (168). Purchase intention is associated emotions and internal evaluation actually and it is action pursued by a consumer that is related to a brand or product. Purchase intention has been a relative topic among industry experts, as many feel it is a false proclamation of the consumer's actual behavioral response to a brand experience (Debling, 1998; Bouhlel, Mzoughi, Hadjiji, and Slimane, 2011). For this reason, industry professional have updated the definition from Eagly and Chaiken's (1993) original findings. Purchase intention is now being conceptualized as "an expressed attitude concerning a future choice behavior and of economic decisions" (168). Bouhlel et al. (2011) theorized that preference for a retailer is developed through a high commitment relationship, which

will then reflect an honest preference in purchase. Consumers are likely to engage in repeat purchases of that product because he or she has associated a level of satisfaction with that retailer as well as a personal identification in the retailer (Szymarowski and Bush, 1987).

#### Intent to Revisit the Website

According to Ling et al. (2010), re-patronage is heavily dependent upon experience quality. Consumers' continual evaluations of their experiences are based on the website attributes previously explored, website design, security/privacy, and customer services. Additionally, it is not only the website experience that leads the consumer back to the website, but it is the overall brand experience had by the consumer (Ling et al., 2010). If the consumer's online brand experience led them to the store and continues to be satisfactory, then the consumer is more likely to return to the website and continue the circular relationship.

#### *Brand Response: Brand Loyalty*

Schlenker, Helm, and Tedeschi (1973) suggested that in consumption environments consumers form strong attachments to brands that predict their commitment and their willingness to make sacrifices in order to maintain the relationship, in turn introducing brand loyalty to consumers. Brand loyalty has developed into a wider concept to describe the long term relationship and involvement that a consumer has with a brand. Lacoeyllhe (1997) expressed brand loyalty as "a

durable emotional and psychological relation with the brand which results from the concomitance of friendship feelings and from brand dependence" (p. 74). It "translates a durable and inalienable emotional reaction to the brand and expresses a psychological relation" (p. 74). In essence, internal states of a consumer or the organism (i.e., pleasure, arousal, dominance, trust, and satisfaction) that are discussed earlier in the literature review has a direct effect on the development of consumer-brand relationships, also known as brand loyalty. Several research works have further examined the roles of trust, satisfaction, and loyalty in the relationship that customers have built with the brand (Sirieix and Dubois, 1999; Anderson and Narus, 1990). Theoretical contributors argue that consumer trust in brands is an essential ingredient for the success of the relationship (Anderson and Weitz, 1992; Crosby, Evans, and Cowles, 1990; Moorman, Zaltman, and Desphandé, 1992; Berry, 1995; Fournier, Dabscha, and Mick, 1998). Brand trust is whereby one part in a relationship, while satisfaction is also recognized to be central to the relationship enhancement (Morgan et Hunt, 1994; Fournier, Dabscha and Mick, 1998; McAlexander, Schouten and Koenig, 2002; Anderson and Narus, 1990). Hess (1995) linked trust and satisfaction, calling them 'key variables' in the development of brand and consumer relationships.

### Research Model

After review of theoretical background and previous research, the research model for this study was developed on stimulus-organism-response (S-O-R) theory. The stimulus aspects are represented by website attributes. The website attributes including



website design (i.e., product presentation and interface design), security/privacy, and shopping services (i.e., personalized services and interactive services) affect the organism. For this study, the organism is defined by the affective state which encompasses pleasure, arousal, and dominance; and attitudinal state covering consumer trust and satisfaction variables, which ultimately affect the behavioral responses; purchase intention on the website, intent to visit the store, intent to revisit the website, and brand loyalty. These variables are represented in the research model in Figure 1.

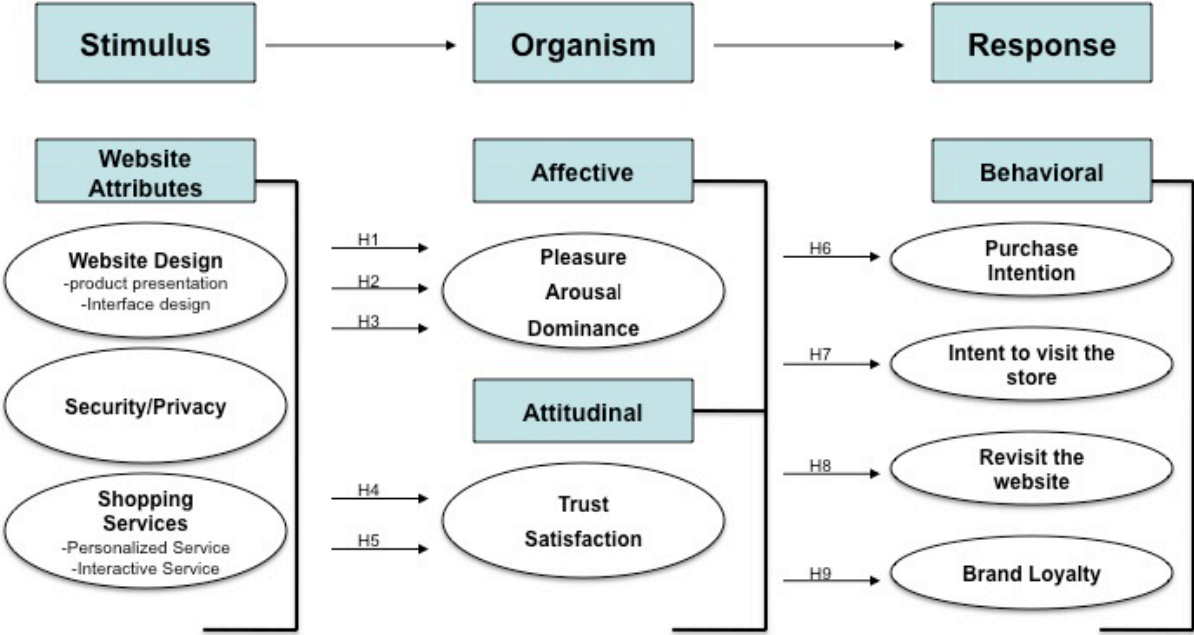


Figure 1. Research model.

### Hypotheses

Three objectives to be explored in the study are: (1) to identify the website attributes that create favorable organism states; (2) to examine the effects of those

website attributes on consumer organism states of online shopping experience; and (3) to investigate the consequent effects of organism states on behavioral responses toward the retailer. The relationships among website attributes, organism (i.e., pleasure, arousal, dominance, trust, satisfaction) states, and behavioral responses (i.e., purchase intention on the website, intent to visit a store, intent to revisit the website, and brand loyalty) are hypothesized as follows:

H1: Website attributes positively affect pleasure in experiencing the retailer website.

H1a: Product presentation of website positively affects pleasure.

H1b: Interface design aspect of website design positively affects pleasure.

H1c: Security/privacy positively affects pleasure.

H1d: Personalized shopping service positively affects pleasure.

H1e: Interactive shopping service positively affects pleasure.

H2: Website attributes positively affect arousal in experiencing the retailer website.

H2a: Product presentation of website positively affects arousal.

H2b: Interface design aspect of website design positively affects arousal.

H2c: Security/privacy positively affects arousal.

H2d: Personalized shopping service positively affects arousal.

H2e: Interactive shopping service positively affects arousal.

H3: Website attributes positively affect dominance in experiencing the retailer website.

H3a: Product presentation of website positively affects dominance.

H3b: Interface design aspect of website design positively affects dominance.

H3c: Security/privacy positively affects dominance.

H3d: Personalized shopping service positively affects dominance.

H3e: Interactive shopping service positively affects dominance.

H4: Website attributes positively affect trust in experiencing the retailer website.

H4a: Product presentation of website positively affects trust.

H4b: Interface design aspect of website design positively affects trust.

H4c: Security/privacy positively affects trust.

H4d: Personalized shopping service positively affects trust.

H4e: Interactive shopping service positively affects trust.

H5: Website attributes positively affect satisfaction in experiencing the retailer website.

H5a: Product presentation of website positively affects satisfaction.

H5b: Interface design aspect of website design positively affects satisfaction.

H5c: Security/privacy positively affects satisfaction.

H5d: Personalized shopping service positively affects satisfaction.

H5e: Interactive shopping service positively affects satisfaction.

H6: Organism states positively affect purchase intention on the website.

H6a: Pleasure positively affects purchase intention.

H6b: Arousal positively affects purchase intention.

H6c: Dominance positively affects purchase intention.

H6d: Trust positively affects purchase intention.

H6e: Satisfaction positively affects purchase intention.

H7: Organism states positively affect intent to visit the store.

H7a: Pleasure positively affects intent to visit the store.

H7b: Arousal positively affects intent to visit the store.

H7c: Dominance positively affects intent to visit the store.

H7d: Trust positively affects intent to visit the store.

H7e: Satisfaction positively affects intent to visit the store.

H8: Organism states positively affect intent to revisit the retailer website.

H8a: Pleasure positively affects intent to revisit the retailer website.

H8b: Arousal positively affects intent to revisit the retailer website.

H8c: Dominance positively affects intent to revisit the retailer website.

H8d: Trust positively affects intent to revisit the retailer website.

H8e: Satisfaction positively affects intent to revisit the retailer website.

H9: Organism states positively affect brand loyalty.

H9a: Pleasure positively affects brand loyalty.

H9b: Arousal positively affects brand loyalty.

H9c: Dominance positively affects brand loyalty.

H9d: Trust positively affects brand loyalty.

H9e: Satisfaction positively affects brand loyalty.

## CHAPTER 3

### METHODOLOGY

This chapter discusses the methodology that will be used to examine apparel retailers' website attributes that affect consumer internal states and behavioral responses toward online shopping experience. This section includes the procedures for the instrument development, pretest result, sample, and data collection method.

#### Instrument Development

The measures of the instrument were adapted from existing scales from previous studies and a self-administered questionnaire was developed in the context of online shopping experience for this study. The questionnaire was mainly designed to measure three constructs: website attributes, consumer internal states as reactions to the website attributes, and behavioral responses influenced by the internal states.

The measures adapted in this study are well-established and have good internal consistency in previous studies. The theoretical framework of this study was grounded upon the S-O-R (Mehrabian and Russell, 1974) framework. The questionnaire consisted of 6 sections with 90 questions. At the very beginning of the survey, the participants were prompted to think about one of five apparel retailers' websites, [www.gap.com](http://www.gap.com), [www.forever21.com](http://www.forever21.com), [www.hm.com](http://www.hm.com), [www.jcrew.com](http://www.jcrew.com), and [www.abercrombie.com](http://www.abercrombie.com), which were ranked in the top ten most recognized apparel companies (American Registry, 2011). The participants were then asked to answer the questions in association with his or her experience with that website. The first three sections ask

questions related to the website attributes: website design, security/privacy, and shopping services are measured on a 7-point Likert scale anchored from 1 is *strongly disagree* to 7 is *strongly agree*.

Instruments in Section 1, 2, and 3 were designed to measure retailers' website attributes. Section 1 asks questions about website design. A total of 18 items were used on the instrument: 2 items measuring product presentation and aesthetics were adapted from Jin and Park's (2006), 3 items measuring product presentation and site functionality from Ha and Stoel (2009), 5 items measuring usability from Silva and Awli's (2008) study, 2 items measuring usefulness and usability from Mathwick and Rigdon (2004) study, and 7 items measuring design and functionality from Wolfinbarger and Gilly's (2003) study. Section 2 asks questions about security/privacy: 2 items measuring privacy were adapted from Jin and Park (2006), 4 items measuring privacy and security from Ha and Stoel (2009), 1 item measuring privacy from Silva and Awli (2008), and 1 item measuring brand security from Wolfinbarger and Gilly's (2003) study. Section 3 asks questions about the apparel retailers' shopping services. Shopping services were categorized as personalized and interactive shopping services. Five items measuring personalization and customer service were adapted from Jin and Park (2006), 1 item measuring sale support and service from Ha and Stoel (2009), 1 item measuring sales support from Wolfinbarger and Gilly (2003) and 5 items were self-developed with the purpose of reflecting current retailers' shopping services offered.

Section 4 is designed to measure consumer internal states influenced by the retailer's website attributes. Pleasure-Dominance-Arousal scale developed by Mehrabian

and Russell (1974) was used, as well as a bipolar semantic differential scale measuring trust/satisfaction (Delgado et al., 2003; Jin and Park, 2004; Ha and Stoel, 2009). The trust/satisfaction scale was converted from Likert scales in previous studies in order to be consistent with P-A-D scales and minimize potential confounding effect due to use of different scales. Additionally, literature has arisen regarding the subject of measuring satisfaction and trust through bipolar scales (Pride, 2007; Westbrook and Oliver, 1991). It has been shown that participants can more accurately identify his or her level of trust and/or satisfaction when approached with a scale that presents two options of extreme opposites. For this reason the bipolar scale is seen as an advanced model for measuring emotional levels (Pride, 2007; Westbrook and Oliver, 1991). A total of 17 items, 4 items on pleasure: unhappy/happy, annoyed/pleased, discontent/content, and despairing/hopeful; 3 items on arousal: bored/stimulated, dull/bright, calm/excited; 4 items on dominance: controlled/controlling, influenced/influential, submissive/dominant, autonomous/guided; 3 items on trust: distrust/trust, doubtful/confident, unsure/certain; and 3 items on satisfaction: unsatisfied/satisfied, frustrated/fulfilled, unreliable/reliable; were adapted to measure consumer internal states in this study. A 7-point semantic scale were used to measure consumer reactions to the website attributes. Section 5 asks questions about behavioral response, a behavior likelihood scale was adapted on a 7-point Likert scale 1 is anchored on *very unlikely* and 7 is anchored on *very likely*. Three items measuring purchase intention were adapted from Zarantonello and Schmitt's (2010). Six items were self-developed to measure intent to visit the store and

intent to revisit the website, and 3 items measuring brand loyalty were adapted from Jin and Park (2006) and Mathwick and Rigdon (2004). Table 4 presents information about instruments utilized to measure research constructs in this study.

Table 4

*Instrument Information*

<b>Construct</b>	<b>Variable</b>	<b>Items</b>	<b>Scale</b>	<b>Source</b>	
<b>Website Attributes</b>	<b>Website Design</b>	This website provides product pictures from various angles.	Likert Scale	Jin and Park, 2006	
		The website provides detailed merchandise.		Ha and Stoel, 2009	
		The website gives me enough information so that I can identify the item to the same degree as if I am in the store.			
		The website has a simple and easy to understand design.			Silva and Awli, 2008
		The website organization facilitates searching for products.			
		The website search function gives me useful results.			
		The website is visually appealing.			Wolfenbarger and Gilly, 2003; Ha and Stoel, 2009
		The website has a good selection of apparel.			
		This website does not waste my time.			
		The website organization and layout facilitates searching for the product.			Mathwick and Rigdon, 2004
	The website has flexibility in my interaction while searching for information.				
	My website interaction is clear and understandable.	Silva and Awli, 2008			
	The website provides pictures I can enlarge.	Wolfenbarger and Gilly,			
	The website makes a strong impression on my visual senses.				
	The website navigation is visually cohesive.	Silva and Awli, 2008			
	On this website I can go to exactly what I want quickly.				
	The website has an easy and efficient navigation.				
	<b>Security/ Privacy</b>	Within the website my personal information is confidential.	Likert Scale	Jin and Park, 2006	
		The website clearly states privacy policy.		Ha and Stoel, 2009; Wolfenbarger and Gilly, 2003; Silva and Awli, 2008	
		This website makes me feel safe in my transactions.			
The website has adequate security features.					
The website is reputable.					
This website makes me feel like my privacy is protected.					
<b>Shopping Services</b>	This website provides personalized shopping services for me.	Likert Scale	Jin and Park, 2006		
	This website cares about business with me by sending thank you email.				
	This website makes purchase recommendations that match my needs.				
	The website provides discount coupons.				
	This website provides a rewards program for the brand.				
	Within the website customer service personnel are always willing to help me.			Ha and Stoel, 2009; Wolfenbarger and Gilly, 2003	
	The website is ready and willing to respond to customer needs.			Self developed	
	The website allows me to check in-store product availability.				
	The website provides a live chatting feature.				
	The website provides customer reviews and ratings.				
The website provides alternate tools to evaluate products.					

*(table continues)*



Table 4 (continued).

Construct	Variable	Items	Scale	Source		
Internal State	Pleasure	Unhappy/Happy	Bipolar scale	Donovan and Rossiter, 1994; Mehrabian and Russell, 1974		
		Annoyed/Pleased				
		Discontent/Content				
		Despairing/Hopeful				
	Arousal	Bored/Stimulated				
		Dull/Bright				
		Calm/Excited				
	Dominance	Controlled/Controlling				
		Influenced/Influential				
		Submissive/Dominant				
Autonomous/Guided						
Trust	Distrust/Trust	Likert Scale	Ha and Stoel, 2009			
	Doubtful/Confident		Delgado et al., 2003			
	Unsure/Certain		Ha and Stoel, 2009			
Satisfaction	Unsatisfied/Satisfied		Jin and Park, 2006			
	Frustrated/Fulfilled		Delgado et al., 2003			
	Unreliable/Reliable					
Behavioral Response	Purchase Intention		I intend to purchase from this website.	Likert Scale	Zarantonello and Schmitt, 2010	
			Given the chance I intend to purchase a product on this website.			
			I will purchase from this website in the future.			
	Visit the Store		I intend to visit this brand's store.		Likert Scale	Ling et al., 2010
		I would like to visit a physical store.				
		I have an intention to visit a store.				
	Revisit the Website	I intend to visit the online retailer again.	Jin and Park, 2006			
		I intend to return to this website.				
		I expect to revisit this website.				
	Brand Loyalty	I believe that this is my favorite brand.	Mathwick and Rigdon, 2004			
When I need to make an apparel purchase this is the first brand I choose.						
I will recommend this brand to my family, friends or others.						
Other	Website Usage	How often do you visit the site?	Multiple choice	Self developed		
		On your last visit, what was your primary reason for visiting this website?				
		How often do you use the web to find product information?				
		Did you find what you were looking for on the site?				
		How many times in the last 12 months have you purchased from this website?				
		How many times in the last 12 months have you purchased from the store associated with this website?				
	Demographic Information	What is your gender?				
What is your Ethnicity?						
What is the highest level of education you have completed?						

### Validity Test

A face validity assessment was conducted by distributing a validity test to a class of graduate students at a large southern university. A total of 20 tests were returned for a 100% response rate. The validity test consisted of the 6 sections of the questionnaire,

each question was measured by a Likert scale identifying 1 as 'strongly invalid' and 6 as being 'strongly valid'. The average score per section was 5.7 for website design, where 1 question, "this website is really fun to shop and browse" was eliminated due to being found invalid with a score of 3.2, which is below the threshold of 4 being considered valid; for security/privacy there was an average score of 4.8, no item was found invalid; 5.5 for shopping services, no item was found invalid; 4.7 for organism states, 1 item was eliminated due to being invalid; and 5.8 for behavioral responses, no items were found invalid. The result of the validity assessment identified the survey instrument to be a valid measurement of website attributes and their associations with consumer behavioral responses.

### Sample and Data Collection

Sample of this study consisted of students attending a southwestern university. Though a convenience sampling method was used in the study, the college student sample was considered as being appropriate in this study for some reasons. College students have a higher internet usage than any other demographic, and furthermore it has been noted that approximately 70% of females ages 18-35 browse online before going to brick and mortar stores (Riley, 2010). Therefore, a sample from a high female population ages 18-35 in undergraduate and graduate students may represent the majority of online shoppers in the study.

The survey for this study was submitted for Institutional Review Board (IRB) approval. Then the questionnaire was distributed to students of southwestern university

with the permission of professors who agreed to distribute the surveys to their students in class. On the first page of the survey, information of consent was provided to inform participants that completing the questionnaire was anonymous and voluntary and that there was no penalty for not participating. A total of 600 questionnaires were distributed over a two-week period in April of 2012. The students had the option to take home the surveys and then bring them back before the timeline, if needed. Then after that two-week period a total of 518 of the questionnaires were collected (86.3%). A total of 298 of the returned surveys were unfinished with blank sections, therefore they were considered to be incomplete data and were then eliminated from the data set, resulting in a response rate of 42.4% or 220 surveys.

## CHAPTER 4

### RESULTS

The results of this study were gathered in a multi-stage approach. The data consists of 220 usable survey participants from a sample of 518 undergraduate and graduate students at a public southwestern university. Sample characteristics are profiled in the first section. The results of reliability of each measure, exploratory factor analysis, and multiple regression analysis of examining the hypothesized relationships are presented.

#### Data Analysis

Utilizing Statistical Package for Social Sciences (SPSS) version 17 several statistical analyses were conducted to test the hypothesis relating to website attributes and their overall affects on consumer internal reactions and behavioral responses. Frequency distribution, descriptive statistics, reliability test, factor analysis, and multiple regression statistical methods were used for analyzing data in this study.

#### *Sample Characteristics*

Descriptive statistics were used to identify the demographics of the study participants. A total of 220 usable surveys were analyzed. The mean age was between 18-21 years old, the sample consisted of majority of females ( $n = 197, 91.1\%$ ), Caucasian ( $n = 93, 43.1\%$ ), undergraduate students ( $n = 114, 53\%$ ). Table 5 is provided demographic information and Internet usage of sample in the study.

Table 5

*Demographic Information and Internet Usage*

Variable	Freq	%	Variables	Freq	%
<b>Gender</b>			<b>How Often do you visit this website?</b>		
Male	16	7.9%	Never	15	7.4%
Female	184	91.1%	Less than two times a year	50	24.8%
<b>Ethnicity</b>			About once a month	68	33.7%
Caucasian	87	43.1%	2 or 3 times a month	61	30.2%
African American	38	18.8%	More than 4 times a week	5	2.5%
Latino/Hispanic	37	18.3%	Everyday	3	1.5%
Asian American	6	3.0%	<b>What was your primary reason for visiting this website?</b>		
Native American	3	1.5%	Seeking company info.	10	5.0%
International Student	20	9.9%	Seeking product info.	105	52.0%
Other	11	5.4%	Product purchase	70	34.7%
<b>Education Level</b>			Seeking store hours	7	3.5%
High School	16	7.9%	Seeking store location/directions	9	4.5%
Some college	107	53.0%	Other	1	.5%
2-year college Degree	36	17.8%	<b>How often do you use the web to find product info?</b>		
4-year college degree	36	17.8%	Never	13	6.4%
Masters degree	6	3.0%	Less than two times a year	32	15.8%
Doctoral Degree	1	.5%	About once a month	55	27.2%
<b>Age</b>			2 or 3 times a month	27	13.4%
18-21	102	50.5%	More than 4 times a week	43	21.3%
22-25	72	35.6%	Everyday	32	15.8%
26-29	12	5.9%	<b>Identify the website to which you will be answering questions about.</b>		
30-35	11	5.4%	www.gap.com	41	18.6%
36-40	4	2.0%	www.forever21.com	102	46.4%
40 and older	1	.5%	www.hm.com	36	16.4%
			www.jcrew.com	29	13.2%
			www.abercrombie.com	12	5.4%

*Reliability Test*

Reliability is the degree to which measures are free from error and therefore yield consistent results (Pattern, 2009). Cronbach's alpha is an index of reliability, which determines the internal consistency (Santos, 1999). Cronbach's alpha was calculated to

confirm the construct reliability of the scales for each website attribute; interface of website design, product presentations, security/privacy, personalized/interactive shopping services; pleasure-arousal-dominance scale, trust-satisfaction scale; and behavioral measures (i.e., purchase intention on the website, intent to visit a store, intent to revisit the website, and brand loyalty). Reliabilities for website attributes are provided with factor analysis results in Table 8. Reliabilities for internal states and behavioral responses scales are presented in Table 6 and 7. A total of 4 items for pleasure, 3 items for arousal, 4 items for dominance, 3 items for trust, and 3 items for satisfaction were used for reliability tests, resulting in a Cronbach's alpha of .876 for pleasure, .824 for arousal, .754 for dominance, .886 for trust, and .853 for satisfaction. A total of 3 items for purchase intention, 3 items for intent to visit the store, 3 items for intent to revisit the website, and 3 items for brand loyalty were measured resulting in a Cronbach's alpha of .908 for purchase intention, .852 for intent to visit the store, .890 for intent to revisit the website, and .773 for brand loyalty.

Factor analysis for internal states and behavioral responses measures were conducted for exploratory purposes. Factor analysis was conducted for Pleasure-Arousal-Dominance by using a total of 11 items. The factor analysis for P-A-D scale identified two dimensions with a 63.7% total explained variance; pleasure/arousal and dominance. Cronbach's alpha was accepted as .903 stating the internal consistency of items within each factor. Then for trust and satisfaction, factor analysis was conducted by using a total of 6 items. The factor analysis for trust and satisfaction scale identified one dimension with a 74.1% total explained variance; trust and satisfaction. Cronbach's

alpha was accepted as .929 stating the internal consistency of items within each factor. For behavioral response, factor analysis was conducted by using a total of 12 items. The factor analysis for behavioral response scale identified three dimensions with a 78.3% total explained variance: website response, which consisted of measurements of website purchase intention and intent to revisit the website; intent to visit the store; and brand loyalty. Cronbach's alpha was accepted as .931 stating the internal consistency of items within each factor.

While validity is the ability of a scale or measuring instrument to measure what it is intended to be measured (Patten, 2009), validity incorporated into the questionnaire, by using proven valid scales from previous research and the validity test that was conducted previously to distributing the survey instrument. Therefore, the scales used to collect data and measured have been identified as reliable and valid.

Table 6

*Reliability of Internal States*

<b>Dimension (# of items)</b>	<b><math>\alpha^*</math></b>
Pleasure (4 items)	.876
Arousal (3 items)	.824
Dominance (4 items)	.754
Trust (3 items)	.886
Satisfaction (3 items)	.853

Table 7

*Reliability of Behavioral Response*

<b>Dimension (# of items)</b>	<b><math>\alpha^*</math></b>
Intention to Visit the Store (3 items)	.852
Intention to Revisit the Website (3 items)	.890
Brand Loyalty (3 items)	.773

$\alpha^*$ : Cronbach alpha

*Exploratory Factory Analysis of Website Attributes*

It was determined that exploratory factor analysis was necessary to conduct for the website attributes since the dimensions were a culmination of previous literature, as well as self-developed items based on attributes provided in the current market place. However, it was decided that factor analysis was not necessary to conduct for the organism state or the behavioral responses since those studies had been previously developed and validated in past studies (Mehrabian and Russell, 1974; Donovan and Rossiter, 1994; Delgado et al. 2003). In addition, reliability tests for organism states/ behavioral responses showed good internal consistency, validating each scale is reliable to measure to examine the intended variables for this study design purposes. Therefore, exploratory factor analysis was conducted by using a total of 35 items for the website attributes. This study found that 3 items were dropped due to its weak loading (loading less than .50) and cross-loading (loading more than .50 on two factors) (Hair, Anderson, Tatham, and Black, 1998). A final-32 items scale was determined to use for further investigation for this study. Principal component factor analysis with



varimax rotations was used and revealed 5 distinct underlying dimensions: two dimensions of website design, one dimension of security/privacy, and two dimensions of shopping services.

The factor analysis for website design identified two dimensions organized as product presentation and interface design. A total of 3 items loaded into the dimension of product presentation with a reliability score of Cronbach's alpha was accepted as .708, and 12 items of interface design with a reliability score of .935. The reliability of security/privacy factor was .782. While a total of 5 items for personalized shopping services with a reliability of .807, and 4 items for interactive shopping services with a reliability of .734. All factors show good internal consistency and factor analysis results are summarized in Table 8.

The first two factors regarding website design, identified as product presentation ( $\alpha = .708$ , EV% = 33.83%), contained three items including: "The website provides detailed merchandise," "The website provides product pictures from various angles," and "The website gives me enough information so that I can identify the item to the same degree as if I am in the store." The second factors regarding website design, identified as interface design ( $\alpha = .708$ , EV% = 33.83%), contained thirteen items including: "The website has a simple and easy to understand design," "The website organization facilitates searching for products," "In this website I can easily find the product that I need," "This website does not waste my time," "The website organization and layout facilitates searching for the product," "The website has the flexibility in my interaction while searching for the product," "My website interaction is clear and

understandable,” “The website provides pictures I can enlarge,” “The website makes a strong impression on my visual senses,” “The website navigation is visually cohesive,” “On this website I can go to exactly what I want quickly,” and “The website has an easy and efficient navigation.”

Table 8

*Exploratory Factor Analysis of Website Attributes*

Factor	Scale Items	F.L.*	E.V.*	$\alpha^*$
Product Presentation	The website provides detailed merchandise.	.736	33.83%	.708
	The website provides product pictures from various angles.	.689		
	The website gives me enough info so that I can identify the item to the same degree as if I am in the store.	.614		
Interface Design	The website has a simple and easy to understand design	.558	12.00%	.935
	The website organization facilitates searching for products.	.669		
	In this website I can easily find the product that I need.	.693		
	This website does not waste my time.	.641		
	The website organization and layout facilitates searching for the product.	.727		
	The website has the flexibility in my interaction while searching for the product.	.759		
	My website interaction is clear and understandable.	.767		
	The website provides pictures I can enlarge.	.525		
	The website makes a strong impression on my visual senses.	.657		
	The website navigation is visually cohesive.	.753		
	On this website I can go to exactly what I want quickly.	.843		
Security/Privacy	The website has an easy and efficient navigation.	.829	8.35%	.782
	Within the website my personal info is confidential.	.757		
	The website makes me feel safe in my transactions.	.830		
	The website has adequate security features.	.843		
	The website is reputable.	.737		
Personalized Services	This website makes me feel like my privacy is protected.	.830	4.32%	.807
	This website provides personalized shopping services for me.	.562		
	This website cares about business with me by sending thank you emails.	.758		
	This website makes purchase recommendations that match my needs.	.732		
	This website provides discount coupons.	.675		
Interactive Services	Within the website customer service personnel are always willing to help me.	.600	4.20%	.734
	This website is ready and willing to respond to customer needs.	.516		
	This website allows me to check in-store product availability.	.797		
	This website provides a live chatting feature.	.674		
	This website provides customer reviews and ratings.	.669		

*N* = 220. Scale range 1 = *strongly disagree*, 7 = *strongly agree*. \*Factor Loading, \*Explained variance, \*Cronbach's alpha.

The result of the website design exploratory factor analysis is consistent with previous findings that the design aspect of website environment is multi-dimensional (Wang et al., 2011; Loicacono et al., 2002; Chen et al., 2010). This implies that website design is comprised of aesthetic aspect of content and product information presentations and functional aspect of navigating and interacting with site interfaces. The result of factor analysis concludes both visual and functional aspect of site design loaded on interface aspect of website design, implying the two aspects of site design are not separated dimensions, but needs to be approached as a uni-dimensional concept of interface design aspect. In order to develop an engaging online store environment through website interface, websites are needed to be both aesthetic and functional aspects to the design (Wang et al., 2011; Loicacono et al., 2002; Chen et al., 2010). In other words, elements of functional and aesthetic aspects of website design reinforce each other.

Factor analysis revealed one dimension of security/privacy with a-5 items and Cronbach's alpha for security/privacy was accepted as .782 stating the internal consistency of items within the factor. One factor, "The website clearly states privacy policy," was eliminated due to low loading.

The sole factor, identified as security/privacy ( $\alpha = .782$ , EV% = 8.35%), contained six items including: "Within the website my personal info is confidential," "The website makes me feel safe in my transactions," "The website has adequate security features," "The website is reputable," and "This website makes me feel like my privacy is protected."

The result of the exploratory factor analysis for security/privacy is consistent with previous studies that deemed privacy is an underlying dimension of security when relating to an online environment (Wolfenbarger and Gilly, 2002). It can be also interpreted that consumer perceptions for security and privacy attributes are not viewed separately, but it can be considered that the security attribute is the precondition for protecting consumer privacy (Wolfenbarger and Gilly, 2003; Delgado et al. 2003; Ba and Pavlou, 2002)

The factor analysis for shopping services identified two dimensions. Cronbach's alpha for personalized shopping service variable was .807 and interactive shopping service variable was .734, stating the internal consistency of items within each factor. A

The main factor, identified as personalized services ( $\alpha = .807$ , EV% = 4.32%), contained five items including: "This website provides personalized shopping services for me," "This website cares about business with me by sending thank you emails," "This website makes purchase recommendations that match my needs," "This website provides discount coupons," and "Within the website customer service personnel are always willing to help me." The second dimension identified as interactive services ( $\alpha = .734$ , EV% = 4.20%), consisted of four items: "This website allows me to check in-store product availability," "This website provides a live chatting feature," "This website is ready and willing to respond to customer needs," and "This website provides customer reviews and ratings."

The two dimensions of shopping services consistent with previous research were identified as personalized services and interaction services (Jin and Park, 2006; Ha and

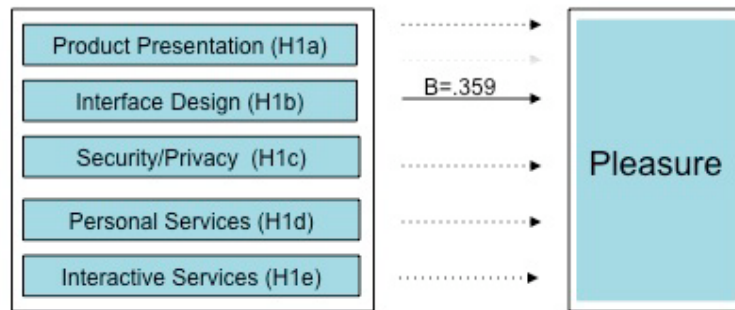
Stoel, 2009). As in the retail store environment, researchers have found that by providing both personal services such as shopping assistance and interactive customer service such as sales support, that consumer have a better overall perception of the brand and experience (Hoch, 2002). Therefore, determining similar dimensions of service for online retail environments is pertinent for the quality of consumer's online experience (Wolfenbarger and Gilly, 2003).

### *Testing Hypotheses: Multiple Regression Analysis*

In order to test the hypothesized relationships of H1 through H9, multiple regression analysis was used. Multiple regressions are used when one wants to determine relationships between two or more independent variables and one dependent variable. Both variables should be ordinal, while the independent variable is the predictor variable and the dependent variable is the outcome variable. Multiple regression analysis compares data and then prioritizes the effects. In this case, multiple regression determined the relative importance as well as significance of the relationship between website attributes, the organism state, and behavioral responses. In order to detect multicollinearity among independent variables, the Variance Inflation Factor (VIF) was examined. A VIF value of above 10 was used as a cut-off threshold, showing multicollinearity problems among independent variables in the regression models. All VIF values among independent variables in multiple regression models in this study were within an acceptable range.

H1: Website attributes positively affect pleasure in experiencing the retailer website.

In order to test the Hypothesis 1, multiple regression analysis was used. The five dimensions of website attributes; product presentation, interface design, security/privacy, personalized services, and interactive services were used as independent or predictor variables, while pleasure was the dependent or outcome variable. The results show that there is a significant positive relationship between the website attributes and pleasure ( $F = 14.503$ ,  $R^2 = .270$ ,  $p < .000$ ). The most powerful predictor is interface design (beta = .359,  $p < .000$ ). Therefore, it supports Hypothesis 1b (see Figure 2 and Table 9).



\*\*  $p < .05$ : ———▶ Hypothesis accepted      ·····▶ Hypothesis rejected

Figure 2. H1 results: Interface design.

H2: Website attributes positively affect arousal in experiencing the retailer website.

For examining Hypothesis 2, a multiple regression analysis test was conducted with the four dimensions of website attributes; product presentation, interface design, security/privacy, personalized services and interactive services as independent variables while arousal was the dependent variable. The result showed that a significant positive relationship between the website attributes and arousal ( $F = 8.109$ ,  $R^2 = .150$ ,  $p < .000$ ). The only significant predictor is interface design (beta = .317,  $p < .000$ ), thus,

supporting Hypothesis 2b (see Figure 3 and Table 9).

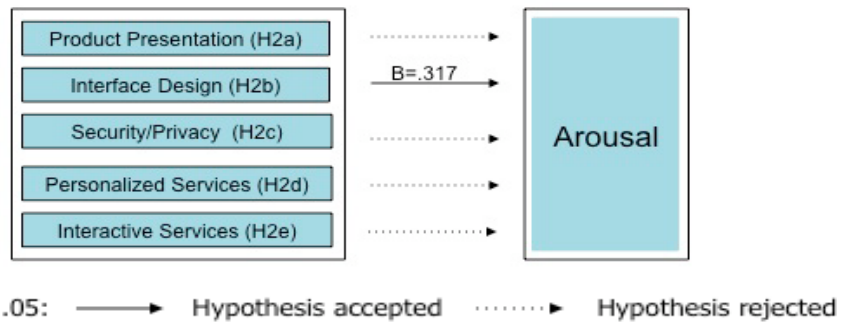


Figure 3. H2 results: Interface design.

H3: Website attributes positively affect dominance in experiencing the retailer website.

Hypothesis 3 was tested with the four dimensions of website attributes; product presentation, interface design, security/privacy, personalized services, and interactive services as independent variables while dominance was the dependent variable. A significant positive relationship between the website attributes and dominance ( $F = 8.705$ ,  $R^2 = .161$ ,  $p < .000$ ) was found. Interactive services variable has a significant and positive relationship with dominance (beta = .206,  $p < .008$ ) and interface design (beta = .232,  $p < .008$ ), supporting Hypotheses 3b and 3e (see Figure 4 and Table 9).

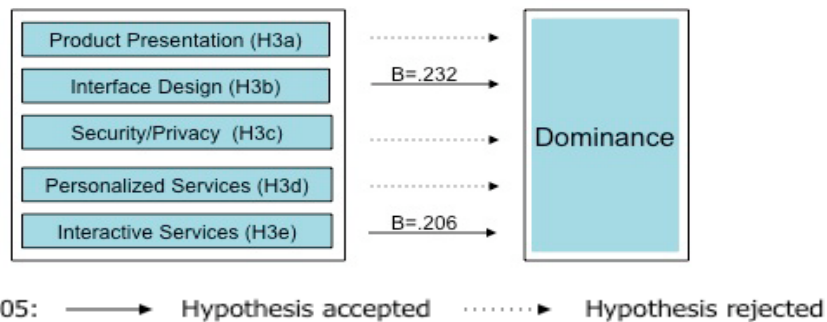
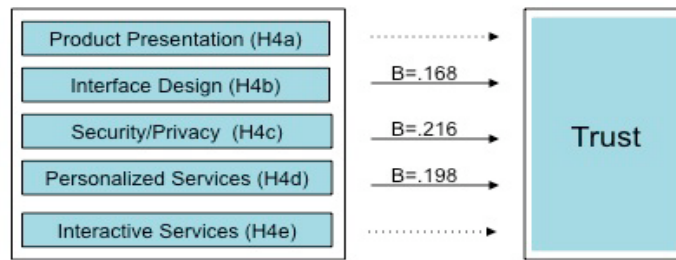


Figure 4. H3 results: Interface design and interactive services.

H4: Website attributes positively affect trust in experiencing the retailer website.

The result of Hypothesis 4 determined a positive and significant relationship

between the four dimensions of website attributes ( $F = 13.030$ ,  $R^2 = .230$ ,  $p < .000$ ). Interface design (beta = .168,  $p < .045$ ), security/privacy (beta = .216,  $p < .002$ ) and personalized services (beta = .190,  $p < .018$ ) are positively related to trust. These results support Hypotheses 4b, 4c, and 4d (see Figure 5 and Table 9).

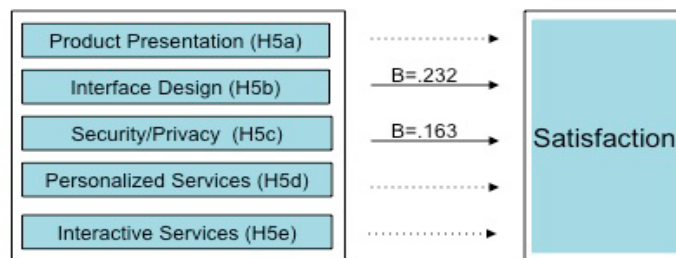


\*\*  $p < .05$ : ———▶ Hypothesis accepted    .....▶ Hypothesis rejected

Figure 5. H4 results: Interface design, security/privacy, and personalized services.

H5: Website attributes positively affect satisfaction in experiencing the retailer website.

Hypothesis 5 revealed a positive and significant relationship between the four dimensions of website attributes ( $F = 13.375$ ,  $R^2 = .235$ ,  $p < .000$ ). Interface design (beta = .232  $p < .006$ ) and security/privacy (beta = .163  $p < .020$ ) is the strongest predictor variable that is positively related to satisfaction. This result supports Hypotheses 5b and 5c (see Figure 6 and Table 9).



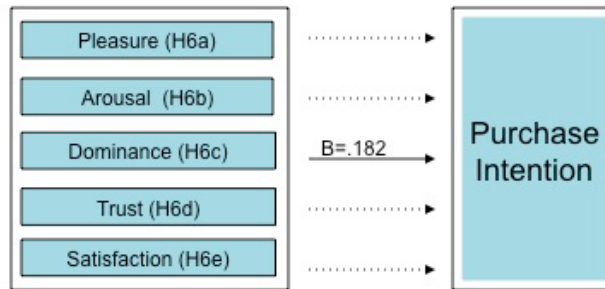
\*\*  $p < .05$ : ———▶ Hypothesis accepted    .....▶ Hypothesis rejected

Figure 6. H5 results: Interface design and security/privacy.



H6: Organism states positively affects purchase intention on the website.

After testing the relationship between the organism state; pleasure, arousal, dominance, trust and satisfaction; and purchase intention, the result of Hypothesis 6 determined a positive and significant relationship among the organism and purchase intention ( $F = 10.314$ ,  $R^2 = .456$ ,  $p < .000$ ). Dominance was the only dimension with significant relationship with purchase intention (beta = .182,  $p < .028$ ), supporting H6c (see Figure 7 and Table 10).



\*\*  $p < .05$ : ———▶ Hypothesis accepted      .....▶ Hypothesis rejected

Figure 7. H6 results: Dominance.

H7: Organism positively affects intent to visit the store.

Hypothesis 7 examined the relationship between the organism state and the consumer's intention to visit the store. After a multiple regression test analyzing the relationship between the organism state and intention to visit the store, Hypothesis 7 resulted in a positive and significant relationship ( $F = 13.610$ ,  $R^2 = .508$ ,  $p < .000$ ). The dimensions with the strongest relationship to the intention to visit the store are pleasure (beta = .316,  $p < .014$ ), arousal (beta = .391,  $p < .000$ ), and satisfaction, which has a negative relationship with intention to visit the store (beta = -.399,  $p < .018$ ). This supported H7a and H7b (see Figure 8 and Table 10).

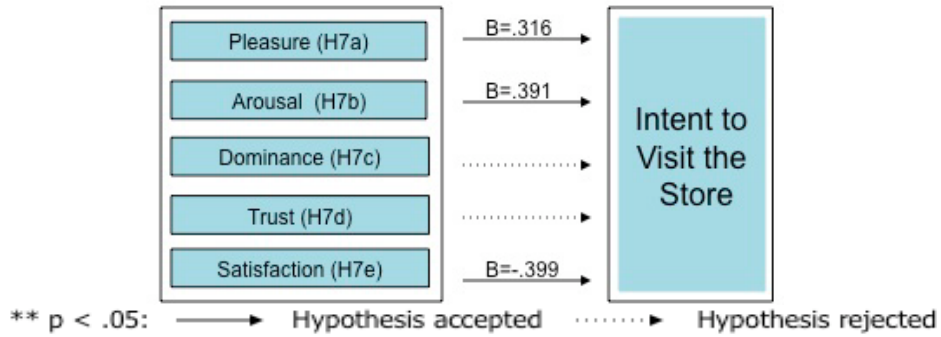


Figure 8. H7 results: Pleasure and arousal.

H8: Organism positively affects intent to revisit the website.

The relationship between the organism state and the consumer’s intention to re-visit the website was analyzed through multiple regression for Hypothesis 8. The analysis determined a positive and significant relationship between the variables ( $F = 18.658$ ,  $R^2 = .568$ ,  $p < .000$ ). The dimensions with the strongest relationship to the intent to re-visit the website are pleasure (beta = .306,  $p < .013$ ) and arousal (beta = .259,  $p < .013$ ). This supported H8a and H8b (see Figure 9 and Table 11).

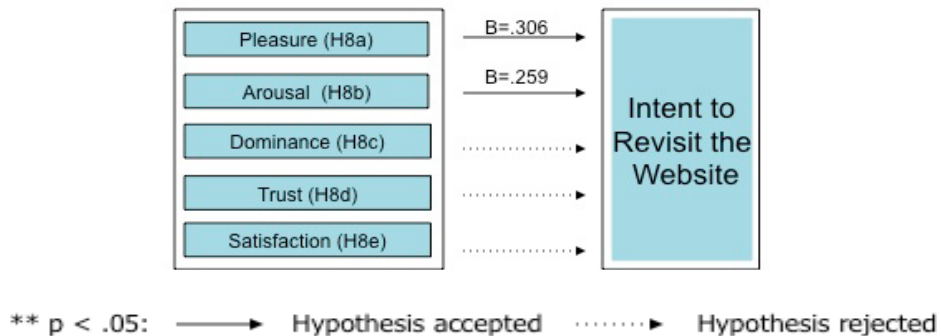
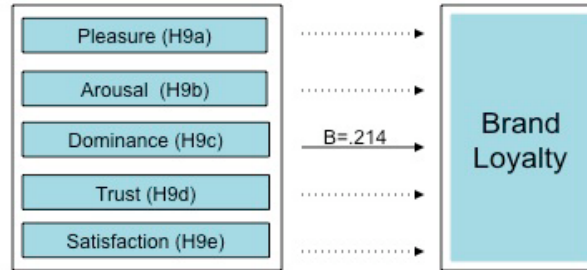


Figure 9. H8 results: Pleasure and arousal.

H9: Organism positively affects brand loyalty.

The final hypothesis, Hypothesis 9, tested the relationship between the organism state and brand loyalty. After a multiple regression test analyzing the relationship

between the organism state and brand loyalty, Hypothesis 9 resulted in a positive and significant relationship ( $F = 12.602$ ,  $R^2 = .395$ ,  $p < .000$ ). Dominance was the only variable with a significant relationship to brand loyalty (beta = .214,  $p < .012$ ). This supported H9c (see Figure 10 and Table 10).



\*\*  $p < .05$ : ———▶ Hypothesis accepted    .....▶ Hypothesis rejected

Figure 10. H9 results: Dominance.

Table 9

*Multiple Regression between Website Attributes and Organism State*

Predictor Variables	Pleasure	Arousal	Dominance	Trust	Satisfaction
Product Presentation	n/s	n/s	n/s	n/s	n/s
Interface Design	.359 <sup>''</sup>	.317*	.232**	.168***	.232**
Security/Privacy	n/s	n/s	n/s	.216**	.163***
Personalized Services	n/s	n/s	n/s	.190***	n/s
Interactive Services	n/s	n/s	.206**	n/s	n/s
$R^2$	.270	.171	.182	.249	.254
Adjusted $R^2$	.251	.150	.161	.230	.235
$F$	14.503*	8.109*	8.705*	13.030*	13.375*
Stepwise	Interface ( $R = .481$ )	Interface ( $R = .385$ )	Interface ( $R = .349$ )	Interface ( $R = .384$ )	Interface ( $R = .432$ )

\* $p < .001$ , \*\* $p < .01$ , \*\*\* $p < .05$ , n/s: not significant

Table 10

*Multiple Regression between Organism State and Behavioral Intentions*

<b>Predictor Variables</b>	<b>Purchase Intention</b>	<b>Intent to Visit the Store</b>	<b>Intent to Revisit the Website</b>	<b>Brand Loyalty</b>
Pleasure	n/s	.316**	.306**	n/s
Arousal	n/s	.391*	.259**	n/s
Dominance	.182***	n/s	n/s	.214**
Trust	n/s	n/s	n/s	n/s
Satisfaction	n/s	-.399**	n/s	n/s
$R^2$	.456	.508	.568	.395
Adjusted $R^2$	.188	.239	.305	.137
$F$	10.314*	13.610*	18.658*	12.602*
Stepwise	Satisfaction ( $R = .409$ )	Arousal ( $R = .474$ )	Pleasure ( $R = .538$ )	Dominance ( $R = .347$ )

\* $p < .001$ , \*\* $p < .01$ , \*\*\* $p < .05$ , n/s: not significant

## CHAPTER 5

### DISCUSSION AND IMPLICATIONS

Retailers' website attributes are determinants of website quality that yield consumer affective and attitudinal states as well as behavioral responses toward websites. The affects of website attributes on consumer internal reactions and behavioral responses toward websites are viewed as a process of constructing online shopping experience in this study. Based on Mehrabian and Russell (1974)'s S-O-R theoretical framework, the process of constructing online shopping experience was tested with hypothesized relationships. The results of the examined hypothesized relationships reveal website attributes that create positive internal states and behavioral responses toward the retailers and retailers' websites. Further suggesting research and practical implications for creating positive online shopping experiences that drive online and offline store traffics. This chapter discusses the findings of this study and its' implications for future research and marketers. Limitations and conclusion of the study are provided.

#### Website Attributes and Internal States

Upon examining the relationships between website attributes and the internal state, this study empirically supports that website attributes have a positive relationship with the consumer's internal states.

### *Product Presentation*

Product presentation is the only attribute showing an insignificant affect on the internal states, suggesting that the other factors have greater affects on the consumers' internal states. Considering the research behind developing a multidimensional environmental design online (Wang et al., 2011; Loiciacono et al., 2002; Chen et al., 2010), the dimension of interface design, which is a culmination of functional and aesthetic design, is more important to consumer engagement and interaction with the website than the informational drive of product presentation. While information drive was an essential aspect of consumer experience in Brakus et al. (2009)'s study, different type of information drive was found in this study than was previously thought. The insignificant effect of product presentation on consumer's internal states does not imply product presentation is not a critical stimulus affecting consumer behavioral response in this study. There could be a direct relationship between product presentation and behavioral responses toward retailers' websites, store, and brand.

### *Interface Design*

The study results show that interface design is a predictor for all of the internal states. The interface design of a website is a key stimulus. It is the first dimension a consumer acknowledges and therefore it has the strongest impact on internal responses (Wolfingbarger and Gilly, 2003). The aesthetics of website design such as layout of the website and visual appeal help the consumer identify the retailer associated with the website and create the shopping environment for the consumer. The design of a

website should create a shopping environment that is consistent with the identity and design of the store environment. Additionally, the other dimension of interface design, functional aesthetics, which encompasses navigation design, ultimately caters to the consumers desire for ease of use and usability functions (Wolfingbarger and Gilly, 2003; Ha and Stoel, 2006).

#### Interface Design – Pleasure

When referencing shopping experience, pleasure relates to the consumers entertainment and enjoyment value derived from that experience (Mehrabian and Russell, 1974). Since interface design is seen as the environmental cue of online shopping experience, the consumer's entertainment value would ultimately be affected by the interface design. Being an extension of the store environment, consumers expect that if the store experience was predominantly pleasurable, than the website will be as well.

#### Interface Design – Arousal

Similarly to the positive relationship that interface design has with pleasure, its relationship to arousal is dependent upon the visual and aesthetic aspect of the design. Arousal is about stimulating the consumer so that they have a deeper, more meaningful engagement with the retail environment (Mehrabian and Russell, 1974). The interface design is the first attribute that the consumer is aware of and the greatest predictor of arousal in this study.

### Interface Design – Dominance

The usability and ease of use of a website are key to the consumers experience with that website (Ha and Stoel, 2006). For this study interface design encompassed the functionality of the website, as in navigation, flow, and reliability. The fact that interface design is a significant predictor of dominance implies that it increases the consumer's control over the experience. The more interaction a retailer can provide to a consumer through the website, the more command that consumer will feel over the experience (Wolfingbarger and Gilly, 2003; Loiciacco et al., 2002).

### Interface Design – Trust

Trust is developed by the ability of the website to replicate the visual interface of the brand environment online. If the interface is recognizable and cohesive with the overall retailer identity, the consumer develops a level of comfort with the website. The level of comfort established ultimately leads to a foundation of trust with the website. Furthermore, the fluidity of the interface design also helps consumers develop a level of confidence in how the website works (Eroglu, 2001).

### Interface Design – Satisfaction

The most significant predictor of satisfaction is interface design, which is the first attribute identified by consumers. Therefore, even if consumers have minimal interaction with the website, they still develop an attitude towards the website. The



formation of that attitude over the depth of their engagement leads to some formation of satisfaction.

### *Security/Privacy*

Security/privacy is found as a predictor of both trust and satisfaction, which is consistent among previous literature (Chen et al., 2010; Constantinides, 2004). Trust and satisfaction are dimensions associated with reliability, security, and confidence (Delgado 2003). Wolfenbarger and Gilly (2003) had suggested that unless faced with a shopping experience in which the consumer's security and or privacy was violated, then the consumer often does not associate pleasure, arousal, or dominance with the security/privacy measures established by the retailer. Therefore, the consumer has no other discernible emotions besides trust and satisfaction, related to security and privacy.

### Security/Privacy- Trust

Trust is a consumer response that takes longer to develop than things like pleasure, arousal, or dominance. As it relates to security and privacy, trust is developed through the understanding that the website is a secure infrastructure. Therefore, the finding that security/privacy is the strongest predictor variable of trust is consistent with previous research.

## Security/Privacy- Satisfaction

Consumers have an underlying assumption that security and privacy measure is a part of the website. Therefore, security/privacy is not a website attribute that all consumers are initially concerned with. However, awareness of its presence develops an added sense of overall satisfaction to the experience (Kim and Shim, 2002).

### *Personalized Services*

Personalized services range from personalization of the site and transaction process to personal product recommendations. Previous studies have found that the more personalized services provided by the website, the more likely the consumer will engage with the website and develop confidence in that website (Eroglu, 2001; Delgado, 2003).

## Personalized Services- Trust

Personalized shopping services are about customizing the online shopping experience to the individual consumer, which has been shown to increase enjoyment in experiences (Surprenant and Solomon, 1987). According to Childers, Carr, Peck and Carson (2001), the consumer's ability to enjoy the website plays an important part in their acceptance of trust in that website. Therefore, personalized services being the second most significant predictor of trust is consistent with the previous research.

### *Interactive Services*

Interactive services were developed to give consumers similar relational and social dimensions that are present in the store, but were previously missing from online shopping experiences. When shopping consumers are likely to interact with other shoppers or sales associates, seeking opinions about products. Therefore, by providing these services online consumers can engage in the social and relational dimensions that enhance the store shopping experience.

#### Interactive Services- Dominance

Being the second strongest predictor of dominance is an accepted finding for interactive services. By providing interactive services consumers' gain tools that allow him or her to control and affect the experience. Therefore, the emotional state of dominance is fulfilled through the personal control over the situation.

#### Internal States and Behavioral Responses

The results show that pleasure and arousal have similar response patterns and are predictors of consumer intention to engage in retail environments, whether it is either in the physical store or on the website. This is consistent with previous studies that have linked pleasure and arousal as related three dimensions (Menon and Kahn, 2002). However, dominance is found to be a predictor of relationship measurements of the retailer as in purchase intention and brand loyalty. For this study, trust is an attitudinal state influenced by interface design, security/privacy, and interactive services

and does not have any significant relationship to response dimensions. Satisfaction is the other attitudinal dimension and can also be classified as an attitudinal outcome of the affects of website attributes. Satisfaction was found to have one meaningful relationship with a behavioral response. Brakus et al. (2009)'s brand experience study discussed the importance of the intellectual dimension to experience and how it can either be a predictor of an outcome or can be the result of an experience in itself. In this study trust and satisfaction are seen as consistent with Brakus et al.'s (2009) identification of the intellectual dimension of experience.

### *Pleasure*

For years the dimension of pleasure has been studied as a catalyst to behavioral response (Mehrabian and Russell, 1974; Russell and Mehrabian, 1977). The results of this study show that in relation to online shopping experience, pleasure can be tied with a consumer intent to visit the store and intent to revisit the website.

#### Pleasure- Intent to Visit a Store

Many consumers continue to go online and examine websites before determining what stores to visit (Riley, 2010). Consumers will not visit a store unless the online shopping experience was somewhat pleasurable for them. The retail industry has become highly competitive over the years, and retailers have to nurture several channels to keep consumers interested. Therefore, the results show that pleasure has a

positive relationship with intent to visit the store, which is consistent with new shopping trends.

#### Pleasure- Intent to Revisit the Website

The online retail industry is saturated with options that consumers are likely to return to a website only if the previous experience was pleasurable. Thus, the positive relationship between pleasure and the consumer's intent to revisit the store is a consistent finding.

#### *Arousal*

Arousal is another part of the consumer's active engagement in the shopping experience (Mehrabian and Russell, 1974; Menon and Kahn, 2002). After pleasure, arousal is the emotion stimulated by an enjoyable experience. Therefore, the behavioral responses associated with arousal are similar to that of pleasure.

#### Arousal- Intent to Visit a Store

Like pleasure, arousal leads to consumer enjoyment. Therefore, if the consumer is enjoying his or her experience online than that consumer is more likely to want to extend his or her enjoyment and experience the store environment, aligning with the results of this study.

### Arousal- Intent to Revisit the Website

Furthermore, if consumers are stimulated by the online shopping experience, this desire to relive that experience will lead to the consumer's intention to revisit the website.

### *Dominance*

The modern consumer has become more and more individualized and his or her desire for customization has led dominance to be a key dimension in affecting the way the consumer responds to shopping experience. A dimension often not thought about by many consumers, dominance is a powerful tool in experience, and even more so for online shopping experience (Surprenant and Solomon, 1987; Wang et al., 2011; Chen et al., 2010). Furthermore, the aspect of control has been shown to have positive relationships with more critical behavioral responses such as purchase intention.

### Dominance- Purchase Intention on the Website

The more control consumers have over the entire shopping experience leading up to the transaction point, the more confident consumers will feel in the decision of purchasing.

### Dominance- Brand Loyalty

Brand loyalty is an important consumer response that retailers strive for. The study results show that dominance over the online shopping experience positively leads

to brand loyalty. This is aligned with the idea that consumers are reacting to the control that retailers are providing throughout the experience.

### *Trust*

Trust is a dimension not identified as a predictor variable for any of the measured behavioral responses in this study. It can be concluded that trust in itself can be seen as the resulting stage to an experience.

### *Satisfaction*

Similar to trust, satisfaction is also thought to be a resulting stage instead of an intermediate stage between stimulus and response. This study found satisfaction only had a significant relationship with one response variable, intent to visit the store. Therefore, it can be concluded that satisfaction is a resulting outcome of interface design and security/privacy.

#### Satisfaction- Intent to Visit a Store

Satisfaction was found to have a negative affect on intent to visit the store. This result is a contradiction to both the hypothesis, as well as previous studies. Nonetheless, this finding shows the progression of consumer's response to online shopping. Previously, consumers were still purchasing in the store after they had viewed merchandise online. This was due to a variety of reasons such as: the consumer desired to try on the clothing; experience the physical store environment for

entertainment purposes; consumers did not have the comfort level with online purchasing; or consumers still craved the personal interaction and engagement that a store experience can provide. However, this result shows that if consumers are satisfied with the online shopping experiences he or she will actually prefer to stay engaged with the website and the desire to visit the store will decrease.

### Consequent Relationships

Examining relationships from stimulus to organism and then to behavioral response, significant relationships are identified in this study. From this it is determined that there are three underlying stimulus dimensions that predict the studied behavioral responses. The consequent relationships are depicted in Figure 11. Furthermore, additional analysis is conducted using stepwise regression as a second approach to determine the best model with the most significant predictor based on t-statistics of their estimated coefficients in each regression model. Since stepwise regression method is used to obtain the best independent variable or combination among multiple independent variables in predicting a dependent variable (Draper and Smith, 1981), the result can reveal another aspect of data analysis result that may be overlooked.

### *Interface Design*

Interface design is concluded to be the primary predictor variable for all dimensions of behavioral response. Interface design is the predictor variable for every organism state and therefore has a relationship to each behavioral response dimension.



## Interface Design – Purchase Intention

Interface design is the strongest predictor of dominance, which is the strongest predictor of purchase intention. From these results, we can conclude that interface design is then the strongest predictor of online purchase intention. The dimensions of interface design and its relationship to internal states has been outlined in previous sections. It has been noted that ultimately interface design is the first stimulus and the most expansive dimension of online shopping experience. Since interface design is such a large and critical part of the development of the internal states, than it is natural that it would also be a strong predictor of behavioral responses as well. Furthermore, consumers feelings of control over the experience through navigation, layout, and aesthetics helps give him or her a level of comfort with the website and viewing the current product being looked at. Additionally, the simplicity of the transaction navigation also lends itself to an experience free of frustration, which in turn eases the consumer's process of purchasing.

## Interface Design – Intent to Visit the Store

Interface design is a significant predictor of both positive and negative intention to visit the store. Though this may seem like a contradiction the results are actually quite informative.

- Positive intention: As website development technology becomes more and more advanced the consumer is able to gather a comprehensive evaluation of the retailer by the interface of the website. Therefore, if the consumer enjoys the online

shopping experience, the consumer may have the desire to then visit the store as well to extend or enhance the enjoyment had from the online shopping experience.

- Negative intention: Though some consumers may have an increased desire to visit the store after shopping on the website, for others, the positive online shopping experience leads to satisfaction with the experience. This developed satisfaction then eliminates the consumers desire or need to visit the store.

#### Interface Design – Intent to Revisit the Website

Similar to the consumer's desire to visit the store, the pleasure and arousal associated with the initial online shopping experience will inevitably lead to the consumer's intention to revisit the website.

#### Interface Design – Purchase Intention on the Website

The functional aspects of interface design, like navigation and layout organization help guide the customer during the online shopping experience. The ease of use established by the interface design is then a predictor of purchase intention. If this interaction is free of frustration and allows the user to control the situation in a manner he or she deems pleasing, than the customer is more likely to purchase from that website.

#### Interface Design – Brand Loyalty

It has been previously concluded that store environment plays a key role in the

consumer's loyalty to a brand and repatronage of the retailer (Bloemer and Ruyter, 1997). However, this study shows that the interface design of a website also has a strong relationship with brand loyalty. The consumer expects a certain level of aesthetics and functionality with a retailer's website and that ultimately guides the consumer to purchase on the website, as well as return to the website. Therefore, the continued relationship the consumer develops with the retailer over several visits and purchases can be seen as a reflection of the initial and continued enjoyment in interface design that the consumer has.

### *Security/Privacy*

Based on the result of stepwise regression it is determined that security/privacy, which is a predictive variable of satisfaction is then a predictor of purchase intention and brand loyalty.

#### Security/Privacy- Purchase Intention on the Website

Consistent with studies which show that the more secure a website is, the more likely a consumer will purchase from that website (Ling et al., 2010). Furthermore, these features are cohesive with the consumer's desire to comparison shop between multiple websites. If one website is perceived to be more secure than another, the consumer will choose to patronize the more secure website.

## Security/Privacy- Intent to Visit the Store

Expanding on how security/privacy affects consumer's intention to purchase online, this dimension also has a negative relationship with consumer's intention to visit a store. This is due to the fact that security and privacy features of a website allow a shopper to feel comfortable with his or her personal interactions with the website and therefore have no desire to visit a store.

### *Interactive Services*

Since interactive services is the only predictor of dominance, and dominance was the greatest predictor of purchase intention and brand loyalty, it is concluded that the interactive services provided by the website environment ultimately are the greatest predictors of consumers intent to purchase a product from the website, as well as the consumer's intent to continually engage and purchase from that brand and website. As Chen et al. (2010)'s study suggested, customization to consumers through services and functional design is a key factor in predicting purchase intention and brand loyalty.

## Interactive Service- Purchase Intention on the Website

Providing the customer with services that help inform the consumer's product selection, will also ease the consumer into purchasing from online.

## Interactive Service- Brand Loyalty

Interactive services like online chatting and customer reviews continually

reinforce the consumer's desire to develop a relationship with a retailer, therefore enforcing brand loyalty.

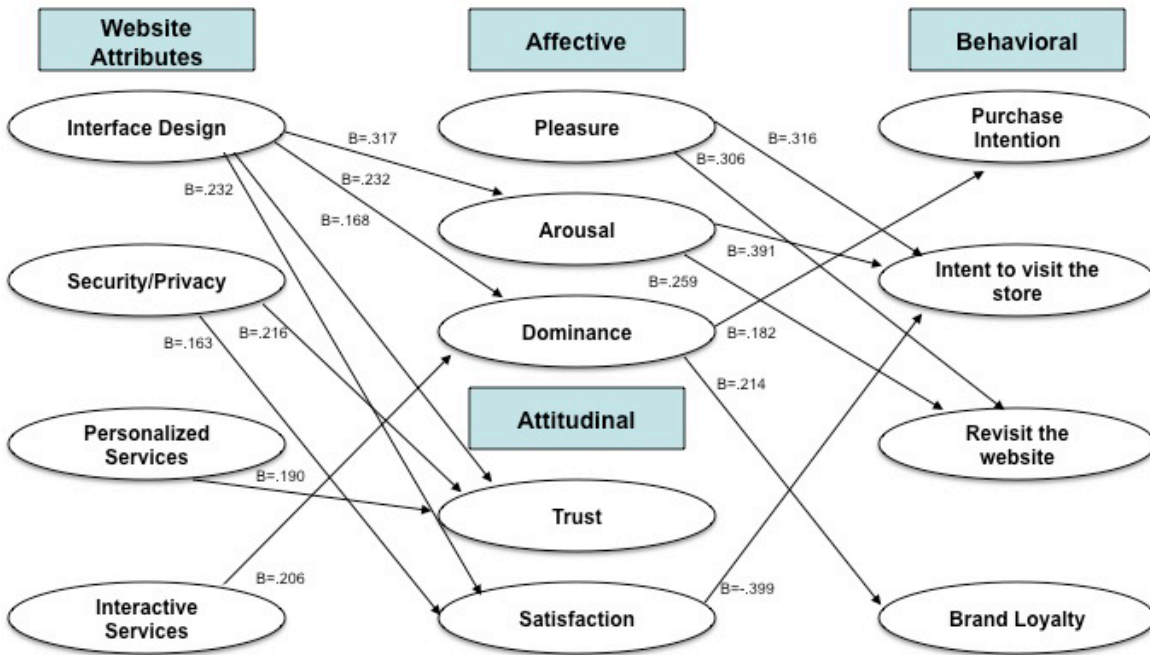


Figure 11. Consequent relationships.

### Practical Implications

Implications for marketers and practitioners derived from this study are suggested to lay groundwork for how retailers develop their websites. This study contributes to understanding that the website is now an extension of the store experience, but can be treated as a separate environment as well. Retailers need to be aware of the consumer's interaction and understanding of the interface when developing the websites. Furthermore, special attention should also be paid to the types of services provided. Consumers need to be engaged with the website in order for

online shopping experience to continue to enhance or replace traditional physical store environments.

Developing various service aspects on the website allows consumers the appropriate level of desired engagement with the website. This study identified that interface design and interactive services are key predictive variables over product presentation and personalized services, which points to the fact that consumers are more knowledgeable and aware of the online environment than ever. The consumer wants to be stimulated by the experience. Further developing this topic, there are utilitarian and hedonic consumers who shop both online and in stores. However, until recently practitioners had not developed an online environment to support both types of shoppers. In Wolfinbarger and Gilly (2003)'s study, they mentioned the complication of providing consumers with a complete retail experience online, and therefore they discussed that there will always be a need for a retailer's physical presence. It was determined that consumer's hesitance towards online shopping would be due to the fact that retailers cannot control the physical environment, as well as various external factors that the consumer may experience while on the retailer's website. Therefore, websites were used as more of an outlet for utilitarian customers, with the understanding that hedonic consumers desired the presence of the store to enhance his or her experience. However, this study identifies that both the utilitarian and hedonic shoppers are engaging in online shopping experiences. Since the hedonic consumer is concerned about the services provided and interface of the website, developing and providing both utilitarian and hedonic aspect of experiences via the retailer's website is

imperative. Additionally, practitioners need not to simplify retail websites in order to provide what may be deemed as ease of navigation for the generalized audience. Retailers need to understand that consumers are rapidly developing and all have different levels of user experience. Therefore, by developing multiple dimensions of navigation the consumer can develop his or her own patterns of moving through the website. This allows the consumer the control he or she desires, while also building a multi-dimensional experience to stimulate a variety of consumers.

By linking the interactive services between the online shopping experience and the in store experience, the retailer has a better chance of developing brand loyalty with a consumer. This is due to the fact that retailers would be nurturing the consumer's cross channel relationships with the retailer. Leading consumers to engage in multiple experiences with the retailer, ultimately allowing the retailer to develop a stronger relationship with the consumer. Furthermore, as consumers are becoming marketers of brands themselves by promoting retailers through social media sites like Facebook, Twitter and Pinterest; practitioners need to understand how to extend interactive services to incorporate such external forums.

### Research Implications

There is a need for further research on the subject matter of online shopping experience, as well as the identification of website attributes. This study identifies that consumers are adapting to technology faster than ever before. Often times, research and technology cannot be developed fast enough to understand and meet the needs of

consumers. Therefore, it is imperative that further research continues to examine relative and timely aspects of the ecommerce industry and related affects on shopping experience. This study contributed the use of the S-O-R framework, as well as new dimensions of website attributes in order to update the framework on online shopping experience. However, continual revisions to aspects of the framework as well as definitions for website attributes will be necessary to keep the research behind online shopping experience as current as possible. Ultimately helping practitioners make key business decision.

In order to revalidate the findings of this study, it is recommended to examine different methods of conducting the data. For example, having a controlled environment where each participant could interact with a website, free of previous bias, to help confirm the findings. Additionally, studies should be done to determine the affects that these findings have on overall brand experience, both online and in the store.

Although the question on loyalty programs was removed for it being cross-loaded across personalized services and interactive services, it suggests that loyalty programs encompass offering personalized and interactive services to consumers. This is an area with a large gap in relevant and up-to-date research. Consumer's adaption to online retail environments is advancing faster than updated technology can be created, therefore it is suggested for future studies to examine the underlying dimensions of shopping services in order to give implications for practitioners in developing affective online shopping services.



In addition, there is a need for further research of cognitive aspects of trust and satisfaction in measuring consumer reactions to website, possible indirect/direct relationships among variables, and a need to identify other emerging website attributes (consumer-generated sources) that were not tested in this study.

Further research should be done to distinguish the different preferences of online shopping experiences based on the type of consumer; hedonic or utilitarian. These findings could potentially help practitioners identify, target, and fulfill the needs of their individual consumers based on his or her shopping tendencies.

#### Limitations

This study was conducted from a small sample of university students located in a southern state of the United States. Though the school is a diverse environment, there is still opportunity to conduct a larger study from a greater sample of the United States. Expanding on that point, this study cannot be generalized to males since only 9% of the sample was male. Nor could the study reflect upon the opinion of consumers over the age of 35, which represented 2.5% of the sample. Therefore, it limits the generalization of this study.

Additionally, the consumers were asked to choose from five different websites and then answer questions based on those specified websites. Though the apparel stores were identified as nationally recognized brands, a natural bias still remains. It is possible that the consumer may not know of the stores or he or she may have a

previous dislike or extreme favoritism towards the store. Therefore the questionnaire may not have been as accurately answered.

Furthermore, overall shopping and brand experience is a limited dimension in this study because we did not measure after purchase state. Conducting a study that follows up with consumers after an initial interaction with a retailer may give practitioners a better understanding of the entire online shopping experience.

### Conclusions

This study explored a new way of measuring online shopping experience by incorporating the S-O-R framework, as well as the P-A-D scale. Previously, researchers primarily focused on the technology acceptance model to study consumer's interaction with websites. As consumers become more and more accustomed to online environments, the need for identifying the consumer's level of acceptance of the retail channel is outdated, making this model of analysis insufficient or limited for review. Therefore, it was important to establish a new way of measuring consumer's online engagement, or online shopping experience. The S-O-R model brought a theoretically developed framework to this study and helped validate the measurement of dimensions, as well as the findings. Furthermore, the P-A-D scale added a different element of emotional responses to the study, beyond the attitudinal states that often are incorporated in retail consumer studies.

This study set out to determine key website attributes that affect consumer behavioral responses. It was found that interface design is the strongest predictor of all

behavioral responses, while shopping services and security are able to predict long term behavioral responses, such as purchase intention and brand loyalty. The findings are consistent with previous studies, however this study shows that the shopping orientations of consumers are changing. Over time the priorities of consumers have moved from a desire for personal human interaction to information drive and now interactive experience. Identifying that consumers are rapidly evolving in the market place will hopefully help retailers understand the importance of not just keeping their websites and experience relevant, but staying engaged strategically through effective use of website attributes.

The development of an updated framework, as well as the conclusive findings of this study is imperative to practitioners and researchers. This study identified a gap in previous literature and has in turn developed a significant method of measuring online shopping experience. This updated methodology of studying online shopping experience gives practitioners and researchers a better understanding of the modern consumer and should be the foundation for many future studies on the subject matter.

APPENDIX  
SURVEY QUESTIONNAIRE

## Informed Consent Notice

Dear Survey Participants:

As a graduate student of the School of Merchandising and Hospitality Management at the University of North Texas I am interested in studying key website attributes and their overall effect on brand loyalty. As a consumer, you have important opinions about your online and in store brand experience and how such affect your overall perception of that brand. I hope this research will help researchers and marketers better understand the effects of website attributes and be able to provide shopping benefits and value to consumers.

Your participation in this study is voluntary, and the completion of the questionnaire serves as your consent to participate in the study. However, if at any time during your participation in this study you wish to stop, feel free to do so. There are no penalties for not participating.

You must be 18 years of age or older to participate in this research. No questions are asked that would pose any physical, psychological, or social risks and all responses will remain anonymous. All responses are completely confidential, so please answer honestly. Your name will not be associated with your answers; it will just be used to The survey will take approximately 10-15 minutes to complete and all questions are important, so please answer all of them unless otherwise specified.

Your opinions are valued and I would like to thank you for taking the time to complete the survey. If you have any questions concerning this study, please do not hesitate to contact me at [REDACTED] or by email to [REDACTED]. Please keep this letter for your records and thank you for your time.

This research project has been reviewed and approved by the UNT Institutional Review Board Feel free to contact the UNT IRB at (940) 565-3940 with any questions regarding your rights as a research subject.

Sincerely,

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# Online Shopping Experience

Thank you for participating in this survey. It is designed to learn more about consumers perceptions of different website attributes and how it affects their overall consumption behavior. Please take a few moments to think about one of the websites listed below, visit it if need be and then answer the following questions in regards to that website and your overall shopping habits.

www.gap.com                  www.forever21.com                  www.hm.com                  www.jcrew.com  
www.abercrombie.com

Please identify the website you will be answering questions about:

## Section I: Website Design

The following questions are about the design, visual aesthetics and functionality of the website. Please mark your level of agreement regarding the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree					
	[1]	[2]	[3]	[4]	[5]	[6]					
						[7]					
This website provides product pictures from various angles					1	2	3	4	5	6	7
The website provides detailed merchandise					1	2	3	4	5	6	7
The website gives me enough information so that I can identify the item to the same degree as if I am in the store					1	2	3	4	5	6	7
The website has a simple and easy to understand design					1	2	3	4	5	6	7
The website organization facilitates searching for products					1	2	3	4	5	6	7
The website search function gives me useful results					1	2	3	4	5	6	7
The website is visually appealing					1	2	3	4	5	6	7
The website has a good selection of apparel					1	2	3	4	5	6	7
In this website I can easily find the product that I need					1	2	3	4	5	6	7
This website does not waste my time					1	2	3	4	5	6	7
The website organization and layout facilitates searching for the product					1	2	3	4	5	6	7
The website has flexibility in my interaction while searching for information					1	2	3	4	5	6	7
My website interaction is clear and understandable					1	2	3	4	5	6	7
The website provides pictures I can enlarge					1	2	3	4	5	6	7
The website makes a strong impression on my visual senses					1	2	3	4	5	6	7
The website navigation is visually cohesive					1	2	3	4	5	6	7
On this website I can go to exactly what I want quickly					1	2	3	4	5	6	7
The website has an easy and efficient navigation					1	2	3	4	5	6	7

## Section II: Website Security/Privacy

The following questions are about the security and privacy provided by the website. Please mark your level of agreement regarding the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree					
	[1]	[2]	[3]	[4]	[5]	[6]					
						[7]					
Within the website my personal information is confidential					1	2	3	4	5	6	7
The website clearly states privacy policy					1	2	3	4	5	6	7

This website makes me feel safe in my transactions	1	2	3	4	5	6	7
The website has adequate security features	1	2	3	4	5	6	7
The website is reputable	1	2	3	4	5	6	7
This website makes me feel like my privacy is protected	1	2	3	4	5	6	7

### Section III: Website Shopping Services

The following questions are about the shopping services provided by the website. Please mark your level of agreement regarding the following statements.

Strongly Disagree [1]	Disagree [2]	Somewhat Disagree [3]	Neither Agree nor Disagree [4]	Somewhat Agree [5]	Agree [6]	Agree [7]
This website provides personalized shopping services for me	1	2	3	4	5	6 7
This website cares about business with me by sending thank you email	1	2	3	4	5	6 7
This website makes purchase recommendations that match my needs	1	2	3	4	5	6 7
The website provides discount coupons	1	2	3	4	5	6 7
Within the website customer service personnel are always willing to help me	1	2	3	4	5	6 7
This website provides a rewards program for the brand	1	2	3	4	5	6 7
The website is ready and willing to respond to customer needs	1	2	3	4	5	6 7
The website allows me to check in-store product availability	1	2	3	4	5	6 7
The website provides a live chatting feature.	1	2	3	4	5	6 7
The website provides customer reviews and ratings	1	2	3	4	5	6 7
The website provides alternate tools (e.g., zooming tool, video presentation, alternative views) to evaluate products.	1	2	3	4	5	6 7

### Section IV: Pleasure-Arousal-Dominance-Trust-Satisfaction Scale

The following questions are about your emotional level while viewing the website. Please rate the degree as to which you felt each scale of emotions.

Unhappy	1	2	3	4	5	6	Happy
Bored	1	2	3	4	5	6	Stimulated
Unsatisfied	1	2	3	4	5	6	Satisfied
Annoyed	1	2	3	4	5	6	Pleased
Discontent	1	2	3	4	5	6	Content
Despairing	1	2	3	4	5	6	Hopeful
Dull	1	2	3	4	5	6	Bright
Calm	1	2	3	4	5	6	Excited
Controlled by the experience	1	2	3	4	5	6	Controlling
Influenced	1	2	3	4	5	6	Influential
Submissive	1	2	3	4	5	6	Dominant

Autonomous	1 7	2	3	4	5	6	Guided
Distrust	1 7	2	3	4	5	6	Trust
Doubtful	1 7	2	3	4	5	6	Confident
Unreliable	1 7	2	3	4	5	6	Reliable
Frustrated	1 7	2	3	4	5	6	Fulfilled
Unsure	1 7	2	3	4	5	6	Certain

### Section V: Behavioral Response

The following questions are about your response to viewing the website. Please mark your level of agreement regarding the following statements.

Very Unlikely [1]	Unlikely [2]	Somewhat Unlikely [3]	Neither Likely nor Unlikely [4]	Somewhat Likely [5]	Likely [6]	[7]				
I intend to return to this website				1	2	3	4	5	6	7
I intend to visit this brand's store				1	2	3	4	5	6	7
I will recommend this brand to my family, friends or others				1	2	3	4	5	6	7
Given the chance I intend to purchase a product on this website				1	2	3	4	5	6	7
When I need to make an apparel purchase this is the first brand I choose				1	2	3	4	5	6	7
I have an intention to visit a store				1	2	3	4	5	6	7
I intend visit the online retailer again				1	2	3	4	5	6	7
I intend to purchase from this website				1	2	3	4	5	6	7
I believe that this is my favorite brand				1	2	3	4	5	6	7
I would like to visit a physical store				1	2	3	4	5	6	7
I expect to revisit this website				1	2	3	4	5	6	7
I will purchase from this website in the future				1	2	3	4	5	6	7

### Section VI: Demographics and Website Usage

The following questions are to learn more about you. Please answer the questions accordingly.

How often do you visit the site?

- a. Never
- b. Less than two times a



year

- c. About once a month
- d. 2 or 3 times a month
- e. More than 4 times a week
- f. Everyday

On your last visit, what was your primary reason for visiting this website?

- a. Seeking company information
- b. Seeking product information
- c. Product purchase
- d. Seeking store hours
- e. Seeking store location/directions

How often do you use the web to find product information?

- a. Never
- b. Less than two times a year
- c. About once a month
- d. 2 or 3 times a month
- e. More than 4 times a month
- f. Everyday

Did you find what you were looking for on the site?

- a. Yes, I found what I was looking for.
- b. Yes, but not the brand/size/color etc.
- c. I found a related product, but not exactly what I was looking for.
- d. No, I didn't find what I was looking for.

How many times in the last 12 months have you purchased from this website?

- a. Never
- b. 1-2 times
- c. 3-5 times
- d. 6 or more times

How many times in the last 12 months have you purchased from the store associated with this website?

- a. Never
- b. 1-2 times
- c. 3-5 times
- d. 6 and more times

What is your gender?

- a. Male
- b. Female

How old are you?

18-21  
older

22-25

26-29

30-35

36-40

40 and  
older

What is your Ethnicity?

- a. White/Caucasian
- b. African American
- c. Latino/Hispanic American
- d. Asian American
- e. Native American
- f. International student
- g. Other

What is the highest level of education you have completed?

- a. Less than High School
- b. High School/GED
- c. Some college
- d. 2-year college degree
- e. 4-year college degree
- f. Masters degree
- g. Doctoral degree
- h. Professional degree (JD, MD)

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