#### AN ABSTRACT OF THE THESIS OF

<u>Kerianne Marshall</u> for the degree of <u>Master of Science</u> in <u>Design and Human Environment</u> presented on <u>August 25, 2009</u>.

Title: Online Product Presentation and Perceived Trustworthiness: The Moderating Role of Gender.

Abstract approved:_		
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E-commerce is growing each year, reaching 130.1 billion in 2008 (Internetretailer.com, 2009b). Retailers have turned their attention to the online channel to discover ways to stay competitive. Yet there is still limited research on online apparel retailing, especially in online product presentation. Thus, the purpose of this study was to examine how the presence of an attractive model's face influences consumer trustworthiness and to explore how men and women differ on their response to the presence of an attractive model's face in an online apparel shopping context. In addition, relationships between perceived trustworthiness, perceived risk, and purchase intention were examined.

This study employed a one factor between-subjects' factorial design: Product presentation (presence of face vs. absence of face) by gender (male vs. female). Eight websites were created to closely resemble the design of "real" websites (two websites for each condition). Self-administered questionnaires were used for data collection. The data was collected at Oregon State University in Spring 2009. A convenient sample of 174 undergraduate students was obtained.

Using descriptive statistics, linear regression analyses, and univariate analyses of covariance, the present research showed (1) a positive relationship between perceived

trustworthiness and purchase intention, (2) a negative relationship between perceived trustworthiness and perceived risk, and (3) a negative relationship between perceived risk and purchase intention. The results also revealed that there was no effect of product presentation on perceived trustworthiness as well as no moderating effect of gender on product presentation and perceived trustworthiness.

E-tailers can draw implications from the study to focus on creating perceived trustworthiness in their customers. Relationships showed that perceived trustworthiness is important in reducing perceived risk and increasing purchase intention for consumers. This shows that it is important for e-tailers to find website attributes that invoke trustworthiness in their consumers. Also, researchers can further investigate online product presentation based on the research findings. The present study did not find an effect of the presence or absence of a model's face influence perceived trustworthiness, but there are more model attributes to investigate, including looking at facial attributes, body angles, and model attractiveness.

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# Online Product Presentation and Perceived Trustworthiness: The Moderating Role of Gender

by Kerianne Marshall

# A THESIS

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Master of Science thesis of Kerianne Marshall presented on August 25, 2009.	
APPROVED:	
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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.	
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# Online Product Presentation and Perceived Trustworthiness: The Moderating Role of Gender

#### CHAPTER I. INTRODUCTION

#### **Overview and Problem Statement**

Every year, ecommerce plays a more vital role in retailing. Internet sales grew 6% percent and reached \$130.1 billion in 2008 (Internetretailer.com, 2009b). Orders were up 10%, compared to the previous year, as well as an increase in the number of website visitors, which rose 19% (Internetretailer.com, 2009a). This is showing the growing importance of a retailer having an online channel to remain competitive. Even with a slow economy, the Internet is still attracting new buyers (Internetretailer.com, 2009b), and general Internet users were up 4% in 2008, reaching 190.7 million people in December (Internetretailer.com, 2009b). However, one negative aspect of a slow economy is that many consumers were searching for deals on the web and moving from site to site quickly. Time spent on sites decreased 30% (Internetretailer.com, 2009a).

Even though Internet retailing is growing, many consumers still appear reluctant to purchase online. Conversion rates decreased by 14% in 2008 (Internetretailer.com, 2009a). While Internet retailers may get many browsers, converting them into purchasers becomes more difficult. Conversion rates, when a consumer goes from a browser to a purchaser, were down in 2008, so finding ways to turn online consumers into purchasers remains vital. A study found that adding richer content to a web page (e.g., displaying several types of information about an item), helped increase the conversion rate by 11% (Internetretailer.com, 2009a). One factor to look at is online product presentation. A primary problem with purchasing products, particularly apparel, is a consumer's inability

to physically examine the products before purchasing. Online retailers need to look at ways to reduce product uncertainty, by providing enough information to make up for the fact that consumers cannot touch their product. Product presentation is critical for consumers to receive product information (Then & Delong, 1999).

Apparel sales on the Internet grew 4% in 2008 (Internetretailer.com, 2009b), but apparel is an item that needs to be closely examined, especially to check for fit. Cox and Rich (1964) found that the visual inspection consumers make on apparel include fit, texture, and color. One way a site could help a consumer view how an item fits is by putting it on a model. Then and Delong (1999) found that consumers prefer a human model, specifically because it shows the fit. Because the visual display provided more product information, the purchase intention for the product increased.

Effective visual presentation of products can enhance a consumers' purchase intention (Swinyard, 1993; Then and Delong, 1999; Kim & Lennon, 2000; Vijayasarathy and Jones, 2000; & Park et al. 2005). Parks et al. (2005) suggest that because information about the product is initially limited to the presentation of the product the consumer views on the screen as opposed to physically viewing the product, providing as much information as possible through the visual display is important. While a product is preferred to be displayed on a model, other characteristics of display preference are largely unknown. For example, in some websites (e.g., gap.com), a model is fully shown with a face only for females, while in other websites (e.g., bananarepublic.com) a model is shown with a face for both genders, to display a product. In order to improve the understanding of effective online visual presentation, the current study aims to look at

whether or not displaying a product on a model with a face or without a face will add value to the product.

In the case of initial trust, it takes just one hundred milliseconds of exposure to a face for someone to make judgments on traits such as trustworthiness and competence (Willis & Todorov, 2006). Research suggests that physical attractiveness is important in a person's initial judgment of another person (e.g., Baker and Churchill, 1977) and that attractive communicators are liked more and have a more positive impact on the products they are associated with (Joseph, 1982). An attractive person can be more likable (Cialdini, 2001) and a likeable source is found to be more persuasive than an unlikable one (Chaiken, 1980).

Trust is important in the first interaction between a consumer and a store (McKnight et al., 1998). There is pressure to create trust that is stronger than offline trust demand, because of the unique environment (Keen, 1997). Yoon (2002) speculated that the reasons there are differences between online trust and offline trust can be found from things such as "the physical distance between buyer and seller, the absence of salespeople, and the separation between buyer and products." It is an important concept in online retailing (Jarvenpaa et al., 2000), because a consequence of trust is risk-taking. When consumers shop online they are accepting the risks, such as product performance, of purchasing that product.

Studies have shown that trust affects online behavioral intent, which includes ordering from the site (Shankar et al., 2002; Yoon, 2002). Trust also affects risk perception, which then influences the willingness a consumer has to buy from an online

store (Jarvenpaa et al., 2000). Risk-taking is a consequence of trust and purchasing involves accepting the possibility of this risk (Pires et al., 2004: Mayer et al., 1995)

Trust is closely related to the perceived risk concept (Mayer et al, 1995), but the relationship between the two has rarely been looked at. Perceived risk is considered a measure of the possible dissatisfaction with a purchase, based on the consumer's original buying goals (Piers et al., 2004). There is usually higher perceived risk with ecommerce (McKnight et al., 2002, Schlosser et al., 2006). Despite the growing popularity of ecommerce, shopping on the Internet is still considered riskier than shopping in a brick-and-mortar environment (Eggert, 2006). The risk involved in purchasing online is said to be higher because of the lack of physical contact inhibits the consumers' control (Pires et al., 2004). Vijayasarathy and Jones (2000) found that perceived risk is a factor that influences a consumer's intention to purchase online. Research has found that when perceived risk of purchasing a product decreases, the willingness to purchase increases (Shimp and Bearden, 1982; White and Truly, 1989). Park et al. (2005) found this to be particularly true for apparel products.

An appealing visual display of product may increase a consumer's intention to purchase (Swinyard, 1993; Then & Delong, 1999). Purchase intention for this study is whether or not a consumer is likely to make an online purchase of the product displayed. Yoon (2002) found that presentation influenced purchase intention indirectly through perceived risk. However, their presentation dealt with product movement, but still revealed that the presentation of apparel can indirectly influence purchase intention, through perceived risk. Trust has also been found to influence the intention to buy from a seller (Jarvenpaa et al., 2000; McKnight et al., 2002; Bart et al., 2005).

Otnes and McGrath (2001) asked for more research to be done on gender differences. This study hopes to help fill a gap in gender research. Historically, men have usually fallen under the category of a utilitarian shopper, they prefer to shop as conveniently and timesaving as possible (Seock and Bailey, 2008). Women, on the other hand, are considered to be hedonic shoppers, they see shopping as leisurely (Bakewell and Mitchell, 2004) and exciting (Seock and Bailey, 2008). Typically, the products males purchase tend to fall into the electronics category; while for women it is apparel (Van Slyke et al., 2002). However, gender roles are beginning to blur (Otnes and McGrath, 2001). So while shopping use to be a predominantly female activity, men have began to increase their shopping activity. This makes gender research increasingly important, as information is needed on how to address a male shopper, particularly online. Research has shown that females are a more lucrative demographic to target (Mitchell and Walsh, 2004), so attracting a female consumer to a website is also beneficial to the retailers, because they need to figure out how to convert that spending to online and to their site.

Given the potential impact of gender difference on consumer response to online visual presentation of products, this study also aims to see how men and women differ in their response to product display on a model with a face or without a face.

# Purpose of the Study

The purpose of this study is to examine how the presence of an attractive model's face influences consumer response and to explore how men and women differ in their response to the presence of an attractive model's face in an online apparel shopping context. This study also wants to look at how online product presentation formats

influence consumer trustworthiness and perceived risk of the product and purchase intentions.

Online retail sales are growing each year and the findings of this research should provide useful information that online retailers can use to create more effective product presentations and increase female and male spending on online apparel products. Apparel retailers need to develop an effective website that not only attracts visitors, but encourages them to purchase from the site.

# **Hypotheses**

H1: Presence of an attractive model's face in comparison to absence of a model's face is predicted to lead to a higher level of perceived trustworthiness.

- H2: Perceived trustworthiness is negatively related to perceived risk.
- H3: Perceived trustworthiness is positively related to purchase intention
- H4: Perceived risk is negatively related to purchase intention
- H5: Women will have a significant higher level of perceived trustworthiness towards a model with a viewable face than men.

# **Definition of terms**

*Product presentation*: an activity that coordinates effective merchandise selection with effective merchandise display (Kerfoot et al., 2003).

*Perceived trustworthiness*: the receiver's level of trust toward a communicator regarding his motivation and ability to make valid assertions (Hovland, Janis, and Kelly 1953).

*Perceived risk*: the perception of the likelihood that something will go wrong and the perception of the seriousness of the consequences if it does (Kaplan et al, 1974).

*Purchase Intention*: The decision to accept the outcome of the risk presented by the purchase experience (Novak et al., 2000).

#### CHAPTER II. REVIEW OF LITERATURE

# **Product presentation**

The atmosphere surrounding a product was first given attention by Kotler (1973), who stated that consumers respond to more than just the tangible product. It is a relevant marketing tool for retailers, because the stores are where the final product is bought. Atmospherics, the term used to describe this, was considered the "designing of space to create certain effects in buyers." They respond to other features accompanying the product, including services and images, which in the case of an online product, where there is a lack of tangibility, the atmospherics become more important. Kotler surmised that sometimes the atmosphere can be more influential than the product itself. The store can be created to invoke specific feelings in consumers that can influence purchase behavior. Kotler explained that as the number of outlets for products increases, competition increases, and the need to use tools, such as atmospherics, to help enhance your place among competitors, increases. Since ecommerce is growing fast and more traditional retailers are adding an online channel to stay competitive, online atmospherics becomes more important. One dimension of the atmosphere that Kotler described is the visual dimension.

Visual merchandising has been defined as the "...activity which coordinates effective merchandise selection with effective merchandise display" (Kerfoot et al., 2003). The concern is with how the product is communicated visually and whether this will have a positive behavioral outcome, leading to purchase. "A product display involves a consciously designed presentation of selected merchandise...highlighting the product

and creating a...message with the intent to positively affect consumers' approach responses" (Fiore et al., 2000). Mills et al. (1995) state that product display is responsible for one out of every four retail purchases. However, Fiore et al. (2000) found only partial support for the effectiveness of product display, explaining that display alone has little effect on enhancing purchase intention, only enhancing price willing to pay.

What Fiore et al. (2000) did add was that intangible qualities of a product became more important than the tangible product in affecting customer purchase decision, which supported Holbrook and Hirschman (1982) who said that intangible qualities would contribute highly to purchase decision.

#### Online Product Presentation

There is a small amount of research on web atmospherics (Moss et al., 2006). Product presentation is used to convey visual information about the product. Parks et al. (2005) suggest that because information about the product is initially limited to the presentation of the product the consumer views on the screen as opposed to physically viewing the product, providing as much information as possible through the visual display is important. Then and Delong (1999) also emphasized the importance of the layout and design of the site. The more information that the retailer provides through the visual display of a product, the purchase intention of the consumer will increase. Then and Delong further suggested three successful aspects of online visual product presentation for retailers. This includes using images of the product showing how the consumer will use (wear) it, displaying the item with similar items, and showing all

angles of the item. This study also found that consumers prefer a human model, because it shows how the item fits the body.

The visual inspection a consumer conducts on apparel includes fit, texture, and color (Cox & Rich, 1964). For online apparel shopping, having a model wear the item helps with showing the fit, maybe even more so then if the consumer is just viewing an item in a store prior to trying it on. This may allow a consumer to consider the item as more attractive, because they immediately see the fit of it, which can often be something the consumer has to pursue in a traditional store. This could be used to an online site's advantage because it was found that consumers prefer a model to flat display (Kim et al., 2009), the site can show all of its products on a model for its visual display and allow that attribute to be shown explicitly. This may help partly reduce risk and make up for lack of other tactile experiences the consumer is unable to have.

Effective visual presentation of products can enhance a consumers' purchase intention (Swinyard, 1993; Then and Delong, 1999; Kim & Lennon, 2000; Vijayasarathy and Jones, 2000; & Park et al. 2005). Schenkman and Jonsson (2000) found that a combination of pictures and beauty are important in the appeal of a web page. A more appealing visual display may affect the intent a consumer has to purchase online. Using images to represent the previously state aspect suggested by Then and Delong (1999) of using images to show how the consumer will wear the item may help create a higher purchase intention, which could increase sales for that retailer.

Among various online product presentation techniques, the proposed study will focus on the use of human models. Prior studies have provided support of the superiority of using a model presentation over flat-display (e.g., Kim et al., 2009). Yet little has been

discovered as to how to use human models more effectively. More specifically, the proposed study will examine how the existence of an attractive model's face impacts a consumer's online shopping experience.

# Product presentation and attractiveness

Schenkman and Jonsson (2000) found that a combination of pictures and beauty were important in the appeal of a web page. Research suggests that physical attractiveness is important in a person's initial judgment of another person (e.g., Baker and Churchill, 1977) and that attractive communicators are liked more and have a more positive impact on the products they are associated with (Joseph, 1982). Park et al., (2005) also stated that an attractive display of apparel might affect the purchase intention online, so the use of models' attractive faces may affect how consumers respond to online product presentation. An attractive person can be more likable (Cialdini, 2001) and a likeable source is found to be more persuasive than an unlikable one (Chaiken, 1980).

#### **Perceived Trustworthiness**

Trust has been defined as "a psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behaviors of another" (Rousseau et al., 1998). Among many definitions, most scholars have agreed that trust contains three components. The first is uncertainty about the outcomes of an interaction; the second is personal harm as a possible outcome of the interaction, and finally a lack of influence on the outcomes (Petermann, 1996). Trust has been considered as a "set of beliefs" that the trustor may possess about the trustee's qualities (Mayer et al., 1995 & McKnight et al., 1998). Trust implies a consumer accepting vulnerability, such as

the risk of purchasing online (Bart et al., 2005). If a consumer accepts this vulnerability through a positive interaction, then they can develop trust with the vendor. Trust is important for firms in creating long-term relationships with customers (e.g., Doney & Cannon, 1997).

Trust is based on beliefs of the trustworthiness of the trustee (Gefen, 2002; McKnight at al., 2002). Trustworthiness was conceptualized to be "the receiver's level of trust toward a communicator regarding his motivation and ability to make valid assertions (Hovland, Janis, and Kelly 1953). Trustworthiness deals with beliefs that a person has about who they are trusting that will affect their behavior, while trust deals with behavioral intentions, or the willingness the trustor has to engage in a behavior, depending on the trustee (Gefen et al., 2008).

Trust as beliefs succeeds as a measurement in online retailing, however, there is not a full consensus on whether the construct of perceived trustworthiness is one-dimensional or multidimensional. Scales used are usually one-dimensional a priori (e.g., Jarvenpaa et al., 2000). Buttner & Goritz (2008) conclude that the dimensionality and measurement of perceived trustworthiness "remain blurry" and they convey the importance of validating the scale used.

## <u>Trustworthiness in Online Shopping</u>

Online shoppers develop their perception of trust based on their interaction with the site. Jarvenpaa et al. (2000) found that trust is an important concept in online retailing. Customers are increasing their reliance on the Internet for information and purchases and they can be more loyal online (Shankar et al., 2002). If a website is successful in gaining a consumer's trust, they are like to revisit the retailer online. There

is a lack of face-to-face contact that enhances uncertainty and vulnerability, making trust more important online than more traditional shopping experiences. A study done by Maekyong Internet Research Center (1999) found that the most cited reason for not shopping online was not being able to trust the quality of the product online. This is showing that trust, or lack thereof, can be a major contributor as to whether or not a consumer purchases from their site. Retailers will need to develop an understanding of how trust is created online and how it affects consumer behavior online

Studies have shown that trust affects online behavioral intent, which includes ordering from the site (Shankar et al., 2002; Yoon, 2002). Trust also affects risk perception, which then influences the willingness a consumer has to buy from an online store (Jarvenpaa et al., 2000). Gefen et al. (2008) suggest that an object is usually the target of trust, in this case that would be a model, and that leads to a behavioral belief, in this case purchase intention, which then leads to adoption or rejection of that product.

Trust is important in the first interaction between a consumer and a store (McKnight et al., 1998). Both new and experienced users decide whether to use a website based on trust, however new users rely more on trust, and the importance of trust decreases with experience (Gefen et al., 2008). The source the customer views as being more trustworthy will be more persuasive than sources viewed as being less trustworthy (Petty & Cacioppo, 1983). The first impression a customer has of a company can be created online through attributes such as product presentation. When consumers visit a website, they have no choice but to rely on the information given to them about the products being sold, including the information conveyed by the brand name. Because

this gives the consumers a sense of powerlessness, they look for ways to establish that it is safe for them to purchase from the website (Yoon, 2002).

A retailer needs to build trust with their customers to create long-term relationships (Doney and Cannon, 1997). Customers can be more loyal online, which makes trust even more important for this setting, as consumers increase purchases on the Internet (Shankar et al., 2003). Trust has been found to affect risk perception and influence purchase intention online (Jarvenpaa et al., 2000). Kondradt et al. (2003) found a moderate trust influence on intention to buy, but a low influence of trust on decision to buy from an online store. Bart et al. (2005) suggest that a retailer incorporate web site cues that will infer trust that will help create long-term relationships with the customer.

Online trust appears to differ from offline trust. Risk-taking is a consequence of trust and purchasing involves accepting the possibility of this risk (Pires et al., 2004: Mayer et al., 1995). The risk involved in purchasing online is said to be higher because of the lack of physical contact inhibits the consumers' control (Pires et al., 2004), so there is pressure to create trust that is stronger than the offline trust demand, (Keen, 1997). Yoon (2002) speculated that the reason there are differences between online trust and offline trust can be found from things such as the lack of presence of salespeople and the intangibility of the product and the store to the consumer. This puts the pressure on websites to create a stronger trust among its consumers. Trust can be found in many ways among offline stores, including direct interaction with products and sellers, particularly the tangibility of being able to use your sensory receptors, specifically sight and touch, to view the products that you wish to purchase. The lack of physical presence of the

product, may allow the consumer to put greater emphasis on other factors, such as presentation.

### Product Presentation and Trustworthiness in Online Shopping

With shopping online, determining trustworthiness of that site can be done in many ways. Bart et al. (2005) suggest that a retailer incorporate web site cues that will infer trust that will help create long-term relationships with the customer. It was found that specific properties of the website, site awareness and reputation, influence a consumer's trust (Van Slyke, 2002).

A study done by Cheskin Research (1999) determined six factors that create online trust, including security assurance, brand, search, fulfillment, presentation, and technology. Addressing one factor of forming online trust, presentation, would mean using the way the websites display their product to their advantage by creating trust within the consumer. This study would like to focus on product presentation as a way to try and create a positive level of trust in the consumer. Specifically, looking at how an attractive model will affect a consumer's trustworthiness.

The lack of ability for sensory evaluation forces the online stores to compensate for the fact that its consumers cannot physically view and touch the products. Creating the trust in the product is vital to websites if they want their visitors to ultimately purchase the products they view. Some companies may benefit from the fact that they have an offline store. Their customers in the past have been able to make a visual inspection, and then therefore can rely on previous knowledge/brand recognition when

addressing the online store and its products. Companies with strictly an online presence do not have this benefit.

#### Trustworthiness and Attractiveness

Trustworthiness and likeability are separate yet correlated constructs. It has been found that attractive people are more successful at selling products, influencing people, and at getting people to like them (Patzer, 1985). Attractive spokespeople are judged as more credible and ads are found to be more favorable when attractive models are used (Patzer, 1983, Baker & Churchill, 1977).

The halo effect refers to the initial traits we see in other people influencing the way we view other traits (Nisbett et al., 1977), meaning when you make a judgment of an attribute of a person you automatically make the same judgment on another attribute. This term was used in a study by Zaidel et al. (2003) and in their study the "halo effect" would predict that trustworthiness and attractiveness judgments are nearly indistinguishable. It predicts that attractive people would be judged more trustworthy than those who are not attractive (Darby & Jeffers, 1988; Desantis & Kayson, 1997), because a person who is viewed as attractive will also be viewed as more trustworthy. Zaidel et al. (2003) felt that trustworthiness is manifested in the face differently from attractiveness. They felt that the signals in a face that triggered trustworthiness and the signals in a face that trigger attractiveness were not identical. This study looked at faces and it was found that trustworthiness might be manifested in the face differently from attractiveness. Previously, the same stimuli had been used in a study (Zaidel, 1995) and no difference was found between attractiveness and trustworthiness judgments. So while the halo effect does state that the results should be the same from trustworthiness and

attractiveness, it was found to be true for one study, but not the previous one. The fact that attractiveness produced different results may be because attractiveness is relative to the person viewing the face. Related to this study, whether the subject deems the model attractive would have a significant effect on the results. Based on the halo effect, this study predicts that attractiveness of the model's face is positively related to trustworthiness in comparison to product presentation without a model's face.

## Trustworthiness and Attractiveness in Online Shopping

While some researchers argue that for an accurate assessment of trustworthiness of a person (Zaidel et al., 2003), multiple viewings of the person is needed, for initial trust, it takes just one hundred milliseconds of exposure to a face for someone to make judgments on traits such as trustworthiness and competence (Willis & Todorov, 2006). Attractiveness is an important cue in a person's initial judgment of another person (Baker and Churchill, 1977, Joseph, 1982). Attractive communicators are liked more (versus unattractive) and this had positive impact on the product they were associated with (Joseph, 1982). An online retailer can seek to associate their model's trustworthiness with their products, rather than having the consumer judge the product itself (Yoon, 2002). The source the customer views as being more trustworthy will be more persuasive than sources viewed as being less trustworthy (Petty & Cacioppo, 1983).

Zaidel et al. (1995) found that attractiveness and trustworthiness are manifested in a face through the same cues. This means it is likely for an attractive person to be more trustworthy. Assuming models used by retailers are deemed attractive, the models displayed with a face should invoke higher trustworthiness.

H1: Presence of an attractive model's face in comparison to absence of a model's face is predicted to lead to a higher level of perceived trustworthiness.

#### **Perceived Risk**

Perceived risk is a concept that was first introduced by Bauer (1960). Perceived risk has been defined as "subjective expectations of loss" (Taylor, 1974). It refers to the possible negative consequences of a consumer's behavior, such as a disappointing purchase (Bauer, 1960; Jarvenpaa et al., 2000). It is considered a measure of the possible dissatisfaction with a purchase, based on the consumer's original buying goals (Piers et al., 2004). It has also been accepted as a combination of two aspects, the first is the perception of the likelihood that something will go wrong, and second, the perception of the severity of the consequences (Kaplan et al, 1974; Taylor, 1974; Bettman, 1973; Lopes, 1995). Perceived risk is also accepted as multidimensional (Cunningham, 1967). Jacoby and Kaplan (1972) suggested the six dimensions of perceived risk, which are financial, social, psychological, physical, convenience and performance dimensions. Financial risk refers to financial loss due to unforeseen costs, social risk is the probability of others thinking less of the consumer based on their purchase, psychological risk is a purchase being inconsistent with self-image, physical risk is the chance the purchase would result in injury, convenience risk is time loss from things such as delivery time, and finally performance risk is the product failing to meet the intended end use. Based on the website/online store the consumer is using, one or more of these dimensions may be more important in influencing the consumer's decision than the others. Mitchell (1999) feels there is a lack of a definitive definition and that researchers use the definition most

fitting with their study. Perceived risk has been applied to different consumer behavior situations (ex. Mitchell, 1999), and attention has grown in recent years to explain consumer reluctance to purchase online.

# Perceived Risk in Online Shopping

There is usually higher perceived risk with ecommerce (McKnight et al., 2002, Schlosser et al., 2006). Among the six perceived risk dimensions as suggested by Jacoby and Kaplan, consumers tend to associate greater financial, psychological, and performance risk with online shopping than offline (Bobbitt and Dabholkar, 2002). Laroche et al. (2004) and Eggert (2006) found that all six risk dimensions were greater online than an offline setting. Types of risk within these dimensions have been studied, including financial risk with the release of credit card information, physical risk with problems with shipping and delivery, and performance risk with having the product not perform as expected (Garbarino and Strahilevitz, 2004).

Eggert (2006) found that the uncertainty of product performance was one of the greatest risk factors associated with online purchases. Bhatnagar and Ghose (2004) state that this is from the inability to examine a product online. Online stores are not able to offer contact with the product, so a consumer cannot inspect the quality. Also, there is no contact with sales associates, so the ability to erase uncertainty is more difficult (Koernig, 2003).

Despite the growing popularity of ecommerce, shopping on the Internet is still considered riskier than shopping in a brick-and-mortar environment (Eggert, 2006). Concerns with purchasing from websites are prominent for consumers. Especially since research has found that when perceived risk of purchasing a product decreases, the

willingness to purchase increases (Shimp and Bearden, 1982; White and Truly, 1989). Park et al. (2005) found this to be particularly true for apparel products. However, if the consumer does not perceive risk to exist, then their buying behavior will not be influenced by it (Cunningham, 1967).

## Perceived Risk and Trustworthiness

Trust is closely related to the perceived risk concept (Mayer et al, 1995). Taking a risk is often a consequence in the concept of trust (Mayer et al., 1995). Trust affects risk perception, which then influences the willingness a consumer has to buy from an online store (Jarvenpaa et al., 2000). The relationship between the two has rarely been looked at. Jarvenpaa et al. (2000) stated that the more one trusts someone, the less risky they view an interaction with that person. Also, the more risky the interaction is deemed to be, the more trust is needed to engage in this interaction (Mayer et al., 1995). Most prior studies used self-reported risk-taking, usually intention to buy. However, intention does not always predict accurately whether that person would actually purchase the product (Buttner & Gortiz, 2008). Buttner and Goritz (2008) posited that perceived risk would moderate the influence of trust on risk-taking, which in this study would be purchase intention. Trust also becomes more important in online retailing, because there is usually higher perceived risk with ecommerce (McKnight et al., 2002, Schlosser et al., 2006). There are very few studies on trust and risk-taking being moderated by perceived risk (Buttner & Goritz, 2008). However, Buttner and Goritz found that an increase in perceived risk lowering purchase intention was partially mediated by a decrease in perceived trustworthiness of a vendor. Their data did not support a mediating effect of perceived risk, only a partial mediation of perceived trustworthiness on perceived risk's

influence on purchase intention. The authors suggested that the impact of trustworthiness is higher than the impact of perceived risk, and trustworthiness can be influenced more by the retailer than perceived risk, which they feel is outside the influence of a store.

Trust has been found to affect risk perception and influence purchase intention online (Jarvenpaa et al., 2000). The close relationship of perceived trustworthiness and perceived risk leads change in one to affect the other. Because of the unique environment, creating trust online becomes more important for the retailer. Also, consumers perceive there to be more risk with purchasing online, so the retailer needs to find a way to reduce that risk. Taking a risk is often the consequence of trust. If a consumer perceives more trustworthiness, they will perceive less risk. This leads to the second hypothesis:

*H2: Perceived trustworthiness is negatively related to perceived risk.* 

#### **Purchase Intention**

Consumer purchase intention can be viewed as the outcome of the risk presented by the purchase experience (Novak et al., 2000). Purchase intention for this study is whether or not a consumer will make an online purchase of the product displayed. However, intention does not always accurately predict whether the person would actually purchase, but it is still the best predictor of behavior (Buttner & Gortiz, 2008). An appealing visual display of product may increase a consumer's intention to purchase (Swinyard, 1993; Then & Delong, 1999). Then and Delong further explained that showing an image of a product in as close to the end use of the product as possible may generate higher purchase intention, so a model displaying how the apparel is worn may

ultimately affect purchase intention. The display would be both appealing and show the end use of the product. Also, a visual presentation could also provide product information which would influence purchase intention, because according to Cox and Rich (1964) there is a visual inspection consumers need to make for apparel, including fit, texture, and color, that a display would have to help provide online.

#### <u>Trustworthiness and Purchase Intention</u>

Trust has been found to influence the intention to buy from a seller (Jarvenpaa et al., 2000; McKnight et al., 2002; Bart et al., 2005). Konradt et al. (2003) found an influence of trust on purchase intention, but it was a moderate influence that remains questionable by their scale quality. Buttner and Goritz (2008) found that the higher perceived trustworthiness participants had in a vendor, the more likely they were to buy from them.

Yoon (2002) stated that it is difficult to find theoretical models that investigate the effect of trust on purchase intention. Another study found a positive correlation with website trust and purchase intention, supporting that if a website can increase a consumer's trust in them, then this would increase their purchase intention (Van Slyke et al., 2002). Yoon found that website properties, including product description and amount of product selection, led to website trust which had a high correlation with purchase intention. Deriving from this, for the study, if a consumer has high trust in a website attribute, such as product presentation, they will have a higher purchase intention.

Trust can influence the intention to purchase. The higher the trustworthiness, the more likely the consumer is to purchase. Website attributes can influence a consumer's trustworthiness, so using product presentation, trustworthiness is attempted to be invoked by a model in this study. Yoon (2002) stated that a retailer could try to get a consumer to associate the trustworthiness they perceive of the model with the products that they are selling. If the model with a face invokes more trustworthiness, then the higher the trustworthiness, the more likely the consumer would be to purchase. This led to the third hypothesis:

H3: Perceived trustworthiness is positively related to purchase intention

## Perceived risk and Purchase Intention

When perceived risk of purchasing a product decreases, the willingness to purchase increases (Shimp and Bearden, 1982; White and Truly, 1989). Park et al. (2005) found this to be particularly true for apparel products. However, if the consumer does not perceive risk to exist, then their buying behavior will not be influenced by it (Cunningham, 1967). Vijayasarathy and Jones (2000) found that perceived risk is a factor that influences a consumer's intention to purchase online. That study as well as one done by Park et al. (2005) found a negative relationship between perceived risk and purchase intention of apparel. The results of these studies indicate that when consumers are less uncertain about the consequences of online shopping, they are more likely to purchase.

Most studies used self-reported risk-taking measure, usually intention to buy.

However, intention does not always predict accurately whether that person would actually purchase the product (Buttner & Gortiz, 2008). Buttner and Goritz (2008) found

that perceived risk had a smaller impact on purchase intention than perceived trustworthiness.

The level of risk perceived by the consumer will affect their purchase intention. As the level of perceived risk decreases, purchase intention increases. It was also found that presentation influenced purchase intention indirectly through perceived risk. This leads to the fourth hypothesis:

H4: Perceived risk is negatively related to purchase intention

#### **Gender Differences**

Over the years there has been an increased importance, with respect to the product category, placed on gender in consumer behavior. The interest has increased because gender can significantly impact a consumer's behavior (Stern, 1999). In recent years men have had an increased presence in retail settings. Many feel this is because gender roles are beginning to blur (Otnes and McGrath, 2001). When contrasted, men and women's shopping behavior have usually differed. Historically, men have become to be known as utilitarian shoppers or consumers who "are concerned with purchasing products in an efficient and timely manner to achieve their goals with a minimum of irritation" (Childers et al., 2001). Furthermore, they shop conveniently, to be as timesaving as possible (Seock and Bailey, 2008). They like being efficient and offering multiple channels provides the male consumer the opportunity to purchase the product in whatever way is most convenient for them. Hart et al. (2007) found a strong relationship between an enjoyable shopping experience and intention to revisit the store, meaning that if a retailer can find

provide a male consumer with the opportunity to achieve their shopping goals, then they will be more likely to shop at that store again. Hart et al. (2007) also found loyalty to a store to be higher for men, with women preferring to browse or shop around. Shopping at fewer places helps men be as efficient as possible and helps explain the relationship between shopping enjoyment and returning to a retailer.

Women tend to be hedonic shoppers or seek "excitement in their shopping activities" (Seock and Bailey, 2008). Women also view shopping as a leisure activity (Bakewell and Mitchell, 2004) and shop more than men (Dholakia, 1999). One aspect of a hedonic consumer is experiencing the products in person and having a multi-sensory experience (Holbrook and Hirschman, 1982). This is a benefit of shopping in a brick-andmortar store. This experience is lost in the online shopping experience. A female consumer no longer has the ability to touch the product, so the visual presentation becomes more important. It has been found that females tend to imagine and envision themselves using the merchandise (Campbell, 1997). They also look at the pros and cons of their purchase (Laroche et al., 2000). In a brick-and-mortar setting, women purchase more products than men (Mitchell & Walsh, 2004). Women contribute billions of dollars each year and make up about 85 percent of purchasing activity (Johnson and Learned, 2004). Online retailers need to find ways to transfer as much of this purchasing and spending to online if they wish to be as successful as brick-and-mortar retailers. Women are less likely to purchase online and they spend less money when they do (Allen, 2001; Van Slyke et al., 2002).

## Gender Difference in Online Shopping

Historically, it seems that females have been viewed as more dominant in shopping, while males are more familiar and have greater interaction with technology. Combining these two concepts leads retailers to figure out how to maximize patronage online from both genders. In the early stages of the Internet, men used the web more than women (Andrews et al., 2007). In recent years, the number of men and women using the Internet has become fairly equal, with women slightly edging men, with 51 percent of adults online being female (Moss et al., 2006). Men were more likely to make online purchases than women (Van Slyke et al., 2002, Wolin & Korgaonkar, 2005) and spend more money (Allen, 2001). However, there have been conflicting findings with a study done by Verdict (2004) finding that women spent more money online than men. While men and women may differ in terms of their online shopping behaviors, little has been known as to how they differ (Moss et al., 2006).

If men were found to shop online more, it would be beneficial for a company to tailor their sites to attract male consumers. Also, finding out what is preventing female consumers from purchasing online and also catering to this consumer should help a site increase profits. Web sites seem to be aimed towards women, perhaps because female consumers spend more money in a traditional retail environment (i.e. brick-and-mortar stores) (Andrews et al., 2007). Finding a way to help shift this spending online would help retailers succeed online, because even when women purchase online, they spend less (Allen 2001; Van Slyke et al., 2002). However, even though men may purchase more online, the product category is usually electronics and not apparel (Van Slyke et al.,

2002). Seock and Bailey (2008) also found the females had a greater number of purchases for apparel than males, which further supports previous findings. This means women are critical for growth in apparel products online (Andrews et al., 2007).

A gender difference in computer usage is related to different attitudes and behaviors towards computers (Whitley, 1997). Women have been historically stereotyped as less knowledgeable about technology, which may influence their computer-related attitude and online shopping view. The usefulness and ease of use perceptions were found to differ for men and women. Men consider the Internet less useful for purchasing but have a higher ease of use perception (Chiu et al., 2005). Men have shown a higher preference for convenience and they prefer to shop where they can save the most time, suggesting that men are more functional shoppers (Seock and Bailey, 2008).

Another gender difference is related to the social aspect of shopping. Research has indicated that female consumers enjoy the shopping process unlike male consumers (Van Slyke et al., 2002). Because of this, women may not want to give up the traditional shopping experience (Korgaonkar & Wolin, 1999). They enjoy the social aspect of certain forms of shopping and online shopping removes this aspect (Van Slyke et al., 2002). Men may actually view this as a benefit, which could account for their higher online shopping rates, while women view the solitary aspect of web retailing a deterrent (Van Slyke et al., 2002).

Also, the risk of purchasing online is a factor that impacts the use of online retailing (Bhatnagar & Ghose, 2004; Yoon, 2002). Female consumers tend to have stronger perceptions of risk with online shopping, in terms of buying products online,

they perceive both the likelihood of a negative outcome and the consequences of a negative outcome higher than males (Garbarino & Strahilevitz, 2004).

#### Perceived Trustworthiness and Gender

Trust, perhaps one of the most important factors in ecommerce (Van Slyke et al, 2002) is also related to a gender difference with regard to online purchases. Men have more favorable perceptions of the Web than women (Van Slyke et al., 2002), so trust may end up being a more important factor for the female consumer.

Zaidel et al. (2003) found that trustworthiness was related to attractiveness for women's faces, but for men, trustworthiness was not related to attractiveness in men's faces. Men and women may require different needs to be met to create trust in a product and ultimately purchase it. This is especially important, because it has been found that men have higher levels of trust online than do women (Chaudhuri & Gangadharan, 2007). The researchers believe this is because women have a higher degree of risk aversion. The way social presence is created online and perhaps differs between males and females may be a reason they are affected by trust differently (Gefen, 2003).

Rodgers and Harris (2003) stated that trust is an important determinant of men and women's online shopping behavior. They found that women had lower trust in online shopping and had lower purchase behavior. Men rate the trustworthiness of online shopping higher (Van Slyke et al., 2002). Rodgers and Harris (2003) also found that men, in general, place greater trust in Internet shopping than women do.

An attractive face can affect a person's initial judgment, including trustworthiness, of a person. Trustworthiness is also found to be related to attractiveness for women. It is expected that the display including a model's face will increase the trustworthiness the female subject has. Men have been found to already have higher levels of trust in the Internet, so the presence of a face may not affect their trustworthiness. However, trustworthiness and likeability are closely related concepts and attractive people are found to be more likeable and persuasive. They are deemed more credible and have more influence on consumers. Therefore, men may have greater trustworthiness towards the model with a face; however, the relationship may not be as strong as the female's relationship. This leads me to hypothesize:

H5: Women will have a significant higher level of perceived trustworthiness towards a model with a viewable face than men.

#### **CHAPTER III. METHOD**

The purposes of this study are to examine how the presence of an attractive model's face influences consumer responses and to explore how men and women differ in their response to the presence of an attractive model's face in an online apparel shopping context. The development of an online questionnaire for data collection, the case selection and the data analysis methods are discussed in this chapter.

### **Stimulus Development**

A web experiment, using a self-administered questionnaire, was the data collection tool for this study. A mock retail Web site was created with four treatments. The first treatment showed a female model with a face. The second treatment showed a female model without a face. The third treatment showed a male model with a face. The fourth treatment showed a male model without a face. The same products and models were used, with respect to gender, for the displays. The web pages were selected from the same retailer to maintain consistency. The pages had identical information and design for both genders. All indications of the brand were removed to avoid an influence of brand recognition.

### Manipulation Check

A manipulation test was given in the survey to collect information on the perceived attractiveness of the model to which the respondents were exposed. This variable was placed near the end of the survey versus the beginning so that the respondents did not knowingly consider attractiveness when rating the trustworthiness of the model. Rather it was after-thought to confirm that the respondents found the model

attractive. The measurement for attractiveness was taken from Ohanian's (1990) source-credibility scale that was originally adapted from the McGuire (1958) source-attractiveness model. The respondents were asked to rate the model on the following five items: 1) attractive/unattractive, 2) classy/not classy, 3) beautiful/ugly, 4) elegant/plain, and 5) sexy/not sexy. Each item was rated on a five-point scale.

## **Instrument Development**

Perceived Trustworthiness. The first section is designed to collect information about the respondents' perceived trustworthiness of the model. The trustworthiness scale was taken from Ohanian's (1990) source-credibility scale that was originally adapted from the source-credibility-model of Hovland et al. (1953). The respondents were asked to rate the model on the following five items: 1) dependable/undependable, 2) honest/dishonest, 3) reliable/unreliable, 4) sincere/insincere, and 5) trustworthy/untrustworthy. The statements were rated on a five-point scale.

<u>Perceived Risk.</u> The second section was designed to measure respondents' perceived risk of purchasing the product(s) they viewed. The scale was adopted from Park and Stoel (2002), which was originally adapted from Kim and Lennon (2000) and consisted of twenty-five questions. The respondents' answered on a five-point scale anchored with agree/disagree.

<u>Purchase Intention</u>. The third section measures the respondents' purchase intention towards the product. The scale was adopted from Lam and Mukherjee (2005) and consisted of two statements. The first statement asks the respondents' to rate "The likelihood I would buy the product..." using a five-point scale anchored with not likely to

buy/ almost sure to buy. The second statement asks the respondents' to rate "The possibility I would buy the product..." using a five-point scale anchored with impossible/possible.

Web Usage. The next section is used to obtain information about the respondents' web usage. These questions will be used as covariates to control for any Internet usage effects. This section served to reveal any spurious relationship hidden buy the respondents' gender. The questions used were adapted from Garbarino and Strahilevitz (2004) and included: hours spent on the internet during typical week, number of web sites visited during a typical week, how many times the web was used to collect product-related information in the past two months, how many times the web was used to make a purchase in the past two months, and self-reported web usage level, rated on a 7-point scale anchored by non-user/heavy user.

The final section obtained the demographic information about the participants.

The information collected included age, gender, class standing, major, marital status, and ethnicity.

<b>M</b>	T4	C 1 1. 2 A 1 1
Measures	Items	Cronbach's Alpha

Perceived

Trustworthiness Dependable/Undependable

Ohanian (1990) Honest/Dishonest

Reliable/Unreliable Sincere/Insincere

Trustworthy/Untrustworthy

Perceived Risk

The color will not be what you thought it would be.

.91

8.

Kim & Lennon (2000); Park & Stoel (2002) The size will not fit you.

There will be something wrong with the apparel purchase (e.g.,

broken button, damaged fabric) You will want to return it.

You will want to exchange it for another item

You will not like it

It will not look good on you.

Your friends will think you look funny when you wear it. You will not be able to match it with your current clothing.

You will not feel comfortable wearing it in public.

You will have to pay for an alteration (i.e., lengthen or shorten the hem)

It will be harmful to your health (chemical agent-allergic reaction).

You will feel that you just threw away a lot of money. You will feel that you just wasted time shopping via the

Internet.

You will not feel comfortable giving your credit card number when you order.

The construction quality will be poor (e.g., poorly done stitches).

It will not be durable when cleaned (e.g., color changes, shape change)

You will not wear the item.

You will find the very same item at the store with a lower price.

You will have a hard time trying to return the item or exchange it.

If you return the item, you will not be able to get a full refund. You will lose money if you purchase this apparel item (e.g., because it costs more than it should to keep it in good shape, because you will not be able to wear after one season.)

There will be something wrong with this apparel, or it will not function properly (e.g., a raincoat will not be waterproof).

It will affect the way others think of you.

It will be a risky purchase.

Perceived Attractiveness Attractive/Unattractive Classy/Not Classy

Ohanian (1990) Beautiful/Ugly

Elegant/Plain Sexy/Not Sexy 8.

.94

## **Sample Selection**

A convenience sample of undergraduate students were recruited from DHE and BA courses at Oregon State University in Spring 2009. College students were selected as the participants, because they represent an important segment of online consumers (Seock & Bailey, 2008). However, because the sample is a convenience sample, the results of this study can only be generalized to college students.

### **Procedure**

A self-administered online questionnaire was distributed to the students through e-mail. Permission was granted from instructors to use their students as subjects and extra credit was offered to students who participated. An e-mail was sent to all students in the classes selected and contained two URL links, one for females one for males. Half of the students were sent the treatment with presence of a face and the other half were sent the treatment with absence of a face. The students could then click through to the survey.

Once they reached the survey they were brought to the first page that listed the directions and their rights and role as a participant. If they chose to continue, they would click through to the survey, which was an indication of their informed consent. Once they clicked to begin the survey, they were brought to the mock webpage. Once they had viewed the display they were then asked the series of questions mentioned above. At the

end of the survey, they were prompted for their school e-mail address, which they needed to give to receive extra credit.

#### CHAPTER IV. ANALYSIS OF RESULTS

### **General Analysis Information**

Data were analyzed using SPSS. Descriptive statistics, univariate analyses of variance and regression analyses were conducted for hypothesis testing. Descriptive statistics were used to describe each variable including demographics, perceived attractiveness, perceived trustworthiness, perceived risk, and purchase intention.

Univariate analysis of variance was used to determine the existence of any product presentation or gender differences on perceived attractiveness. Univariate analysis of variance was used to determine the existence of any product presentation or gender differences on dependent variables perceived trustworthiness, perceived risk, and purchase intention. Regression analysis was used to determine the relationships among perceived trustworthiness, perceived risk, and purchase intention.

### **Sample**

All data were collected from two different classes from Design and Human Environment and Business Administration during spring 2009. A total of 218 respondents were asked to complete the self-administered questionnaire. Forty-four respondents did not take the survey. As a result, there were a total of 174 respondents participating and the response rate was 79.8%.

There were only two unusable cases. Both respondents were female and responded to the male survey, so their answers were dropped. Therefore 172 cases were retained for analysis.

## **Demographic Profile of Respondents**

The demographic profile of the sample is shown in Table 4-1. Among the 172 respondents, 116 respondents were female (67.4%) and 56 were male (32.6%). Ages ranged from 20- 43 years with the average age of 22.09 years (SD = 2.33). A majority of the respondents were between ages 21-25. Among the respondents, the majority were in their senior year (69.2%), followed by junior (29.1%). The majority respondents were from two different majors. The largest category was majoring in Business Administration (58.7%), followed by Health and Human Sciences (36.6%). No systematic difference as a function of majors was found (p = .26). Based on these results, data from both majors were pooled. The majority of respondents were single (94.2%), which was expected of college students. Regarding ethnicity, 81.7% of the respondents were Caucasian, followed by Asian American (7%), and Hispanic American (3.5%).

Table 4-1: Demographic Profile of the Sample (n=172)

Variables	Description	Frequency	Percentage* (%)
Gender	Female	116	67.4
	Male	56	32.6
Age	20 and under	9	5.2
_	21-25	158	91.8
	26-30	3	1.8
	Older than 30	2	1.2
Class Standing	Sophomore	2	1.2
	Junior	50	29.1
	Senior	119	69.2
	Graduate	1	.6
Major	Business	101	58.7
	Forestry	1	.6
	Health and Human Sciences	64	37.2
	Liberal Arts	1	.6
	Pharmacy	1	.6
	Science	1	.6

	Double Major	3	1.8
Marital Status	Single	162	94.2
	Married	9	5.2
	Divorced	1	.6
Ethnicity	European-American, White	140	81.7
	African-American	2	2
	Hispanic-American	6	6
	Asian-American	12	12
	Native-American	4	4
	Asian	3	1.8
	Multi-Ethnic	2	1.2
	Other	1	.6

<sup>\*</sup>Sum of the percents may not be equal to 100 due to missing data

# **Preliminary Analyses**

## **Reliability analyses**

Using reliability analysis (i.e., Cronbach's alpha), reliability for perceived attractiveness was .84. Reliability for perceived trustworthiness was .89 and reliability for perceived risk was .91. Purchase intention was initially measured with two items. After reliability was assessed it was revealed that the two items had a negative average covariance, so the item that was thought to most directly assess the participants' purchase intention was selected. Therefore, the one item that was used to measure purchase intention is "The likelihood I would purchase these products is...".

# **Participants' Internet Shopping Behavior**

Among participants in this study, a majority (53.4%) felt they spend around ten hours or less a week on the Internet (excluding e-mail). Close to 30 percent spend 11 to 20 hours a week and 12 percent spend around 21 to 30 hours a week. Only two percent said they spend more than 40 hours a week on the Internet (See Table 4-2).

The number of websites participants said they visited during the week had a majority saying they visit ten or less a week (63.3%). About 24 percent visit 11-20 sites

per week and only seven percent said they visit more than 28 sites a week (See Table 4-2).

Participants seem more likely to use the Internet for product information versus purchasing products. A majority of participants (43.2%) said that they used the Internet to collect product information five to ten times in the previous two months compared to 42 percent saying they only purchased products one to two times in the previous two months (See Table 4-2).

The participants self-rated their Internet usage and whether or not they considered themselves nonusers (1) or heavy users (5). The mean was 3.86, indicating they considered themselves more than average users. Only six participants rated themselves as below average uses, with one rating themselves as a nonuser.

Table 4-2. Participants' Internet usage behavior.

	Frequency	Percent
The number of hours spent on the internet in a typical		
week (excluding e-mail) (n=172)		
10 hours or less	92	53.4%
11-20 hours	49	28.5%
21-30 hours	20	11.6%
31-40 hours	7	4.1%
>40 hours	4	2.3%
The number of Web sites visited in a typical week		
(n=172)		
10 or less sites	109	63.3
11-20 sites	41	23.8
21-30 sites	10	5.8
>30 sites	12	6.9
The number of times the Web was used to collect		
product information in the previous two months (n=172)		
4 or less times	42	24.4
5-10 times	76	44.2
11-15 times	12	6.9
16-20 times	22	12.8
>20 times	19	11.0

The number of times items were purchased from the		
web in the previous two months (n=172)		
0 times	38	22.1%
1-2 times	73	42.4%
3-4 times	29	16.9%
5 or greater	32	18.6%

## **Manipulation Check**

A manipulation check was conducted to determine how the participants viewed the models. One important assumption made in this study was a model is attractive and product presentation influence perceived trustworthiness through perceived attractiveness. So it was important that the participants for the study perceived the models used as attractive. Failure to view the models as attractive could significantly affect the results. Five items were used to assess participants' perception of attractiveness.

Participants rated the model on being attractive, classy, beautiful, elegant, and sexy. The items were reversed scored and the scores on the five items were summed and divided by the number of items and that was used as the measurement of perceived attractiveness. A higher score indicates that the model was perceived to be attractive. The average score for males was 3.34 with a range of 2.20 to 4.40. The average score for females was 3.71, with a range of 1.40 to 5.00 (See Table 4-3). Based on the mean comparisons, both genders deemed the model somewhat attractive, with females having a slightly higher perception.

The average score for attractiveness of a model with absence of face was 3.54, with a range of 2.20 to 5.00. The average score for presence of face was 3.62, with a range of 1.40 to 5.00 (See Table 4-5). Based on the mean comparisons, the presence of a

face and absence of face were both deemed attractive, with the presence of the face being slightly higher. In order to test for significant differences in attractiveness (between presence of a face and absence of face as well as between males and females), a univariate analysis of variance was performed.

The results revealed that there was not a main effect of product presentation on perceived attractiveness (F(1, 172) = .617, p > .05, Eta<sup>2</sup>= .4%) (See table 4-6). In this analysis, the independent variable was product presentation and the dependent variable was perceived attractiveness. There was no difference in perception of overall attractiveness of the models between the presence and the absence of a face. This study predicted that the model with a face would be deemed significantly more attractive than the model without a face in terms of their overall attractiveness. Therefore, perceived attractiveness was not successfully manipulated.

Table 4-3. Participants' perception of attractiveness.

Perceived	N	Min.	Max.	Mean	S.D.
Attractiveness					
No face	76	2.20	5.00	3.54	.63
Face	96	1.40	5.00	3.62	.66

Table 4-4. Univariated analysis of variance product presentation on a summed score of perceived attractiveness items (attractive, classy, beautiful, elegant, sexy)

Variable	F (1,172)	p	% of variance
			accounted for
Perceived	.617	.433	.4
Attractiveness			

The interaction between gender and product presentation was looked at to determine if females versus males viewed one treatment more attractive than the other. The results revealed that there was not a significant interaction (F(1,172) = .075, p

=.784, Eta<sup>2</sup> = <.01%) (See table 4.8) In this analysis, the independent variables were product presentation and gender and the dependent variable was perceived attractiveness. There was not a difference in perception of attractiveness between genders and the absence or presence of a face. (Male mean without face= 3.28, Male mean with face= 3.39; Female mean without face= 3.68, Female mean with face= 3.73) (See Table 4-7). Overall, regardless of face, females found the models to be more attractive than males. Table 4-5. Participants' perception of attractiveness.

Perceived				
Attractiveness				
Face Gender		N	Mean	S.D.
No face	male	26	3.28	.52
	female	50	3.68	.64
Face	male	31	3.39	.51
	female	65	3.73	.70

Table-4-6. Univariated analysis of variance product presentation and gender on a summed score of attractiveness (attractive, classy, beautiful, elegant, sexy).

Variable	F(1,172)	<u>p</u>	% of variance
			accounted for
Perceived	.075	.784	<.001
Attractiveness			

### **Dependant Variables**

#### **Perceived Trustworthiness**

The perceived trustworthiness scale consisted of five items: dependable, honest, reliable, sincere, and trustworthy. The scores were reversed to reflect positive trustworthiness. Scores from the five items were summed and divided by the number of items. The average score was 3.56, with a range of 2.00 to 5.00. A higher score indicates higher perceived trustworthiness (See Table 4-4)

The average score for perceived trustworthiness among participants who were male was 3.60, with a range of 2.00 to 5.00. The average score for perceived trustworthiness among participants who were female was 3.54, with a range of 2.00 to 5.00 (See table 4-3). Comparing the two means, males and females appear to have similar levels of perceived trustworthiness.

Table 4-7. Participants' perception of trustworthiness.

	Male			Female				
	Min.	Max.	Mean	S.D.	Min.	Max.	Mean	S.D.
Perceived	2.00	5.00	3.60	.61	2.00	5.00	3.54	.75
Trustworthiness								

### **Perceived Risk**

Participants were asked to assess perceived risk. Scores from twenty-five items were summed and divided by the number of items for the overall perceived risk score. A higher score indicates greater perceived risk. The average score for perceived risk was 2.44 with a range of 1.08 to 3.88 (See Table 4-4).

#### **Purchase Intention**

Participants were asked to rate their purchase intention of the viewed items. Scores from one item were assessed. A higher score indicates a greater intention to purchase. The average score was 2.61, with a range of 1 to 5 (See table 4-4)

Table 4-8. Participants' overall ratings for perceived trustworthiness, perceived risk, and purchase intention.

Variables	N	Min.	Max.	Mean	S.D.
Perceived Trustworthiness	172	2.00	5.00	3.56	.702
Perceived Risk	172	1.08	3.88	2.44	.601
Purchase Intention	172	1	5	2.61	1.14

## **Hypothesis Testing**

Univariate analysis of variance was use to test Hypothesis 1 and 5. In this analysis, the independent variables were product presentation and gender. The dependent variable was perceived trustworthiness. There was not a significant main effect for product presentation [F(1,172) = .20, p = .65, Eta<sup>2</sup> = .001] or gender [F(1,172) = .40, p = .53, Eta<sup>2</sup> = .002] on perceived trustworthiness. There was also not a significant interaction between gender and product presentation on the level of perceived trustworthiness, F(1,172) = .39, p = .53, Eta<sup>2</sup> = .002 (See table 4-5).

### **Hypotheses 1 and 5**

Hypothesis 1: Presence of a model's face in comparison to absence of a model's face is predicted to lead to a higher level of perceived trustworthiness

Univariate analysis of variance revealed that there was no significant main effect of product presentation on perceived trustworthiness, F(1,172) = .20, p = .65, Eta<sup>2</sup> = .001 (See Table 4-5). Whether a model's face was shown or not did not influence participants' perception of trustworthiness. Therefore, Hypothesis 1 was not supported.

Hypothesis 5: Females will have a higher level of perceived trustworthiness towards the model with a face than males

Univariate analysis of variance further showed that there was no significant interaction of gender and product presentation on perceived trustworthiness, F(1,172) = .388, p = .53, Eta<sup>2</sup>= .002. See Table 4-5). Men and women did not differ as to how they responded to a model with or without face. Therefore, Hypothesis 5 was not supported.

Table 4-9. Univariate analysis of variance for product presentation and gender on perceived trustworthiness.

	Dependent	F(1, 172)	р	% of variance
	Variable			accounted for
Product	Perceived	.202	.654	.001
Presentation	Trustworthiness			
Gender	Perceived	.401	.527	.002
	Trustworthiness			
Product	Perceived	.388	.534	.002
Presentation *	Trustworthiness			
Gender				

# **Hypotheses 2-4**

## Hypothesis 2: Perceived trustworthiness is negatively related to perceived risk

A simple linear regression analysis was used to determine the relationship of perceived trustworthiness to perceived risk. In this analysis, the independent variable was perceived trustworthiness and the dependent variable was perceived risk. Results of the analysis revealed the perceived trustworthiness was significantly related to perceived risk, F(1,171) = 41.12, p < .001 (See Table 4- 6). Perceived trustworthiness accounted for 19.5% ( $R^2 = .195$ ) of the explained variance in perceived risk. The negative beta value indicates the nature of the relationship between the two variables of perceived trustworthiness and perceived risk,  $\beta = .441$ , p < .001 (See Table 4-6). Higher scores on perceived trustworthiness are related to lower scores on perceived risk. This means that people who have a higher level of perceived trustworthiness are likely to feel less perceived risk on purchasing apparel from the Internet. Therefore, Hypothesis 2 was supported.

Hypothesis 3: Perceived trustworthiness is positively related to purchase intention

A simple linear regression analysis was used to determine the relationship of purchase intention to perceived trustworthiness. In this analysis, the independent variable was perceived trustworthiness and the dependent variable was purchase intention. Results of the analysis revealed that perceived trustworthiness was significantly related to purchase intention, F(1,171) = 45.931, p < .001 (See Table 4-6). Perceived trustworthiness accounted for 21.3 % ( $R^2 = .213$ ) of the explained variance in purchase intention. The positive beta value indicates the nature of the relationship between the two variables of perceived trustworthiness and purchase intention,  $\beta = .461$ , p < .001 (See Table 4-6). Higher scores on perceived trustworthiness are related to higher scores on purchase intention. This means that people who have a higher level of perceived trustworthiness are likely to have a higher level of intention to purchase apparel from the Internet. Therefore, Hypothesis 3 was supported.

### Hypothesis 4: Perceived risk is negatively related to purchase intention

A simple linear regression analysis was use to determine the relationship of purchase intention to perceived risk. In this analysis, the independent variable was perceived risk and the dependent variable was purchase intention. Results of the analysis revealed to perceived risk was significantly related to purchase intention, F(1, 171) = 27.28, p < .001 (See Table 4-6). Perceived risk accounted for 13.8% ( $R^2 = .138$ ) of the explained variance in purchase intention. The negative beta value indicates the nature of the relationship between the two variables of perceived risk and purchase intention,  $\beta = .372$ , p<. 001 (See Table 4-6). Higher scores on perceived risk are related to lower scores on purchase intention. This means that people who have a lower level of perceived risk

are likely to have a higher level of intention to purchase apparel from the Internet.

Therefore, Hypothesis 4 was supported.

Table 4-10. Simple linear regression analyses for a relationship between perceived trustworthiness (PT) and perceived risk (PR), perceived trustworthiness (PT) and purchase intention (PI), and perceived risk (PR) and purchase intention (PI). \*\*\*p <. 001,  $\beta$ : Standardized regression coefficient, b: Unstandardized regression coefficient.

	Variable	b	Std.	$\beta^*$	t-	<u>R</u>	$R^2$	Adjuste	Sig.
			Error		value			$d R^2$	
H2	PT → PR	378	.059	441	-	.441	.195	.190	.000***
					6.412				
Н3	PT → PI	.745	.110	.461	6.77	.461	.213	.208	.000***
H4	PR → PI	702	.134	372	-5.22	.372	.138	.133	.000***

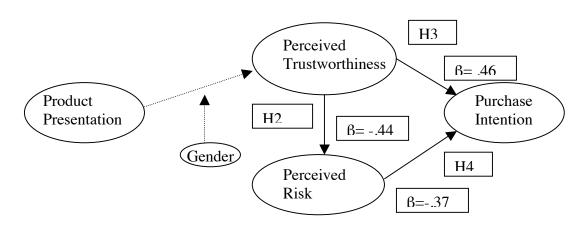


Figure 4-1. Supported hypotheses among product presentation, perceived trustworthiness, perceived risk, and purchase intention

### **Post-Hoc Analysis**

To explore factors that may affect perceived trustworthiness in the context of online product presentation, simple linear regression analysis was conducted to look at a relationship between perceived attractiveness and perceived trustworthiness. The results revealed that there is a significant positive relationship between perceived attractiveness and perceived risk was found, F(1,171) = 57.226, p < .001 (See Table 4-7). The positive

beta value indicates the nature of the relationship between perceived attractiveness and perceived trustworthiness,  $\beta = .502$ , p < .001 (See Table 4-7). After running a regression, the results supported that the more attractive a person is found the more likely they will be perceived as trustworthy.

Table 4-11. Simple linear regression analysis for a relationship between perceived attractiveness and perceived trustworthiness. \*\*\*p<.001,  $\beta$ : Standardized regression coefficient, b: Unstandardized regression coefficient.

Variable	b	Std.	$\beta^*$	t-	<u>R</u>	$R^2$	Adjuste	Sig.
		Error		value			$d R^2$	
PA → PT	.543	.072	.502	7.565	.502	.252	.247	.000***

#### CHAPTER V. DISCUSSION AND CONCLUSION

In this chapter, the results are interpreted and conclusions are made as well as the implications, limitations and recommendations for future research.

### **Discussion**

The present study examined: (H1) the influence of product presentation on perceived trustworthiness, (H2) the relationship between perceived trustworthiness and perceived risk, (H3) the relationship between perceived trustworthiness and purchase intention, (H4) the relationship between perceived risk and purchase intention, (H5) and finally the interaction of gender and product presentation on perceived trustworthiness.

The findings of present research provided support for (H2) a negative relationship between perceived trustworthiness and perceived risk, (H3) a positive relationship between perceived trustworthiness and purchase intention, (H4) a negative relationship between perceived risk and purchase intention. Three hypotheses predicting relationships among perceived trustworthiness, perceived risk, and purchase intention (Hypotheses 2,3, and 4) were supported, while two hypotheses predicting the effect of online product presentation on perceived trustworthiness (Hypotheses 1 and 5) were not supported.

## **Product Presentation and Perceived Trustworthiness**

No significant main effect for product presentation on perceived trustworthiness was found. There was no significant difference in perceived trustworthiness between people who were exposed to the model with a face and people who were exposed to the model without a face.

Based on the results, it is possible that the presence of a face may not be an important factor that influences perceived trustworthiness of a person in an online retail setting. The context that the person is in (the Internet) may influence how trustworthiness of that person is perceived. The consumers may focus more on the product being display. When asked to focus on the model, the consumer may find what they view of that person unimportant. Also, because the participants of this study were familiar with the Internet, they may have general higher levels of trustworthiness with shopping online and may not require website cues to invoke higher levels of trustworthiness. So when participants were asked to rate a specific aspect of the website, they may focus their prior level of trustworthiness on that aspect, which in this case was, the model. Whether or not the model had a face was not enough to influence a person's level of trust towards that model. Perhaps if participants had viewed both treatments, their ratings of trustworthiness may have differed between the two.

Due to the significant relationship found between perceived attractiveness and perceived trustworthiness, the results may have been affected by the unsuccessful manipulation check. The study expected to find the model with a face rated more attractive than the model without a face, but that did not happen. Based on the findings that the more attractive a person is rated, the more trustworthy they are likely to be found, if participants had found the model with a face to be more attractive, it is expected that they would find the model with the face more trustworthy. So the lack of a main effect of product presentation on perceived trustworthiness may be due to the unsuccessful manipulation. This may help support the perceived attractiveness and perceived trustworthiness relationship.

## <u>Interaction of Product Presentation and Gender on Perceived Trustworthiness</u>

No significant interaction effect for product presentation and gender on perceived trustworthiness was found. Different product presentation (Presence vs. absence of face) and gender (male vs. female) did not influence trustworthiness. It was expected that the combined effect of product presentation and gender would influence trustworthiness, but in this study no interaction effect was found.

Existing online literature suggests that men have been found to have higher levels of trustworthiness online than females (ex, Van Slyke et al., 2002). Therefore, males possibly do not need as many cues as women do to invoke trustworthiness. It was predicted that females would find the model with a face more trustworthy than males, because attractiveness is related to trustworthiness in a person's face for females. However, the findings of this study showed that there was not a significant interaction for gender and product presentation on attractiveness. So females did not find their model with a face more attractive than males did. Therefore, they possibly did not have a higher level of trustworthiness towards the model with a face than males did.

There was no significant interaction found between gender and product presentation on perceived attractiveness. So females did not find models with a face significantly more attractive than the model without a face. It was expected that females would find the model with a face more attractive than the model without a face, which would lead to females finding the model with a face more trustworthy. Due to an unsuccessful manipulation check, females did not find the model with a face more attractive and therefore did not find the model with a face more trustworthy.

#### **Perceived Trustworthiness and Perceived Risk**

There was a significant relationship between perceived trustworthiness and perceived risk. In this study, people who had a higher level of perceived trustworthiness were less likely to perceive risk of purchasing the products online. When people shop online, trustworthiness may influence their perception of risk. If people have greater trust, they may perceive less risk.

The relationship between perceived trustworthiness and perceived risk in this study is consistent with previous literature (e.g., Mayer et al. 1995) that found that trustworthiness and risk were closely related concepts and higher trustworthiness led to lower perceived risk. If shoppers are more trustworthy, they may evaluate the shopping environment and the product more favorably and view the interaction less risky. With higher perceived risk online (McKnight et al., 2002; Schlosser et al., 2006), this relationship becomes important for retailers to try and establish. This finding helps confirm a relationship that has been rarely looked at.

#### Perceived Trustworthiness and Purchase Intention

Results revealed a significant positive relationship between perceived trustworthiness and purchase intention. In this study, people who have higher levels of trustworthiness are likely to have greater intention to purchase apparel online. This suggests that when people perceive more trust, their intention to purchase apparel online may be greater as compared to when people perceive less trust.

The results are consistent with the findings of previous literature (Jarvenpaa et al., 2000, McKnight et al., 2002; Yoon, 2002; Bart et al., 2005) that found that trust can

influence a consumer's intention to buy. If a consumer has a higher level of trustworthiness, they may be more comfortable purchasing a product from that website.

#### **Perceived Risk and Purchase Intention**

There was a negative relationship between perceived risk and purchase intention.

People who perceived less risk had a greater intention to purchase apparel online than those who perceived more risk.

This supports extensive literature looking at the relationship between perceived risk and purchase intention (ex. Shimp and Bearden, 1982; White and Truly, 1989; Park et al., 2005). This study confirms the relationship in online shopping. When people perceive less risk shopping online, their intention to purchase the product may be greater.

#### **Conclusions**

For online apparel shoppers, this study perhaps revealed how consumers view one area of product presentation. This study aimed to show that certain attributes of a model should be paid attention to by retailers when displaying their products. The inability for consumers to make a sensory evaluation of the products being viewed forces online stores to compensate for that lack of tangibility. They must look for ways to create trust online for their consumers. Website cues, including product presentation, have been found to invoke that trustworthiness in consumers online. It was expected that when products were displayed on the model with a face, people would make an initial judgment of the model and trustworthiness would be created for the participants. However, the presence of a face did not influence perceptions of trustworthiness in this study. This

aspect of the model may not be a major influence on consumers. If their focus is more on the product, the person who is wearing that product may not be much of a concern for the consumer. As long as they are able to correctly see the fit, other attributes that do not contribute directly to showing the properties of the garment may not make a difference. In addition, there was not an interaction effect for product presentation and gender on perceived trustworthiness. So this attribute of the model was not more important to one gender over the other.

A positive relationship between perceived trustworthiness and perceived risk was found. When a consumer has higher trustworthiness online they perceive less risk shopping online. This relationship is important because e-tailers need to reduce a customer's uncertainty about purchasing products online, and if they are able to invoke trust in their customers, they are able to reduce the risk the customer may view in purchasing the product online. Using website cues has been found to invoke trust online, so if retailers are able to successfully manipulate their websites to create trust, they will be able to decrease the amount a risk their customers have. This study focused, unsuccessfully, in trying to use one area of product presentation to invoke trustworthiness in the consumer. However, because product presentation can create trust in a consumer, finding successful ways to create trust online, would be beneficial for an e-tailer.

The study found a positive relationship between perceived trustworthiness and purchase intention. When a consumer has trust shopping online they are more comfortable with making purchases. The present study also revealed a negative relationship between perceived risk and purchase intention. When people perceive less risk in online shopping, their purchase intention is greater. Based on the relationship

found in this study, e-tailers need to invoke trustworthiness online to make their website less risky, so shoppers will perceive less risk and are more likely to purchase. This can be established through website properties, such as product description. Consumers have to rely on the information given to them, so retailers need to make sure they are providing enough verbal and visual information of their product which can help invoke trust in their customers. Also, providing privacy and financial security assurance, such as protection of consumer information, to make their customers view their interactions as less risky.

This study is valuable because it examined the effect of product presentation on perceived trustworthiness. The study also had valuable findings to add to the literature on the relationship between perceived trustworthiness and perceived risk, as well as the relationships between perceived trustworthiness, perceived risk, and purchase intention.

This study also provides evidence that not much research has been done for certain areas of Internet research, particularly product presentation. For e-tailers, online website design knowledge is important, however there are still many gaps and more research is needed to discover what affects or does not affect consumers shopping online.

### **Implications**

The results of the present study have important implications for e-tailers and marketers. For online product presentation, it has been found that the use of models over flat-display is preferred by consumers (e.g. Kim et al., 2009). The present study looked at one aspect of using the models and it was revealed that the presence or absence of a model's face did not influence a consumer's trustworthiness. Other website cues may have greater influence on consumers than the models that retailers would want to focus more on, such as site awareness and reputation, that have been found to influence a

consumer's trust (Van Slyke, 2002). Consumers may focus on the product the model is wearing and not pay attention to the model. This could have influence on how models are used online.

This study also confirmed the relationship between perceived trustworthiness and perceived risk. This shows e-tailers need to increase the trust a consumer has in their website to reduce any risk they perceive from purchasing from their online store. This study lets e-tailers know that an increase in trust allows shoppers to evaluate their shopping situation positively and perceive less risk.

Both perceived trustworthiness and perceived risk were found to influence purchase intention. This lets e-tailers know that their customers need to trust the website they are using and view it as less risky if they want them to purchase from their store. E-tailers need to investigate what website attributes help increase the trust a consumer has in an online store. It is important to show attributes of the product, such as fit and color, as accurately as they can. Consumers can then trust that the product they are expecting to purchase is what they will receive, so they will perceive the situation to be less risky and they will more likely to purchase it.

The results also have implication for researchers. Additional research looking at the use of models in an online setting is needed. Further testing looking at the same aspects this study researched should be done to either support the findings or find new information. Looking at other aspects of using the model and their influence on the product being sold could be researched, such as different facial cues, body type, body placement, etc.

### Limitations

This study has several limitations. First, the results cannot be generalized to other groups of the population since a convenient sampling method was used and respondents were limited to students at a major university in the northwest. Although college students are considered a large population of Internet shoppers, this study is unable to generalize to the larger population and is limited to referring to college students. Also, the college is located in a more rural town, where there may be different Internet usage than residents of more metropolitan or other geographic areas. Therefore, this study may only help retailers who target this type of consumer. This type of product presentation may influence older consumers who are less familiar with using the Internet.

Participants in this study were familiar with the Internet and using it for product information or purchasing. There may be a difference between consumers who have had experience purchasing apparel online and those who have not. Previous experience may lead to consumers having a formed opinion about purchasing online which influences their online behavior. Those who have had positive experiences may have a more favorable view of purchasing online compared to those who have not.

This study contained a simulated situation that is highly controlled by the researcher. Though great lengths are taken to ensure a real-life situation, there are still certain qualities that may be lacking. Although participants are given a scenario and told to make purchase decisions, they may not view this as a real shopping situation.

Following instructions reduces that reality of the shopping situation. Also, there is a reward for participating that may also affect the reality of the situation because of the motivation the participant has.

The present study focuses only on American culture. Other cultures may have a different response to the use of models and viewing their face. So again, the study is limited to a certain culture.

A pretest should have been conducted to determine the correct products to display. Using neutral products is important because whether or not a participant likes the product displayed could heavily influence their response, especially to purchase intention. An item that is too trendy or fashion-forward should be avoided.

Participants should have perhaps viewed both treatments and been asked to rate them both. It would have been better to compare the two treatments if all participants had viewed both.

The purchase intention scale either should have been pre-tested to determine reliability, or a new scale with more questions should be used. However, due to the high reliability found in the previous study, a pretest for this scale was not considered. Significant relationships were still found, but the reliability of these relationships is questionable. Using a scale that more appropriately reflects shopping online would have been more ideal to use.

Finding different attractiveness scales would have helped in correctly rating the attractiveness of the models. There may be a difference between facial and body attractiveness, so using scales that would correctly rate those would have given more accurate results. Again, because participants did not view both treatments, it is difficult to compare the attractiveness of the model in the two different treatments.

### **Recommendations for Future Study**

Different attributes of web pages can be investigated to look at perceived trustworthiness, perceived risk, and purchase intention. This study only focused on one aspect of product presentation with the presence and absence of a model's face. Looking at different uses of the model, such as different facial features, including smiling versus neutral expression, body position (ex. facing forward, facing to the side, etc.), full body versus partial body, and different views of the product on the model. In future studies, aspects of the use of a model in online apparel product presentation should be investigated.

Using different variables besides perceived trustworthiness could be investigated. The presence or absence of a face on the model may affect other online shopping feelings or behaviors. Variables such as mood, cognitive and affective behavior, etc. could be influenced by the use of a model online.

Looking at different demographics and comparing between different groups can be made. This study checked to see if there was a difference in the results between participants major (no significant result found) because a person in a certain major may have more experience with online shopping or have different views towards Internet retail. Differences may be found among age, income, education, etc. in terms on their online shopping preferences and behaviors. Other consumer groups such as older consumers or metropolitan consumers would be interesting to study to test the results of this study. Looking at this type of product presentation may produce different results in other consumer groups.

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## Appendices

#### Appendix A Questionnaire Cover Letter



Design and Human Environment
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#### INFORMED CONSENT DOCUMENT

Project Title: The effect of gender differences in purchase intention in response to model attributes in an online setting

Principal Investigator: **Minjeong Kim, Design and Human Environment** Co-Investigator(s): **Kerianne Marshall, Design and Human Environment** 

#### WHAT IS THE PURPOSE OF THIS STUDY?

You are being invited to take part in a research study designed to explore product presentation in the context of online shopping. We are interested in understanding how consumers respond to website environments for online shopping of apparel. We are studying this because findings from this study are expected to provide useful information for online retailers to develop more effective product presentations and increase sales.

#### WHAT IS THE PURPOSE OF THIS FORM?

This consent form gives you the information you will need to help you decide whether to be in the study or not. Please read the form carefully. You may ask any questions about the research, the possible risks and benefits, your rights as a volunteer, and anything else that is not clear. When all of your questions have been answered, you can decide if you want to participate in this study.

#### WHY AM I BEING INVITED TO TAKE PART IN THIS STUDY?

You are being invited to take part in this study because you are a college student and 18 years of age or older. You must be 18 years of age or older as well as OSU student to participate in this study. Your participation in this study is entirely voluntary and you may refuse to answer any question or stop the survey at any time.

#### WHAT WILL HAPPEN DURING THIS STUDY AND HOW LONG WILL IT TAKE?

If you choose to participate in this study, you will view a mock online web page for apparel. After viewing the web page, you will be asked to take in a short online survey. This survey will present several questions. If you agree to take part in this study, your participation will take approximately 7-10 minutes.

#### WHAT ARE THE RISKS OF THIS STUDY?

There are no foreseeable risks associated with your participation in the study.

#### WHAT ARE THE BENEFITS OF THIS STUDY?

You will not benefit from being in this study, besides the extra credit you will receive from your instructor for participating. You do not have to complete this survey for extra credit; your instructor will provide other opportunities for extra credit in lieu of completing this survey. In the future, we hope that other people might benefit from this study because results will help consumers and retailers learn how to improve websites for online shopping. In addition, we hope you find this study interesting.

#### WILL I BE PAID FOR PARTICIPATING?

You will not be paid for participating.

#### WHO WILL SEE THE INFORMATION I GIVE?

The information you provide during this research study will be kept confidential to the extent permitted by law. To help protect your confidentiality, we will not ask for any identifying information on the survey. Also, all information collected will be securely locked in a filing cabinet and out of view to the public. Your e-mail address will be stored separately and destroyed right after extra credit is given. Therefore, only instructors who will give you extra credit know who participated in the survey, but there is no way to identify survey information. If the results of this project are published, identities will not be published and results will be presented in aggregate form so individual responses are not given.

#### **DO I HAVE A CHOICE TO BE IN THE STUDY?**

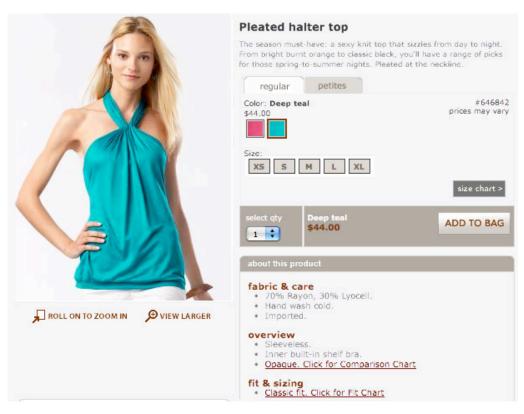
Participation in this study is completely voluntary. You can stop at any time during the study and still keep the benefits and rights you had before volunteering. You are free to skip any questions you prefer not to answer. Choosing not to participate or withdrawing will not affect your grade in the course or your standing in the class or at the university. If you choose to withdraw from this project before it ends, the researchers may keep information collected from you and this information may be included in study reports.

#### WHAT IF I HAVE QUESTIONS?

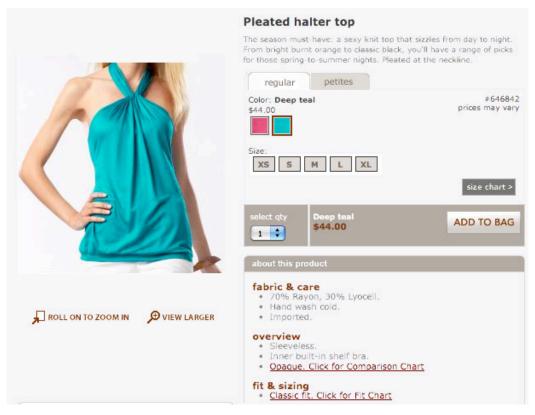
If you have any questions about this research project, please contact: Minjeong Kim at (541) 737-3468 or by email at Minjeong.Kim@oregonstate.edu as well as Kerianne Marshall at (541) 760-3802 or by email at marshake@onid.orst.edu. If you have questions about your rights as a participant, please contact the Oregon State University Institutional Review Board (IRB) Human Protections Administrator, at (541) 737-4933 or by email at IRB@oregonstate.edu.

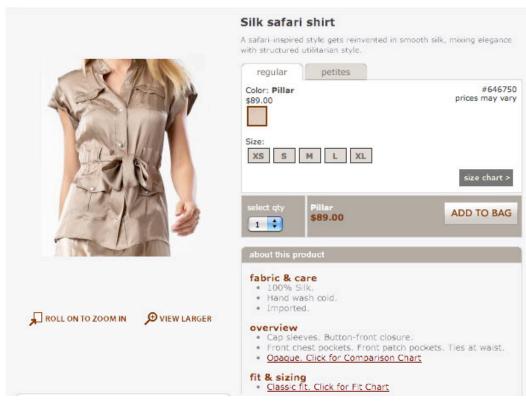
Signatures for the informed consent will not be collected from participants. This study will be employing an online survey method and there are no foreseeable risks or harm associated with your participation in the study. Also, researchers of this study involve no procedure for which written consent is normally required outside the research context.

#### Appendix B Stimuli- Mock Websites

















#### Appendix C Questionnaire

### View the pictures and review the scenario below:

# Imagine you are given \$300 dollars to purchase apparel items. Please evaluate the website below.

Please click the number that best indicates your evaluation of the model:

The model is						
Dependable	1	2	3	4	5	Undependable
Honest	1	2	3	4	5	Dishonest
Reliable	1	2	3	4	5	Unreliable
Sincere	1	2	3	4	5	Insincere
Trustworthy	1	2	3	4	5	Untrustworthy

# Please make an evaluation of the product(s) if you were to purchase one or both from this site.

Please click the number that best indicates your response.

Agree 1 2 3 4 5 Disagree

The color will not be what you thought it would be.

The size will not fit you.

There will be something wrong with the apparel purchase

(e.g., broken button, damaged fabric)

You will want to return it.

You will want to exchange it for another item.

You will not like it.

It will not look good on you.

Your friends will think you look funny when you wear it.

You will not be able to match it with your current clothing.

You will not feel comfortable wearing it in public.

You will have to pay for an alteration (i.e., lengthen or shorten the hem).

It will be harmful to your health (chemical agent-allergic reaction).

You will feel that you just threw away a lot of money.

You will feel that you just wasted time shopping via the internet.

You will not feel comfortable giving your credit card number when you order.

The construction quality will be poor (e.g., poorly done stitches).

It will not be durable when cleaned (e.g., color changes, shape change).

You will not wear the item.

You will find the very same item at the store with a lower price.

You will have a hard time trying to return the item or exchange it.

If you return the item, you will not be able to get a full refund.

You will lose money if you purchase this apparel item (e.g., because it costs more than it should to keep it in good shape, because you will not be able to wear after one season).

There will be something wrong with this apparel, or it will not function properly (e.g., a raincoat will not be waterproof).

It will affect the way others think of you.

It will be a risky purchase.

## Please evaluate your intention to purchase

Not likely to buy 1 2 3 4 5 Almost sure to buy

The possibility I would purchase one or both of these products...

Impossible 1 2 3 4 5 Possible

### Please evaluate the model

The model is...

Attractive 1 2 3 4 5 Unattractive

The model is...

Classy 1 2 3 4 5 Not Classy

The model is...

Beautiful 1 2 3 4 5 Ugly

The model is...

Elegant 1 2 3 4 5 Plain

The model is...

Sexy 1 2 3 4 5 Not Sexy

## Please evaluate your web usage

On average, how much time (in hours) do you spend on the Internet in a typical week (excluding email)? ENTER ONLY NUMERIC NUMBER.

On average, how many different Web sites do you visit in a typical week? ENTER ONLY NUMERIC NUMBER.

In the last two months, approximately how many times did you use the Web to collect product information? ENTER ONLY NUMERIC NUMBER.

In the last two months, approximately how many times did you use the Web to make a purchase? ENTER ONLY NUMERIC NUMBER.

What do you think your Web usage level is?

Nonuser 1 2 3 4 5 Heavy User

What types of products have you purchased from the Web?

## **Demographic Information**

Please enter your age:

What is your gender?

Male

Female

No Response

What is your class standing?

Freshman

Sophomore

Junior

Senior

**Graduate Student** 

Other

Please specify other here:

In what college at OSU is your major?

Agriculture

**Business** 

Education

Engineering

Forestry

Health & Human Sci.

Liberal Arts

Pharmacy

Science

Other

Please specify other here:

What is your marital status?

Single (Never Married)

Married

Divorced

Widowed

What is your ethnicity?

African-American

Asian-American

Hispanic-American

Native American

European-American

Other, Please specify other here:

To receive extra credit, please enter your ONID email account ONLY