

Predicting Intention to Use the Internet for Information Search and Shopping Apparel Among Korean Female Computer Users

Miwoo Nam

Full time instructor. Dept of Fashion Design, Seokyeong University

Abstract : This study was designed to provide a better understanding of Korean female Internet users' intention to search for information regarding apparel goods and to shop for these goods.

Shopping orientation, familiarity, and prior purchase experience were seen as influencing the intention to use the Internet for information search. An important aspect in the search habits that a consumer adopts in gathering information for their buying decisions was Internet shopping attitude. The objective was to predict apparel shopping in terms of prior Internet shopping experience, familiarity, intention to search information via the Internet, and shopping orientation. Internet shopping attitude, familiarity, prior purchase experience, and intention to use to search information were significant in predicting Internet apparel shopping. The most important determinants which influenced Internet shopping were attitude toward Internet shopping and intention to search.

In considering the results of the present study, one should recognize the inherent limitations associated with generalizing these findings beyond the sample and the consumer products examined which in this study were apparel goods. Also this study focused on female computer users only. Therefore, future research should utilize more broadly based samples and refine the instrument to distinguish among different apparel products. This study does provide some information that should be helpful to retailers targeting the women's online apparel market.

Key Words : Shopping orientation, prior purchase, computer familiarity, information search, internet shopping

I. Introduction

There is considerable interest in home shopping among retailers, for two reasons (1) the volume of in-home shopping is estimated to be growing much more rapidly than store shopping and (2) in-

home shopping is expected to continue to grow rapidly in the future. A number of factors which have contributed to the rapid growth of in-home shopping such as catalog shopping, cable TV home shopping, and Internet shopping may be categorized into two areas: consumer's new

Corresponding Author: Miwoo Nam, Full time instructor. Dept of Fashion Design, Seokyeong University, 16-1, Jungneung-dong, Sungbuk-ku Seoul, 136-704, Korea Tel:82-2-940-7483 e-mail: miwoonam@skuniv.ac.kr

lifestyle and new technology.

An Internet survey firm ¹⁾ has stated that Korea has grabbed the top position in the world in terms of access to e-commerce sites: 46% of Koreans use personal computers and 36% of the population, representing a 150% increase over 2002, are Internet users. The Korean National Statistical Office²⁾ estimates that in Korea Internet users will exceed 30million, or 60% of the country's total population, in 2003. Additionally Koreans spend more time on the Internet than any other people, averaging 17 hours and 2 minutes a month. Of this time Koreans spend an average of 46 minutes and 35 seconds a week searching for information. This increasing acceptance of the Internet has changed virtually every aspect of the consumer's daily life.

Another change in today's society is the expanded role of women as they enter the labor force. Consequently working women are becoming a larger, as well as an important, consumer market segment in South Korea. An increasing number of working women are looking for quality products, lower prices, and simpler shopping methods³⁾. The concept of in-home shopping is appealing to consumers because of its potential to deliver greater convenience and more and better product information. When one considers that all housewives are the primary purchasers and that more women are being drawn to Internet shopping because of its convenience, this consumer group is a critical target for Internet retailers. Finally, female consumers are seen as the primary purchasing agents especially in apparel in-home shopping.

Consumers' shopping orientations reflect a complex of social, recreational and economic

phenomena. The shopping orientation concept is very similar to the lifestyle concept and has been described as lifestyle specific to shopping behavior. In today's changing market, along with shifting female roles and life styles, shopping orientations are critical for market segmentation variables. Shopping orientation has also been found to be a good predictor of various aspects of shopping behavior such as store loyalty and the preference for types of retail outlets. The findings of many studies⁴⁾⁵⁾⁶⁾ suggest that the concept of shopping orientation is a valuable approach to retail strategy formulation.

Consumer information search and purchase are important stages in the consumer decision-making model. The Internet can facilitate information search and actual purchase. In addition, in terms of what consumers would like to buy through the Internet, apparel products receive the most attention. Therefore, for the Internet retailers of apparel to be able to continually implement effective marketing and promotional strategies, it is necessary to understand more fully the segmentation variables of the Internet market and the behavioral correlates of consumers applicable to their competitive retail environment. Despite the claim that many Internet users use the Internet solely for information without making purchases, little information exists regarding factors that influence the search for information on the Internet and the likelihood that this will lead to Internet shopping⁷⁾. Therefore, this study attempts to fill a gap in the area of Internet retailing in the apparel marketing literature.

Our study was designed to further the understanding of female Internet users' shopping

orientation and to determine factors that may influence and predict the consumer's decision to use the Internet for information search and, eventually, for shopping. In order to predict consumers' intention to shop via the Internet more precisely, the model will be evaluated in the context of specific product category. Our study focused on apparel and accessories as a product category. Therefore, the findings of this study should be greatly applicable to apparel retailers.

II. Review of literature

We can describe the process for decision making in terms of stages. A decision is often characterized by stages of information search, evaluation, choice, and consumption. Search, the second stage of the decision-making process, can be defined as the motivated activation of knowledge stored in memory or acquisition of information from the environment. The Internet can facilitate and inhibit behavior in each stage of the decision making process, especially for the search process. The array of available information on the Internet, as well as the variety of search engines that can be used to weed through the information, can provide the consumer with larger numbers of alternatives to consider than would be available in a marketplace-based search. The degree of search can provide some insight into how search affects consumers' purchase behavior⁸⁾. Pipkin⁹⁾ noted that information and preference are inextricably linked. The link between information search mode and shopping mode indicates that searching for information on the Internet likely results in Internet

shopping. Therefore, understanding the consumer information searching process is a key element in understanding consumer decision-making behavior. Information search has been recognized as an important phase during which promotional messages reach the intended consumer, but little work has been conducted on the different ways in which information search is performed by the user. Search behavior is affected by consumers' beliefs and attitudes. Consumers engage in more searching as their attitudes toward shopping become more favorable.

Shopping orientations are shoppers' styles or attitudes that place particular emphasis on certain activities¹⁰⁾. Shoppers with different orientations have different consumer characteristics and market behaviors including needs and preferences for information sources¹¹⁾, preferences for a store choice¹²⁾¹³⁾, and demographic characteristics¹⁴⁾. Researchers in retailing have investigated shopping orientations in relation to in-home shopping. In-home shoppers tend to place greater importance on convenience, have a positive attitude toward credit card usage, and feel time pressure regarding shopping activities. Berkowitz, Walton and Walker¹⁵⁾ found that in-home shoppers place a higher value on convenience, hold negative attitudes toward in-store shopping activities, are less price conscious, and are more flexible and venturesome than traditional store shoppers. Additionally Lewis and Lewis, as cited in Breitenbach and Van Doren¹⁶⁾, have identified five categories of Web visitors: directed information seekers, undirected information seekers (browser), bargain hunters (browser of a type), entertainment seekers, and directed buyers (directed searchers

with a buying intent).

Shopping Orientation and Behavior Intention. Donthu and Garcia¹⁷⁾ reported that consumer shopping style regarding convenience, innovation, and product offerings were predictors of whether consumers would become Internet shoppers. Therefore, shopping orientation can predict intention to use the Internet for product information search and shopping.

Prior Purchasing Behavior and Behavior Intentions. The way that people structure decisions may be affected by what they know from past experience. Consumers with high intentions to shop electronically were more likely to have previous experience with other non-store shopping formats as well as prior experience with the use of personal computers. According to Ajzen¹⁸⁾, past behavior impacts subsequent behavior and behavioral intentions. Research related to the adoption of other technology-based shopping formats has also indicated that previous non-store experience may help predict intention to adopt new interactive non-store formats¹⁹⁾.

Consumer Familiarity. The nature of Internet shopping demands computer skills and the availability of a number of resources. Potential shoppers must have certain knowledge about their computers. The ability to customize search may also result in a higher percentage of information that is appropriate for the user's purpose, that is, the quality of information may be higher. The tradeoff is that the more tailored the search, the bigger the burden on the user to specify the criteria for the search. As a result, users with greater familiarity with the search tool, and with the search category, will tend to experience greater benefits

than users with less familiarity. This led to the development of Hypothesis 1:

H1: Shopping orientation, prior purchase experience, and consumer familiarity will be positively related to intention to use Internet for product information search.

Implementation Intention. Electronic shoppers generally appear to be more experienced with a variety of electronic uses, information search, and information exchange²⁰⁾. Evidence exists that consumer browsing is likely to lead to information searching which eventually leads to purchasing. Therefore, on-line research for products and services should be a strong indicator of consumers' willingness to shop on-line.

H2: Intention to use the Internet for product information search, shopping orientation, prior purchase experience, and familiarity will be positively related to intention to use the Internet for shopping.

Demographic Characteristics. Many of the previous studies in this area have profiled the characteristics of shoppers. However, these findings reported mixed results related to demographic variables. Gillett²¹⁾ examined socio-demographic characteristics of in-home shoppers and found that they ranked significantly higher than other shoppers in family income, education, and occupation of household head. Berkowitz et al.²²⁾ found that in-home food shoppers were more likely to work outside the home and were younger than store shoppers. Studies²³⁾²⁴⁾ have shown that online shoppers tend to have higher education and income and are more likely to be in middle to senior management or to be professionals. Online shoppers who have higher incomes tend to be less

price sensitive and more convenience oriented²⁵⁾, they also have more wired lifestyles, and show high usage of the Internet for e-mails, news, etc²⁶⁾. Furthermore, Gillett²⁷⁾ found that in-home shoppers, especially heavier spenders, were active store shoppers who regarded price, quality, merchandise assortment, and advantages among product alternatives more important to their purchases than store shoppers did. Gillett²⁸⁾ suggested that more affluent, highly educated shoppers were likely to seek shopping flexibility and convenience. Berkowitz et al.²⁹⁾ found that in-home shoppers were less concerned with paying the lowest possible prices for goods than store shoppers.

The specific topics of investigation were to identify the determinants which influence shoppers to use the Internet to search for information and to purchase apparel from the Internet. The determinants defined in this study were limited to those generated by product type, apparel in this case, and the determinants were shopping orientation, past purchase experience, familiarity, and demographic characteristics, and information search.

III. Method

The survey questionnaires which asked to voluntarily respond to the questions were delivered by e-mail with the e-mail directly connected to the web site if a responder clicked to participate in the survey. To increase the participation rate, an incentive was offered in the form of an opportunity to win a cash award. The data for this study was

collected from June through October 2001. As a result, 325 surveys were returned; 272 questionnaires were used, and 53 unusable questionnaires were excluded.

Approximately 65% of respondents were in their 30s. 41.5% were students and 58% of them were married. 20.1% were employed in professional careers and 20.7 % were housewives. Only 16% of them had preschool children. 76% had a four year college degree or higher; 53% of the respondents were living in Seoul; and 56% reported their monthly household income as over \$2000.

IV. Instrument

Shopping Orientations. Shopping orientations of the respondents were obtained from 21 Likert-type statements on a 5 point scale ranging from strongly disagree (1) to strongly agree (5). Many of these statements were adapted from previous studies³⁰⁾ representing several dimensions of apparel shopping orientations and they had relevance for the Internet user. A principle components factor analysis with Varimax rotation was performed, using the minimum eigen value of one as the criterion to control the number of factors extracted. Items loading above .40 were retained; 4 items which were loaded on more than one factor were dropped from the analysis. As a result, 9 factors were developed. Sample statements for each factor are presented in Table 1: (a) Shopping interest (b) Internet shopping attitude (c) Fashion consciousness (d) Economic shopping orientation (e) Brand consciousness (f) Convenience/Time consciousness (g) Shopping confidence (h) Credit

< Table 1> Factor analysis and reliability test of shopping orientation

Factors and sample statement	Factor loading	Eigen value	Percent variance	Standard alpha coefficient
Factor 1. Shopping interest				
I often go shopping for enjoyment even if I don't plan on buying anything.	.67	3.3	10.36	.76
I enjoy shopping.	.85			
Factor 2. Internet shopping attitude				
I like shopping through Internet.	.71	2.9	9.3	.79
It is good to get the information through the Internet shopping mall.	.84			
Factor 3. Fashion consciousness				
I keep my wardrobe up to date with the changing fashions.	.81	2.8	8.8	.74
I like to go to see what's new in clothing.	.61			
Factor 4. Economic shopping orientation				
I make a clothing purchase only when there is a need.	.52	2.4	7.4	.70
I should plan my shopping more carefully than I do.	.54			
Factor 5. Brand consciousness				
Once I find a brand I like, I stick with it.	.77	2.3	7.3	.78
I try to stick to certain brands and stores.	.89			
Factor 6. Time/convenience consciousness				
I shop where it saves me time.	.70	2.0	6.4	.74
I don't like to spend too much time planning my clothing shopping.	.56			
Factor 7. Shopping confidence				
I feel very confident in my ability to shop for clothing.	.84	1.9	6.2	.64
I have the ability to choose the right clothes for myself.	.77			
Factor 8. Credit card usage				
I buy many things with a credit card.	.78	1.8	5.6	.73
I prefer to pay in cash than to charge to my credit card.	-.82			
Factor 9. Price consciousness				
I pay more attention to price than I ever did before.	.57	1.8	5.6	.61
The lower price products are usually my choice.	.76			

card usage (i) Price consciousness. Factor loadings ranged from .52 to .89, and the total percent of variance was 67.0%. Standardized alpha coefficients ranged from .61 to .79. Raw scores for the items in each factor were summed and used in

subsequent analyses.

Prior Experience of Apparel Shopping. The respondents were asked to indicate where they had bought their apparel goods within the past year on a 5 point scale ranging from "never" to "very

often.” The options included traditional store, Internet shopping mall, catalog, and cable TV home shopping.

Consumer Familiarity. To assess the respondents’ knowledge of the Internet, three items (familiarity, expertise, experience) were used and made a mean for subsequent analysis. “Familiarity” asked how often they accessed the Internet by using a 5 point Likert type scale ranging from “never” to “very often.” “Experience” asked how long they had used the Internet by using a 5 point scale ranging from “6 months” to “over 3 years.” Respondents were also asked to indicate their expertise about the computer on a 5 point scale (1=noVICE;5=expert).

Intention to Use The Internet for Product Information Search. The likelihood that respondents would use the Internet to search for product information of apparel goods was assessed using 5 point Likert type 3 scales from “very unlikely” (1) to “very likely” (5).

Intention to Purchase via the Internet. This variable was measured by asking respondents to indicate the probability that they would buy clothing via the Internet using 5 point Likert type 3 scale from “very improbable” (1) “very probable” (5).

Individual characteristics included demographics (age, income, presence of preschool children, education, marital status).

V. Result and discussion

Internet Users’ Shopping Orientation. Ten a priori dimensions of Internet shopping orientations were initially selected. These were based on shopping orientations that were typically used in previous

research considering relevance for the Internet user. These 10 a priori dimensions included: shopping interest, Internet shopping attitude, fashion consciousness, impulse buying, brand consciousness, time/convenience consciousness, shopping confidence, credit card usage, price consciousness. After principal factor analysis shown in Table 1, the dimension of impulse buying is not extracted. It is postulated that the concept of impulse buying may not be appropriate for Internet users. While economic shopping appeared, it means that economic shopping may be a common characteristic among Internet users.

The subjects were asked to indicate their actual buying experience within the past year, whereby it can be seen that in-home shopping is still relatively less common in Korea. Especially for Internet home shopping, despite Koreans’ familiarity with the Internet, 41.3% respondents bought apparel goods via the Internet. Thus, there is a significant percentage of consumers with online access who still do not buy products online. But it was the most used purchase channel when in-home shopping channels were surveyed, mail order was measured at 30.5 percent while cable TV home shopping was measured 33.5 percent. The reason why the Internet was the most used home shopping channel was partly explained by the sample of this study who were Internet users. Therefore, if the sampling method changed, the results could be changed. <Table 2> shows the relationship between various store channels. The significant relationships between store channels show that Internet shoppers tend to use catalogs and catalog shoppers tend to use cable TV. The three channels share many similarities. For instance, consumers

buy products without physically touch them. These findings are consistent with numerous other studies on non-store shopping showing that previous non-store shopping was a predictor of adoption and use of other innovative forms of non-store shopping³²⁾³³⁾. These results give retailers an opportunity to target a new consumer group. It means the Internet shopping retailer can develop a plan to convert its primary target market into catalog shoppers or cable TV shoppers. <Table 3> shows the relationship between each shopping orientation and channels of store used by female Internet users. The data shows that each shopping orientation correlates differently with each specific home shopping channel. Shoppers who are interested in shopping tend to visit traditional

stores or use the Internet. The shoppers who are interested in the Internet tend to use home shopping channels such as the Internet, catalogs, and cable TV. Economic shoppers, time/convenient conscious shoppers, and price conscious shoppers have a negative correlation with traditional store shopping. This indicated that the shoppers who are interested in economy, time/convenience, and price tend to use traditional stores less than do other shoppers, while shoppers who consider brands important use traditional stores. The shoppers who are interested in paying with credit cards tend to use catalog shopping. The data suggests that shoppers possessing different shopping orientations have different preferences for store channels. This supports Darden and Howell's study³⁴⁾ that shopping orientations is a key concept in patronage behavior.

Familiarity with the Internet. The respondents who had used the Internet for over 1 year made up 73.5 percent of the survey. 70.7 percent of these respondents used the Internet over 5 hours per week. Their extent of knowledge about computers was also requested. The data shows that 32.9 percent of the women tended to have little

<Table 2> Relationship between store channel

	Traditional store	Internet	Catalog	Cable TV
Traditional store	1			
Internet	.40	1		
Catalog	.12	.37**	1	
Cable TV	.02	.08	.29**	1

** P<.01

<Table 3> Relationship between shopping orientation and prior purchasing behavior

	Shopping Interest	Internet shopping attitude	Fashion Consciousness	Economic shopping	Brand Consciousness	Time/convenient Consciousness	Shopping Confidence	Credit card usage	Price Consciousness
Traditional store	.42**	-.04	.14	-.20*	.29**	-.35**	.05	.02	-.24**
Internet	.24**	.32**	.12	-.15	.02	-.14	-.13	.04	-.12
Catalog	.12	.35**	-.00	-.02	.02	-.02	.09	.18*	.00
Cable TV	.12	.29**	.06	-.08	.01	-.06	.14	.03	.04

* P<.05, ** P<.01

knowledge about computers while 12.2 percent reported they had knowledge about computers. The remaining 54.9 percent were neutral on the issue. After three items (familiarity, expertise, experience) were summed, the mean (3.67) was used for subsequent analyses. Based on the mean, female Internet users in Korea are a little familiar with Internet.

Prediction of the Shopping Orientation. The influence of the personal characteristics on the shopping orientations was investigated by performing a linear multiple dummy regression analysis. As a result of the investigation on the influence of personal characteristics on shopping orientations, age ($\beta=-.16$) and marital status ($\beta=.79$) on prediction of price conscious orientation ($R^2=.09$, $F=2.38$, $P<.05$), income ($\beta=.15$) on prediction of brand conscious orientation ($R^2=.19$, $F=5.9$, $P<.001$), and age ($\beta=-.28$) on prediction of shopping interest orientation ($R^2=.22$, $F=7.0$, $P<.001$) were found to be significant. In addition, marital status ($\beta=.63$) and education level ($\beta=.43$) on prediction on shopping confidence ($R^2=.12$, $F=3.27$, $P<.05$) were also found to be significant.

Prediction of Familiarity and Prior Purchase Experience. Linear multiple dummy regression analyses were performed to investigate the predictability of each of the two different variables (familiarity and prior purchase experience). As a result of the investigation on 9 shopping orientations of familiarity, two dimensions were significant ($R^2=.06$, $F=4.8$, $P<.05$) (see table 4). Time/convenience consciousness had a negative beta coefficient ($\beta=-.16$) while brand consciousness had a positive beta coefficient

($\beta=.19$). Those who were focused on time/convenience orientation did not allocate their time in using the computer for achieving information. In previous studies, time/ convenience orientation is the most important variable to predict the in-home shopper. But the respondents in this study are not interested in search activities which are regarded as very time consuming and Internet shopping was found to be more difficult than other modes of non-store shopping.

Three dimensions were significant in predicting prior purchase experience ($R^2=.22$, $F=4.1$, $P<.001$), Internet shopping attitude ($\beta=.33$), shopping interest orientation ($\beta=.24$) and shopping confidence ($\beta=-.21$) had negative β coefficients (see table5). Those who were confident in shopping ability did not have prior Internet shopping experience. There were no significant predictors in demographic characteristics.

Prediction of Intention for Information Search. The hypothesis was tested to see whether shopping orientation, prior purchasing behavior, familiarity, and demographic characteristics together predict the intention to search for information via the Internet. Linear multiple dummy regression analysis revealed

<Table 4> Linear multiple regression of shopping orientation, demographic characteristics on Familiarity

Familiarity Beta(β) coefficient	t-value
Shopping orientation	
Brand consciousness	.19* 2.35*
Time/convenient consciousness	-.16* -2.01*
Demographic characteristics	
	N.S.
$R^2=.06$	
$F(1,142)=4.8^*$	

that four variables were significant ($R^2=.33$, $F=5.94$, $P<.001$). Three shopping orientations - Internet shopping attitude, economic shopping orientation, time/convenient conscious shopping orientation and familiarity-were significant in predicting the intention to search information (see table 6). Any demographic variables are not significant. The Internet shopping attitude had the strongest β coefficient ($\beta=.49$) followed by familiarity ($\beta=.23$), economic shopping orientation ($\beta=.18$) and time/convenience conscious orientation ($\beta=-.16$). It means that the more positive the attitude toward Internet shopping channel, the more likely the consumer will have intention to search for information. The positive influence of economic shopping orientation and the negative influence of time/convenient conscious orientation on intention to use the Internet to search for information reinforce the idea that consumers' Internet search activities for apparel products are more utilitarian than recreational. It is logical that consumers may have specific goals when using the Internet for information search and are not, therefore, interested

<Table5> Linear multiple dummy regression of shopping orientation, demographic characteristics on prior purchase experience

Prior purchase experience	Beta(β) coefficient	t-value
Shopping orientation		
Internet shopping attitude	.33***	3.87***
Shopping interest	.24**	2.86**
Shopping confidence	-.21*	-2.46*
Demographic characteristics	N.S.	
$R^2=.22$		
$F(1,142)=4.1***$ * $P<.05$ ** $P<.01$ *** $P<.001$		

in recreational search activities such as browsing which is currently very time consuming. These findings may also show the fact that the current use of Internet search engines can be cumbersome and tend to yield an overwhelming number of irrelevant hits, reflecting a reality not commonly associated with social enjoyment. Purchasing from the Internet is an inefficient use of time because purchasing products from Internet shopping sites requires spending too much time at the computer, creates additional time pressures, and does not allow time for other activities. This could mean that a majority of the respondents would not sacrifice time to search for information. Consequently, Internet retailers should consider how to communicate to consumers that purchasing via Internet sites does indeed save time when done efficiently, and they should educate consumers about how to search for products within individual sites and through online shopping agents. The respondents' familiarity about the computer has a positive influence on intention to search

<Table6> Linear multiple dummy regression of shopping orientation, Familiarity, Prior purchase experience and Demographic characteristics on Search intention

Search Intention	Beta (β) coefficient	t-value
Familiarity	.23*	2.70**
Prior experience	N.S.	
Shopping orientation		
Internet shopping attitude	.49***	6.65***
Economic shopping	.18*	2.40*
Time/convenience conscious orientation	-.16*	-2.13*
Demographic characteristics	N.S.	
$R^2=.33$ * $P<.05$ ** $P<.01$ *** $P<.001$		
$F(11,132)=5.94***$		

information. The data shows that the more time the consumer spends with the computer, the more likely the shopper is to increase her intention to search. Therefore, the hypothesis 1 was partially accepted.

Prediction of Intention to Buy Apparel Goods via the Internet. The hypothesis was tested whether shoppers' intention to search for apparel information via the Internet, their shopping orientation, familiarity, prior purchase experience and their demographic characteristics-when considered together-predict their behavioral intention to purchase apparel online. Linear multiple dummy regression analysis revealed that four predictors were significant in predicting Internet apparel shopping ($r^2 = .17$, $F = 11.35$, $P < .001$) (see table 7). Among all predictors, Internet shopping attitude ($\beta = .41$) had the strongest beta coefficient. Three relevant variables were also significant in predicting Internet shopping. The intention to search for apparel information via the Internet had the second strongest beta coefficient ($\beta = .22$). This indicates that Internet search intention is positively and strongly related to shopping intention. In other words, the greater the intention to search for apparel information via the Internet, the more likely shoppers were to purchase apparel online. Thus, the consumer's approach to product search is an important factor in successful business transaction. Therefore, the consumer's access to the Internet will affect the growth of interactive home shopping. The obvious target market for female apparel Internet retailers is households with Internet connections and computer access. Familiarity ($\beta = -.18$) had a negative beta coefficient, followed by prior purchase experience

($\beta = .17$). Those who might be familiar with the computer were solely information seekers and less likely to purchase apparel over the Internet. This means that while the majority of the respondents are familiar with the Internet, they are still not used to e-commerce. It is proven that acceptance of the Internet does not necessarily mean acceptance of Internet shopping.

Therefore these findings indicate that computer users who are not too familiar with the Internet, who prefer to search for information via the Internet, who have had past purchase experience with the Internet and who have a positive attitude toward the Internet were more likely related to purchase apparel online. The low explained variance (R^2) implies that there may be additional factors not included, and that one might infer this low score as the indirect indication of a lack of female interest in Web shopping. Furthermore, since apparel closely related to consumers' perception of risk, it tends additionally to influence

<Table 7> Linear multiple regression of search intention, shopping orientation, familiarity, prior purchase experience and demographic characteristics on purchase intention

Purchase Intention Beta (β) coefficient	t-value	
Search intention	.22***	4.12***
Familiarity	-.18**	-2.78**
Prior purchase experience	.17**	2.30**
Shopping orientation		
Internet shopping attitude	.41**	5.82***
Demographic characteristics	N.S	
$R^2 = .17$		* $P < .05$ ** $P < .01$ *** $P < .001$
$F(1,164) = 11.3***$		

the low score. Finally, none of the demographic variables were significant in predicting Internet apparel shopping. Therefore this hypothesis 2 was partially accepted.

VI. Conclusions and implications

Our study was designed to provide a better understanding of Korean female Internet users' intention to search for information regarding apparel goods and to shop for these goods. This study does provide some information that should be helpful to retailers targeting women's online apparel market.

Relationship between Store Channels. The more shoppers tend to use Internet shopping, the more they tend to use catalog shopping. And the more shoppers tend to use catalog shopping, the more they tend to use cable TV shopping. These results give retailers an opportunity to target a new consumer group. It means an Internet shopping retailer can develop a plan to convert its primary target market from catalog shoppers or cable TV shoppers into Internet shoppers.

The Relationship between Shopping Orientation and Store Channels. The shoppers who are interested in shopping seemed to be shoppers who were interested in in-home shopping channels. According to these results, the shopper who has a shopping interest orientation tends to use various channels such as Internet, catalog, and cable TV. These three in-home shopping channels have similarities.

Consumers are not able to see, feel or touch the product in person. The general conclusion from

direct marketing or home shopping related studies is that consumers associate a higher level of similarities with non-store purchases than with conventional in-store purchases. And the shoppers who are interested in shopping seem to enjoy various shopping channels.

Prediction Intention to Search Information via the Internet. Hypothesis 1 tested for a positive relationship between shopping orientation, familiarity, prior purchase experience, and intention to use the Internet for information search. This hypothesis was partially accepted. An important factor for search habits that a consumer adopts in gathering information was the Internet shopping attitude.

Prediction of Apparel Shopping via the Internet. The objective was to predict the apparel shopping in terms of shopping orientation, familiarity, prior Internet shopping experience, and intention to search apparel product information via the Internet. To test the hypothesis, shopping orientation, familiarity, prior purchase experience, and intention to search information, when considered together, predict behavioral intention to purchase apparel online. Internet shopping attitude, familiarity, prior purchase experience, and intention to use to search information were significant in predicting Internet apparel shopping. Thus, hypothesis 2 was partially accepted. Despite the relatively low estimates of explained variance (R^2), all variables appeared to have, to some degree, predictability of intention to purchase apparel goods via the Internet. Future research is recommended to identify other significant demographic factors. The most important determinants which influenced Internet Apparel

shopping were attitude toward Internet shopping and intention to search information. The Internet could be used as a means for both information search and acquisition of apparel. The significant findings regarding the relationships between Internet information search and purchase intention may help determine potential solutions for practitioners. Converting information searchers into ultimate buyers is challenging not only for Internet retailers but also for traditional brick and mortar stores. Conventional retailers may use the Internet as a promotional medium to create consumer awareness regarding their new product lines, to enhance a company's image, and to attract newcomers. To remain competitive in the marketplace, Internet apparel retailers and conventional retailers may also utilize the benefits offered by the Internet as an informational source.

In considering the results of the present study, one should recognize the inherent limitations associated with generalizing these findings beyond the sample and the consumer products examined, which in this study were apparel goods. Our study focused on female computer users. Because the use of a computer is among the most fundamental prerequisites for internet shopping, findings from our study should present an approximate target market for use of the Internet to market products. But predictors of Internet shopping among non-computer users or males may be significantly different. In addition to this, the small size of the sample employed in this study might be another limitation. Therefore, future research should utilize more broadly based samples, refine the instrument to distinguish among different apparel products, and also differentiate between well-known and

unknown Internet shopping mall merchandisers.

■ References

- 1) Donald M. (2001). South Korea Wires Up. [on-line], Available: <http://www.time.com>.
- 2) Korean National Statistical Office (2003). Computer and Internet Use Survey. [on-line], Available: <http://kosis.nso.go.kr>.
- 3) Sohn, Y.J. (1997). Internet Shopping. *Business Korea*, 14(2), 49-41.
- 4) Kehoe, C., Pitkow, J. & Rogers, J. (1988). GVU's Ninth WWW User Survey Report. Office of Technology Licensing, Georgia Tech Research Corporation, Atlanta, 1998.
- 5) Hoffman, D.J. & Novak, T.P. (1996). Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations. *Journal of Marketing*, 60(3), 50-68.
- 6) Degeratu, A., Rangaswamy, A. & Wu, J. (1999). Consumer Choice Behavior in Online and Traditional Markets: The Effects of Brand Name, Price, and Other Search Attributes. Working paper, *Smeal College of Business Administration*, Pennsylvania State University.
- 7) Bellman, S., Lohse, G.L. & Johnson, E.J. (1999). Predictors of Online Buying Behaviour. *Communications of the ACM*, 42(12), 32-38.
- 8) Kittichai, W. & Soyeon, S. (2003). Information Search and Shopping Intentions Through Internet for Apparel Products. *Clothing and Textiles Research Journal*, 21(1), 1-7.
- 9) Pipkin, J.S. (1981). The Concept of Choice

- and Cognitive Explanations of Spatial Behavior. *Economic Geography*, 57, 315-331.
- 10) Hawkins, D. Best, R., & Coney, K (1986). *Consumer Behavior*, N.Y.; Business Publication Inc.
- 11) George P. Morchis (1976). Shopping Orientation and Consumer Uses of Information. *Journal of Retailing*, 52(2), 61-70.
- 12) Gutman J. & Mills, M. K. (1982). Fashion Life Style, Self Concept, Shopping Orientation and Store Patronage: Integrative Analysis. *Journal of Retailing*, 58(summer), 64-86.
- 13) Hawkins et al. (1989). *op.cit.*, 114.
- 14) Darden, W. R. & Howell, R.D. (1987). Socialization Effects of Retail Work Experience on Shopping Orientation. *Journal of the Academy of Marketing Science*, 15(fall), 52-63.
- 15) Berkowitz, E.W., Walton, J.R., & Walker, O.C. (1979). In Home Shoppers: the Market for Innovative Distribution System. *Journal of Retailing*, 55(summer), 15-33.
- 16) Breitenbach and Van Doren (1998). Toward Adopting a Global Perspective in the Field of Consumer Studies. *Journal of Consumer Studies & Home Economics*, 22(2), 111-119.
- 17) Donthu, N. and Garcia, A. (1999). The Internet Shoppers. *Journal of Advertising Research*, 39(3), 52-58.
- 18) Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, Special Issues; Theories of Cognitive Self-Regulation, 50 (2), 179-211.
- 19) Eastlick, M.A. (1993). Predictor of Videotex Adoption, *Journal of Direct Marketing*, 7 (summer), 66-74.
- 20) Shim, S. & Mahony, M. (1991). Electronic Shoppers and Non shoppers among Videotex Users. *Journal of Direct Marketing*, 3(summer), 29-38.
- 21) Gillett, P.L. (1970). A Profile of Urban In-home Shoppers. *Journal of Marketing*, 34 (July), 40-45.
- 22) Berkowitz et al. (1979). *op.cit.*, 15-33.
- 23) Shim, S. & Drake, M.F. (1990). Consumer Intention to Utilize Electronic Shopping. *Journal of Direction Marketing*, 4(3), 22-33.
- 24) Loo Lee Sim & Sze Miang Koi (2002). Singapore's Internet Shopper and Their Impact on Traditional Shopping Patterns, *Journal of Retailing and Consumer Services*, 9, 115-124.
- 25) Degeratu, A., Rangaswamy, A. & Wu, J. (1999). *Op.cit.*, 56.
- 26) Bellman, S., Lohse, G.L. & Johnson, E.J. (1999). *Op.cit.*, 32-38.
- 27) Gillett, P. L. (1970). A Profile of Urban In Home Shoppers. *Journal of Marketing*, 34, 40-45.
- 28) Gillett, P. (1976). Catalog Shoppers: An Overview. *Journal of Marketing*, 409 (October), 81-88.
- 29) Berkowitz et al. (1979). *op.cit.*, 15-33.
- 30) Lumpkin, J.R. & Hawes, J.M. (1985). Retailing without Stores: An Examination of Catalog Shoppers. *Journal of Business Research*, 13, 139-151.

- 31) Shim & Drake, (1990). *op.cit.*, 22-33.
- 32) Eastlick, M.A. & Lotz, S. (1999). Profiling Potential Adopters and Non Adopters of An Interactive Shopping Medium. *International Journal of Retailing & Distribution Management*, 27(6), 209-223.
- 33) Shim & Mahony (1991). *op.cit.*, 29-38.
- 34) Darden, W. R. & Howell, R.D. (1987). Socialization Effects of Retail Work Experience on Shopping Orientations. *Journal of the Academy of Marketing Science*, 15(3), 52-63.

Received September 10, 2003

Accepted November 6, 2003