Motivations for use of Internet shopping sites:

Comparison with catalog shopping

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ABSTRACT

This study explored consumers' online and catalog apparel shopping service uses and gratifications and the relationships of online shopping to conventional shopping modes. Uses and gratifications theory was the theoretical framework for exploring online apparel shopping service consumption and related apparel-shopping behaviors. The objectives of the study were: 1) to explore various consumer uses and gratifications factors for using online apparel shopping services and mail order apparel catalogs, 2) to identify variables explaining each shopping motivation of Internet and catalog apparel shopping, and 3) to examine the integration of new shopping media with traditional shopping modes by investigating how consumers' uses and gratifications for Internet apparel shopping sites and apparel catalogs affect their apparel shopping intentions through mail order catalogs and Internet shopping sites.

A repeated measures design was employed in a laboratory setting with hands on experience with Internet and catalogs incorporated. Data were collected from a convenience sample of 119 college students enrolled in a Midwest university. The gratifications for apparel shopping via the Internet and catalogs were identified using exploratory factor analysis. Also, a series of multiple logistic regression analyses were performed to examine the relationships between the gratifications and shopping intentions through Internet and catalog apparel shopping.

Through the factor analyses, five gratifications for Internet apparel shopping were found: Entertainment, Social Utility, Shopping Assistance, Surveillance, and Convenience/Economics. The results from the factor analyses also revealed five gratifications for catalog apparel shopping: Entertainment, Convenience/Economics, Social Escapism, Shopping Information, and Diversion. Consumers' previous shopping information search patterns played greater a role than any other previous shopping experiences or demographics in explaining consumers' gratifications for both Internet and catalog apparel shopping. Variance in most Internet apparel shopping use gratifications were explained by beliefs about Internet shopping rather than about the Internet in general. Regression analysis also indicated that Entertainment, Shopping Assistance, and

Convenience/Economics motivations were all significant in explaining whether consumers have high or low shopping intentions via the Internet, while only Convenience/Economics motivations were significant in explaining consumers' likelihood of catalog apparel shopping. In addition, a lack of displacement relationships between Internet and catalog apparel shopping was found, even though consumers' shopping intentions for the two apparel shopping modes were closely related. This study has implications for appropriate target marketing on the part of retailers.

CHAPTER 1: INTRODUCTION

As on-line Internet traffic is increasing rapidly, consumer use of on-line services and information resources is fast becoming common. According to eMarketer, one of the world's leading providers of Internet statistics, the number of online shoppers as well as online browsers has increased extraordinarily, exceeding expectations since 1999 ("Online Consumer Sales," 2000). Even though there have been strong concerns related to security issues regarding Internet transactions, the web technology is used as a virtual store for sales, as an information source, as an advertising source, and as a customer service tool (Peterson, Balasubramanian, & Bronnenberg, 1997). Moreover, the concerns about security related to providing personal information online are decreasing. Only about 10 percent of users were concerned with providing Internet shopping sites access to personal information in a survey conducted by KS&R ("Offline Brands Continue," 2001).

Among the diverse uses of web technology, gathering information about products and services was mentioned most frequently by Internet users for their Internet use motivations ("120 Million Web Users," 2000). Lohse, Bellman, and Johnson (2000) also found that Internet usage for product information search is a stronger predictor of online shopping adoption than any other Internet use motives. Moreover, the information motive was suggested as a facilitator of in-store sales or catalog sales, even though the motives did not result in online purchases ("120 Million Web Users," 2000; Korgaonkar & Wolin, 1999). Many consumers who have never purchased through the Internet have used it for gathering information about products that they ultimately will buy through traditional shopping formats ("120 Million Web Users," 2000).

Despite the potentials of online shopping sites, there has been little research comprehensively exploring how and why consumers are using on-line shopping sites. Although some research has been conducted indicating the demographic profile of online shoppers (Donthu & Garcia, 1999; Henrichs, 1995; Metha & Sivadas, 1995), little is known about consumers' motivations and concerns for using online shopping services. The concepts and perspectives of uses and gratifications theory are particularly helpful in examining consumers' motivations and concerns for using media (Eigmey & McCord, 1998; McGuire, 1974). Researchers identified consumers' web use gratifications factors

such as socialization motivation, information search (surveillance) motivation, interactive control motivation, social escapism motivation, entertainment motivation, and economic motivation (Eighmey & McCord, 1998; Korgaonkar & Wolin, 1999). The web affords enjoyable and fun activity for individuals who have socialization, social escapism, and entertainment motivations. In terms of information search and economic motivations, the web is regarded as an efficient and convenient tool for gathering and comparing product information (Geissler & Zinkhan, 1998). Also, the interactive characteristics of the web lend more personalized and customized services. However, researchers have not explored how different web use motivations are related to how consumers utilize the web shopping venue.

This study attempts to identify consumers' varied online shopping service uses and gratifications. Most users have multidimensional psychological gratifications, so that they tap the Internet for more than one purpose (Lin, 1996; Miller, 1996). Therefore, there is a need to recognize that media use motivations are not unidimensional, but rather multidimensional and potentially interconnected. Online apparel shopping service use motivations were assessed and compared to apparel catalog shopping motivations. In addition, online shopping gratification factors were examined for their relationship to consumers' attitudinal or behavioral differences in shopping behaviors.

Forrester Research forecasted that Internet shopping will accelerate offline purchases increasing its revenue by $300 billion by 2005 (Lipke, 2000). According to a study by McKinsey & Company and Salomon Smith Barney ("Pure Plays Face Trouble," 2000), e-retailers who do business through multiple channels—through stores, catalogs, and online—emerged victorious. Jupiter Research reported that multi-channel shoppers are estimated to spend about one third more than the consumers who shop through only one channel (Lipke, 2000). Each channel may drive sales to one another instead of cannibalizing. On the other hand, Internet shoppers who have security concerns discontinued Internet shopping and increased their paper-based catalog shopping (Lohse, Bellman, & Johnson, 2000).

Both the Internet and mail order catalogs are regarded as media and distribution channels at the same time. The Internet and catalogs act as media by disseminating

information and providing entertainment to mass consumers (Rubin, 1986). On the other hand, the Internet and catalogs function as distribution channels by distributing and selling products. Distribution channels are defined as sets of marketing institutions through which marketing flows, including goods or services, move from producers to consumers (Bucklin, 1966; MaCarthy, 1968; Vaile, Grether, & Cox, 1952). If more than one channel is utilized for the distribution of marketing flows to ultimate consumers, the system is called multiple channel distribution (Bruce, 1977). The existence of multiple channels may cause channel conflicts or channel competition. The same products available from multiple channels may signify price and promotional competition (Bruce, 1977). The Internet is only one of many channels available for both retailers and customers. However, due to its ability to provide information quickly and inexpensively, the Internet may have disparate impact on marketing communications, sales transactions, and logistics (Raymond, 1997). The interaction between the characteristics of media and those of distribution channels may suggest more dynamic relationships between the Internet and catalogs.

There have been some studies that examined the relationship between Internet and existing media (Jeffres & Akin, 1996; Lin, 1999). Three different mechanisms connecting traditional media and new media--displacement, complementary, and supplementary relationships--exist. A displacement relationship postulates mutually exclusive choice, whereas complementary relations suggest that one medium makes another one more complete. On the other hand, a supplementary relationship arises from the situation when two media are perceived as different, and the new medium has no impact on traditional media use. According to the literature that studied the relationships among traditional shopping modes and online shopping, the displacement relation seems to be least probable ("120 Million Web Users," 2000; Lohse, Bellman, & Johnson, 2000). The lack of apparent displacement suggests that there could exist a supplementary or complementary relationship between traditional and new shopping modes. Thus, marketing implications of the Internet should not be considered in isolation, apart from other modes of shopping. The impact of online sales on other traditional selling venues like stores and mail-order-catalogs needs to be examined.

In this study, consumers' diverse Internet shopping behaviors were explored by

examining their different intentions to utilize online shopping sites for apparel. Consumers' different web use gratifications were examined in relation to adopting the multiple media as apparel shopping modes. This study examined which motivations are important in shaping consumers' intentions to use a shopping mode. In most studies, an individual's intention to use is the single best predictor of actual behavior (Davis & Venkatesh, 1996); therefore, the adoption of the new shopping mode was evaluated based on consumers' intention to purchase through apparel commercial web sites for shopping. Also, the relationships between Internet apparel shopping use intention and each traditional shopping mode, catalog and store shopping mode, were examined in order to explore the level of integration of new shopping media with traditional ones.

Purpose

The purpose of the study was to explore consumers' online and catalog apparel shopping service uses and gratifications and the relationships of online shopping with conventional shopping modes. Uses and gratifications theory was the theoretical framework for exploring online apparel shopping service consumption and related apparel-shopping behaviors.

The overall objective of the study was to conduct an exploratory assessment of online and catalog apparel shopping motivations and to explore consumers' use of online apparel shopping sites in relation to other shopping channel decisions. Specifically, this study addressed the following objectives:

1. To explore various consumer uses and gratifications factors for using online apparel shopping services and mail order apparel catalogs.
2. To identify variables explaining shopping motivations for Internet apparel shopping and catalog apparel shopping
3. To examine the integration of new shopping media with traditional shopping modes by investigating how consumers' uses and gratifications for Internet apparel shopping sites and apparel catalogs affect their apparel shopping intentions through mail order catalogs and Internet shopping sites.

Definitions of Terms

Internet	"---a network of computer networks, which is capable of providing virtually instant access to a vast storehouse of information spanning the globe" (Henrichs, 1995, p. 4)
Online shopping	a shopping mode transacting (promoting, offering, and purchasing) products through the Internet electronically
Mail order catalog shopping	a type of retail catalog shopping that accounts for its marketing expenditures with sales that can be tracked directly to that direct mail program as an independent profit center (Muldoon, 1996)
Apparel	"---a custom for designating body enclosures that cover as clothing" (Roach-Higgins & Eicher, 1995, p. 17)
Distribution channels	sets of marketing institutions through which marketing flows, including goods or services, move from producers to consumers (Bucklin, 196; MaCarthy, 1968; Valie, Grether, & Cox, 1952)
Gratifications	specific types or dimensions of satisfaction sought and obtained by individual audiences of a medium (Herzog, 1942)

CHAPTER 2: LITERATURE REVIEW

Internet Shopping

The importance of Internet retailing has consistently increased over the past few years, evidenced not only by the popularity of commercial web sites for shopping, but also by the increase in online retail sales. According to the National Retail Federation, 26 percent of U. S. retailers had their own commercial web sites in 1998, an increase of more than 300 percent over the 8 percent of U. S. retailers that had sites in 1996 (Holstein, Thomas, & Vogelstein, 1998). Also, ninety-seven percent of large corporations were estimated to be connected to the net, with 39 percent conducting on-line sales in 1999 (eMarketer, 1999; Ernst & Young, 1999). More recently, eMarketer reported that the number of commercial sites and electronic transactions has increased significantly since 1999 ("Online Consumer Sales," 2000).

The popularity of commercial web sites, encouraged by the rapid rate of consumer adoption of personal computers, resulted in increased online retail sales. An Angus Reid Group study of Internet users found that 40 percent of all Internet users, 120 million of the estimated 300 million worldwide Internet users, have made at least one purchase online ("120 Million Web Users," 2000). Also, an eCommerce Pulse online survey of 39,000 web users found that more than 81.2 percent of all adults with Internet access have made a purchase through an online shopping service ("Half of American Adults," 2001). According to Forrester Research, 6 percent of all U. S. retail sales will be online by 2003 ("The Great Yuletide Shakeout," 1999). Even though forecasts for total U. S. online spending for the year 2002 range from $26 billion (e.g., eMarketer, 1999) to $76.3 billion (e.g., Forrester Research, 1999), it is expected that web commerce growth will continue to accelerate. In particular, clothing and apparel sales jumped 122.3 percent to $368 million in March 2001 compared to the amount in April 2000 ("Half of American Adults," 2001). The rapid growth of commercial web applications suggests the emergence of an important new medium for commerce.

As shopping has become a primary use of the Internet ("Primary Uses of the Web," 1997), and the total number of Internet shoppers continues growing, there have been some studies that attempted to profile typical Internet shoppers. Donthu and Garcia (1999)

found that Internet shoppers are convenience seekers who are more innovative, impulsive, variety seeking, and less risk averse than non-Internet shoppers. According to their study, more positive attitude toward advertising and less brand consciousness also differentiated Internet shoppers from non-Internet shoppers. While some studies ("Education Attainment," 1998; "Internet Shopping", 1998; Quelch & Klein, 1996) suggested that typical Internet users were well-educated young males, it is older users who are more likely to purchase products on the Internet, due to older consumers' higher purchasing power and easier access to credit cards (Donthu & Garcia, 1999). Ernst & Young (1999) reported that 68% of online shoppers were 40 years of age or older and 11% were under the age of 30. With the significant increase of new Internet users, the disparity between Internet users and nonusers is gradually disappearing. A recent World Wide Web survey found that the characteristics of web users are becoming more similar to those of the general population (GVU, 1998; Lohse, Bellman, & Johnson, 2000). On the other hand, the characteristics of Internet shoppers are likely to be different from those of non-shopping Internet users on demographics or motivations for use (Donthu & Garcia, 1999).

With increasing use of Internet as a sales tool and a distribution channel, its influences on traditional shopping channels are grabbing the attention of retail researchers and practitioners. Whether a new shopping channel cannibalizes or complements traditional shopping channels is controversial (Schulz, 1999). Shopping Center World estimated that 60 percent of online shopping sales replaced sales in traditional stores (Carlson, 1999). Also, a recent survey by Jupiter Communications supported this claim by finding that only 6 percent of online sales are new spending. The rest of the sales are most likely to be transferred from traditional retailers (" The Great Yuletide Shakeout," 1999). In particular, a study that examined how Internet retailers affect store or catalog shopping found that the Internet will likely draw market share mostly from the catalog market rather than from traditional brick and mortar stores (Keen, 1999).

The Internet retail option has the potential to reduce some costs of direct mail retailing, such as catalog paper purchasing, printing, and mailing ("Interactive Retailing," 1997). Moreover, catalog shoppers are reported to have more positive attitudes toward Internet shopping because their prior experience with direct marketing makes them more

comfortable with mail delivery transactions ("Internet Shopping," 1998; Yoh, 1999). Catalog shoppers are more likely to become online shoppers ("Interactive Retailing," 1997; "Internet Shopping," 1998; Yoh, 1999). According to a report by eMarketer ("Online Consumer Sales," 2000), online pulls revenue from traditional shopping channels, and the greatest transition to Internet shopping is from catalog and phone orders. In particular, online shoppers who have been using online shopping services steadily more than one year had a decrease in paper-based catalog ordering (Lohse, Bellman, & Johnson, 2000). The steadfast online shoppers had higher incomes than the purchasers who discontinued online shopping or who never bought through the Internet.

Some researchers claim that Internet shopping will never completely replace store or mall shopping but will redistribute the market share across the various distribution channels or retail formats (Lebhar-Friedman Inc., 1999; Shi & Salesky, 1994). Instead of cannibalizing traditional shopping modes, each shopping channel may boost another channel's sales. In-home shoppers are reported to have more positive attitudes toward shopping than non-in-home shoppers, and they are also active shoppers who make even more frequent purchases in brick-and-mortar stores (Gillet, 1976; Lumpkin & Hawes, 1985). According to Jupiter Research, the consumers who shop through more than one shopping channel spend about one-third more than the consumers who use only one shopping channel (Lipke, 2000).

Additionally, some factors make consumers reluctant to conduct transactions through the Internet. The most prevalent risks perceived by consumers are their concerns about credit-card security (Fram & Grady, 1995, 1997; Gupta & Chatterjee, 1996). The concerns related to sharing personal financial information indicate the misgivings that consumers have regarding security lapses on the web. Since Internet shopping is a new form of non-store shopping, it shares some of the perceived risks of direct mail or telephone shopping. The fact that consumers do not have the opportunity to examine the products prior to purchase creates the fear of not getting what was wanted. There are several new attempts, such as three-dimensional presentation of clothes on the Lands' End web site, to compensate for the lack of product realism (Holstein, Thomas, & Vogelstein, 1998).

Moreover, some consumers are reluctant to buy through the Internet, especially from unrecognized retailers because of worry about not receiving the products. To minimize the perceived risks caused by purchase without seeing the actual products, consumers have used brand image or reputation as a guide for credible products (Akaah & Korgaonkar, 1988). Thus, catalog retailers selling recognized brand name products or who are well-established brick-and-mortar retailers might take advantage of well-known brand names as well as well-established marketing strategies and distribution systems in doing Internet business ("Internet Shopping", 1998; Phillips et al., 1996).

Apparel Mail Order Catalog Shopping

Catalog shopping evolved from retail sectors in the late 1800s and early 1900s in an attempt to reach consumers in rural areas. Catalog shopping has rapidly increased its market share during the late 1980s and 1990s (Kwon, Paek, & Arzeni, 1991; Muldoon, 1996; Schmid, 1999). While exact measures of market size are not available, the growth rate of mail order sales was about twice the rate of growth of retail sales in 1987 (U.S. Bureau of the Census, 1990), and was somewhat higher than growth in overall retail sales in 1990 (Fishman, 1991). It was reported by the Direct Marketing Association that more than half of the U.S. adult population purchased merchandise by mail or phone in 1993 (Muldoon, 1996). In particular, apparel is the product category that consumers purchase most frequently through catalogs in the United States, and apparel catalog sales have increased proportionately, comprising up to 26 percent of catalog market share (Michals, 1997; Seitz & Massey, 1990). More recently, catalog shopping has been growing 10% to 15% a year, reaching $66.6 billion by 1996, whereas American consumers have reduced the average number of hours spent in the mall shopping ("Seven Pillars," 1996; Mathwick, 1997; Muldoon, 1996). However, the growth in catalog shopping has somewhat slowed due to competition in a mature catalog market (Patterson, 1992).

There have been various studies about the behavior of catalog shoppers. Those studies attempted to compare catalog shoppers and non-catalog shoppers in terms of not only their demographic characteristics (Berkowitz, Walker & Waltton, 1979; Cunningham & Cunningham, 1973; Darian, 1987; Gillet, 1976; Lumkin & Howes, 1985; Seitz &

Massey, 1990; Smallwood & Wiener, 1987), but also psychograhics such as lifestyle or shopping orientation (Bellenger & Korgaonkar, 1980; Darden & Hawell, 1987; Gehrt & Carter, 1992; Jasper & Lan, 1992; Korgaonkar, 1981). As catalog shopping is adopted by more people, the focus of catalog studies has moved from demographic characteristics to psychosocial attributes due to the difficulty in differentiating catalog shoppers from non-catalog-shoppers with demographics. Even though the findings from the catalog literature are not consistent or comparable due to the varied sampling frames and measurements, such functional motives as time savings, convenience, and efficiency have been found to be the most influential motives that attract consumers to catalog shopping (Berkowitz et al., 1979; Darian, 1987; McDonald, 1993). However, some of the recent research related to catalog shopping was more focused on the recreational shopping orientation of catalog shoppers, such as for relaxation, relieving boredom, or enjoyment, suggesting more diverse catalog shopper segments (Gehrt & Carter, 1992; Stell & Paden, 1999).

In general, catalog shoppers are better educated and relatively affluent, have high status occupations, and are more comfortable with modern technology than are non-catalog-shoppers (Berkowits et al., 1979; Braun, 1993; Cunningham & Cunningham, 1973; Gillet, 1970; Seitz& Massey, 1990). Also, they spend more time with television, radio, and newspapers, and are more likely to view shopping as a leisure activity (Braun, 1993). Moreover, catalog shoppers are reported to have more positive attitudes toward shopping than non-in-home shoppers, and they are also active shoppers who make even more frequent purchases from traditional stores (Braun, 1993; Gillet, 1976; Lumpkin & Hawes, 1985). Since catalog shoppers tend to be more flexible, comfortable with new technology, venturesome, and less conservative than traditional store shoppers, they are more willing to search for new retail formats, placing higher value on convenience or efficiency.

As the catalog market matures and is getting competitive due to the growing cataloging of retailers in recent years and high competition in pricing (Schmid, 1999), catalog retailers were among the apparel industry's earliest explorers in getting into the Internet business (Greco, 1996). Previous literature indicates that catalog shoppers have more positive attitudes toward Internet shopping ("Interactive Retailing",1997; "Internet Shopping", 1998), and catalog retailers with recognized brand names have an advantageous

situation on the Web (Bleeker, 1995; "Internet Shopping", 1998). Catalog retailers should therefore be able to take advantage of their experience with direct marketing strategies and distribution systems. Some market research (e.g., Forrester Research, 1999) suggested that catalog retailers should cannibalize their own catalog sales by introducing online retail options to consumers (Keen, 1999). Catalog retailers who are not prepared to establish a presence on the Web promptly may be exposed to a threat of cannibalizations from other online retail players.

The Similarities and Differences between Catalog and Internet Shoppers

There have been studies that contended there are similarities between catalog shoppers and Internet shoppers. The studies concluded that there are only two types of shoppers: those who are comfortable with buying through non-store retail formats such as mail, phone, or the Internet and those who are not (Greco, 1996; Schmid, 1999; Vijayasarathy & Jones, 2000). Both catalog and Internet shoppers are reported to be convenience seekers who are more innovative, variety seeking, and less risk averse. Also, they are both open to advertising and seek more product information utilizing various types of media (Braun, 1993; "Internet Shopping", 1998; Quelch & Klein, 1996). Both catalog shopping and Internet shopping have limitations in that consumers cannot view or feel the actual merchandise and receive products via mail delivery.

On the other hand, Internet shopping has been considered to be somewhat different from other in-home shopping methods due to its unique characteristics. Lohse and Spiller (1997-1998) pointed out that interactivity of the Internet might improve consumers' shopping experiences. More customization incorporated with newer and advancing technologies will enable Internet shopping to facilitate consumers' more active role in shopping (Sheth & Sisodia, 1996; Vijayasarathy & Jones, 2000). While Internet shopping can offer consumers more information for shopping, it has at the same time more perceived risks involved with social risks and security risks resulting from the relatively new and less familiar shopping formats ("Internet Shopping", 1998; Peterson, 1996; Tassel & Weitz, 1997). In addition, consumers' perceptions of the value of Internet shopping and catalog shopping seemed to be different. According to a study that examined consumption

patterns and customer value of Internet and catalog shopping (Mathwick, 1997), Internet shopping experiences were mainly characterized by perception of efficiency and economic value, whereas catalog shopping appeared to be valued for aesthetic appeal and playfulness as well as for efficiency and economic value.

Uses and Gratifications Theory

Uses and gratifications theory provides a valuable guideline for understanding audiences' active media consumption (McGuire, 1974; William, Phillips, & Lum, 1987). Uses and gratifications theory recognizes that people consume media in an effort to fulfill specific needs. Herzog (1944) first studied the question of why people use media in an attempt to identify the effects of daytime serials upon female radio listeners. She encompassed such concepts as needs, satisfactions, and gratifications in order to understand media usage. Gratifications can be defined as specific types or dimensions of satisfaction reported by individuals of media audiences (Herzog, 1942). Since her first attempt was made, the theoretical advances of uses and gratifications theory has been accelerated by Blumler and Katz (1974), who provided explanations of the ways in which audience motives, expectations, and media behaviors interact. Contemporary researchers have successfully applied the gratification concept to a range of new media and technologies (Kuehn, 1994; Walker & Bellamy, 1991). Overall, uses and gratifications has been quite useful in explaining consumers' motivations as related to media attitudes and related behaviors (Eastman, 1979; Perse, 1986; Rubin, 1984, 1985; Rubin & Banz, 1989).

The Uses and Gratifications Paradigm

Uses and gratifications theory attempts to provide explanations of the ways in which people use mass media and the psychological gratifications derived from media use (Katz, Blumer, & Gurevitch, 1974). Uses and gratifications theory focuses on what people do with mass media instead of what mass media do to people (Klapper, 1963). In other words, media cannot influence people who do not use the media (Katz, 1959). The principle elements of uses and gratifications theory include: 1) social and psychological human needs, 2) expectations of the mass media and other sources, 3) gratification-seeking

motives, 4) media consumption, 5) non-media behavior, 6) need gratifications, and 7) unintended other effects (Katz et al., 1974; Rosengreen, 1974).

Three objectives and five assumptions of uses and gratifications theory were outlined by Rosengreen (1974) and Katz et al. (1974). The three objectives are: 1) to explain how individuals use mass media to satisfy their needs, 2) to understand the motives of media consumption behaviors, and 3) to identify the consequences of needs, motives, and media consumption behaviors. The assumptions of uses and gratifications perspective have been revised since Rosengreen and Katz et al. initially outlined them (Palmgreen, 1984; Palmgreen, Wenner, & Rosengreen, 1985; Rubin, 1986). First, media selections and uses are goal-directed, purposive, and motivated, emphasizing the underlying belief that the audience is relatively active in choosing media or content. Second, individuals take the initiative in media use to satisfy their needs. Third, social and psychological factors--such as social interaction, individual predisposition, and environment--change or influence expectations about media. Fourth, media compete with other modes of communication for needs gratifications. Fifth, through media use, media may affect individuals and society. Uses and gratifications theory underscores the belief that audiences actively initiate media use.

Media Use Typology

In order to learn why people use certain media, uses and gratifications research has focused on audience motivation and consumption, developing typologies of the shared gratification categories sought and obtained by people (Katz, Gurevitch, & Hass, 1973). Such typology research has been conducted extensively since the early 1970s (McQuail, Blumler, & Brown, 1972; Rosengreen & Windahl, 1972; Rubin, 1983). Researchers attempted to explain media consumption by examining connections between goals and outcomes related to social and psychological needs. For example, McQuail, Blumler, and Brown (1972) formulated a typology of audience gratifications for using television content consisting of diversion (e.g., escape, emotional release), personal relationships (e.g., companionship, social utility), personal identity (e.g., personal reference, reality exploration, value reinforcement), and surveillance (e.g., acquiring information). Different

motivations for media shape the effect of a particular media on media choice and consumption behavior. Information gratification was a strong predictor of heavy use of newspapers, whereas information motivation had weak relationship with heavy use of television (deBock, 1980; Greenberg, 1974; Rubin, 1983).

The empirical uses and gratifications typology research has established the need to explore the relationships among media usage motivations and such media-related behaviors as content choice and viewing time. Bantz (1982) explored the similarities and differences between general-medium and specific-content television viewing motivations. Specific gratifications sought and obtained were related to viewing specific types of television programs in Rubin and Rubin's study (1982). They found that seeking informational gratifications characterized viewers of television news, documentary magazines, and talk shows. Identifying associations among media-use motives and media attitudes and behaviors has been suggested as a direction for uses and gratifications research progress (Rubin, 1994).

Uses and Gratifications Applied to the Web

Gratifications obtained from the web differ from gratifications acquired through other media in that audiences have more control over choices of content and alteration of the messages (Willaims, Strover, & Grant, 1994). The interactive element of the web endows consumers with much more control than any other media, resulting in extensive consumer involvement (Hoffman & Novak, 1997; Korgaonkar & Wolin, 1999). It might be appropriate and valuable to apply uses and gratifications theory to understand web usage. Moreover, uses and gratifications in Internet research could offer the potential to explore possible benefits of using the Internet.

Some previous research explored web users' experiences associated with uses and gratifications from web usage. A recent empirical study found that online audiences have motivational factors such as escape, entertainment, interaction, and surveillance (Miller, 1996). Also, Eighmey and McCord (1998) identified nine web gratification factors in an attempt to profile commercial web site users' responses. Among nine factors, entertainment value, personal relevance, and information involvement emerged as

relatively important factors, although web users reported a complex assortment of uses and gratifications related to web usage. Some previous literature related to web gratifications suggested that consumers are seeking more than information from the web (Eighmey & McCord, 1998; Korgaonkar & Wolin, 1999). Even though web users' initial motives for web use were retrieving information, consumers are becoming more comfortable with considering the web as a place for various activities such as entertainment or socialization.

In addition to the web usage motivation typologies, some studies applied uses and gratification theory to understand the relationship among web users' purchase behavior, the level of media involvement, the purpose of web usage, and web usage motivations and concerns (Korgaonkar & Wolin, 1999). Among these variables, web users' motivations and concerns were significantly correlated with the level of media involvement and users' purchasing behaviors. Korgaonkar and Wolin (1999) found that web users who seek more information, try to escape from reality, use the Internet for its interactive features, and enjoy the convenience of the Internet are more likely to purchase from the web. Even though web use behaviors vary with age, income, gender, and education, motivations and concerns played a greater role in determining different web usage patterns than did demographics.

Lin (1999) studied a specific issue of media substitution mechanism based on uses and gratifications. She attempted to explore the relationship between television and the Internet as a traditional medium and a new medium, respectively. Whether the Internet could effectively compete with traditional media, or both new and old media made each other more complete without apparent substitution, was examined by comparing each medium's use gratifications factors. Results indicated that the motivations of TV viewing and online service use were only partly correlated. TV viewing motivations were not significant predictors of Internet service use adoption, while Internet use motivations accounted for variance in the likelihood of online service use adoption significantly. Thus, complementary or supplementary relations rather than displacement were suggested, although consumers' motivations appeared similar in the usage of both media. The seemingly analogous motivations of distinct media may be perceived differently by users due to the interaction between the specific content of the media and the uers' motivations.

For example, the information seeking motivations of web users and TV users can be different, as the types of information available from the web or TV are perceived differently by the users.

In addition, Lin (1999) analyzed different gratifications factors identified for predicting likelihood of online-shopping service adoption as well as consumers' use of the web to acquire information. All the three online service use motivations, entertainment, companionship/personal identity, and surveillance, were significant predictors of the likelihood of online shopping service adoption. On the other hand, none of the TV use motivations, including identity, surveillance, and companionship, was significant in predicting online shopping adoption likelihood.

Research Questions

1. Are there varied motives for online apparel shopping service use and apparel mail order catalog use?
2. How are different Internet apparel shopping motivations related to demographic variables, previous shopping experiences, and Internet use and beliefs? Are there combinations of demographics, previous shopping experiences, and Internet use and beliefs that explain the variance in consumers' Internet apparel shopping motivations?
3. How are different apparel mail order catalog shopping motivations related to demographic variables, previous shopping experiences, and Internet and beliefs? Are there combinations of demographics, previous shopping experiences, and Internet use and beliefs that explain the variance in consumers' apparel mail order catalog shopping motivations?
4. What is the relationship between Internet and mail order catalog apparel shopping motivations?
5. How do apparel online shopping uses and gratifications affect the intention to use Internet apparel shopping? Is there a combination of two or more online apparel shopping site uses and gratifications that predicts the variance in consumers' online apparel shopping intention?
6. How do apparel mail order catalog uses and gratifications affect the intention to use

apparel mail order catalog shopping? Is there a combination of two or more of apparel mail order catalog uses and gratifications that predicts the variance in consumers' apparel mail order catalog shopping use intention?

7. How are other apparel shopping intentions related to Internet apparel shopping service use intention?

CHAPTER 3: METHODS

To accomplish the research objectives, data were collected in a computer laboratory setting using a repeated measures pretest/post test design. Two apparel brand web sites and catalogs were selected for this experiment to provide participants with web and paper-based catalog experiences. These lab experiences ensured a minimum exposure to Internet and catalog apparel shopping and the specific brands studied. A questionnaire was administered before and after participants were exposed to the web sites and catalogs. This chapter provides a detailed description of the methods including sampling, instrument development, data collection procedures, and data analysis.

Sampling

The participants were male and female college-aged students. College-age students are in the process of establishing purchasing habits. Also, they are one of the fastest growing U.S. population segments (Rudy, 2001). Over 80 percent of college students access the Internet on a frequent basis (Rudy, 2001). Since it is well known that Internet use among college students is more prevalent than among any other population group, it was appropriate to include them in a study of Internet shopping. In addition, college students are valuable population groups for theory development purposes (Keen, 1999). A convenience sample was used for this study instead of random sampling. Random and representative sampling are not requirements for theory testing and development studies, although valuable if possible (Calder, Philips, & Tybout, 1981).

The respondents were recruited from an introductory social psychology of appearance course and a textile science course at a midwestern university. Students were informed by the researcher, with the assistance of instructors, about the purpose of the study and were given a brief description of the experiment (see Appendix A). The participants in the study earned extra credit in the class. Students signed up for a time slot that was convenient for them and were reminded by e-mail of the time to participate and the computer lab location. Among 137 students who signed up for the experiment, 119 students participated. Up to 20 students participated in each data collection session.

Treatment and Selection of Brands

Two brands were selected for Internet and catalog shopping experiences. The treatment was intended to provide participants both with Internet and catalog shopping experiences, sensitizing participants to both modes of apparel shopping. Two apparel shopping web sites were selected for the experiment to represent major apparel brands well known to college students. Both brands have mail-order catalog and commercial web sites for shopping. Only well known apparel brands were selected in an attempt to control the variations of perceived risks of Internet shopping. In addition, both web sites included text based information and visual images. Finally, multiple catalogs from one season and issue had to be accessible for any brand studied.

According to the criteria for brand selection, two apparel brands, Eddie Bauer and J. Crew, were selected. The selected web sites were bookmarked beforehand for the participants. The order of presentation of catalogs and commercial web sites were varied in each session and with each participant to eliminate possible order effects. There was a change made in the Eddie Bauer web site during the data collection period (April 4 to April 13). The respondents who participated in the experiment after April 6 viewed a revised Eddie Bauer web site, though similar in style and content to the previous version.

Instrument Development

A self-administered data collection questionnaire was developed based on the literature and study objectives. The questionnaire consisted of three separate sets of questions. The first set of questions was composed of four sections: 1) previous shopping experiences, 2) Internet use and beliefs, 3) prior brand image, and 4) demographic information. The second questionnaire included five sections: 1) evaluations of Eddie Bauer catalog, 2) evaluations of Eddie Bauer web site, 3) evaluations of J. Crew catalog, 4) evaluations of J. Crew web site, and 5) post brand image. The order of sections 1 through 4 of the second questionnaire varied according to treatment order. The third questionnaire, consisting of two sections, measured: 1) apparel web site and apparel catalog use motivations, and 2) shopping intentions.

Before the main study, a pilot test was conducted with five students (1

undergraduate and 4 graduate). On the basis of the pilot test, the questionnaire was improved by revising some unclear expressions and by removing some redundant items. In addition, according to the recommendations suggested by pilot test participants, the questionnaire layout was modified to reduce possible mistakes and fatigue that may result from complicated organization. The questionnaire is presented in Appendix B.

Questionnaire I

Before participants were exposed to any stimuli, Questionnaire I was administered in order to measure participants' previous shopping experience, Internet use and beliefs, and demographic information.

Previous shopping experience

Five items measured experience with various shopping modes such as in-store shopping, mail order catalog shopping, and Internet shopping. The items asked about: 1) the length of experience with a particular apparel shopping mode, 2) the number of a particular medium's use for product information search during the past 12 months, 3) the number of purchases through a particular shopping mode during the past 12 months, 4) the amount of money spent for apparel shopping using a particular shopping mode during the past 12 months, and 5) the level of satisfaction with a particular shopping mode. Product information search items were included in an attempt to examine the use of shopping mode or media as an information source.

All the items, except for the level of satisfaction with shopping modes, were rated on ordinal scales. For example, the length of apparel shopping experience with a particular shopping mode was measured on the ordinal scale: *Never (1), Less than six months (2), Six months to one year (3), One to two years (4),* and *More than two years (5)*. For the satisfaction question, a five-point scale ranging from *Not Satisfied (1)* to *Satisfied (5)* was employed. Additionally, *Don't Know (6)* option was included in the satisfaction scale to indicate the respondents who had never used Internet shopping methods. The *Don't Know* response was regarded as missing data for most of the data analyses.

Internet use and beliefs

Internet use was measured by three items. First, respondents were asked how much time they use the Internet each week for any reason. The second item was about the length of Internet experience. Finally, they were asked to indicate how often they visit online apparel shopping sites. The first item was rated on an ordinal scale of *Don't use (1), Less than 1 hour (2), 1-5 hours (3), 6-10 hours (4),* and *More than 10 hours (5)*.The length of Internet experience and the frequency of apparel shopping site visits were measured on a five-point ordinal scale ranging from *Don't use (1)* to *More than two years (5)* and from *Never (1)* to *At least once a week (5)*, respectively.

In order to measure beliefs about the Internet and Internet shopping, 24 items were adapted from instruments used in previous studies of Internet shopping (Lokken et al, 2001). After revision of items by experts from Textiles and Clothing and subjection to a pilot test, six items were eliminated from the original pool, because they were redundant, ambiguous, or not related to the study's objective. The final set of 24 items in statement format were rated on a five-point Likert type scale raging from *Strongly Disagree (1)* to *Strongly Agree (5)*.

Prior brand image

A set of eight items were modified from Aaker's (1996) measure of brand equity value to examine students' attitudes towards the two apparel brands. Among the Brand equity value measures, brand awareness measures were excluded as they are more related to brand equity, which is not of interest in this study. One expert from the Marketing Department revised the items before the pretest.

The final eight items measured perceived quality, brand leadership, perceived value, brand personality, and organizational evaluation. Respondents were asked to indicate the level of agreement with the statements about "Eddie Bauer" and "J. Crew" brands respectively. A five-point Likert scale was used to record responses, ranging from *Strongly Disagree (1)* to *Strongly Agree (5)*. For the participants who are not familiar with the brands, one more response was added, *Don't know (6)*. The final set of eight items for brand image is provided in Table 3.1.

Table 3.1. Questionnaire Items Measuring Brand Image

On a Likert-type scale of Strongly Disagree (1) to Strongly Agree (5),
• This brand has high quality.
• This brand is one of the best.
• This brand is one of the leading brands.
• This brand is growing in popularity.
• This brand is innovative.
• This brand provides good value for the money.
• This brand is interesting.
• This brand is made by an organization I trust.

Demographic information

Respondents' personal information was obtained through seven questions to examine demographic characteristics. Participants were requested to check self descriptive categories concerning gender, college credit hours in school, ethnicity, and work hours a week. Additionally, open-ended questions were used to ask their age and major. The researcher coded information regarding academic major as a categorical variable for the purpose of descriptive analysis. The six categories of majors were Textiles and Clothing, art-related majors, College of Business, engineering and physical sciences, social sciences, and biological sciences.

Questionnaire II

Questionnaire II was administered after participants viewed two apparel brand web sites and catalogs. The questionnaire included evaluations of catalogs and web sites of two apparel brands and their post brand image.

Evaluations of catalogs

Nine items designed to measure catalog evaluations were generated based on the apparel catalog shopping literature. The catalog evaluation measure included items assessing a catalog's content, quality of visual, organization, user friendliness, usefulness, uniqueness, information, and product variety. The overall or global evaluation of the

catalog was asked after participants rated all the specific items. Participants were asked to answer five-point rating scale items *(1=Excellent, 2=Good, 3=Average, 4=Poor, 5=Very poor)*. To prevent respondents from rating *3* (*Average*) when they were uncertain about their judgement, an additional scale rank of , *6 (Don't know)*, was included.

Following the evaluation questions, three additional questions about each catalog were included. Items measured: 1) how much respondents liked the catalog (*1=Dislike very much, 7=Like very much*), 2) how favorable they were toward the catalog (*1=Very unfavorable, 7=Very favorable*), and 3) how likely they would use the catalog again (*1=Very unlikely, 7=Very likely*). The catalog evaluation measures were asked for "Eddie Bauer" and "J. Crew" brands separately.

Evaluations of web sites

For the purpose of measuring web site evaluations, nine items parallel to the catalog evaluation items were developed. Five more items were added, due to the characteristics of Internet web sites that are different from catalogs. The additional items were about web site navigation facility, ease of conducting transactions, credit card security, and return policy. Respondents were asked to use the same scale that was used for evaluation of catalogs. The same three questions used for catalog evaluation (except that the wording "catalog" was changed to "web site") were included.

Post brand image

The same measures that were asked in Questionnaire I before the experiential task were provided to respondents again to get their responses after they were exposed to the catalogs and web sites. This process was performed in an attempt to investigate if there was any change in perceived brand image due to the exposure to a brand's catalog or web site.

Questionnaire III

The third questionnaire included items investigating participants' reactions to the experience of viewing the web sites and catalogs, in general. However, some of the items, such as "Because it's a part of my usual routine to surf the Internet," were adapted for catalogs.

Internet and catalog apparel shopping uses and gratifications

The measure for uses and gratifications of apparel web sites and apparel catalogs included 34 items that were adapted from various instruments used in previous uses and gratifications studies (Bantz, 1982; Eighmey, 1997; Korgaonkar & Wolin, 1999; Lin, 1999; Rubin, 1983). Eleven items were modified from Korgaonkar and Wolin's (1999) Internet study. The original measure consisted of 41 items describing a wide range of possibly important uses and gratifications factors that might affect consumers' web site use gratifications. However, since their study explored concerns as well as gratifications factors, 10 items measuring consumers' concerns were eliminated. The remaining 31 items were compared to the items used by Lin (1999) for an online-service likelihood study and to items used by Eighmy (1997) for a commercial web site study to modify or exclude vague statements or redundant items. For example, one item used by Korgaongar and Wolin (1999), "Because it gives quick and easy access to large volumes of information" was divided into two separate items: "Because they give quick access to large volumes of information" and "Because they give easy access to large volumes of information."

Additionally, previous television uses and gratifications literature were examined for items. In particular, most motivation items for Internet use related to entertainment, relaxation, companionship, and social escapism were adapted from television uses and gratifications studies conducted by researchers such as Rubin (1983) and Bantz (1982). A total of seven items were adapted from television uses and gratifications literature based on constructs used by Lin (1999) and Korgaonkar and Wolin (1999).

Some additional items considered to be congruent with the objectives of this study were added. All the previous Internet uses and gratifications studies focused little on Internet shopping; therefore, some items related to shopping were generated based on the literature related to Internet and catalog shopping. Eight items measuring consumers' web use motivations were included in an attempt to explore shopping related motivations.

The final set of 34 items for the uses and gratifications measure was obtained after additional refinement of ambiguous wording identified in the pilot test. All 34 items were rated on a five-point Likert scale with endpoints, *Strongly Disagree (1)* and *Strongly Agree (5)*. Table 3.2. shows the 34 items for uses and gratifications.

Table 3.2. Questionnaire Items Measuring Uses and Gratifications Factors

On a Likert-type scale of Strongly Disagree (1) to Strongly Agree (5)
I will use online apparel shopping sites/apparel shopping catalogs:
• Because they relax me
• Because I enjoy them
• To relieve boredom
• Because I just like to
• Because it's a part of my usual routine to surf the Internet/view catalogs
• Because they are enjoyable
• Because they entertain me
• Because they are almost like friends
• Because they pass the time away
• Because they take me into another world
• Because they are fun
• Because they are interactive
• Because I can decide what and when I want to use them
• So I can talk to my friends about sites and what's on them
• So I won't be alone
• Because they are imaginative
• Because they give me new information
• Because they give quick access to large volumes of information
• Because they give easy access to large volumes of information
• Because they make it convenient to get information about products
• Because they are exciting
• Because I enjoy the convenience of shopping on the web
• When I search for bargain prices
• When there's no one else to talk with
• Because they save money
• Because they save time
• Because I can find out product information for purchase from web sites
• Because they help me find out the latest styles offered by retailers
• Because they help me find out about current items in stock at retailers
• Because they give information about new products
• Because they enable me to purchase products that I cannot get from local stores
• Because they help me decide what to buy and where to buy them
• When I have nothing better to do
• Because they enable me to stay on top of what is happening in the world

Shopping intention

The intentions to use shopping modes in the future were assessed by 10 questions developed by the researcher. The measure included questions addressing: 1) the respondents' likelihood of apparel purchase through shopping modes, including online apparel shopping sites, apparel mail order catalogs, and stores, 2) the respondents' intention to use those shopping modes for product information search, and 3) the influence of Internet shopping on traditional shopping modes and the respondents' likelihood to use those shopping modes in a more integrative way.

How shopping modes are integrated was measured by questions such as "How likely is it that you will purchase products through apparel shopping web sites after you get product information from apparel catalogs?" Also, such questions as, "How likely is it that you will cut back on catalog shopping if you use the Internet for apparel shopping?" were designed to measure the influence of online apparel shopping on traditional shopping modes. The 10 shopping mode use intention items were scored on a seven-point, Likert type, bi-polar scale ranging from *Unlikely (1)* to *Likely (7)*.

Statement on the Use of Human Subjects

The data collection questionnaire and consent form were submitted to and approved by the Iowa State University Human Subject Review Committee (see application in Appendix C). The rights and welfare of human subjects were ensured to be protected from any possible risks to the subjects. They were informed that the experiment would take about forty-five minutes to complete and all the information provided from participants would be kept confidential. In accordance with the guidelines established by the American Psychological Association (1992), participants signed up voluntarily for the research on a sign up sheet distributed during the classes.

Data Collection

After the pilot test conducted with five students, the actual data collection for this study was conducted in the spring of 2001. One computer laboratory was selected as the study site. Macintosh computers and Internet Explorer gave access to the sites. All the

computers had high speed Ethernet connections direct to the University's network.

The survey was administered during 19 forty-five minute time segments over a period of eight days (April 4-13). Groups of six to twenty participants were assigned to a session. A reminder e-mail was sent to each participant one day before the scheduled time. The number of participants at each experiment is presented in Table 3.3.

Table 3.3. Experiment Dates and Numbers of Participants

	Experiment Date							
	4/4	4/5	4/6	4/9	4/10	4/11	4/12	4/13
Number of Participants	12	23	17	8	27	9	8	15

Before participants completed the actual study, they were requested to sign a consent form (see Appendix A). Participants were then seated in front of a computer. The participants were informed by the researcher that the purpose of this study was to explore why people use Internet and catalog shopping services and how they experience them. She explained that they would look at the paper-based mail order catalog and the commercial web sites of two well-known apparel brands. They were requested to read a brief instruction of the experiment and to follow an assigned sequence for visiting web sites and viewing catalogs. Each participant was randomly assigned to one of eight stimulus exposure order. Eight possible sequences resulted from alternating the two web sites and two catalogs (see Table 3.4).

All participants first received questionnaire I designed to measure their previous shopping experience, Internet use and attitude, and demographic information. Those data were collected before the participants were exposed to web sites and catalogs.

After they completed the first questionnaire, participants were instructed to explore two apparel brand web sites and mail order catalogs to engage in a familiarization task. Starting with the first web site or catalog assigned, participants worked at their own pace through the stimulus as long as they liked. Each participant filled out the relevant section of the second questionnaire immediately after they finished viewing each web site

Table 3.4. The Sequences of Web Site and Catalog Presentation

Order #	The sequence of presentation			
	1 then	2 then	3 then	4
1	EB catalog	EB web site	JC catalog	JC web site
2	EB catalog	EB web site	JC web site	JC catalog
3	EB web site	EB catalog	JC catalog	JC web site
4	EB web site	EB catalog	JC web site	JC catalog
5	JC catalog	JC web site	EB catalog	EB web site
6	JC catalog	JC web site	EB catalog	EB web site
7	JC web site	JC catalog	EB web site	EB catalog
8	JC web site	JC catalog	EB web site	EB catalog

EB = Eddie Bauer, JC = J.Crew

or catalog. For example, the participants who were assigned to Order 1 were asked to complete the "Evaluations of Catalog" section of the Eddie Bauer Evaluation after they viewed the Eddie Bauer catalog and before they visited the Eddie Bauer web site. The Eddie Bauer web site visit was followed by answering the "Evaluations of Web Site" section of the Eddie Bauer Evaluation. They were not allowed to go back to the web sites or catalogs in order to refer to them again when they answered questions.

When participants finished viewing all the catalogs and web sites and answered the second questionnaire, they were requested to complete the third questionnaire with general catalog and web site use questions. The completed questionnaires were collected after participants were done with the entire three questionnaires. The entire session lasted about forty minutes. After completing the questionnaire, participants were thanked and dismissed.

Data Analysis

Data analysis consisted of descriptive analysis, exploratory factor analysis, correlation analysis, and regression analysis. The statistical Package for Social Science (SPSS) Version 10.0 was used to conduct statistical data analysis.

Descriptive Analysis

Descriptive analysis focused on respondents': 1) demographic profile, 2) previous experience with in-store, mail order catalog, and online apparel shopping, and 3) prior experience with the Internet.

In order to profile demographic characteristics, frequency distributions were run for all the demographic items, previous shopping experiences, and prior experience with the Internet. Means and standard deviations were calculated for some demographic items such as age and college credit hours in school. In addition, frequency distributions, means, and standard deviations for all the items from previous shopping experiences, Internet use and beliefs, online apparel shopping site use motivations, apparel mail order catalog motivations, and shopping intentions through store, catalog, and the Internet were computed to examine central tendency of those items.

Exploratory Factor Analysis

The dimensionality of uses and gratifications associated with Internet and mail order catalog apparel shopping, Internet beliefs, prior and post brand image, evaluation of catalogs, evaluation of web sites, and diverse shopping intentions for apparel were explored using factor analyses. Factor analysis determined whether multiple items for each variable comprised one or more factor dimensions. A series of exploratory factor analyses using maximum likelihood extraction method and varimax rotation were employed with SPSS software version 10.0. The maximum likelihood extraction method produces parameter estimates that are most likely to have produced the observed correlations matrix if the sample forms a multivariate normal distribution.

Factor loadings .50 and above with a difference between loadings of at least .20 on other factors was considered as evidence of items belonging to a construct. Factors meeting this criteria were extracted if there were two or more retained items and their eigenvalues were greater than 1. In addition, conceptual clarity of items grouped in each factor was taken into consideration based on previous literature to determine the number of factors extracted. Internal reliability was also used as evidence of factor structure. High *alpha* values are evidence of high reliability among multiple item measures within a factor,

Cronbach's *alpha* coefficient was used to determine the reliability of each factor. Factors with a Cronbach's *alpha* of .70 or higher were considered to have suitable internal consistency reliability for this study.

After examining dimensionality of multiple item measures, summated scores of highly loaded factor items were created. The summated scores were entered into further data analysis.

Correlation Analysis

Correlation analyses were employed to examine if there were relationships among variables from summated scales and demographic variables. These were examined to help determine variables to enter into logistic regression.

Since normality of some of the summated motivation variables was violated, the nonparametric equivalent of Pearson correlation coefficient, Kendall's *tau-b*, was employed to compute the association between summated motivation variables (Morgan, 2000). In addition, Bonferroni correction (.05/25=.002) was used for the correlations among Internet and catalog apparel shopping motivations. This conservative approach was designed to keep the overall significance level at .05, reducing the possibility of including correlations that could be statistically significant just by chance (Agresti & Finlay, 1997).

Regression Analysis

A series of regression analyses were employed to explore: 1) the best combination of demographics, previous shopping experiences, and Internet use and beliefs that explained high or low Internet apparel shopping motivation (Question 2), 2) the best combination of demographics, previous shopping experiences, and Internet use and beliefs that explained consumers' high or low apparel mail order catalog shopping motivation (Question 3), 3) the best combinations of variables from each factor of online apparel shopping motivations that explained high or low Internet apparel shopping intention (Question 5), and 4) the best combinations of variables from each factor of apparel mail order catalog shopping motivations that explained high or low catalog apparel shopping intention (Question 6).

Because some of the dependent variables, such as five Internet apparel shopping motivations, five apparel catalog shopping motivations, and three apparel shopping intentions, were not normally distributed, all the variables were recoded to dichotomous variables from interval variables. Median, a measure of central tendency, was employed to transform interval data to dichotomous data. In order to explain the variances in the recoded variables that have discrete distributions, logistic regression was used. Logistic regression is a tool for calculating probability. Since logistic regression is a powerful statistical technique that does not require assumptions of normality, it was chosen for this study (Lottes, Adler, & DeMaris, 1996; Woldbeck, 1998).

In multiple logistic regression analysis, a model with a set of predictors is compared to a simpler model having fewer predictors, and the joint effects of multiple predictors are tested based on maximum likelihood estimates (SPSS, 1999). Forward likelihood-ratio logistic regression method was selected for this study. The method is a stepwise selection method with entry testing based on the significance of the score statistic and removal testing based on the probability of a likelihood-ratio statistic. The forward entry procedure ensured that removal from the model of variables that are not significant predictors is done on the most careful basis (SPSS, 1999). For small or moderate sample sizes, the likelihood-ratio statistic tends to provide a relatively powerful test (Agresti & Finlay, 1997). Therefore, the forward likelihood ratio logistic regression method was appropriate for exploratory study, providing the optimal explanation of high or low motivations or intentions.

CHAPTER 4: RESULTS

This chapter presents the results of analyses of the research data. First, preliminary analyses were conducted in order to examine if there were any possibilities of influences on results that might be caused by differences in treatments. Prior to any statistical analyses, all the measures related to brand image and evaluations of the two brands were factor analyzed and compared. Second, sample characteristics were addressed to describe the demographic profile and respondents' prior shopping and Internet experiences. Respondents' evaluations of two brands that were provided for this study were also examined. Third, results of exploratory factor analyses were conducted on the following research variables: Internet beliefs, online apparel shopping motivations, apparel mail order catalog shopping motivations, and consumers' intention to use apparel shopping modes such as stores, mail order catalogs, and the Internet. Fourth, simple bivariate relationships were assessed across all the research variables. Finally, a series of multiple logistic regression analyses were employed in order to explore if there are combinations of variables that estimate whether consumers have high or low online apparel shopping motivations, apparel mail order catalog shopping motivations, or intentions for a particular apparel shopping mode selection.

Preliminary Analysis

Factor Analysis

A series of factor analyses were conducted to reduce the number of items of the following variables: 1) pre' and post-brand image, 2) evaluations of catalogs, and 3) evaluations of web sites. The factor-summed variables were subjected to *t*-tests, comparing images and evaluations of the two brands, Eddie Bauer and J. Crew.

Pre and post brand image

The pre' and post-test images were factor analyzed separately, resulting in four analyses. Only one factor emerged from each factor analysis of pre' and post-brand image with eight items indicating uni-dimensionality of the multiple-item measures. Brand image was assessed by summing each of eight items asking about quality, leadership, popularity, innovativeness, personality, good money value, and organizational value. All the factor

analyses for pre and post brand image of both Eddie Bauer and J. Crew extracted only one factor. Cronbach's *alpha* coefficients were .83, .89, .90, and .94, respectively, for pre-brand image of Eddie Bauer and J. Crew and for post brand image of the two brands (see Table D.1. in Appendix D).

Evaluations of catalogs

The evaluations of catalogs of the two brands were also factor analyzed separately. Only one factor was extracted with nine items, which asked about content, graphics, organization, user friendliness, usefulness, unique features, item description, and variety of style offerings of the catalogs. Cronbach's *alpha* coefficients for evaluations of the Eddie Bauer and J. Crew catalogs were .91 and .92, respectively (see Table D.2. in Appendix D).

Evaluations of web sites

For the purpose of comparisons of web site evaluations to catalog evaluations, reliability of nine items parallel to the catalog evaluation items was assessed after the nine items were factor analyzed. Cronbach's *alpha* coefficients of reliability were .92 for both Eddie Bauer and J.Crew web sites (see Table D.3. in Appendix D).

Comparisons of Two Groups under Different Treatment Conditions

In order to eliminate possible influences caused by different treatments, *t*-tests were conducted prior to any further statistical analyses for research questions of the study. There was a web content change in the Eddie Bauer web site during the data collection period, so that the respondents who participated in the experiment after April 6 viewed a revised Eddie Bauer web site. Among a total of 119 respondents, 35 were exposed to the Eddie Bauer web site before its revision. Independent samples *t*-tests of Eddie Bauer web site evaluations were employed in order to examine if there was a significant difference between two groups of participants who were exposed to different treatment conditions in their evaluations of the Eddie Bauer web site. In order to eliminate unequalness of *n*'s between the two groups, only 35 respondents exposed to the revised Eddie Bauer web site were randomly selected for the comparison.

The results indicated that there was no significant difference on the Eddie Bauer web site evaluations between the two groups who had seen different versions of the web

site (t (68) = -1.067, p = .290). The detailed information is presented in Table F.1 in Appendix F. As no significant difference between the two groups under two different treatments was found, responses from all the 119 participants were subjected to further analyses.

Images and Evaluations of the Two Brands

Paired samples t-tests were performed to examine if the same participants differed significantly on the following pairs of comparable measures: 1) prior brand image and post brand image for the two brands, 2) evaluations of Eddie Bauer and J. Crew catalogs, 3) evaluations of Eddie Bauer and J. Crew web sites, and 4) evaluations of a brand's catalog and web site. The results indicated that respondents' evaluations of the two brands, Eddie Bauer and J. Crew, did not change significantly after the respondents experienced catalogs and web sites of the brands (Table F.2 in Appendix F). The differences between respondents' prior and post brand image of Eddie Bauer and J. Crew were not significant (t (113) = -1.402, p = .164 and t (112) = .096, p = .924, respectively). The difference between participants' evaluations of Eddie Bauer catalog and web site was not significant either (t (119) = 1.191, p = .236). In contrast, evaluations of the J. Crew catalog was .22 points higher than evaluations of the J. Crew web site, and this was a significant difference: t (119) = 4.365, p = .001 (see Table F.3 in Appendix F).

The t-test results revealed that respondents' evaluations of Eddie Bauer and J. Crew catalogs were significantly different (t (119) = -5.661, p =.001). Also, the respondents made significantly more favorable evaluations of the J. Crew web site than of the Eddie Bauer web site (t (119) = -2.310, p = .023). For both pre' and post-measures, the images of the two brands were significantly different (t (108) = -9.525, p = .001 and t (118) = -6.951, p = .001), and J. Crew had a better brand image than Eddie Bauer among the college students. Table F.4 in Appendix F shows the detailed information.

Sample Description

The description of the sample: 1) identifies the demographic profile of the sample, 2) explores respondents' previous apparel shopping experiences, and 3) examines

respondents' prior experiences with the Internet. The data from 119 respondents were analyzed.

Demographic Profile of the Sample

A demographic profile is summarized in Table 4.1. Of 119 respondents, 99 (83.2%) were female and 20 (16.8%) were male students. Due to the characteristics of the courses from which the data were collected, the respondents of this study were predominately female. The ages of respondents ranged from 18 to 44, with a mean of 21.08 years and a standard deviation of 3.44 years. More than 80 percent of the respondents were between the ages of 19 and 22. The majority of respondents were White or European American (80.7%), followed by Asian American (5.0%), Black or African American (2.5%), and Native American (0.8%). The rest of the respondents (11.0%) were either non-U. S. citizens (9.2%) or had mixed ethnicity (1.8%).

Most respondents were from Textiles and Clothing (36.1%) and Arts and Design (22.7%), followed by respondents from Business (16.8%), Engineering and Physical Science (8.4%), Social Science (8.4%), and Biological Science (5.9%). In terms of college credit hours in school, there was almost an equal number of junior (25.2%) and senior (23.5%) students. The number of sophomores (37.8%) was greatest and freshmen were fewer in numbers (13.4%).

Almost half of the respondents had no independent income. Of the other half of the respondents, 25.2 percent of respondents worked for 11 to 20 hours a week, 21 percent of respondents worked for less than 10 hours a week, and only 7.7 percent of respondents worked more than 20 hours a week.

Previous Experiences with Apparel Shopping

Respondents' previous apparel shopping experiences with in-store, catalog, and the Internet were studied. The specific descriptions of each shopping mode experience are provided in Table 4.2, Table 4.3, and Table 4.4, respectively.

As to how long they had been using a particular apparel shopping mode, 47 respondents (39.5%) answered that they had never used the Internet for apparel shopping;

Table 4.1. Demographic Profile of Sample

Variable and Description	Frequency	Percent[a]	M	SD
Gender				
Male	20	16.8		
Female	99	83.2		
Age			21.08	3.439
18	5	4.2		
19	24	20.2		
20	38	31.9		
21	20	16.8		
22	14	11.8		
23	8	6.7		
24	3	2.5		
25	2	1.7		
26	1	.8		
27	1	.8		
30	1	.8		
42	1	.8		
44	1	.8		
Areas of Study				
TC	43	36.1		
Art and Design	27	22.7		
Engineering / Physical Science	10	8.4		
Social Science	10	8.4		
Biological Science	7	5.9		
Business	20	16.8		
College Credit Hours in School			2.59	.995
Freshman (1)	16	13.4		
Sophomore (2)	45	37.8		
Junior (3)	30	25.2		
Senior (4)	28	23.5		
Ethnicity				
White or European American	96	80.7		
Black or African American	3	2.5		
Asian American	6	5.0		
Native American	1	.8		
Asian	9	7.6		
Hispanic/Latino	1	.8		
White/Native American	1	.8		
Latino/Native American/White	1	.8		
Work Hours a Week			1.95	1.032
None (1)	55	46.2		
1-10 hours (2)	25	21.0		
11-20 hours (3)	30	25.2		
21-30 hours (4)	8	6.7		
31-40 hours (5)	1	.8		

[a]Sum of percents may not be equal to 100 due to missing data.

Table 4.2. Experience with In-Store Shopping

Variables and Description	Frequency	Percent[a]	Mean	SD
Length of Shopping Experience			4.76	.833
1=Never	1	.8		
2=Less than six months	8	6.7		
3=Six months to one year	0	0		
4=One to two years	1	.8		
5=More than two years	109	91.6		
Frequency of Shopping Mode Use as an Information Source			4.23	.821
1=Never	1	.8		
2=Once or twice	12	1.7		
3=Every few months	17	14.3		
4=Every months	47	39.5		
5=At least once a week	51	42.9		
Number of Purchases (12 months)			4.59	.741
1=Never	0	0		
2=Once	2	1.7		
3=2 to 5	12	10.1		
4=6 to 10	19	16.0		
5=More than 10	86	72.3		
Money Spent on Apparel Shopping (12 months)			3.71	.984
1=None	0	0		
2=$1-200	17	14.3		
3=$201-500	28	23.5		
4=$501-1000	46	38.7		
5=More than $1000	28	23.5		
Shopping Satisfaction			4.65	.589
1= Not satisfied	0	0		
2	0	0		
3=neutral	7	5.9		
4	27	22.7		
5=Satisfied	85	71.4		

[a]Sum of the percent may not be equal to 100 due to missing data.

Table 4. 3. Experiences with Catalog Shopping

Variables and Description	Frequency	Percent[a]	Mean	SD
Length of Shopping Experience			3.60	1.675
1=Never	28	23.5		
2=Less than six months	7	5.9		
3=Six months to one year	8	6.7		
4=One to two years	16	13.4		
5=More than two years	59	49.6		
Frequency of Shopping Mode Use as an Information Source			3.35	1.225
1=Never	15	12.6		
2=Once or twice	11	9.2		
3=Every few months	29	24.4		
4=Every months	45	37.8		
5=At least once a week	19	16.0		
Number of Purchases (12 months)			2.35	1.218
1=Never	41	34.5		
2=Once	21	17.6		
3=2 to 5	38	31.9		
4=6 to 10	12	10.1		
5=More than 10	7	5.9		
Money Spent on Apparel Shopping (12 months)			1.89	.911
1=None	41	34.5		
2=$1-200	58	48.7		
3=$201-500	9	7.6		
4=$501-1000	5	4.2		
5=More than $1000	3	2.5		
Shopping Satisfaction			3.54	1.075
1= Not satisfied	6	5.0		
2	6	5.0		
3=neutral	33	27.7		
4	32	26.9		
5=Satisfied	19	16.0		

[a]Sum of the percent may not be equal to 100 due to missing data.

Table 4. 4. Experience with Internet Shopping

Variables and Description	Frequency	Percent[a]	Mean	SD
Length of Shopping Experience			2.52	1.468
1=Never	47	39.5		
2=Less than six months	12	10.1		
3=Six months to one year	19	16.0		
4=One to two years	31	26.1		
5=More than two years	9	7.6		
Frequency of Shopping Mode Use as an Information Source			3.01	1.356
1=Never	25	21.0		
2=Once or twice	17	14.3		
3=Every few months	25	21.0		
4=Every months	36	30.3		
5=At least once a week	16	13.4		
Number of Purchases (12 months)			1.92	1.45
1=Never	64	53.8		
2=Once	17	14.3		
3=2 to 5	26	21.8		
4=6 to 10	8	6.7		
5=More than 10	4	3.4		
Money Spent on Apparel Shopping (12 months)			1.62	.808
1=None	64	53.8		
2=$1-200	38	31.9		
3=$201-500	12	10.1		
4=$501-1000	2	1.7		
5=More than $1000	1	.8		
Shopping Satisfaction			3.36	1.154
1= Not satisfied	7	5.9		
2	10	8.4		
3=neutral	26	21.8		
4	26	21.8		
5=Satisfied	14	11.8		

[a]Sum of the percent may not be equal to 100 due to missing data.

respondents (16%) for six months to one year; 31 respondents (26.1%) for one to two years; and only nine respondents (7.6%) said that they have been using Internet shopping for more than two years. Regarding catalog shopping, more respondents (77.5%) had shopped via apparel catalogs, and fewer respondents (23.5%) had never shopped for apparel via catalogs. As expected for in store shopping experience, most respondents (91.6%) had been shopping for apparel in stores for more than two years.

About 44 percent of respondents had used the Internet at least every month for product information search, while 21 percent of respondents had never used Internet apparel shopping sites as information sources. On the other hand, about 54 percent and about 82 percent of respondents had used apparel catalog and store shopping modes at least every month for product information search.

About half of the respondents answered that they had purchased apparel via Internet shopping at least once during the past 12 months. However, the extent of Internet apparel shopping adoption varied from once a year to more than 10 times a year: once a year (14.3%), 2 to 5 times a year (21.8%), 6 to 10 times a year (6.7%), and more than 10 times (3.4%). Similar findings were obtained for apparel catalog shopping except that fewer respondents had never purchased apparel through catalog shopping (34.5 %). On the other hand, more than 70 percent of respondents had made apparel purchases from stores at least 10 times during the past 12 months.

The largest reported category of money spent on apparel shopping during the past 12 months was $501 to $1000 (38.7%) for in store shopping. For both catalog shopping and Internet shopping, the majority of respondents have spent less than $200. However, the percentage of respondents who have spent more than $200 out of total number of respondents who spent some money on apparel purchases was higher for Internet shopping (27.3%) than for catalog shopping (22.7%).

Whereas more than 94 percent of respondents were at least somewhat satisfied with in store shopping, only 43 percent and 33 percent of respondents were somewhat satisfied or satisfied with catalog shopping and Internet apparel shopping, respectively. Additionally, 10 percent and 14.3 percent of respondents said that they were not satisfied with apparel catalog shopping and Internet apparel shopping, respectively.

Prior Experience with the Internet

Respondents' prior experience with the Internet was examined. The detailed information is presented in Table 4.5. About 91 percent of respondents had been using the Internet for more than 2 years. All the respondents had used the Internet, and more than 60 percent of respondents used the Internet more than 6 hours a week. While about one half of the respondents (49.6%) visited online apparel shopping sites at least every month, 14 respondents (11.8%) had never visited online apparel shopping sites despite being Internet users.

Table 4.5. Experience with the Internet

Variable and Description	Frequency	Percentage[a]	M	SD
Time using the Internet (Weekly)			3.93	.894
1=Don't use	0	0		
2=Less than I hour	3	2.5		
3=1-5 hour	42	35.3		
4=6-10 hour	33	27.7		
5=More than 10 hours	40	33.6		
Length of Internet use experience			4.92	.310
1=Don't use	0	0		
2=Less than 6 months	0	0		
3=6 months-1 year	1	.8		
4=1-2 years	8	6.7		
5=More than 2 years	108	90.8		
Frequency of Internet apparel shopping site visit			3.31	1.269
1=Never	14	11.8		
2=Once or twice a year	17	14.3		
3=Once every few months	27	22.7		
4=Every month	37	31.1		
5=At least once a week	22	18.5		

[a]Sum of the percent may not be equal to 100 due to missing data.

Factor Analysis

Exploratory factor analyses were performed on the following measures: 1) online apparel shopping motivations, 2) mail order apparel catalog shopping motivations, 3) beliefs about the Internet, and 4) shopping mode use intentions for apparel shopping.

Maximum likelihood factor analysis with varimax rotation, which is more conservative than principal components extraction method, was employed to determine underlying dimensions among multiple items within measures and to reduce the number of items. Titles were assigned to each factor based on the content expressed in the items with high loading. The means of summated multiple items were used to generate a single indicator for each factor of variables.

Online Apparel Shopping Motivations

The first research question--if there are multiple dimensions of motivations in the use of online apparel shopping sites--was examined using exploratory factor analysis. Varimax rotation was employed to maximize the sum of variances of the squared factor loadings for each factor. Factor analysis of 34 online apparel shopping site use motivation items resulted in five factors. Table 4.6 presents the factor items and their factor loadings. The five factors explained 53.5 percent of the total variance in respondents' online apparel shopping site use motivations. Factor loadings ranged from .51 to .84.

Table 4.6. Factors from Internet Apparel Shopping Motivations

Factor Title and Items	Factor Loadings				
	Factor1	Factor2	Factor3	Factor4	Factor5
Entertainment					
Because they are enjoyable	.835				
Because I enjoy them	.779				.335
Because they entertain me	.757				
Because I just like to	.718				
To relieve boredom	.673				
Because it's a part of my usual routine to surf the Internet	.604				
Related Items Excluded					
Because they are fun	.541			.368	

Eigenvalue = 4.767
Cronbach's *alpha* = .89
Total variance explained = 14.0%

Table 4.6. (Continued)

Factor Title and Items	Factor Loadings				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Social Utility					
When there's no one else to talk with		.726			
Because they are almost like friends		.719			
So I won't be alone		.704			
So I can talk to my friends about site and what's on them		.637			
Because they take me into another world		.625			
Because they are imaginative		.516			
Related Items Excluded					
Because they pass the time away	.454	.511			
Because they enable me to stay on top of what is happening in the world		.471	.335		
When I have nothing better to do		.395			
Because they are exciting	.314	.370		.330	
Eigenvalue = 3.986					
Cronbach's *alpha* = .83					
Total variance explained = 11.7%					
Shopping Assistance					
Because they help me find out the latest styles offered by retailers			.896		
Because they give information about new products			.891		
Because they help me find our about current items in stock at retailers			.788		
Because they enable me to purchase products that I cannot get from local stores			.512		
Related Items Excluded					
Because I can find out product information for purchase from web sites			.474	.405	
Because they help me decide what to buy and where to buy them			.437		
Eigenvalue = 3.619					
Cronbach's *alpha* = .88					
Total variance explained = 10.6%					

Table 4.6. (Continued)

Factor Title and Items	Factor Loadings				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Surveillance					
Because they give quick access to large volumes of information				.732	
Because they give easy access to large volumes of information				.716	
Because they give me new information				.612	
Related Items Excluded					
Because they make it convenient to get information about products				.545	.353
Eigenvalue = 3.012					
Cronbach's *alpha* = .84					
Total variance explained = 8.7%					
Convenience/Economics					
Because they save money	.391				.713
Because they save my time					.662
When I search for bargain prices					.626
Because I enjoy the convenience of shopping on the web				.305	.578
Related Items Excluded					
Because they interactive	.363				.410
Because I can decide what and when I want to use them					.341
Eigenvalue = 2.805					
Cronbach's *alpha* = .83					
Total variance explained = 8.3%					
Other Items Excluded					
Because they relax me					
Total Percent of Variance = 53.5%					

The first factor, which consisted of six items with a Cronbach's *alpha* of .89, was labeled "Entertainment," because items loading highly on this factor reflected web shopping potential to entertain users and to provide enjoyment. This factor also included one item related to relieving boredom and one item relating to Internet shopping site use as a day to day life habit.

The second factor, "Social Utility," included items that represented the role of the web as a facilitator of social activities and as a companion to overcome loneliness. Some items related to Internet shopping site use to escape from reality were included, even though an escapism factor has appeared in other media research. The two motives were extracted as one factor in this study, since both motives are related to social activity. Cronbach's *alpha* coefficient of reliability of this factor (six items) was .83.

The third factor, which consisted of four items with a Cronbach's *alpha* of .88, represented consumers' use of online apparel shopping sites for product information search. Thus, this factor was named "Shopping Assistance." Emergence of this factor is notable because the concept of this factor was not extracted in previous literature on Internet uses and gratification research.

The fourth factor, labeled "Surveillance," included items dealing with consumers' general information needs. This factor was distinguished from the third factor, as all three items were about information search motivations less directly related to product purchase activities. This factor was composed of three items with a Cronbach's *alpha* of .84, suggesting good internal consistency of these factor items.

The final factor, which consisted of five items with a Cronbach's *alpha* of .83, reflected the convenience resulting from less time and money needed for shopping through the Internet. This factor also included consumers' search for bargain prices—a motive that is closely related to saving money. Some of the items in this factor also had relatively high loadings on Entertainment and Surveillance factors; however, they were not excluded due to the substantial difference between the factor loadings on the Entertainment and Surveillance factors and this factor. Some overlap between the convenience concept and those concepts—Entertainment and Surveillance—might be inferred. The label, "Convenience/Economics," was given, as both time and money aspects were represented in

this factor.

All five Internet apparel shopping motivations were moderately correlated to one another, indicating some overlap among five motivations concepts. The correlations between Entertainment and Convenience/Economics motivations ($r = .49, p < .01$), and between Convenience/Economics and Surveillance motivations ($r = .50, p < .01$) were higher than other relationships (see Table 4.11).

The mean of respondents' scores on the multiple items of the Surveillance Internet apparel shopping motivation was highest among five motivation scores, with a mean of 3.84 on a five-point scale (SD = .67). The next highest motivation was the Shopping Assistance factor with a mean of 3.81 (SD = .87), followed by the Entertainment factor (M = 3.35, SD = .88), Convenience/Economics motivation (M = 3.07, SD = .91), and Social Utility motivation (M = 2.02, SD = .73). Table E.1. in Appendix E includes the detailed information.

Apparel Mail Order Catalog Shopping Motivations

Exploratory factor analysis was performed on the apparel catalog use motivations items. Five factors emerged from the factor analysis with varimax rotation of 34 items. The five factors accounted for 54.6 percent of the total variance in respondents' apparel mail order catalog shopping motivations. Factor loadings ranged from .52 to .91. The factor items and their factor loadings are presented in Table 4.7.

The first factor, labeled "Entertainment," consisted of eight items representing enjoyment, relaxation, and excitement obtained through catalog viewing. The reliability analysis of this factor (six items) revealed a Cronbach's *alpha* coefficient of .91.

The second factor, which was composed of eight items with a Cronbach's *alpha* of .87, was labeled "Convenience/Economics." Specifically, items included in this factor represented time and money savings that related to the concept of convenience.

The third factor, "Social Escapism," included items regarding the role of catalogs in relieving loneliness and day-to-day stress. One item, "Because they take me into another world," was also loaded on the Entertainment factor; however, this item was not excluded due to the substantial difference between the factor loadings on Entertainment

and Social Escapism. The six items had a Cronbach's *alpha* of .84. This factor represented only social escapism without any items reflecting socializing motivation. Compared to the Social Utility motivation of the web factor analysis, this factor did not include items related to facilitating social activity.

The fourth factor included items related to information search for shopping and thus was labeled "Shopping Information." This factor consisted of three items with Cronbach's *alpha* of .79.

In the final factor, two items about using catalogs to relieve boredom were included, with a Cronbach's *alpha* of .72. The final factor was labeled "Diversion."

Most of the five apparel catalog shopping motivations factor sums were moderately correlated, except for Diversion and Shopping Information factor scores (see Table 4.11). Regarding the means of the summated scores of the five motivations, Shopping Information motivation had the highest mean (M = 3.62, SD = .79) on a five-point scale. The mean of Entertainment motivation (M = 3.38, SD = .85) was similar to

Table 4.7. Factors from Mail Order Catalog Apparel Shopping Motivations

Factor Title and Items	Factor Loadings				
	Factor1	Factor2	Factor3	Factor4	Factor5
Entertainment					
Because they are enjoyable	.911				
Because I enjoy them	.752				
Because they are fun	.723				
Because they entertain me	.717				
Because I just like to	.717				.328
Because it's a part of my usual routine to view catalogs	.632				
Because they relax me	.614				
Because they are exciting	.604				
Related Items Excluded					
Because they enable me to stay on top of what is happening in the world	.397		.325	.368	
So I can talk to my friends about catalogs and what's in them	.313		.310		
Eigenvalue = 5.550					
Cronbach's *alpha* = .91					
Total variance explained = 16.32%					

Table 4.7. (Continued)

Factor Title and Items	Factor Loadings				
	Factor1	Factor2	Factor3	Factor4	Factor5
Convenience/Economics					
Because they save my time		.811			
Because I enjoy the convenience of shopping using catalogs		.674			
Because they save money		.666	.314		
Because I can find out product information for purchase from catalogs		.611		.391	
Because they make it convenient to get information about products		.599			
Because I can decide what and when I want to use them	.310	.548		.315	
Because they give quick access to large volumes of information		.546			
When I search for bargain prices		.524			
Related Itemd Excluded					
Because they give easy access to large volumes of information		.473			
Because they help me decide what to buy and where to buy them		.411		.401	
Eigenvalue = 4.319					
Cronbach's *alpha* = .87					
Total variance explained = 12.7%					
Social Escapism					
So I won't be alone			.881		
Because they are almost my friends			.853		
When there's no one else to talk to			.665		
Because they take me into another world	.325		.595		
Because they are interactive			.580		
Because they are imaginative			.521		
Eigenvalue = 3.693					
Cronbach's *alpha* = .84					
Total variance explained = 10.9%					

Table 4.7. (Continued)

Factor Title and Items	Factor Loadings				
	Factor1	Factor2	Factor3	Factor4	Factor5
Shopping Information					
Because they give information about new products				.776	
Because they help me find out the latest styles offered by retailers				.773	
Because they help me find out about current items in stock at retailers				.573	
Related Items Excluded					
Because they give me new information					
Because they enable me to purchase products that I cannot get from local stores		.337		.512	
				.454	
Eigenvalue = 3.183					
Cronbach's *alpha* = .79					
Total variance explained = 9.36%					
Diversion					
To relieve boredom	.418				.895
When I have nothing better to do					.550
Related Items Excluded					
Because they pass the time away	.308				.488
Eigenvalue = 1.802					
Cronbach's *alpha* = .72					
Total variance explained = 5.3%					
Total Percent of Variance = 54.6%					

that of the Convenience/Economics motivation (M = 3.21, SD = .73) and the Diversion motivation (M = 3.19, SD = 1.06), followed by the Social Escapism motivation (M = 1.92, SD = .71). Table E.1 in Appendix E includes the detailed information.

Beliefs about the Internet

Among 24 Internet belief items culled from previous studies, only 11 items were reliable and had construct validity. Originally, three factors emerged from the maximum likelihood analysis with varimax rotation. However, the third factor was excluded due to

low Cronbach's *alpha* reliability coefficient (.48). As a result of close examination of factor loadings and reliabilities of each factor, two factors were extracted that explained 33.8% of the total variance. The factor items and their factor loadings are shown in Table 4.8.

Table 4.8. Factors from Internet Beliefs

Factor Title and Items	Factor Loadings	
	Factor1	Factor2
Internet Shopping Beliefs		
I plan on buying things using the Internet	.812	.303
Internet shopping fits with my life style	.766	.407
Internet shopping is useful	.757	.401
I enjoy shopping on the Internet	.702	.424
Internet shopping is convenient	.637	.419
Internet shopping sites offer good values	.581	
I feel safe using my credit card to make purchases via the Internet	.572	
Prices of merchandise sold on the Internet are reasonable	.520	
Item Excluded		
Shopping via Internet is easy		
Products purchased using the Internet are delivered quickly	.553	.402
I like being able to make price comparison on the Internet	.481	
	.430	
Eigenvalue = 4.965		
Cronbach's *alpha* = .92		
Total variance explained = 20.7%		
General Internet Attitude		
It takes too much time to find the information I am seeking on the Internet		.759
I like the Internet		.729
The Internet is great convenience		.724
Item Excluded		
Shopping on the Internet is faster than shopping in stores	.355	.403
I find it challenging to keep up-to-date with Internet applications		.349
Eigenvalue = 3.133		
Cronbach's *alpha* = .73		
Total variance explained = 13.1%		

Table 4.8. (Continued)

Factor Title and Items	Factor Loadings	
	Factor1	Factor2
Item Excluded		
I question the accuracy of Internet information		
As compared to stores, many more products are available on the Internet		
As compared to stores, many more brands are available on the Internet		
Products sold on the Internet are more likely to have discount prices than products sold in stores		
Products are easy to return when shopping using the Internet		
Internet shopping sites give good customer service		
As compared to stores, many more sizes of clothing are available on the Internet		
I feel safer shopping on the Internet than in malls		
Total Percent of Variance = 33.8%		

The first factor, which consisted of seven items with a Cronbach's *alpha* of .92, was labeled as "Internet Shopping Beliefs," since the items included were related to Internet shopping rather than to general Internet use. The items included in this factor related to convenience, usefulness, quality, and safety of Internet shopping. The second factor, labeled as "General Internet Beliefs," included three items representing consumers' attitudes towards the Internet in a broader concept or use than the shopping purpose. Cronbach's *alpha* reliability coefficient of the items included in this factor was .73.

Shopping Intention

Three factors of shopping intention were extracted from the maximum likelihood factor analysis with 10 items. Eight items included in three factors accounted for 54.5 percent of the total variance. Factor loadings ranged from .57 to .99. The detailed factor items and factor loadings are presented in Table 4.9.

The first factor included items representing consumers' intention to use online apparel shopping for product information search and product purchase. Additionally, this factor included an item dealing with consumers' intention to migrate from catalog shopping to Internet shopping. Thus, this factor was named "Internet Apparel Shopping Intention."

Four items were included in the Internet apparel shopping intention factor with a Cronbach's *alpha* of .77.

The second factor, which consisted of two items with a Cronbach's *alpha* of .76, encompassed two concepts. The concepts relate to consumers' intention to use apparel mail order catalogs for obtaining product information or to purchase a product. This factor was named "Apparel Catalog Shopping Intention."

The final factor, named "Complementary Apparel Store Shopping Intention," contained two items representing how consumers are likely to use in-home shopping modes as an information source for the purpose of in-store shopping. The items included in this factor were distinguished from other information-related items included in the first factor with a Cronbach's *alpha* of .76.

Table 4.9. Factors from Shopping Intention

Factor Title and Items	Factor Loadings		
	Factor1	Factor2	Factor3
Internet Apparel Shopping Intention			
How likely is it that you will purchase products through online apparel shopping web sites within the next 6 months?	.863		
How likely is it that you will purchase products through apparel shopping web sites after you get product information from apparel catalogs?	.693		
How likely is it that you will use apparel shopping web sites for product information within next 6 months?	.599	.304	
How likely is it that you will cut back on catalog shopping if you use the Internet for apparel shopping?	.569		
Related Items Excluded			
How likely is it that you will cut back on in store shopping if you use the Internet for apparel shopping?	.316		

Eigenvalue = 2.070
Cronbach's *alpha* = .77
Total variance explained = 20.7%

Table 4.9. (Continued)

Factor Title and Items	Factor Loadings		
	Factor1	Factor2	Factor3
Apparel Catalog Shopping Intention			
How likely is it that you will purchase products through apparel shopping catalogs within the next 6 months?		.799	
How likely is it that you will use apparel shopping catalogs for product information within the next 6 months?		.747	
Related Items Excluded			
How likely is it that you will purchase products through apparel shopping catalogs after you get product information from apparel shopping web sites?		.506	.411
Eigenvalue = 1.697 Cronbach's *alpha* = .76 Total variance explained = 17.0%			
Complementary Apparel Store Shopping Intention			
How likely is it that you will purchase products from stores after you get product information from apparel shopping web sites?			.990
How likely is it that you will purchase products from stores after you get product information from apparel shopping catalogs?			.657
Eigenvalue = 1.682 Cronbach's *alpha* = .76 Total variance explained = 17.0%			
Total Percent of Variance = 54.5%			

The mean of the summated scores of the first factor, Internet Apparel Shopping Use Intention, was 4.26 on a seven-point scale with a standard deviation of 1.49. The mean of the third factor, Complementary Apparel Store Shopping Use Intention, was highest (M = 5.14, SD = 1.46), followed by consumers' Apparel Catalog Shopping Use Intention with a mean of 4.83 and a standard deviation of 1.73. The detailed information is presented in Table E.2. in Appendix E.

Bivariate Correlation Analysis

In order to examine the simple bivariate relationships among variables, Kendall's *tau-b* coefficients were calculated among all the summed variables and single items. In addition to preliminary correlation analyses of the variables that were to be subjected to multiple logistic regression analyses, the relationships among the dimensions of Internet and catalog apparel shopping motivations and the relationships among the motivations and the three dimensions of shopping intentions were examined more closely. The relationships among the three apparel shopping intentions were also examined. The results explored the substitution relationship between online apparel shopping and apparel mail order catalog shopping.

Relationships among Variables

The bivariate correlation analyses among variables from previous shopping experiences, Internet use and beliefs, prior and post brand image, evaluations of a brand's catalog, evaluations of a brand's web site, online apparel shopping motivations, catalog apparel shopping motivations, and shopping intentions were conducted (see Table G.1, Table G.2, Table G.3, Table G.4, and Table G.5 in Appendix G).

Relationships between Internet and Catalog Shopping Uses and Gratifications Factors

Research Question 4, which was designed to assess if there is a possibility of a replacement or substitution relationship between catalog and Internet apparel shopping modes, was explored using correlation analysis. Table 4.10 presents the correlation coefficients between five factors of Internet apparel shopping motivations and five mail order apparel catalog shopping motivations. The analysis of correlations between them yielded five significant relationships out of 25 correlations at a significance level of .002. Bonferroni correction (.05/25 = .002) was employed for this correlation analysis in an attempt to reduce the chances of Type II error.

No significant correlation between the Entertainment motive for apparel mail order catalog use and five motivations for Internet apparel shopping site use was found. On the other hand, the Entertainment motive for online apparel shopping site use was

significantly correlated with the Diversion motivations for apparel catalog use ($r = .21$; $p < .002$). The Diversion motivation for catalog use was correlated with Social Utility ($r = .21$; $p < .002$) and Entertainment motives for online apparel shopping site use, while Social Escapism was correlated only with the Social Utility motive for online apparel shopping site use motivation. This observation suggests different characteristics between the Diversion apparel catalog use motive and the Social Escapism motive. The relationship between the Entertainment Internet apparel shopping motivation and Entertainment catalog use motive was not significant.

Table 4.10. Correlations of Factors in Internet and Mail Order Catalog Apparel Shopping Motivations

Variables	Mail Order Apparel Catalog Shopping Motivation[a]				
	E	C/E	SE	SI	D
Internet Apparel Shopping Motivation					
Entertainment	.18	.07	.09	- .01	.21***
Social Utility/Social Escapism	.17	.14	.57***	.07	.21***
Shopping Assistance	.15	.19	.08	.39***	.07
Surveillance (Information)	.11	.18	.16	.18	.01
Convenience/Economics	- .08	.26***	.05	.02	.01

[a]E: Entertainment, C/E: Convenience/Economics, SE: Social Escapism, SI: Shopping Information, D: Diversion

***Significant at the .002 level

Respondents who were more likely to use apparel catalogs for convenience or economic reasons, were more likely to use Internet apparel shopping for the same reason ($r = .26$; $p < .001$). Also, the Shopping Information catalog shopping motivation was only related to the Shopping Assistance motive for online apparel shopping ($r = .39$; $p < .001$). The general information seeking motivation for online apparel shopping was unrelated to any of the five catalog shopping motives. It is noticeable that correlation between the Social Utility motive for Internet apparel shopping and Social Escapism motive for catalog use was stronger than any other relationships ($r = .57$, $p < .001$).

Based on these findings, the relationships between Internet and catalog apparel shopping motivations were only partially correlated. The motivations and gratifications for using both shopping modes were not identical. For further examination of the relationships, correlation analyses of Internet apparel shopping intention and the five catalog use motivations were conducted. The results are presented in the following section.

Relationships among Internet Apparel Shopping Intention and the Five Apparel Catalog Shopping Motivations

None of the five apparel mail order catalog motivations were significantly correlated with intention to use the Internet apparel shopping mode (see Table G.4 in Appendix G). This suggests that catalog use motivations are different from online shopping service use motivations.

Relationships among Internet Apparel Shopping Intention and Five Internet Apparel Shopping Motivations

All five motivations were significantly correlated with intention to use Internet apparel shopping (see Table G.5. in Appendix G). Among five motivations, Entertainment and Convenience/Economics apparel web site use motivations were most strongly correlated with Internet apparel shopping intention ($r = .42$ and $r = .44$ respectively; $p < .001$). The relationship between Shopping Assistance motivation and shopping intention was moderate ($r = .31$; $p < .001$). General Surveillance Internet shopping site use motivations were also moderately correlated with Internet Apparel Shopping Use Intention ($r = .26$; $p < .001$). The correlations between Social Utility motives and intention to use online shopping were weak, but significant ($r = .16$; $p < .05$).

Relationships among Apparel Shopping Mode Use Intentions

In order to address research Question 7 which was about the relationship between the intention to use Internet apparel shopping use and other apparel shopping modes, correlation coefficients were calculated. This analysis was performed in an attempt to explore the impacts of Internet shopping on other traditional shopping modes.

The bivariate correlation analyses revealed that the likelihood to purchase apparel through Internet shopping sites had a significant positive relationship with the likeliness to purchase apparel through catalogs ($r = .25, p < .01$). On the other hand, no significant correlations were found among store apparel shopping intention, Internet apparel shopping intention, or apparel catalog shopping intention (see Table G.5. in Appendix G).

Logistic Multiple Regression Analysis

Logistic regression analysis was performed to determine: 1) if consumers' previous shopping experiences, demographic characteristics, and Internet use and beliefs predict high or low Internet or catalog apparel shopping motivations, 2) if online apparel shopping motivations predict high or low intention to use online apparel shopping service, and 3) if apparel catalog shopping motivations predict high or low intention to use mail order catalog apparel shopping. Prior to a series of logistic regression analyses, correlation coefficients among research variables were examined to decide variables that would be considered in the regression model.

Prediction of Five Internet Apparel Shopping Site Use Motivations

Among variables from previous shopping experiences, demographics, and Internet use and beliefs, the variables that were significantly correlated with a particular motive for Internet apparel shopping (at a significance level of .05) were considered for each regression analysis (see Table G.11. in Appendix G).

Entertainment motivation

Based on preliminary correlation analysis, 14 variables that were significantly correlated with Entertainment online apparel shopping motivation were used as predictor variables (see Table G.1 and Table G.3 in Appendix G). Three variables--frequency of apparel product information search from friends, Internet Shopping Beliefs, and age--were significant predictors of low or high entertainment motivations for online apparel shopping sites. The results in Table 4.11 indicate that frequency of information seeking from

Table 4.11. Logistic Regression Results for Variables Predicting Entertainment Motivation for Internet Apparel Shopping

Variables considered in stepwise procedure	Variables included in final regression model	ß	S. E.	Wald	df	Sig.	R	Exp (B)	R^2
Length of catalog shopping experience	Frequency of information search from friends	1.0323	.3083	11.2126	1	.0008	.2576	2.8077	Cox & Snell: .427
Length of Internet shopping experience									Nagelkerke:
Frequency of information search from friends	Age	- .3033	.1446	4.3963	1	.0360	- .1314	.7384	.571
Frequency of magazine use as a product information source	Internet shopping beliefs	2.2411	.4757	22.2592	1	.0001	.3820	9.4321	
Frequency of catalog use as a product information source									
Frequency of Internet use as a product information source									
Number of apparel purchases through the Internet (12 months)									
Money spent on Internet apparel shopping (12 months)									
Frequency of apparel Internet shopping site visits									
Sex									
Age									
Credit hours in school									
Internet shopping beliefs									
General Internet beliefs									

friends (β = 1.0323, p = .0008), Internet Shopping Beliefs (β = 2.2441, p = .0001), and age (β = -.3033, p = .0360) were significantly related to Entertainment motivations for Internet apparel shopping. According to the estimates of the change in odds (defined as Prob[high motivation]/Prob[low motivation]) for a one unit change in the dependent variable reported as Exp (B) in Table 4.11, the contribution of Internet Shopping Beliefs to the regression was largest.

The Nagelkerke R^2 and Cox and Snell R^2 values in Table 4.11 indicate that about 50 percent of the variance in the Entertainment motives for Internet shopping service is explained by the three predictors. The Nagelkerke and Cox and Snell measures provide a rough approximation of the amount of variance in the dependent variable explained by the predictors included in the regression model (SPSS, 1999). The classification table in Table 4.12 indicates that overall 79.2% of the respondents were successfully identified. The three independent variables were slightly better at predicting who would have high entertainment motives for Internet apparel shopping (82.1%) than who would be low on that motivation (75.6%).

Table 4.12. Classification Table for Entertainment Motivation for Online Apparel Shopping

Observed	Predicted		
	Low	High	Percent Correct
Low	34	11	75.56%
High	10	46	82.14%
		Overall	**79.21%**

However, this result should be interpreted with caution due to possible interactions among variables from Internet and catalog experiences and Internet beliefs. Product information search from Internet shopping sites (β = .599, p = .006), frequency of apparel purchase through Internet shopping (β = .685, p = .016), and college credit hours in school (β = -.655, p = .011) were also significant in predicting Entertainment gratifications, when the two Internet belief variables were not entered in the regression equation.

Social Utility motivation

Only one variable, frequency of magazine use for product information, remained in the regression model among two independent variables considered for estimation of Social Utility. The frequency of magazine use for product information was significant in predicting respondents' low or high social utility/escapism motive for online shopping (β = .4429, p = .0156). Table 4.13 shows the detailed regression analysis. An overall accuracy of 62.4 percent indicated that the model is moderately successful in estimating respondents' low or high Social Utility, even though only five to seven percent of the variance in that motivation was explained by the regression model (Cox & Snell R^2=.053; Negelkerke R^2=.071). Frequency of magazine use for product information search predicted who would have low social motives for Internet apparel shopping more successfully (81.0%) than high social motivation (40.7%) (see Table 4.16).

Shopping Assistance motivation

Among eight variables considered in stepwise regression, only one predictor, Frequency of Internet Use for Product Information, demonstrated a significant relationship to the Shopping Assistance motive for Internet apparel shopping (β = .5301, p = .0023). The detailed regression analysis is presented in Table 4.14. Whereas the regression model was moderately powerful in predicting low or high Shopping Assistance motivations (66.1%), frequency of Internet use for product information was only good at predicting low Shopping Assistance motivation (88.6%). Only 16.7% of respondents with high Shopping Assistance motives were successfully classified (see Table 4.17).

Surveillance motivation

Internet Shopping Beliefs was a significant predictor of Surveillance motivation for Internet apparel shopping (β = .6231, p = .0176). However it explained only a low amount of variance in the surveillance motive (Cox & Snell R^2 = .052 and Nagelkerke R^2 = .077). The variables considered in the stepwise regression are presented in Table 4.15. Even though the classification table (see Table 4.18) indicates that overall 75% of the participants were classified successfully, this regression model was good at only for predicting who would have low Surveillance motivation. As is often the case with logistic

Table 4.13. Logistic Regression Results for Variables Predicting Social Utility Motivation for Online Apparel Shopping

Variables considered in stepwise procedure	Variables included in final regression model	ß	S. E.	Wald	df	Sig.	R	Exp (B)	R^2
Frequency of magazine use as a product information source Frequency of television use as a product information source	Frequency of magazine use as a product information source	.4429	.1832	5.8465	1	.0156	.1543	1.5572	Cox & Snell: .053 Nagelkerke: .071

Table 4.14. Logistic Regression Results for Variables Predicting Shopping Assistance Motivation for Online Apparel Shopping

Variables considered in stepwise procedure	Variables included in final regression model	ß	S. E.	Wald	df	Sig.	R	Exp (B)	R^2
Length of Internet shopping experience Frequency of catalog use as a product information source Frequency of Internet use as a product information source Number of apparel purchases through the Internet (12 months) Money spent on Internet apparel shopping (12 months) Frequency of Internet apparel site visits Internet shopping beliefs General Internet beliefs	Frequency of Internet use as a product information source	.5301	.1739	9.2898	1	.0023	.2258	1.6991	Cox & Snell: .088 Nagelkerke: .124

Table 4.15. Logistic Regression Results for Variables Predicting Surveillance Motivation for Online Apparel Shopping

Variables considered in stepwise procedure	Variables included in final regression model	ß	S. E.	Wald	df	Sig.	R	Exp (B)	R^2
Length of Internet shopping experience Frequency of Internet use as a product information source Number of apparel purchases through the Internet (12 months) Frequency of Internet apparel site visits Internet shopping beliefs General Internet beliefs	Internet shopping beliefs	.6231	.2624	5.6401	1	.0176	.1670	1.8646	Cox & Snell: .052 Nagelkerke: .077

Table 4.16. Classification Table for Social Utility Motivation for Online Apparel Shopping

Observed	Predicted		
	Low	High	Percent Correct
Low	51	12	80.95%
High	32	22	40.74%
		Overall	**62.39%**

Table 4.17. Classification Table for Shopping Assistance Motivation for Online Apparel Shopping

Observed	Predicted		
	Low	High	Percent Correct
Low	70	9	88.61%
High	30	6	16.67%
		Overall	**66.09%**

Table 4.18. Classification Table for Surveillance Motivation for Online Apparel Shopping

Observed	Predicted		
	Low	High	Percent Correct
Low	87	0	100.00%
High	29	0	.00%
		Overall	**75.00%**

regression, the regression model was best at successfully classifying the largest group (Meshbane & Morris, 1996). The responses to the Surveillance motive were highly skewed towards low motivation, with only 29 out of 116 usable responses for high Surveillance motive. The Frequency of Internet Use for Product Information was significant in predicting Surveillance motive ($\beta = .351, p = .050$), when the two Internet Belief variables were removed from the regression equation.

Convenience/Economics motivation

The regression model explained approximately 40 percent of the variance in the Convenience/Economics motive (see Table 4.19). Logistic regression analysis presented in Table 4.20 revealed that Internet Shopping Beliefs is a significant predictor of Convenience/Economics motivation for Internet apparel shopping (β = 1.8623, p = .0001).

According to the classification table in Table 4.19, overall 76.5% of respondents were classified successfully by the regression model. The independent variable, Internet Shopping Beliefs, predicted who would have low Convenience/Economics motive successfully in 52 cases (80%), and who would have high Convenience/Economics motive successfully in 36 cases (76.5%). Frequency of Internet use for product information and purchases were also significant in predicting Convenience/Economics motivation; however, the value of those variables were substantially reduced when Internet Shopping Beliefs was entered in the regression equation. This was due to moderate correlations between Internet Shopping Beliefs and the independent variables such as frequency of Internet use for product information and purchases (r = .54 and r = .46, respectively; $p < .001$).

Table 4.19. Classification Table for Convenience/Economics Motivation for Online Apparel Shopping

Observed	Predicted		
	Low	High	Percent Correct
Low	52	13	80.00%
High	14	36	72.00%
		Overall	**76.52%**

Table 4.20. Logistic Regression Results for Variables Predicting Convenience/Economics Motivation for Online Apparel Shopping

Variables considered in stepwise procedure	Variables included in final regression model	ß	S. E.	Wald	df	Sig.	R	Exp (B)	R^2
Length of Internet shopping experience	Internet shopping beliefs	1.8623	.3539	28.6860	1	.0001	.4039	6.4385	Cox & Snell: .324
Length of Internet shopping experience									Nagelkerke: .434
Frequency of Internet use as a product information source									
Number of apparel purchases through catalog (12 months)									
Number of apparel purchases through the Internet (12 months)									
Money spent on Internet apparel shopping (12 months)									
Frequency of Internet apparel site visits									
Internet shopping beliefs									
General Internet beliefs									

Prediction of Five Apparel Catalog Shopping Use Motivations

A series of logistic regression analyses for variables predicting five apparel catalog shopping use motivations were conducted. Among the variables from previous shopping experiences and demographic characteristics, only the variables that were significantly correlated with a particular catalog use motivation were considered for each regression analysis. The variables from Internet use and beliefs were excluded from the regression analysis, because all the correlations with apparel catalog use motivations were either insignificant or too weak (see Table G.11 in Appendix G).

Entertainment motivation

Among nine independent variables that were significantly correlated with Entertainment motivation for apparel catalog use, two variables were significant predictors in classifying participants into low or high Entertainment motivation. The two variables were frequency of magazine use for product information (β = .7399, p = .0015) and sex (β = 2.5632, p = .0162). The estimates of the change in odds (defined as Prob[high motivation]/Prob[low motivation]) for a one unit change in the dependent variable reported as Exp (B) in Table 4.21 indicates that most of the variance in the Entertainment motivation is explained by the contribution of sex.

The Cox and Snell R^2 (.214) and Nagelkerle R^2 (.288) indicated that about 25 percent of the variance in the Entertainment catalog use motive was explained by the two predictor variables (see Table 4.21). Overall 67.0 percent of the participants were classified successfully (see Table 4.22). The two predictors were more successful in predicting who would have high Entertainment motive for apparel catalog use (80.4%) than who were low on that motive (56.7%).

Convenience/Economics motivation

Only one variable, frequency of catalog use for product information, was significant in predicting who would have low or high Convenience/Economics motivation for apparel catalog use (β = .7399, p = .0015). The variable predicted 100 percent of respondents who had low Convenience/Economics motives, whereas it failed to predict any

Table 4.21. Logistic Regression Results for Variables Predicting Entertainment Motivation for Apparel Catalog Shopping

Variables considered in stepwise procedure	Variables included in final regression model	ß	S. E.	Wald	df	Sig.	R	Exp (B)	R^2
Frequency of information search from friends Frequency of magazine use as a product information source Frequency of information search from stores Frequency of catalog use as a product information source Number of apparel purchases through store (12 months) Satisfaction with store shopping mode Sex Age Credit hours in school	Frequency of magazine use as a product information source Sex	.7329 2.5632	.2325 1.0660	10.1269 5.7814	1 1	.0015 .0162	.2244 .1531	2.0957 12.9778	Cox & Snell: .214 Nagelkerke: .288

Table 4.22. Classification Table for Entertainment Motivation for Apparel Catalog Shopping

Observed	Predicted		
	Low	High	Percent Correct
Low	38	29	56.72%
High	10	41	80.39%
		Overall	**66.95%**

of the participants who had high motive. The overall predictability was 68.1% (see Table 4.23), but cautious interpretation is needed considering that only six to eight percent of variance in the dependent variable was explained by the regression model (see Table 4.24). This result would be ascribed to the fact that logistic regression is not powerful at classifying the small group (Meshbane & Morris, 1996). According to the beginning block number 1 output, the length of catalog shopping experience and frequency of product purchases through catalog shopping were also significant, however their contribution to the regression model may be reduced due to their moderate correlations with frequency of catalog use for product information ($r = .35$ and $r = .44$, respectively; $p < .001$).

Table 4.23. Classification Table for Convenience/Economics Motivation for Apparel Catalog Shopping

Observed	Predicted		
	Low	High	Percent Correct
Low	79	0	100.00%
High	37	0	0.00%
		Overall	**68.10%**

Table 4.24. Logistic Regression Results for Variables Predicting Convenience/Economics Motivation for Apparel Catalog Shopping

Variables considered in stepwise procedure	Variables included in final regression model	ß	S. E.	Wald	df	Sig.	R	Exp (B)	R^2
Length of catalog shopping experience Frequency of magazine use as a product information source Frequency of product information search from stores Frequency of catalog use as a product information source Frequency of the Interent use as a product information source Money spent on apparel catalog shopping (12 months) Number of apparel purchases through catalogs (12 months) Credit hours in school	Frequency of catalog use as a product information source	.4923	.1948	6.3845	1	.0115	.1737	1.1360	Cox & Snell: .061 Nagelkerke: .085

Social Escapism motivation

The frequency of magazine use for product information was of near significance in predicting the classifications of participants according to high or low Social Escapism motive for apparel catalog use (β = .7362, p = .0576) (see Table 4.25). It would be prudent to interpret the result with caution, since the significance *alpha* level of the predictor variable was over .05, despite the predictor remaining in the regression model. Also, even though the result in Table 4.26 indicates that overall 94.8 percent of participants were successfully classified, the regression model was good at only predicting who would have low Social Escapism motivations for apparel catalog use. This result is consistent with the fact that most of the respondents were low in the Social Escapism motive for catalog use (M = 1.92 on a five point Likert scale).

Shopping Information motivation

Among seven independent variables considered for the prediction of low or high Shopping Information motives for apparel catalog use, frequency of information search from friends was a significant predictor (β = .9745, p = .0155). Even though overall 95.7 percent of the respondents were successfully classified, the regression model was only good at predicting who would have high motives for Shopping Information using apparel catalog (see Table 4.27). The variable, frequency of information search from friends contributed to explaining only six to eighteen percent of variances in Shopping Information catalog shopping motivation (see Table 4.28).

Diversion motivation

Of the six independent variables considered in multiple logistic regression analysis for variables predicting the Diversion motive for apparel catalog use, none were significant (see Table 4.29). However, the result of simple logistic regression (see Table 4.29) that examined the predictability of the single variable sex indicated that it was a significant predictor of the Diversion catalog use motivation (β = 1.163, p = .050). Sex was successful in predicting who would have low Diversion motivation (100%), while it failed to predict who would have high Diversion motivation. Thus, the result that overall success

Table 4.25. Logistic Regression Results for Variables Predicting Social Escapism Motivation for Apparel Catalog Shopping

Variables considered in stepwise procedure	Variables included in final regression model	ß	S. E.	Wald	df	Sig.	R	Exp (B)	R^2
Frequency of television use as a product information source Frequency of product information search from friends Frequency of magazine use as a product information source General Internet attitude	Frequency of magazine use as a product information source	1.3978	.7362	3.6050	1	.0576	.1846	4.0462	Cox & Snell: .051 Nagelkerke: .151

Table 4.26. Classification Table for Social Escapism Motivation for Apparel Catalog Shopping

Observed	Predicted		
	Low	High	Percent Correct
Low	109	0	100.00%
High	6	0	0.00%
		Overall	**94.78%**

Table 4.27. Classification Table for Shopping Information Motivation for Apparel Catalog Shopping

Observed	Predicted		
	Low	High	Percent Correct
Low	0	5	0.00%
High	0	112	100.00%
		Overall	**95.73%**

Table 4.28. Logistic Regression Results for Variables Predicting Shopping Information Motivation for Apparel Catalog Shopping

Variables considered in stepwise procedure	Variables included in final regression model	ß	S. E.	Wald	df	Sig.	R	Exp (B)	R^2
Frequency of television use as a product information source	Frequency of product information search from friends	.9745	.4024	5.8642	1	.0155	.3058	2.6497	Cox & Snell: .055
Frequency of product information search from friends									Nagelkerke: .185
Frequency of magazine use as a product information source									
Frequency of product information search from stores									
Frequency of catalog use as a product information source									
Sex									
Credit hours in school									

Table 4.29. Logistic Regression Results for Variables Predicting Diversion Motivation for Apparel Catalog Shopping

Variables considered in stepwise procedure	Variables included in final regression model	ß	S. E.	Wald	df	Sig.	R	Exp (B)	R^2
Length of store shopping experience					1	.0735	.0868		
Frequency of product information search from friends					1	.2741	.0000		
Frequency of magazine use as a product information source					1	.4586	.0000		
Frequency of catalog use as a product information source					1	.1165	.0540		
Sex		-.3773	.1874	4.0533	1	.0573	.1006		
Age					1	.1140	.0559		
Constant					1	.0441			
Sex	Sex	1.163	.594	3.828		.0500		3.200	Cox & Snell: .037 Nagelkerke: .050

Table 4.30. Classification Table for Diversion Motivation for Apparel Catalog Shopping

Observed	Predicted		
	Low	High	Percent Correct
Low	71	0	100.00%
High	48	0	0.00%
		Overall	**59.70%**

of the prediction is 59.7 percent should be interpreted with caution (see Table 4.30). This result is consistent with the Nagelkerke R^2 for sex explaining only five percent of the variance of the Diversion motive for apparel catalog shopping (see Table 4.29).

Prediction of Internet Apparel Shopping Intention

A multiple logistic regression analysis for variables predicting Internet Apparel Shopping Intention was conducted. All five Internet shopping motivations were significantly correlated with intention, so were considered for the regression analysis.

The regression analysis revealed that three variables were significant predictors of intention to shop for apparel via the Internet (see Table 4.31). The three motives, Entertainment (β = 1.8574, p = .0005), Shopping Assistance (β = 1.2171, p = .0235), and Convenience/Economics (β = 2.0984, p = .0001) demonstrated significant levels of relationships to intention to shop via the Internet for apparel. According to the estimates of the change in odds for a one unit change in the dependent variable (reported as Exp (B) in Table 4.31), the contribution of Convenience/Economics motivation to the regression was slightly greater than the contributions of the other two variables.

The Nagelkerke R^2 value (.359) and Cox and Snell R^2 value (.480) indicated that about 40 percent of the variance in Internet Apparel Shopping Intention was explained by the three variables (see Table 4.31). In 51 cases (86.4%), the three predictors identified successfully who would have low intention to use online apparel shopping. The independent variables predicted slightly less successfully who would have high intention (74.5%). Overall 81.3% of the participants were identified (see Table 4.32).

Table 4.31. Logistic Regression Results for Variables Predicting Intention to Use Online Apparel Shopping

Variables considered in stepwise procedure	Variables included in final regression model	ß	S. E.	Wald	df	Sig.	R	Exp (B)	R^2
Entertainment	Entertainment	1.8574	.5309	12.2410	1	.0005	.2652	6.4069	Cox & Snell: .359
Social Utility	Shopping Assistance	1.2171	.5372	5.1336	1	.0235	.1467	3.3774	
Shopping Assistance	Convenience/Economics	2.0984	.5184	16.3869	1	.0001	.3144	8.1529	Nagelkerke: .480
Surveillance									
Convenience/Economics									

Table 4.32. Classification Table for Intention to Use Online Apparel Shopping

Observed	Predicted		
	Low	High	Percent Correct
Low	51	8	86.44%
High	12	35	74.47%
		Overall	**81.13%**

Prediction of Mail Order Catalog Apparel Shopping Intention

Among five apparel catalog shopping motivations, only one variable, Convenience/Economics, was significant in predicting consumers' low or high intention to use that shopping mode (ß=1.177, p=.004). While 79.1 percent of the participants who had low intention were identified, only 49.1 percent of the respondents who would have high intention were classified successfully. The overall success of the prediction was 64.7% (see Table 4.33). The Nagelkerke R^2 value (.07) and Cox and Snell R^2 value (.094) indicated that only seven to nine percent of the variance in participants' intention to shop by apparel catalog was explained by the Convenience/Economics motive (see Table 4.34).

Table 4.33. Classification Table for Intention to Use Apparel Catalog Shopping

Observed	Predicted		
	Low	High	Percent Correct
Low	53	14	79.10%
High	28	24	46.15%
		Overall	**64.71%**

Table 4.34. Logistic Regression Results for Variables Predicting Intention to Use Apparel Catalog Shopping

Variables considered in stepwise procedure	Variables included in final regression model	ß	S. E.	Wald	df	Sig.	R	Exp (B)	R^2
Entertainment	Convenience/Economics	1.1770	.4095	8.2619	1	.0040	.1960	3.2446	Cox & Snell: .070
Convenience/Economics									
Social Escapism									Nagelkerke: .094
Shopping Information									
Diversion									

CHAPTER 5: DISCUSSION

In the following chapter, discussion of the findings is presented. The discussion section consisted of three parts: 1) descriptive analysis, 2) Internet and catalog apparel shopping uses and gratifications, 3) consumers' intention to use apparel shopping media, and 4) the relationship between Internet shopping and other traditional shopping media.

Descriptive Analysis

About 60 percent of the respondents had purchased apparel via the Internet and 50 percent had visited Internet apparel shopping sites at least every month. These numbers are tremendously larger than those in a previous Internet study by Yoh (1999), who found that only 8.5 percent of respondents had purchased apparel through the Internet and 21 percent had visited Internet apparel sites regularly. As the respondent sample of this study was college students who were highly familiar with the Internet, the respondents may over-represent Internet users. Younger people are less likely to purchase products via the Internet, even though they are heavy Internet users (Donthu & Garcia, 1999; Korgaonkar & Wolin, 1999). However, this study's findings may suggest a substantial and recent increase in the numbers of young Internet shoppers. It is also notable that 87 percent of respondents who had shopped for apparel on the web had been using the Internet for apparel shopping for less than two years. This finding indicates rapidly increasing numbers of Internet shoppers in recent years.

Almost 80 percent of respondents had used the Internet for the purpose of product information search related to clothing, whereas about 60 percent of respondents had shopped for apparel via the Internet. This result corresponds to the previous survey ("120 Million Web Users," 2000) that reported higher Internet use rate for information search than for actual product purchase. The extent of Internet use for product information search explained the most variation in consumers' intention to purchase on the web (Loshe, Bellman, & Johnson, 2000). Therefore, the high degree of Internet use for product information may predict even more increase in the Internet shopper population in the future. However, only 33 percent of respondents were satisfied with Internet apparel shopping, indicating unpleasant shopping experiences on the web. The relatively large number of

consumers who are not satisfied with Internet shopping may impede potential growth of Internet shopping.

Internet and Catalog Apparel Shopping Uses and Gratifications

Internet Apparel Shopping Uses and Gratifications

Five Internet apparel shopping use motivations were identified in the present study as a result of factor analyses. They are Entertainment, Social Utility, Shopping Assistance, Surveillance, and Convenience/Economics. The results of the present study proposed slightly different dimensions of Internet apparel shopping uses and gratifications from previous studies (Korgaonkar & Wolin, 1999; Lin, 1999).

Whereas Korgaonkar and Wolin found the presence of social escapism and socialization motivation as distinct dimensions, in the present study, the two dimensions were categorized under a single construct, Social Utility. The results indicated that the Social Utility factor was differentiated from the Entertainment motivation. While the Entertainment dimension captured the web's ability to provide enjoyable and fun activities, the Social Utility motivation emphasized the role of the web as a facilitator or an inhibitor of interpersonal activities. Internet shopping sites may provide experiences that can be shared with friends or others and escape from stressful reality at the same time. The Entertainment gratification identified in this study had similar characteristics to the "Interactive Control Motivation" extracted in Korgaonkar and Wolin's study (1999). Also, the emergence of the Entertainment motivation as a factor distinctive from the Social Utility motivation was consistent with the previous findings in Lin's (1999) study.

Convenience/Economics motivation, identified as a distinct factor in the present study, was also found in Korgaonkar and Wolin's (1999) study. However, it did not emerge as a separate dimension in Lin's study. Moreover, the Convenience/Economics factor in this study captured an additional concept that was not included in the economic motivation extracted in Korgaonkar and Wolin's study. The time saving aspect of Internet shopping was perceived as a component of convenience or economic gratification of Internet shopping sites.

Surveillance motivation, captured as one factor in previous studies (Korgaonkar &

Wolin, 1999; Lin, 1999), was divided into two separate factors of Shopping Assistance and Surveillance motivations. Shopping Assistance motivation captured consumers' information-seeking orientation, in particular, for shopping. This particular motivation was distinguished from the Surveillance motivation, which represented consumers' general information needs. It is notable that consumers' apparel product related information motivation constituted a distinct construct regarding Internet apparel shopping uses and gratifications. The results regarding the presence of the Shopping Assistance motivation for Internet apparel shopping were new findings of the present study.

The inconsistent findings among studies regarding Internet uses and gratifications dimensions may be due to varied sampling frames and diverse Internet sites provided as stimuli. The emergence of the Shopping Assistance motivation as a more diversified information-related gratification in the present study may suggest that college students are active Internet shoppers who are using the Internet for varied gratification factors.

Catalog Apparel Shopping Uses and Gratifications

For apparel mail order catalog shopping, five different gratification dimensions emerged. They are Entertainment, Convenience/Economics, Social Escapism, Shopping Information, and Diversion motivations. As in previous studies related to catalog shopping orientation or motivation (Belleger & Korgaonkar, 1980; Gehrt & Carter, 1992), the distinction between functional/economic motivations and recreational motivations were observed.

In contrast to the Internet factors, Diversion motivation was identified as a distinct dimension from that of Entertainment and Social Escapism. The Diversion motivation captured a slightly different concept from that of Entertainment or Social Escapism because it included passing time or relieving boredom. More diversified recreational gratifications of apparel catalog use may be explained by the findings of a previous study (Braun, 1993). The study found that catalog shoppers are more likely to view shopping as a leisure activity. On the other hand, the items related to social utility (socialization) concept were not included in the Social Escapism factor of apparel catalog shopping uses and gratifications.

The general Surveillance motivation that also emerged as a separate factor in

Internet shopping uses and gratifications was not identified as an apparel catalog shopping motivation. Considering apparel catalogs' limited information and presentation constrained by number of pages printed, apparel catalogs' ability to provide information may be limited only to the information directly related to the limited products contained in the catalogs.

Prediction of Internet and Catalog Apparel Shopping Uses and Gratifications

One of the three objectives of this study was to identify important variables explaining each shopping motivation of Internet and catalog apparel shopping. A series of logistic regression analyses identified variables from consumers' previous shopping experiences, Internet uses and beliefs, and demographic characteristics predicting their high or low motivations to use a particular shopping medium. The summary of the prediction of Internet and catalog apparel shopping uses and gratifications is presented in Table 5.1.

Most demographic characteristics were not significant in predicting consumers' high or low web or catalog uses and gratifications. However, younger students were more likely to get high entertainment gratification from Internet apparel shopping, and female students were more likely to use catalogs for entertainment and diversion. Therefore, apparel retailers targeting younger consumers might need to emphasize entertainment elements of their apparel shopping web sites. Also, considering that most catalog shoppers are women (Braun, 1993) and that heavy-user catalog shoppers were more likely to shop for enjoyment than lighter user catalog shoppers (Gehrt & Carter, 1992), the entertainment and diversion factors of catalog use gratifications might contribute to attracting and maintaining female heavy-user catalog shoppers.

Among variables, Internet Shopping Beliefs had significant power in predicting consumers' high or low Entertainment, Surveillance, and Convenience/Economics Internet shopping uses and gratifications factors. In other words, consumers who have more positive beliefs about Internet shopping were more gratified by apparel web sites' ability to provide entertainment, information, and convenience of shopping. However, General Internet Beliefs was not significant in explaining high or low gratifications related to the three factors. Therefore, whether consumers have high gratifications for Internet apparel shopping depends not on their general beliefs about the Internet, but on their beliefs about

Internet shopping. Positive general Internet beliefs do not necessarily mean positive Internet shopping beliefs. This result is consistent with the previous literature about Internet shoppers that found differences between the characteristics of general Internet users and Internet shoppers (Donthu & Garcia, 1999)

Table 5.1. Summary of the Prediction of Internet and Catalog Apparel Shopping Motivations

Apparel Shopping Media	Shopping Motivations	Predictor Variables
Internet	Entertainment	Frequency of information search from friends Age Internet shopping beliefs
	Social Utility	Frequency of magazine use as a product information source
	Shopping Assistance	Frequency of Internet use as product information source
	Surveillance	Internet shopping beliefs
	Convenience/Economics	Internet shopping beliefs
Mail Order Catalog	Entertainment	Frequency of magazine use as a product information source Sex
	Convenience/ Economics	Frequency of catalog use as a product information source
	Social Escapism	Frequency of magazine use as a product information source
	Shopping Information	Frequency of product information search from friends
	Diversion	Sex

The respondents who are more likely to seek information about apparel products from friends are more likely to have high Entertainment motivation for Internet shopping. Frequency of magazine use for product information was significantly related to Social Utility motivation for Internet shopping. On the other hand, whether consumers have high or low Shopping Assistance and Convenience/Economics motivations were related to the frequency of Internet use as a product information source. These findings suggest that diverse consumers' previous shopping information search patterns lead to different Internet shopping uses and gratifications. The significant relationships between shopping information search patterns and Internet shopping uses and gratifications may be due to the fact that the major role of the Internet has been providing information to users ("120 Million Web Users," 2001; USA Today, 1998).

The results regarding the prediction of whether consumers have high or low gratifications for apparel catalog use showed that frequency of catalog and magazine use for product information predicts most apparel catalog gratifications. The respondents who had used magazines more frequently for product information search were more likely to have high Entertainment and Social Escapism gratifications. On the other hand, catalog use for product information was significant in predicting consumers' level of Convenience/Economics apparel catalog uses and gratifications. This might suggest that heavy magazine users more likely perceive apparel catalogs as another type of magazine that can provide entertainment or relaxation from stresses of reality, whereas consumers who actually use apparel catalogs to get product information for shopping are more likely to be gratified by the convenience factor of catalog use.

Intention to Use Apparel Shopping Media

The summary of the predictions of apparel shopping intentions is presented in Table 5.2. Among the five Internet apparel shopping use gratifications, Entertainment, Shopping Assistance, and Convenience/Economics were significant in explaining consumers' high or low intention to use Internet apparel shopping. In other words, the more consumers are gratified by the three factors, the more they were likely to have high intentions to shop through Internet apparel shopping sites. These findings are somewhat

similar to the results of a previous study conducted by Korgaonkar and Wolin (1999) in that the consumers who seek more information and value interactive features and convenience are more likely to purchase from the Internet. However, the Shopping Assistance motivation that emerged in the present study represented a different concept from that of the information motivation identified in the previous study. Moreover, the findings that not the Surveillance gratification but the Shopping Assistance gratification was significant in predicting high or low intention to use Internet apparel shopping may suggest that high general information seeking motivation does not necessarily lead consumers to actual purchase behavior.

Table 5.2. Summary of the Predictions of Apparel Shopping Intention

Apparel Shopping Intention	Predictor Variables
Internet apparel shopping	Entertainment Shopping Assistance Convenience/Economics
Mail Order Catalog Apparel Shopping	Convenience/Economics

Whereas the three gratifications, Entertainment, Shopping Assistance, and Convenience/Economics, were significant in predicting Internet shopping intention, only the Convenience/Economics gratification was significant in the prediction of whether consumers have high or low catalog shopping use intentions. The findings of the present study are inconsistent with a previous study (Mathwick, 1997) that compared customer value of Internet and catalog shopping. Mathwick found that Internet shopping was mostly valued for efficiency or economic value, while aesthetic appeal and playfulness as well as those functional factors were important in catalog shopping. However, the results of this study showed that the Entertainment gratification was not significant in explaining catalog apparel shopping use intentions, but was significant in explaining Internet apparel shopping use intentions. This result may be due to the characteristics of the respondent sample of this study. They were college students who are young and highly familiar with the Internet.

Considering the results of the present study that age was a significant predictor of the Entertainment Internet shopping use gratification, Entertainment gratification may be more effective in explaining younger consumers' intentions to use Internet shopping rather than intentions of older consumers. Moreover, as the technology used for web sites becomes more sophisticated, the Entertainment element of the web may be more valued by consumers than before. On the other hand, the non-functional values of apparel catalogs, such as Entertainment, Social Escapism, and Diversion, may not be related to shopping behaviors of younger generation consumers who seek more interactive and innovative media.

The Relationship between Internet Shopping and Other Traditional Shopping

In order to examine the relationship between Internet apparel shopping and other traditional shopping modes like catalog and in-store shopping, correlation analyses were performed. The results indicated that consumers' intentions to shop for apparel through the Internet significantly related to their intentions to use catalog apparel shopping, but not to shop in stores. The findings of this study support the predictions and estimates of previous research ("Interactive Retailing', 1997; Keen, 1999) about the impact of Internet shopping on catalog shopping in that intentions to use the two shopping modes are closely related to each other. However, there were positive relationships between the intentions to use catalog and Internet apparel shopping media instead of negative ones; cannibalization might not be an appropriate explanation for the relationship.

In addition, the results of correlation analysis regarding the relationships between the five motivations for Internet and catalog apparel shopping showed the lack of displacement relationship between two shopping modes. Only five relationships out of 25 were significant, and the seemingly identical motivations for both shopping media turned out to signify different concepts. For example, the Entertainment motivation for catalog apparel shopping was not related to Entertainment of Internet apparel shopping. Moreover, none of the five catalog shopping use gratifications were significantly related to Internet apparel shopping intentions, while all five Internet shopping use motivations were related to the Internet shopping intentions. This reveals that gratifications for catalog apparel

shopping are irrelevant to consumers' likelihood of online apparel shopping, even though the gratifications for Internet and catalog apparel shopping are weakly correlated and the shopping intentions through the two shopping modes are closely related. Therefore, heavy catalog shoppers may be more likely to have intentions to use Internet apparel shopping, while their motivations for Internet apparel shopping might be different from those for apparel catalog shopping. Again, the complete substitution relationship between Internet and catalog apparel shopping seems to be inappropriate.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

General conclusions were generated based on the findings and discussion. Implications of findings and recommendations for future research are offered to academia and retailers. In addition, research limitations are provided.

Conclusions

The findings of this study suggest a promising future of Internet apparel retailing. A tremendous increase in adoption rate of Internet apparel shopping among college students was found. However, most of the college students were not satisfied with current Internet apparel shopping even though many of them have been exposed to Internet shopping and have purchased apparel products through the Internet. The results imply that web retailers should provide Internet shoppers with an improved Internet shopping experience in order to retain and attract younger consumers' increasing interests in Internet shopping. To understand why and how consumers use Internet shopping compared to other shopping channels would provide insights into how to improve consumers' experiences with Internet shopping.

The present study has shown that the uses and gratifications perspective from mass communications is appropriate for investigating why and how consumers use Internet and catalog apparel shopping. The multidimensionality of Internet and catalog apparel shopping uses and gratifications was evidenced. Five gratifications for each shopping medium emerged. In particular, a new uses and gratifications dimension related to the web's potential as a shopping mode, namely Shopping Assistance, was identified in this exploratory study. Based on the findings, it was concluded that consumers' gratifications related to Internet shopping emerged as distinct motivations from those for general use of the Internet, as Internet shopping adoption rate is increasing.

For most Internet apparel shopping motivations, whether consumers have high or low levels was related to their beliefs about Internet shopping rather than about the Internet. Also, diverse consumers' previous shopping information search patterns played a greater role than any other previous shopping experiences or demographics in explaining consumers' gratifications for Internet apparel shopping use. Consumers' information

search patterns related to shopping were also significantly related to the distinctive gratifications that they sought and obtained from apparel catalogs.

The gratifications for Internet or catalog apparel shopping in turn explained whether consumers have high or low shopping intentions through the Internet or catalogs. While only Convenience/Economics motivations were significant in explaining consumers likelihood of catalog apparel shopping, Entertainment, Shopping Assistance, and Convenience/Economics motivations were all significant in explaining whether consumers have high or low shopping intentions via the Internet. College-aged consumers perceived non-functional motivations like entertainment important. On the other hand, only functional motivations like convenience were the significant factors that affect consumers' likelihood of catalog apparel shopping. Also, the gratifications for catalog apparel shopping were irrelevant to consumers' likelihood of online apparel shopping, thus the lack of displacement relationships between Internet and catalog apparel shopping was interpreted.

Implications for Retailers

The findings provided in the present study may have worthwhile implications for Internet apparel retailers. First, Internet marketers will get insights into the needs of web users, which will result in a better picture of the target for Internet apparel shoppers. This study found that the consumers who are more gratified by entertainment, shopping assistance, and convenience/economics factors of Internet apparel shopping were more likely to have high shopping intention through the Internet. Therefore, web users who enjoy the entertainment factors of Internet shopping as well as convenience or economic factors are likely to be important targets for marketers. Also, consumers who value shopping assistance with product information are more likely to adopt Internet shopping.

The findings of this study indicate that consumers use Internet shopping not just for a single gratification, such as retrieving information or convenience. Based on these findings, it is suggested that Internet retailers should ensure consumers' positive experience with Internet shopping in terms of entertainment, convenience, and shopping assistance. More sophisticated features that would enhance entertainment and convenience elements of

web sites and more detailed information about products should be presented to prospective consumers as well as to current Internet shoppers. For example, more extensive information situated in an enjoyable context may attract Internet users to Internet apparel shopping. In addition, the retailers who are targeting, in particular, younger Internet shoppers should focus on fun and entertainment elements of their web sites, as younger consumers were more gratified by entertainment factors of Internet apparel shopping.

This study will also provide valuable implications for traditional in-store and catalog apparel retailers. As Internet shopping increases rapidly, the possible reduction of market share of traditional apparel shopping channels has been a concern of traditional retailers. However, no significant relationship between Internet and in-store shopping intention was found, and most consumers were satisfied with in-store shopping whereas most were not satisfied with Internet shopping. Thus, traditional store based retailers seem to be in a more advantageous position at this point. However, given that the Internet is one of the fastest changing media and its growth rate is enormous, traditional retailers should stay alert to compete with the new shopping mode. The high occurrence of product information search on the web may help to bring consumers to the traditional retail store rather than steal their purchases. Integration of web information and store services may be an increasingly effective marketing strategy (Lipke, 2000; "Pure Plays face Trouble," 2000).

On the other hand, apparel catalog retailers should be concerned about possible influences from Internet shopping, considering that consumers are more satisfied with apparel catalog shopping than with Internet apparel shopping by only a meager difference. Compared to more diverse gratifications that lead to shopping intentions for Internet apparel shopping, the motivations for catalog shopping that affect intentions to shop through apparel catalogs appear to be limited to only one factor, convenience motivation. The recreational motivations of apparel catalog uses were not likely to result in actual purchases, in particular, for college-aged consumers. Therefore, it might be reasonable for catalog apparel shoppers to focus their target marketing on the convenience of the catalog apparel shopping towards older consumers who value convenience of catalog apparel shopping rather than emphasizing the recreational or aesthetic aspects of apparel shopping.

Catalog apparel shopping seems to offer unique gratifications that Internet apparel

shopping cannot provide. Even though consumers who have high intentions to shop via apparel catalogs are more likely to have high shopping intentions for Internet apparel shopping, the gratifications for catalog apparel shopping were irrelevant to consumers' likelihood of online apparel shopping, indicating distinct apparel catalog use gratifications from Internet apparel shopping use gratifications. It might be essential for catalog retailers to have an information and entertainment web presence to capture young markets. For example, their catalog marketing may emphasize convenience and economics factors of apparel catalog shopping targeting consumers who are under time constraints, while their web sites emphasize more interactive and fun aspects of apparel shopping with more extensive information about products targeting younger consumers. The two shopping modes may compensate each other's shortcomings in services. Also, both the Internet and catalogs may be a way of entry to the store or, more likely, expansion of the consumers' retailer relationship and interface.

Implications for Academia

This study expands understanding of uses and gratifications theory by applying the theory to new media and exploring its relationship with existing shopping media, such as mail order catalogs. The identification of types of motives for pursuing a specific content of the Internet, Internet apparel shopping, lends further credence of the utility of the uses and gratification theory. Also, by adding significantly to understanding how and why consumers use Internet apparel shopping compared to apparel catalog shopping, the present study moves beyond research that has focused primarily on Internet shoppers' demographic characteristics.

Limitations

The results should be evaluated in the light of the following limitations. First, the results may not be generalized to the U.S general population because the sample population of the present study was a convenience sample of college-aged consumers who were skewed to female groups with positive beliefs about Internet apparel shopping, more experience with the Internet, and higher education. The findings may not be applicable to

different consumer segments.

Second, all the information was obtained through structured questionnaires instead of open-ended questions. This might have caused the researcher to lose some valuable information, restricting respondents' responses to the interval questions. Also, the use of summated items rather than weighted item scores of the variables may involve potential measurement errors. Since the items measuring gratifications were slightly modified from previous Internet and television uses and gratifications literature, the applicability of the findings of this study to uses and gratifications theory may be limited.

The artificial lab environment of the present study providing respondents' exposure to web and catalog experiences may have resulted in responses that differ from real world behavior due to the very fact that respondents are in an experiment and report their attitudes or feelings to someone else. Also, relatively high speed Internet access was provided for the experiment compared to lower speed connection that might be usual for in-home shoppers. The more ideal access conditions may have provided shopping experience that might have been biased.

Recommendations for Future Research

Based on the results of the present study, several recommendations for future research are provided. First, the uses and gratifications for Internet apparel shopping can be replicated using other apparel product categories or other samples of a more diverse population. Only well-known casual apparel brands were selected as stimuli for this study. Consumers may have different dimensions of gratifications for other types of apparel products. Also, different consumer segments may be attracted to purchase apparel products via the Internet for different gratifications. For example, working adult women may not be interested in time-consuming entertainment features. Additionally, if this study is replicated only with consumers who have experience with Internet apparel shopping, the results may reveal different dimensionality of Internet apparel shopping uses and gratifications.

Online shopping service uses and gratifications may help to effectively segment Internet apparel shoppers. The results of the present study suggested that three

gratifications, Entertainment, Shopping Assistance, and Convenience/Economics, were significant in explaining consumers' likelihood of Internet apparel shopping adoption. Some Internet shoppers may be high in entertainment and convenience gratifications, but low in shopping assistance motivations. Whether there are any combinations of the three motivations that characterize diverse consumer segments of Internet shoppers may be another interesting issue to investigate. The analyses of consumer clusters segmented by combinations of Internet apparel shopping uses and gratifications factors may provide highly precise and useful information to Internet apparel retailers.

Dependency has been the focus of attention in uses and gratifications research (Palmgreen, 1984). Dependency is defined as "a relationship in which the satisfaction of needs or the attainment of goals by one party is contingent upon the resources of another party" (Ball-Rokeach & Defleur, 1976). Rubin and Windahl (1982) found that the more dependent on a particular media an individual is, the more gratifications are sought and obtained. Also, they contended that the sought and obtained gratifications result in more positive attitudes toward the media and active media consumption. According to a uses and effects perspective, which combined uses and gratifications and media effects research, different motivations for media determine the dependency on a particular media. Future study can focus on the relationships between consumers' level of dependency on Internet shopping and their gratifications.

To examine consumers' gratifications for Internet and catalog apparel shopping, the general gratifications instead of the specific gratifications for a particular brand were examined in this study. Future study may investigate possible impacts of a particular brand's image on consumers' gratifications for shopping that brand. Also, another important issue to study related to Internet apparel shopping gratifications is how different combinations of high and low factors of Entertainment, Shopping Assistance, and Convenience/Economics of an apparel shopping site affect consumers' intentions to shop from the brand's web site. It will be valuable for retailers to understand what gratifications factors motivate consumers to shop for apparel, in particular, from their own retail web sites.

Finally, to measure consumers' Internet and catalog shopping intentions, the factor

summed variables were used for this study. The factor-summed variables were composed of multiple items. For example, the Internet shopping intentions contained three items representing intentions for product information, for actual purchases, and intentions to migrate from catalog shopping to Internet shopping. Even though the items were closely related, in future study, the three intentions can be used as separate variables in order to examine if different Internet apparel shopping motivations are related to each intention. For example, if it is found that consumers who are more gratified by entertainment of Internet shopping have higher intentions to migrate from catalog shopping to Internet shopping, the results may give retailers insights into the possible reasons of shifts from catalog apparel shopping to Internet apparel shopping.

APPENDIX A: CONSENT FORM

Consent Form

You are invited to participate in a study of consumer use of the Internet and mail order catalog for apparel shopping. You were selected to participate in this study because you are an undergraduate student at Iowa State University. You are one of about 100 students participating this study.

If you decide to participate, the researcher will provide you with a questionnaire. This questionnaire will ask for your shopping experience, Internet experience and demographic information. After complete the first questionnaire, you will observe two catalogs and web sites for apparel and then will be asked to fill out a second questionnaire asking for your opinion about them. The exercises are estimated to take a maximum of 45 minutes.

Your name will not be attached to the questionnaire to insure confidentiality of your responses. The information will be reported only in the form of "responses of undergraduate students in a midwestern university."

Your decision whether or not to participate will not prejudice your present or future relations with Iowa State University. If you decide to participate, you are free to discontinue participation at any time without prejudice.

If you have any questions, please call Hee-Kang Moon at 515-294-8519, Department of Textiles and Clothing, Iowa State University (hmoon@iastate.edu). The professor in charge of this project is Mary Lynn Damhorst, 515-294-9919 (mldmhrst@iastate.edu).

You will be offered a copy of this form to keep.

Please sign below if you are willing to participate in this study. Your signature indicates that you read the information provided above and have decided to participate. You may withdraw at any time without prejudice after signing this form should you choose to discontinue participation in this study. Thank you for your willingness to help!

_____

Print Name

_____

Signature Date

APPENDIX B: QUESTIONNAIRE

QUESTIONNAIRE I (Background Information)

SHOPPING EXPERIENCES

1. How long have you been using following shopping methods for clothing purchases?

	Never	Less than six months	Six months to one year	One to two years	More than two years
A. In-store shopping	1	2	3	4	5
B. Mail order catalog	1	2	3	4	5
C. Internet	1	2	3	4	5

2. During the last 12 months, how often have you used following sources to search for product information related to clothing?

	Never	Once or twice	Every few months	Every months	At least once a week
A. Television	1	2	3	4	5
B. Friends/significant others	1	2	3	4	5
C. Magazines/Newspapers	1	2	3	4	5
D. Retail stores	1	2	3	4	5
E. Mail order catalogs	1	2	3	4	5
F. Internet	1	2	3	4	5

3. During the last 12 months, how many times have you purchased clothing through following shopping methods?

	Never	Once	2 to 5	6 to 10	More than 10
A. In-store shopping	1	2	3	4	5
B. Mail order catalog	1	2	3	4	5
C. Internet	1	2	3	4	5

4. During the last 12 months, about how much did you spend on clothing purchase through following shopping methods?

	None	$1-200	$201-500	$501-1000	More than $1,000
A. In-store shopping	1	2	3	4	5
B. Mail order catalog	1	2	3	4	5
C. Internet	1	2	3	4	5

5. How satisfied are you with clothing shopping via following shopping methods?

	Not satisfied		Neutral		Satisfied	Don't Know
A. In-store shopping	1	2	3	4	5	6
B. Mail order catalog	1	2	3	4	5	6
C. Internet	1	2	3	4	5	6

INTERNET USE / INTERNET SHOPPING

6. About how much time do you use the Internet for any reason each week?
   [ ] Don't use
   [ ] Less than 1 hour
   [ ] 1-5 hours
   [ ] 6-10 hours
   [ ] More than 10 hours

7. How long have you been using Internet?
   [ ] Don't use
   [ ] Less than 6 months
   [ ] 6 months -1 year
   [ ] 1-2 years
   [ ] More than 2 years

8. How often do you visit online apparel shopping sites?
   [ ] Never
   [ ] Once or twice a year
   [ ] Once every few months
   [ ] Every month
   [ ] At least once a week

9. To what extent do you agree or disagree with following statements?

	Strongly disagree		Neutral		Strongly agree
A. I like the Internet----------	1	2	3	4	5
B. I find it challeging to keep up-to-date with Internet applications----------	1	2	3	4	5
C. It takes too much time to find theinformation I am seeking on the Internet----------	1	2	3	4	5
D. The Intenet is a great convenience----------	1	2	3	4	5
E. I question the accuracy of Internet informatic	1	2	3	4	5
F. I plan on buying things using the Internet-----	1	2	3	4	5
G. Internet shopping fits with my life style-------	1	2	3	4	5
H. Internet shopping is useful----------	1	2	3	4	5
I. Products sold on the Internet are more likely to have discount prices than products sold in stores----------	1	2	3	4	5
J. I feel safe using my credit card to make purchases via the Internet----------	1	2	3	4	5
K. As compared to stores, many more products are available on the Internet----------	1	2	3	4	5
L. As compared to stores, many more brands are available on the Internet----------	1	2	3	4	5
M. I like being able to make price comparisons on the Internet----------	1	2	3	4	5
N. Products are easy to return when shopping using the Internet----------	1	2	3	4	5
O. As compared to stores, many more sizes of clothing are available on the Internet----------	1	2	3	4	5

	Strongly disagree		Neutral		Strongly agree
P. Shopping on the Internet is faster than shopping in stores----------	1	2	3	4	5
Q. Products purchased using the Internet are delievered quickly----------	1	2	3	4	5
R. Shopping via Internet is easy----------	1	2	3	4	5
S. Internet shopping is convenient----------	1	2	3	4	5
T. Prices of merchandise sold on the Internet are reasonable----------	1	2	3	4	5
U. Internet shopping sites give good customer service----------	1	2	3	4	5
V. I enjoy shopping on the Internet----------	1	2	3	4	5
W. Internet shopping sites offer good values-----	1	2	3	4	5
X. I feel safer shopping on the Internet than in malls----------	1	2	3	4	5

PRIOR ATTITUDES TOWARDS RETAILERS' BRANDS

10. To what extent do you agree or disagree with the following statements?
1) I think of the apparel brand, **Eddie Bauer** as:

	Strongly Disagree		Neutral		Strongly Agree	Don't know
A. This brand has high quality-----	1	2	3	4	5	6
B. This brand is one of the best----	1	2	3	4	5	6
C. This brand is one of the leading brands----------	1	2	3	4	5	6
D. This brand is growing in popularity----------	1	2	3	4	5	6
E. This brand is innovative----------	1	2	3	4	5	6
F. This brand provides good value for the money----------	1	2	3	4	5	6
G. This brand is interesting---------	1	2	3	4	5	6
H. This brand is made by an organizations I trust----------	1	2	3	4	5	6

2) I think of the apparel brand, **J. Crew** as:

	Strongly Disagree		Neutral		Strongly Agree	Don't know
A. This brand has high quality-----	1	2	3	4	5	6
B. This brand is one of the best----	1	2	3	4	5	6
C. This brand is one of the leading brands----------	1	2	3	4	5	6
D. This brand is growing in popularity----------	1	2	3	4	5	6
E. This brand is innovative----------	1	2	3	4	5	6
F. This brand provides good value for the money----------	1	2	3	4	5	6
G. This brand is interesting---------	1	2	3	4	5	6
H. This brand is made by an organizations I trust----------	1	2	3	4	5	6

DEMOGRAPHICS

11. What is your gender? [ ] Male [ ] Female

12. What is your age? _____ years

13. What level are you in college credit hours?
[ ] Freshman
[ ] Sophomore
[ ] Junior
[ ] Senior
[ ] M.S. graduate student
[ ] Ph.D. graduate student
[ ] Uncertain

14. What is your major? _____

15. What is your ethnicity? (Check more than one if applicable.)
[ ] White or European ethnicity
[ ] Black or African ethnicity
[ ] Hispanic or Latino ethnicity
[ ] Asian ethnicity
[ ] Native American
[ ] Native Hawaiian or Pacific Islander
[ ] Other Please specify _____

16. Are you a U. S. Citizen? [ ] Yes [ ] No
If no, what country are you from? _____

17. How many hours a week do you work (part time or full time job)?
[ ] None
[ ] 1-10 hours
[ ] 11-20 hours
[ ] 21-30 hours
[ ] 31-40 hours
[ ] over 40 hours

QUESTIONNAIRE II (Eddie Bauer Evaluation-Catalog)

Directions:
You looked at Eddie Bauer's mail order catalog. Please answer the following questions without going back to the catalog.

ATTITUDE TOWARD CATALOG

1. Please answer the following questions in relation to the **Eddie Bauer** catalog.

	Excellent	Good	Average	Poor	Very Poor	Don't Know
A. The content of the catalog was----------	1	2	3	4	5	6
B. Catalog photographs were----------	1	2	3	4	5	6
C. The organization of the catalog was---------	1	2	3	4	5	6
D. The user friendliness of the catalog was----	1	2	3	4	5	6
E. The usefulness of the catalog was----------	1	2	3	4	5	6
F. The unique features were----------	1	2	3	4	5	6
G. The descriptions of items were----------	1	2	3	4	5	6
H. The collections of available style offerings were----------	1	2	3	4	5	6
I . Overall, the catalog was----------	1	2	3	4	5	6

2. How much do you like the **Eddie Bauer** catalog?

Dislike Very Much			Neutral			Like Very Much
1	2	3	4	5	6	7

3. How favorable is your overall evaluation of the **Eddie Bauer** catalog?

Very Unfavorable			Neutral			Very Favorable
1	2	3	4	5	6	7

4. How likely is it that you will use the **Eddie Bauer** catalog again?

Very Unlikely			Neutral			Very Likely
1	2	3	4	5	6	7

PLEASE STOP HERE AND VIEW Eddie Bauer WEB SITE
BEFORE YOU MOVE ON TO NEXT PAGE.

QUESTIONNAIRE II (Eddie Bauer Evaluation-Web Site)

Directions:
You looked at the apparel web site, eddeibauer.com. Please answer the following questions without going back to the web site.

ATTITUDE TOWARD WEB SITE

1. Please answer the following questions in relation to the **Eddie Bauer** website.

	Excellent	Good	Average	Poor	Very Poor	Don't Know
A. The content of the web site was----------	1	2	3	4	5	6
B. Web site graphics were----------	1	2	3	4	5	6
C. The structure of the web site was----------	1	2	3	4	5	6
D. The user friendliness of the web site was--	1	2	3	4	5	6
E. Web site navigation facilities were----------	1	2	3	4	5	6
F. The usefulness of the web site was----------	1	2	3	4	5	6
G. The unique features were----------	1	2	3	4	5	6
H. The ease of conducting a transaction was--	1	2	3	4	5	6
I . Credit card security was----------	1	2	3	4	5	6
J . Product return policy was----------	1	2	3	4	5	6
K. The speed of catalog image downloading was----------	1	2	3	4	5	6
L. The descriptions of items were----------	1	2	3	4	5	6
M. The collections of available style offerings were----------	1	2	3	4	5	6
N. Overall, the site was----------	1	2	3	4	5	6

2. How much do you like the **Eddie Bauer** web site?

Dislike Very Much			Neutral			Like Very Much
1	2	3	4	5	6	7

3. How favorable is your overall evaluation of the **Eddie Bauer** web site?

Very Unfavorable			Neutral			Very Favorable
1	2	3	4	5	6	7

4. How likely is it that you will visit the **Eddie Bauer** web site again?

Very Unlikely			Neutral			Very Likely
1	2	3	4	5	6	7

PLEASE STOP HERE AND VIEW <u>J. Crew CATALOG</u>
BEFORE YOU MOVE ON TO NEXT PAGE.

QUESTIONNAIRE II (J. Crew Evaluation-Catalog)

Directions:
You looked at J.Crew's mail order catalog. Please answer the following questions without going back to the catalog.

ATTITUDE TOWARD CATALOG

1. Please answer the following questions in relation to the **J.Crew** catalog.

	Excellent	Good	Average	Poor	Very Poor	Don't Know
A. The content of the catalog was----------	1	2	3	4	5	6
B. Catalog photographs were----------	1	2	3	4	5	6
C. The organization of the catalog was--------	1	2	3	4	5	6
D. The user friendliness of the catalog was---	1	2	3	4	5	6
E. The usefulness of the catalog was----------	1	2	3	4	5	6
F. The unique features were----------	1	2	3	4	5	6
G. The descriptions of items were----------	1	2	3	4	5	6
H. The collections of available style offerings were----------	1	2	3	4	5	6
I . Overall, the catalog was----------	1	2	3	4	5	6

2. How much do you like the **J. Crew** catalog?

Dislike Very Much			Neutral			Like Very Much
1	2	3	4	5	6	7

3. How favorable is your overall evaluation of the **J. Crew** catalog?

Very Unfavorable			Neutral			Very Favorable
1	2	3	4	5	6	7

4. How likely is it that you will use the **J. Crew** catalog again?

Very Unlikely			Neutral			Very Likely
1	2	3	4	5	6	7

PLEASE STOP HERE AND VIEW J. Crew WEB SITE
BEFORE YOU MOVE ON TO NEXT PAGE.

QUESTIONNAIRE II (J. Crew Evaluation-Web Site)

Directions:
You looked at the apparel web site, jcrew.com. Please answer the following questions without going back to the web site.

ATTITUDE TOWARD WEB SITE

1. Please answer the following questions in relation to the **J. Crew** website.

	Excellent	Good	Average	Poor	Very Poor	Don't Know
A. The content of the web site was----------	1	2	3	4	5	6
B. Web site graphics were----------	1	2	3	4	5	6
C. The structure of the web site was----------	1	2	3	4	5	6
D. The user friendliness of the web site was--	1	2	3	4	5	6
E. Web site navigation facilities were----------	1	2	3	4	5	6
F. The usefulness of the web site was----------	1	2	3	4	5	6
G. The unique features were----------	1	2	3	4	5	6
H. The ease of conducting a transaction was--	1	2	3	4	5	6
I . Credit card security was----------	1	2	3	4	5	6
J . Product return policy was----------	1	2	3	4	5	6
K. The speed of catalog image downloading was----------	1	2	3	4	5	6
L. The descriptions of items were----------	1	2	3	4	5	6
M. The collections of available style offerings were----------	1	2	3	4	5	6
N. Overall, the site was----------	1	2	3	4	5	6

2. How much do you like the **J. Crew** web site?

Dislike Very Much			Neutral			Like Very Much
1	2	3	4	5	6	7

3. How favorable is your overall evaluation of the **J. Crew** web site?

Very Unfavorable			Neutral			Very Favorable
1	2	3	4	5	6	7

4. How likely is it that you will visit the **J. Crew** web site again?

Very Unlikely			Neutral			Very Likely
1	2	3	4	5	6	7

PLEASE GO ON TO THE NEXT PAGE.

QUESTIONNAIRE II (Eddie Bauer & J.Crew Evaluation)

Directions:
You looked at the mail order catalogs and web sites of both brands, Eddie Bauer and J.Crew. Please answer the following questions without going back to the web sites or catalogs.

BRAND IMAGE

1. To what extent do you agree or disagree with following statements?

1) I think of the apparel brand, **Eddie Bauer** as:	Strongly Disagree		Neutral		Strongly Agree
A. This brand has high quality	1	2	3	4	5
B. This brand is one of the best	1	2	3	4	5
C. This brand is one of the leading brands	1	2	3	4	5
D. This brand is growing in popularity	1	2	3	4	5
E. This brand is innovative	1	2	3	4	5
F. This brand provides good value for the money	1	2	3	4	5
G. This brand is interesting	1	2	3	4	5
H. This brand is made by an organization I trust	1	2	3	4	5

2) I think of an apparel brand, **J. Crew** as:	Strongly Disagree		Neutral		Strongly Agree
A. This brand has high quality	1	2	3	4	5
B. This brand is one of the best	1	2	3	4	5
C. This brand is one of the leading brands	1	2	3	4	5
D. This brand is growing in popularity	1	2	3	4	5
E. This brand is innovative	1	2	3	4	5
F. This brand provides good value for the money	1	2	3	4	5
G. This brand is interesting	1	2	3	4	5
H. This brand is made by an organization I trust	1	2	3	4	5

PLEASE GO ON TO QUESTIONNARE III.

QUESTIONNAIRE III (Why Use Web Sites & Catalogs/Shopping Intention)

Directions:
You looked at the mail order catalogs and web sites of both brands, Eddie Bauer and J.Crew. Now this section asks your opinion about general apparel web sites and catalogs. Please answer the following questions.

WHY USE WEB SITES & CATALOGS

1. Indicate your level of agreement about the following.

1) I will use **online apparel shopping sites**:	Strongly Disagree		Neutral		Strongly Agree
A. Because they relax me	1	2	3	4	5
B. Because I enjoy them	1	2	3	4	5
C. To relieve boredom	1	2	3	4	5
D. Because I just like to	1	2	3	4	5
E. Because it's a part of my usual routine to surf the Internet	1	2	3	4	5
F. Because they are enjoyable	1	2	3	4	5
G. Because they entertain me	1	2	3	4	5
H. Because they are almost like friends	1	2	3	4	5
I. Because they pass the time away	1	2	3	4	5
J. Because they take me into another world	1	2	3	4	5
K. Because they are fun	1	2	3	4	5
L. Because they are interactive	1	2	3	4	5
M. Because I can decide what and when I want to use them	1	2	3	4	5
N. So I can talk to my friends about sites and what's on them	1	2	3	4	5
O. So I won't be alone	1	2	3	4	5
P. Because they are imaginative	1	2	3	4	5
Q. Because they give me new information	1	2	3	4	5
R. Because they give quick access to large volumes of information	1	2	3	4	5
S. Because they give easy access to large volumes of information	1	2	3	4	5
T. Because they make it convenient to get information about products	1	2	3	4	5
U. Because they are exciting	1	2	3	4	5
V. Because I enjoy the convenience of shopping on the web	1	2	3	4	5

	Strongly Disagree		Neutral		Strongly Agree
W. When I search for bargain prices ----------	1	2	3	4	5
X. When there's no one else to talk with -----	1	2	3	4	5
Y. Because they save money ----------	1	2	3	4	5
Z. Because they save my time ----------	1	2	3	4	5
AA. Because I can find out product information for purchase from web sites--	1	2	3	4	5
BB. Because they help me find out the latest styles offered by retailers----------	1	2	3	4	5
CC. Because they help me find out about current items in stock at retailers ----------	1	2	3	4	5
DD. Because they give information about new products ----------	1	2	3	4	5
EE. Because they enable me to purchase products that I cannot get from local stores ----------	1	2	3	4	5
FF. Because they help me decide what to buy and where to buy them----------	1	2	3	4	5
GG. When I have nothing better to do ----------	1	2	3	4	5
HH. Because they enable me to stay on top of what is happening in the world----------	1	2	3	4	5

2) I will use **apparel shopping catalogs**:	Strongly Disagree		Neutral		Strongly Agree
A. Because they relax me ----------	1	2	3	4	5
B. Because I enjoy them----------	1	2	3	4	5
C. To relieve boredom ----------	1	2	3	4	5
D. Because I just like to----------	1	2	3	4	5
E. Because it's a part of my usual routine to view catalogs----------	1	2	3	4	5
F. Because they are enjoyable----------	1	2	3	4	5
G. Because they entertain me ----------	1	2	3	4	5
H. Because they are almost like friends-------	1	2	3	4	5
I. Because they pass the time away ----------	1	2	3	4	5
J. Because they take me into another world -	1	2	3	4	5
K. Because they are fun ----------	1	2	3	4	5
L. Because they are interactive ----------	1	2	3	4	5
M. Because I can decide what and when I want to use them----------	1	2	3	4	5

	Strongly Disagree		Neutral		Strongly Agree
N. So I can talk to my friends about catalogs and what's in them----------	1	2	3	4	5
O. So I won't be alone ----------	1	2	3	4	5
P. Because they are imaginative ----------	1	2	3	4	5
Q. Because they give me new information ---	1	2	3	4	5
R. Because they give quick access to large volumes of information ----------	1	2	3	4	5
S. Because they give easy access to large volumes of information ----------	1	2	3	4	5
T. Because they make it convenient to get information about products ----------	1	2	3	4	5
U. Because they are exciting ----------	1	2	3	4	5
V. Because I enjoy the convenience of shopping using catalogs----------	1	2	3	4	5
W. When I search for bargain prices ----------	1	2	3	4	5
X. When there's no one else to talk with -----	1	2	3	4	5
Y. Because they save money ----------	1	2	3	4	5
Z. Because they save my time ----------	1	2	3	4	5
AA. Because I can find out product information for purchase from catalogs----------	1	2	3	4	5
BB. Because they help me find out the latest styles offered by retailers----------	1	2	3	4	5
CC. Because they help me find out about current items in stock at retailers ----------	1	2	3	4	5
DD. Because they give information about new products ----------	1	2	3	4	5
EE. Because they enable me to purchase products that I cannot get from local stores ----------	1	2	3	4	5
FF. Because they help me decide what to buy and where to buy them----------	1	2	3	4	5
GG. When I have nothing better to do ----------	1	2	3	4	5
HH. Because they enable me to stay on top of what is happening in the world----------	1	2	3	4	5

SHOPPING INTENTION

1. How likely is it that you will use apparel shopping web sites for product information within the next 6 months?

Unlikely			Neutral			Likely
1	2	3	4	5	6	7

2. How likely is it that you will use apparel mail order catalogs for product information within the next 6 months?

Unlikely			Neutral			Likely
1	2	3	4	5	6	7

3. How likely is it that you will purchase products through online apparel shopping web sites within the next 6 months?

Unlikely			Neutral			Likely
1	2	3	4	5	6	7

4. How likely is it that you will purchase products through apparel shopping catalogs within the next 6 months?

Unlikely			Neutral			Likely
1	2	3	4	5	6	7

5. How likely it is that you will cut back on in catalog shopping if you use the Internet for apparel shopping?

Unlikely			Neutral			Likely
1	2	3	4	5	6	7

6. How likely it is that you will cut back on in store shopping if you use the Internet for apparel shopping?

Unlikely			Neutral			Likely
1	2	3	4	5	6	7

7. How likely is it that you will purchase products through apparel shopping web sites after you get product information from apparel catalogs?

Unlikely			Neutral			Likely
1	2	3	4	5	6	7

8. How likely is it that you will purchase products through apparel shopping catalogs after you get product information from apparel shopping web sites?

Unlikely			Neutral			Likely
1	2	3	4	5	6	7

9. How likely is it that you will purchase products from stores after you get product information from apparel shopping web sites?

Unlikely			Neutral			Likely
1	2	3	4	5	6	7

10. How likely is it that you will purchase products from stores after you get product information from apparel shopping catalogs?

Unlikely			Neutral			Likely
1	2	3	4	5	6	7

THANK YOU FOR YOUR PARTICIPATION.

APPENDIX C: HUMAN SUBJECTS APPROVAL

Iowa State University Human Subjects Review Form

OFFICE USE ONLY
EXPEDITED X FULL COMMITTEE____ ID# 01-472

PI Name Hee-Kang Moon Title Graduate student Motivation for Use of Internet Shopping Sites...

Checklist for Attachments

The following are attached (please check):

13. ☒ Letter or written statement to subjects indicating clearly:
    a) the purpose of the research
    b) the use of any identifier codes (names, #'s), how they will be used, and when they will be removed (see item 18)
    c) an estimate of time needed for participation in the research
    d) if applicable, the location of the research activity
    e) how you will ensure confidentiality
    f) in a longitudinal study, when and how you will contact subjects later
    g) that participation is voluntary; nonparticipation will not affect evaluations of the subject
14. ☒ A copy of the consent form (if applicable)
15. ☐ Letter of approval for research from cooperating organizations or institutions (if applicable)
16. ☒ Data-gathering instruments

17. Anticipated dates for contact with subjects:

First contact	**Last contact**
03/28/01	04/22/01
Month/Day/Year	Month/Day/Year

18. If applicable: anticipated date that identifiers will be removed from completed survey instruments and/or audio or visual tapes will be erased:

    Month/Day/Year

19. Signature of Departmental Executive Officer Mary Meagher Date 3/19/01 Department or Administrative Unit Textiles and Clothing

20. Initial action by the Institutional Review Board (IRB):

    ☒ Project approved ☐ Pending Further Review _____ Date ☐ Project not approved _____ Date

    ☐ No action required _____ Date

21. Follow-up action by the IRB:

    Project approved ☐ Project not approved _____ Date Project not resubmitted _____ Date

Patricia M. Keith 3-21-01 P M Keith
Name of IRB Chairperson Approval Date Signature of IRB Chairperson

APPENDIX D: FACTOR ANALYSIS

Table D.1. Factors from Pre- and Post-Brand Image

Factor Title and Items	Factor Loadings
	Factor 1
Eddie Bauer Pre-Brand Image	
This brand has high quality	.621
This brand is one of the best	.776
This brand is one of the leading brands	.687
This brand is growing in popularity	.633
This brand is innovative	.629
This brand provides good values for the money	.487
This brand is interesting	.509
This brand is made by organizations I would trust	.550
Cronbach's *alpha* = .83	
Total variance explained = 39.20%	
J. Crew Pre-Brand Image	
This brand has high quality	.694
This brand is one of the best	.905
This brand is one of the leading brands	.765
This brand is growing in popularity	.616
This brand is innovative	.745
This brand provides good values for the money	.576
This brand is interesting	.648
This brand is made by organizations I would trust	.694
Cronbach's *alpha* = .89	
Total variance explained = 50.65%	

Table D. 1. (Continued)

Factor Title and Items	Factor Loadings Factor 1
Eddie Bauer Post-Brand Image	
This brand has high quality	.651
This brand is one of the best	.840
This brand is one of the leading brands	.766
This brand is growing in popularity	.712
This brand is innovative	.771
This brand provides good values for the money	.680
This brand is interesting	.737
This brand is made by organizations I would trust	.699
Cronbach's *alpha* = .90	
Total Variance explained = 53.90%	
J. Crew Post-Brand Image	
This brand has high quality	.869
This brand is one of the best	.905
This brand is one of the leading brands	.880
This brand is growing in popularity	.830
This brand is innovative	.782
This brand provides good values for the money	.701
This brand is interesting	.761
This brand is made by organizations I would trust	.848
Cronbach's *alpha* = .94	
Total variance explained = 61.99%	

Table D. 2. Factors from Catalog Evaluations

Factor Title and Items	Factor Loadings
	Factor 1
Eddie Bauer Catalog Evaluations	
The content of the catalog was	.708
Catalog photographs were	.729
The organization of the catalog was	.714
The userfriendliness of the catalog was	.818
The usefulness of the catalog was	.799
The unique features were	.714
The descriptions of items were	.526
The collection of available style offerings were	.722
Overall, the catalog was	.842
Cronbach's *alpha* = .92	
Total variance explained = 54.08%	
J. Crew Catalog Evaluations	
The content of the catalog was	.719
Catalog photographs were	.768
The organization of the catalog was	.747
The userfriendliness of the catalog was	.782
The usefulness of the catalog was	.817
The unique features were	.641
The descriptions of items were	.647
The collection of available style offerings were	.760
Overall, the catalog was	.865
Cronbach's *alpha* = .92	
Total variance explained = 56.66%	

Table D. 3. Factors from Web Site Evaluations

Factor Title and Items	Factor Loadings
	Factor 1
Eddie Bauer Web Site Evaluations	
The content of the web site was	.802
Web site graphics were	.762
The structure of the web site was	.795
The userfriendliness of the web site was	.742
The usefulness of the web site was	.796
The unique features were	.715
The description of items were	.629
The collections available style offerings were	.602
Overall, the site was	.910
Cronbach's *alpha* = .92	
Total variance explained = 57.07%	
J. Crew Post Brand Image	
The content of the web site was	.801
Web site graphics were	.602
The structure of the web site was	.760
The userfriendliness of the web site was	.729
The usefulness of the web site was	.848
The unique features were	.749
The description of items were	.642
The collections available style offerings were	.733
Overall, the site was	.923
Cronbach's *alpha* = .92	
Total variance explained = 57.72%	

APPENDIX E: CENTRAL TENDENCY MEASURES OF SUMMED VARIABLES

Table E.1. Internet and Mail Order Catalog Apparel Shopping Use Motivations

Variables and Description	Mean[a]	Median	SD
Internet Apparel Shopping Use Motivations			
Entertainment	3.35	3.33	.878
Social Utility/Social Escapism	2.02	2.00	.731
Shopping Assistance	3.81	4.00	.870
Surveillance	3.84	4.00	.669
Convenience/Economic	3.07	3.25	.913
Apparel Mail Order Catalog Use Motivations			
Entertainment	3.38	3.67	.848
Convenience/Economic	3.21	3.57	.726
Social Escapism	1.91	2.00	.706
Shopping Information	3.62	3.25	.794
Diversion	3.19	3.50	1.059

[a]Five-point Likert type scale: 1=Stronly Disagree, 5=Strongly Agree

Table E.2. Apparel Shopping Mode Use Intentions

Variables and Description	Mean[a]	Median	SD
Internet Apparel Shopping Mode Use Intention	4.27	4.50	1.492
Apparel Mail Order Catalog Shopping Mode Use Intention	4.83	5.00	1.734
Complimentary Apparel Store Shopping Mode Use Intention	5.14	5.00	1.456

[a]Seven-point Likert type scale

APPENDIX F: RESULTS OF t-TESTS

Table F.1. Results of t-test for Evaluations of Eddie Bauer Web Site

Web site condition	Mean[a]	SD	t-value
Before revision	3.752	.681	-1.601
After revision	3.905	.510	

[a]Five-point Likert type scale
*Significant at the .05 level
**Significant at the .01 level
***Significant at the .001 level

Table F.2. Results of t-tests for Brand Image

Variables		Mean[a]	SD	t-value
Eddie Bauer	Prior Brand Image	3.262	.649	.164
	Post Brand Image	3.342	.726	
J. Crew	Prior Brand Image	3.890	.682	.924
	Post Brand Image	3.884	.806	

[a]Five-point Likert type scale
*Significant at the .05 level
**Significant at the .01 level
***Significant at the .001 level

Table F.3. Results of t-test for Evaluations of Catalogs and Web Sites

Variables		Mean[a]	SD	t-value
Eddie Bauer	Evaluations of Catalog	3.895	.576	.236
	Evaluations of Web Site	3.826	.627	
J. Crew	Evaluations of Catalog	4.190	.567	.0001***
	Evaluations of Web Site	3.968	.592	

[a]Five-point Likert type scale
*Significant at the .05 level
**Significant at the .01 level
***Significant at the .0001 level

Table F.4. Results of t-tests for Comparisons of Two Brands, Eddie Bauer and J. Crew

Variables		Mean	SD	t-value
Prior Brand Image	Eddie Bauer	3.274	.638	.0001***
	J. Crew	3.920	.670	
Post Brand Image	Eddie Bauer	3.319	.721	.0001***
	J. Crew	3.822	.858	
Evaluations of catalogs	Eddie Bauer	3.895	.576	.0001***
	J. Crew	4.190	.567	
Evaluations of web sites	Eddie Bauer	3.826	.627	.023*
	J. Crew	3.968	.592	

*Significant at the .05 level
**Significant at the .01 level
***Significant at the .0001 level

APPENDIX G: CORRELATIONS

Table G.1. Correlations between Previous Shopping Experiences and Internet Apparel Shopping Motivations

	Internet Apparel Shopping Motivations[a]				
	E	SU	SA	S	C/E
Length of Shopping Experience					
Store Shopping	.102	.003	.066	- .015	.076
Catalog Shopping	.196**	.008	.121	.111	.187*
Internet Shopping	.362***	.007	.174*	.180*	.323**
Frequency of Shopping Mode Use as an Information Source					
Television	.065	.232***	.098	.084	-. 009
Friends	.172*	.127	.038	.018	-. 067
Magazines	.187**	.214**	.091	.021	-. 054
Store Shopping	.086	.043	.084	.079	-. 050
Catalog Shopping	.234***	- .003	.184*	.093	.060
Internet Shopping	.383***	.069	.291***	.203**	.322***
Number of Purchases (12 months)					
Store Shopping	.103	- .092	.082	- .024	- .068
Catalog Shopping	.170*	- .001	.070	.073	.173
Internet Shopping	.379***	.072	.190*	.234**	.398***
Money Spent on Apparel Shopping (12 months)					
Store Shopping	.074	- .024	- .010	.022	.006
Catalog Shopping	.103	.086	.007	.120	.116
Internet Shopping	.331***	.066	.182*	.187*	.370***
Shopping Satisfaction					
Store Shopping	.142	.004	.052	- .015	- .108
Catalog Shopping	.046	- .056	.051	- .098	.078
Internet Shopping	- .048	- .092	- .017	- .009	.026

[a]E: Entertainment, SU: Social Utility, SA: Shopping Assistance, S: Surveillance, C/E: Convenience/Economics
*Significant at the .05 level; **Significant at the .01 level; ***Significant at the .001 level

Table G.2. Correlations between Previous Shopping Experiences and Mail Order Apparel Catalog Shopping Motivations

	Mail Order Apparel Catalog Shopping Motivations[a]				
	E	C/E	SE	SI	D
Length of Shopping Experience					
Store Shopping	.021	.088	- .051	- .074	.225**
Catalog Shopping	.034	.236***	- .060	- .005	.125
Internet Shopping	- .029	.054	- .090	- .032	- .031
Frequency of Shopping Mode Use as an Information Source					
Television	.115	.133	.232**	.144*	.137
Friends	.228***	.094	.179*	.166*	.245***
Magazines	.302***	.143*	.181*	.182*	.232**
Store Shopping	.182	.205**	.008	.196*	.129
Catalog Shopping	.217**	.240***	.038	.239***	.199**
Internet Shopping	.016	.139*	- .027	.125	- .003
Number of Purchases (12 months)					
Store Shopping	.171*	.074	- .082	.114	.035
Catalog Shopping	.122*	.265***	- .062	.062	.066
Internet Shopping	- .017	.035	- .025	- .042	-.017
Money Spent on Apparel Shopping (12 months)					
Store Shopping	.063	- .010	- .037	.084	- .006
Catalog Shopping	.085	.250**	.036	.089	.060
Internet Shopping	- .028	.019	- .025	- .057	- .018
Shopping Satisfaction					
Store Shopping	.172*	.119	- .037	.088	.037
Catalog Shopping	- .105	.044	.036	- .023	- .017
Internet Shopping	- .046	.068	- .025	- .015	.013

[a]E: Entertainment, C/E: Convenience/Economics, SE: Social Escapism, SI: Shopping Information, D: Diversion
*Significant at the .05 level; **Significant at the .01 level; ***Significant at the .001 level

Table G.3. Correlations between Internet Use and Beliefs, and Internet Apparel Shopping Motivations

	Internet Apparel Shopping Motivations[a]				
	E	SU	SA	S	C/E
Internet Use					
Time using the Internet (Weekly)	.039	.085	.046	.129	.143
Length of Internet use experience	- .025	- .136	- .015	.075	- .093
Frequency of Internet apparel shopping site visit	.338***	.037	.230***	.162*	.182**
Internet Beliefs					
Internet shopping Beliefs	.437***	- .005	.241***	.240***	.517***
General Internet Beliefs	.202**	- .117	.194**	.167*	.150*

[a]E: Entertainment, SU: Social Utility, SA: Shopping Assistance, S: Surveillance, C/E: Convenience/Economics
*Significant at the .05 level; **Significant at the .01 level; ***Significant at the .001 level

Table G.4. Correlations between Internet Use and Beliefs, and Mail Order Apparel Catalog Shopping Motivations

	Mail Order Apparel Catalog Shopping Motivations[a]				
	E	C/E	SE	SI	D
Internet Use					
Time using the Internet (Weekly)	- .024	.041	.028	- .086	.022
Length of Internet use experience	.019	.014	- .149	- .089	.033*
Frequency of Internet apparel shopping site visit	.110	.047	- .078	.074	.007
Internet Beliefs					
Internet shopping Beliefs	- .050	.092	- .109	- .102	-. 015
General Internet Beliefs	- .043	.074	- .162*	- .004	.006

[a]E: Entertainment, C/E: Convenience/Economics, SE: Social Escapism, SI: Shopping Information, D: Diversion
*Significant at the .05 level; **Significant at the .01 level; ***Significant at the .001 level

Table G.5. Correlations among Apparel Shopping Intentions and Internet and Catalog Apparel Shopping Motivations

	IME	IMSU	IMSA	IMS	IMC/E	CME	CMC/E	CMSE	CMSI	CMD	ISI	CSI	SSI
Internet Apparel Shopping Use Motivation-E[a] (IME)	1.00												
Internet Apparel Shopping Use Motivation-SU[a] (IMSU)	.21**	1.00											
Internet Apparel Shopping Use Motivation-SA[a] (IMSA)	.22***	.12	1.00										
Internet Apparel Shopping Use Motivation-S[a] (IMS)	.21**	.27***	.33**	1.00									
Internet Apparel Shopping Use Motivation-C/E[a] (IMC/E)	.25***	.16*	.28***	.32***	1.00								
Mail Order Apparel Catalog Use Motivation-E[b] (CME)	.18**	.17**	.15	.11	- .08	1.00							
Mail Order Apparel Catalog Use Motivation-C/E[b] (CMC/E)	.07	.14*	.19**	.18**	.26***	.27***	1.00						
Mail Order Apparel Catalog Use Motivation-SE[b] (CMSE)	.09	.57***	.08	.16*	.05	.24***	.20**	1.00					
Mail Order Apparel Catalog Use Motivation-SI[b] (CMSI)	- .01	.07	.39***	.18**	.02	.28***	.41***	.21**	1.00				
Mail Order Apparel Catalog Use Motivation-D[b] (CMD)	.21**	.21**	.07	.01	.01	.41***	.16**	.21**	.04	1.00			
Internet Apparel Shopping Mode Intention (ISI)	.42***	.16*	.31***	.26***	.44***	.05	.05	.01	- .04	.08	1.00		
Mail Order Apparel Catalog Shopping Mode Intention (CSI)	.16*	.05	.11	.05	.07	.22***	.36***	.01	.17*	.14*	.16**	1.00	
Store Shopping Mode Use Intention (SSI)	.03	.04	.13	.19**	.08	.14*	.18**	- .01	.19**	.01	- .01	.16*	1.00

[a]E: Entertainment, SU: Social Utility, SA: Shopping Assistance, S: Surveillance, C/E: Convenience/Economics
[b]E: Entertainment, C/E: Convenience/Economics, SE: Social Escapism, SI: Shopping Information, D: Diversion
*Significant at the .05 level; **Significant at the .01 level; ***Significant at the .001 level

Table G.6. Correlations between Factors of Online Apparel Shopping Use Motivations[a]

	E	S/S	SA	S	C/E
Entertainment (E)	1.00				
Social Utility/Social Escapism (S/S)	.34***	1.00			
Shopping Assistance (SA)	.31***	.19*	1.00		
Surveillance (S)	.34***	.37***	.41***	1.00	
Convenience/Economic (C/E)	.49***	.30***	.46***	.50***	1.00

Table G.7. Correlations between Factors of Apparel Catalogs Use Motivations[a]

	E	C/E	SE	I	D
Entertainment (E)	1.00				
Convenience/Economic (C/E)	.43***	1.00			
Social Escapism (SE)	.35***	.33***	1.00		
Information (I)	.38***	.52***	.27**	1.00	
Diversion (D)	.56***	.27**	.32***	.13	1.00

Table G.8. Correlations between Factors of Apparel Shopping Mode Use Intentions

	I	C	S
Internet apparel shopping mode use intention (I)	1.00		
Apparel catalog shopping mode use intention (C)	.25**	1.00	
Complementary store shopping mode use intention (S)	.04	.17	1.00

Table G.9. Correlations between Factors of Internet Attitudes

	ISA	GIA
Internet shopping attitude (ISA)	1.00	
General Internet attitude (GIA)	.43***	1.00

*Significant at the .05 level
**Significant at the .01 level
***Significant at the .001 level

Table G.10. Correlations between Items from Prior and Post Brand Image, Evaluations of Brand Catalogs and Web Sites

	EBB1	EBB2	JCB1	JCB2	EBCE	EBWE	JCCE	JCWE
EB Prior Brand Image (EBB1)	1.00							
EB Post Brand Image (EBB2)	.61***	1.00						
JC Prior Brand Image (JCB1)	.42***	.30***	1.00					
JC Post Brand Image (JCB2)	.24*	.52***	.59***	1.00				
EB Catalog Evaluations (EBCE)	.34***	.47***	.37***	.24**	1.00			
EB Web Site Evaluations (EBWE)	.29**	.34***	.28**	.12	.45***	1.00		
JC Catalog Evaluations (JCCE)	.15	.20*	.55***	.57***	.51***	.30***	1.00	
JC Web Site Evaluations (JCWE)	.04	.04	.40***	.31***	.34***	.40***	.54***	1.00

*Significant at the .05 level
**Significant at the .01 level
***Significant at the .001 level

Table G.11. Correlations among Variables from Precious Shopping Experiences, Demographic Characteristics, and Internet Use

	PSE1	PSE2	PSE3	PSE4	PSE5	PSE6	PSE7	PSE8
Length of shopping experience								
Store (PSE1)	1.00							
Catalog (PSE2)	.30***	1.00						
Internet (PSE3)	.18*	.36***	1.00					
Frequency of use for product information								
Television (PSE4)	-.03	.01	-.12	1.00				
Friends (PSE5)	-.02	-.02	-.09	.51***	1.00			
Magazine (PSE6)	.10	-.01	-.02	.41***	.58***	1.00		
Store (PSE7)	.11	.12	.08	.24**	.26***	.34***	1.00	
Catalog (PSE8)	.24**	.35***	.18*	.17*	.29***	.33***	.37***	1.00
Internet (PSE9)	.04	.23**	.48***	.17*	.11	.21**	.19*	.39***
Number of purchases (12 months)								
Store (PSE10)	.11	.15	.10	.14	.10	.10	.34***	.20*
Catalog (PSE11)	.10	.49***	.25***	-.11	-.04	.04	.29***	.44***
Internet (PSE12)	-.04	.21**	.55***	-.06	-.02	.02	-.03	.16*
Money spent on apparel shopping (12 months)								
Store (PSE13)	.05	.10	.11	-.02	.03	.01	.24**	.08
Catalog (PSE14)	.01	.48***	.15	-.04	-.01	.02	.29***	.37***
Internet (PSE15)	-.04	.21*	.53***	-.03	-.02	.04	-.01	.17*
Shopping satisfaction								
Store (PSE16)	-.01	.15	.16	.12	.12	.16	.29***	.27***
Catalog (PSE17)	-.04	-.14	-.06	.01	.02	.07	-.11	.08
Internet (PSE18)	.08	-.01	-.20**	.01	-.03	-.03	-.09	.08
Weekly hours spent on Internet (IU1)	-.04	-.08	-.03	.07	-.08	-.02	-.07	-.03
Length of Internet use experience (IU2)	-.09	.15	.01	.06	-.11	-.13	.12	-.02
Frequency of Internet apparel site visits (IU3)	.06	.25***	.38***	.16*	.11	.26***	.23**	.31***
Gender (D1)	.10	.06	.12	.06	.23**	.25**	.31***	.26**
Age (D2)	.01	-.19*	-.08	-.05	-.22**	-.20**	-.18*	-.23**
Credit hours in school (D3)	.07	-.14	-.06	-.01	-.26***	-.26***	-.19*	-.24**

*Significant at the .05 level
**Significant at the .01 level
***Significant at the .001 level

Table G.11. (Continued)

	PSE9	PSE10	PSE11	PSE4	PSE12	PSE13	PSE14	PSE15
Length of shopping experience								
Store (PSE1)								
Catalog (PSE2)								
Internet (PSE3)								
Frequency of use for product information								
Television (PSE4)								
Friends (PSE5)								
Magazine (PSE6)								
Store (PSE7)								
Catalog (PSE8)								
Internet (PSE9)	1.00							
Number of purchases (12 months)								
Store (PSE10)	.15	1.00						
Catalog (PSE11)	.23**	.25**	1.00					
Internet (PSE12)	.45***	.15	.36***	1.00				
Money spent on apparel shopping (12 months)								
Store (PSE13)	.04	.32***	.12	.10	1.00			
Catalog (PSE14)	.12	.20*	.83***	.31***	.17*	1.00		
Internet (PSE15)	.43***	.12	.35***	.89***	.16*	.34***	1.00	
Shopping satisfaction								
Store (PSE16)	.22**	.27***	.18*	.11	.17*	.15	.08	1.00
Catalog (PSE17)	.10	.05	.02	.04	- .03	- .05	.03	.09
Internet (PSE18)	- .06	.11	.06	- .08	- .09	.12	- .12	- .04
Weekly hours spent on Internet (IU1)	.17*	.01	- .07	.01	- .09	- .08	.01	- .10
Length of Internet use experience (IU2)	- .03	.24**	.08	.01	.14	.06	- .01	.27**
Frequency of Internet apparel site visits (IU3)	.67***	.25**	.28***	.43***	.08	.17	.41***	.26***
Gender (D1)	.12	.24**	.22**	.03	.13	.15	.03	.39***
Age (D2)	- .10	- .08	- .26***	- .08	- .07	- .26***	- .12	- .23**
Credit hours in school (D3)	- .07	- .07	- .32***	- .09	- .07	- .32***	- .12	- .27***

*Significant at the .05 level
**Significant at the .01 level
***Significant at the .001 level

Table G.11. (Continued)

	PSE17	PSE18	IU1	IU2	IU3	D1	D2	D3
Length of shopping experience								
Store (PSE1)								
Catalog (PSE2)								
Internet (PSE3)								
Frequency of use for product information								
Television (PSE4)								
Friends (PSE5)								
Magazine (PSE6)								
Store (PSE7)								
Catalog (PSE8)								
Internet (PSE9)								
Number of purchases (12 months)								
Store (PSE10)								
Catalog (PSE11)								
Internet (PSE12)								
Money spent on apparel shopping (12 months)								
Store (PSE13)								
Catalog (PSE14)								
Internet (PSE15)								
Shopping satisfaction								
Store (PSE16)								
Catalog (PSE17)	1.00							
Internet (PSE18)	.44***	1.00						
Weekly hours spent on Internet (IU1)	.01	.08	1.00					
Length of Internet use experience (IU2)	- .04	.03	.15	1.00				
Frequency of Internet apparel site visits (IU3)	- .05	- .11	.09	.03	1.00			
Gender (D1)	.11	.04	- .18*	- .10	.15	1.00		
Age (D2)	- .12	- .01	.11	.04	- .13	- .26***	1.00	
Credit hours in school (D3)	- .10	.01	.17	- .01	- .09	- .35***	.79***	1.00

*Significant at the .05 level
**Significant at the .01 level
***Significant at the .001 level

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