A Path Analytic Exploration of Consumer Information Search in Online Clothing Purchases

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온라인 의복구매를 위한 소비자 정보탐색의 경로분석적 탐구

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Abstract

This study identified types of information source, and explored a path model for consumer information search by shopping attributes in the context of online decision making. Participants completed self-administered questionnaires during regularly scheduled classes. A total of 219 usable questionnaires were obtained from respondents who enroll at universities in the southwestern region of the United States. For data analysis, factor analysis and path model estimation were used. Consumer information source was classified into three types for online clothing purchases: *Online source*, *Offline retail source*, and *Mass media*. Consumers were more likely to rely on offline retail source for online clothing purchases, than other sources. In consumer information search by shopping attributes, online sources were more likely to be related to transaction-related attributes(e.g., incentive service), whereas offline retail source(e.g., displays in stores, manufacturer's catalogs and pamphlets) were more likely to be related to product and market related attributes(e.g., aesthetics, price) when purchasing clothing online. Also, the path model emphasizes the effect of shopping attributes on traditional retailer search behavior, leading to online purchase intention for clothing. This study supports consumer information search by attributes, and discusses a managerial implication of multi-channel retailing for apparel.

Key words: Clothing, Information source, Online shopping attribute, Online purchases; 의복, 정보원, 온라인 쇼핑속성, 온라인 구매

I. Introduction

Understanding consumers' information search behavior is critical to firms' strategic decision making in the online marketplace. Although there are similarities between consumers' information searches in online

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store and those in traditional physical stores, there are differences in terms of information sources, important shopping attributes, and perceived risks (Lukošius et al., 2001). An important aspect of online information searches is the large volume and variety of product information available, opportunity for direct comparisons, and reduced consumer search costs(Alba et al., 1997). Given the paucity of existing

research on consumer information searches, clearly researchers have just begun to identify patterns of online information search. Peterson and Merino (2003) suggested that the Internet is not a "consumer information panacea" and will not appreciably increase the amount of pre-purchase information consumers acquire when evaluating alternatives and making purchase decisions.

Increasing numbers of consumers are purchasing clothing online, which represents a significant growth of online sales. Despite limitations such as inability to physically try on and touch a garment in the online shopping realm, U.S. spending on online clothing sales increased 32% during the third quarter 2006 versus 2005(Nolan, 2006). More recently, the emergence of multi-channel retailing has importantly led the debate over whether new channels compliment the existing channel or whether they merely increase sales from existing channels for the apparel sector (Zendor Group, 2006). At this point, several apparel retailers(e.g., Maycs.com, Sears.com, LandsEnd.com) already have implemented multi-channel strategies (Payne, 2004; Reda, 2005), which enable them to reach more "cross-shoppers" who use multiple channels of a particular retailer with appropriate offers(Dholakia et al., 2005). For instance, consumers who do not intend to purchase online are just using retailers' websites to browse and decide what to buy. Other consumers utilize the Internet for purchasing online while using conventional retailers to search for information(Peterson et al., 1997; Pulliam, 1999). Therefore, it seems logical to assume that the traditional information search will remain intact even in the context of consumer information searches and decision making for online clothing purchases. Nevertheless, there is little study on consumer information search incorporating online and traditional information sources in an online context.

The purpose of this study is to (1) identify a typology of consumer information sources including online and conventional sources for online clothing purchases and (2) examine the effect of shopping attributes on consumer information sources for online clothing purchases, and (3) estimate a path model for examining the relationships among shopping attributes, con-

sumer information sources, and online purchase intention for clothing. This study will be useful data for fashion marketers to develop direct marketing strategies. This study also will provide managerial implications into multi-channel retailing for successful positioning in the competitive e-marketplaces.

II. Literature Review

1. Consumer Information Sources for Online Purchases

Today, consumers' information search processes might be interactively involving a complexity of sources including commercial advertisements and the Internet. Most notably, younger consumers ranked cyber-space advertising as the number one medium replacing television. Print media including magazines and newspapers ranked a distant third, while catalog and direct mail ranked last(Brackett & Carr 2001). Indeed, consumers endeavor to acquire information from websites as well as traditional sources (Klein & Ford, 2003; Peterson & Merino, 2003). The Internet provides a forum to gain personal information from online consumer networks, so that information from other consumers particularly becomes important to online decision making for specific products, such as travel(Bei et al., 2004). In addition, potential sources of information include consumers' own previous experiences with a product or brand, recommendations from family, friends, and colleagues, and previous imprinting as a result of promotions, usually in association with specific brands (Klein & Ford 2003; Peterson & Merino 2003). Therefore, information for consumers' online decision making may be sought from electronic and traditional sources as followings:

- Electronic sources(e.g., dealer websites, online bulletin board-chat sources);
- Mass media(e.g., magazines, newspapers, television, radio);
- Word-of-mouth communication(e.g., friends, salespeople);
- Offline retailers(e.g., store display, catalogs); and
- Consumers' own previous experiences.

Another consideration in information source relative to purchase decisions involves in the nature of the products(Bei et al., 2004; Rowley, 2002). "Feel-and-touch" products may differ in a number of essential ways to seek for information regarding product-related performance(e.g., quality, fabric, style, color, design, size, etc.). Moreover, clothing is a high involvement product for which consumers are willing to exert considerable time and effort in the purchase process(O'Cass, 2004). Thus, consumers rely on various information sources(i.e., mass media, person-to-person word-of-mouth communication, expert reports and opinions, store-based product displays) in online shopping for clothing(Bei et al., 2004; Peterson & Merino, 2003). According to Peck and Childers(2003), consumers are likely to have the "need for touch (NFT)" when purchasing clothing(e.g., sweater), which tends to involve the use of haptic(i.e., using the hands) information to determine the product's desirability. As aforementioned, consumers may use online information sources as well as conventional information sources, such as traditional retail stores, catalog, and mass media(e.g., magazine, newspaper, television, radio) for clothing.

2. Consumer Information Search by Shopping Attributes

Information search is defined as the stage of the decision-making process wherein consumers actively collect and integrate information from numerous sources, both internal and external, prior to making a choice(Blackwell et al., 2001). Traditionally, two major types of search processes include (1) searching by brand and (2) searching by attributes(Hoyer & MacInnis, 1997). In the information processing, consumers who conduct information searches by attributes tend to gradually reduce their uncertainty about decision making(Jacob et al., 1978). In the context of online, information searching by attributes was found to encourage consumers' purchase intention (Bei et al., 2004; Watchravesringkan & Shim, 2003). For instance, Watchravesringkan and Shim(2003) suggested that perceived importance of transaction-related attributes are critical to encourage consumers'

search activities to purchase online. That is, the speed of the process and secure transactions significantly encouraged consumers to use online information sources for online clothing purchases. Lower prices than those found in traditional stores were motivation for online information searches because consumers easily compared price information at a variety of possible suppliers(Ray, 2001). This implies that consumers tend to engage in online search to obtain information regarding transaction services, or promotional incentives for clothing purchases over the Internet.

Otherwise, consumers want to acquire full information prior to purchasing specific products - clothing, jewelry, or accessories - that are dominated by sensory attributes, such as color, design, fabric, and fit(Bei et al., 2004; Park & Stoel, 2005). For successful apparel e-retailing, Then and Delong (1999) also suggested the importance of visual aesthetics including images of the product in its closest representation of end use, displays in conjunction with similar items, and views from various angles such as front and back, which can offset limitation of online search for clothing. Rha(2002) supported the impor-tance of in-store "feel and touch" information to acquire sufficient information prior to purchasing experiential sensory products, such as clothing. In Degeratu et al.(2000)'s study, sensory search attributes, particularly visual cues (e.g., design) about the product have lower impact on choice online than offline. Bei et al.(2004) also suggested that consumers used not only online retail sources(e.g., retailer's, manufacturer's websites), but also traditional retail sources(e.g., store visits, interactions with sales personnel) to search for additional information about aesthetic attributes prior to online purchasing of clothing products. Thus, it is expected that consumers search for more information available about sensory attributes from offline source than online, when making the weights of importance for sensory attributes. In addition to sensory attributes, price information was sought as the most important information for purchasing clothing online as much as in brick-and-mortar stores(Ha & Stoel, 2004; Laroche et al., 2000).

Given uncertainty in information processing over

the Internet, brand name is one of information in online apparel shopping. For instance, consumers use well-known brand names as substitutes for product information when making online purchase decisions (Rowley, 2004; Ward & Lee, 2000). Park and Stoel (2005) also suggested that consumers perceived less risk in purchasing over the Internet when they were familiar with the brand of clothing. Although the study of online information search for clothing is in its infancy stage, it is assumed that various consumer information searches may be undertaken in the context of online clothing purchases. Particularly, traditional information sources are still used as important media for purchasing clothing. It seems likely that consumers will rely on different information sources by their perceived importance of online shopping attributes for clothing. However, the literature does not provide findings on the directions of the differences, and thus the following hypotheses were developed:

     Hypothesis 1: Consumers' information sources will be affected by their perceived importance of shopping attributes for online clothing purchases (1a). However, sensory attributes will have higher effect on offline source, while transaction-related attributes will have higher effect on online source (1b).

3. Effects of Consumer Information Search on Online Purchase Intention

Information search plays a key role in encouraging consumer decision making. As pre-purchase search, external search to collect additional information from environment drives consumer to make a purchase decision(Blackwell et al., 2001). In the context of Internet, previous studies showed that consumers' Internet browsing was likely to lead to information search(Rowley, 2002) and eventually purchasing (Bonn et al., 1999). That is, online purchase intention increased as a function of the amount of online search intention for product information. In television shopping, Kim and Lennon(2000) also found that

consumers' information search influenced their purchase intentions for apparel. In the internet context, Watchravesringkan and Shim(2003) suggested that information search was the most important predictor of online purchase intention for apparel products. This finding supported a notion that information search is significantly related to future purchase intention by decreasing perceived risk levels associated with online shopping(Shim et al., 2001). On the other hands, because consumers are highly involved in clothing product selection, information search from offline sources is more likely to decreasing uncertainty of product information on sensory products such as clothing, which leads to consumers' online purchase intentions(Kim & Park, 2005; O'Cass, 2004). When consumers have enough information about a product(e.g., size, color, price, and function) they will make a decision as to the purchase of that product(Ha & Stoel, 2004). As indicated in the literature, it is expected that consumers' reliance on online search influences consumers' purchase intention by the Internet. Thus, the following hypotheses were developed:

     Hypothesis 2: Consumers' information source reliance will increase the intention to purchase clothing online (2a), but the effect on online purchase intention will be differed by types of information source (2b).

III. Methods

1. Sample and Data Collection

Data were collected from college students at universities in the southwestern region of the United States. Participants completed self-administered questionnaires during regularly scheduled classes and were informed in writing that completing the survey was voluntary, anonymous, and that there were no penalties for not participating. A total of 219 usable questionnaires were obtained from respondents who represented more female(59.4%) than male(40.6%) students. Average age of the respondents was 21.6

years old, ranging from 19 to 25 years. Respondents were online an average of 2.36 hours per day and spent US$30.14 per month for online purchases.

2. Measures

A questionnaire was developed from the relevant literature review and consisted of three main constructs: Consumers' information sources, online purchase intentions, and online shopping attributes. In addition, respondent's demographic characteristics (e.g., gender, age) and Internet-related variables(e.g., computer expertise, hours spent online per day, dollars spent per month for online purchases) were included for descriptive purpose. Consumers' information source was measured by a 10-item scale (Klein & Ford 2003; Moorthy et al., 1997). Respondents were asked, "How likely are you to rely on each of the following information sources for pur-

chasing clothing online?" on a 7-point rating scale (1=very unlikely, 7=very likely). For online shopping attributes, an 18-item scale was comprised of clothing-related and online transaction attributes (Kim & Kim 2004; Watchravsringkan & Shim 2003). Respondents were asked "How important is each of the following items to you when purchasing clothing by the Internet?" on a 7-point rating scale(1=very unimportant, 7=very important). Online purchase intention for clothing was measured with the question "How likely would you be to purchase clothing via the Internet in future?" on a 7-point rating scale (1=very unlikely, 7=very likely).

Preliminarily, exploratory factor analysis with varimax rotation revealed five factors, which accounted for 83.2% of the total variance. Factor loadings ranged from .63 to .91. Aesthetics consisted of seven items related to intrinsic attributes(e.g., design, color, style, fabric, and pattern). Secure

Table 1. Factor analysis of online shopping attributes for clothing

Shopping Attributes Factors and Items	Factor loadings	eigenvalues	% of Variance (Cum)
Aesthetics(α=.95)		5.49	32.11
Color	.87		(32.11)
Design	.87		
Pattern	.86		
Style	.84		
Photo Image	.82		
Fit	.68		
Fabric(fiber contents)	.63		
Secure Transaction(α=.93)		2.78	16.36
Security system	.91		(48.47)
Privacy	.90		
Ease of ordering	.73		
Incentive Service(α=.80)		2.25	13.29
Incentive services(e.g., Membership benefits or visitor points)	.81		(61.76)
Promotional incentives(e.g., Free gifts, Prizes)	.79		
Payment options available	.64		
Brand(α=.90)		1.91	11.25
Brand name	.88		(73.01)
Brand reputation	.81		
Price(α=.88)		1.74	10.26
On sale	.82		(83.27)
Reasonable price	.70		

transaction included three items related to security and privacy concerns. Incentive service included three items regarding incentive program and customer service, such as payment options. Brand contained two items regarding brand name and reputation. Price included two items related to sales and reasonable price(Table 1).

3. Data Analysis

An exploratory factor analysis using principal component analysis with varimax rotation was conducted to identify underlying dimensions of online shopping attributes and information source. Reliability was assessed through Confirmatory Factor Analysis (CFA) and the calculation of Cronbach's alpha coefficients. A hypothetical path model using correlation matrixes was estimated for examining causal relationships among online shopping attributes, consumer information source, and online purchase intention for clothing by LISREL 8.53(Jöreskog & Sörbom 2002). Overall, model fit was assessed by statistic indexes: Chi-square(χ^2) value, Goodness of Fit Index(GFI), Adjusted Goodness of Fit Index (AGFI), and Root mean squared residual(RMR).

IV. Results and Discussions

1. Typology of Consumer Information Sources

An initial 10 items of information sources were analyzed by factor analysis, using principal component with varimax rotation. Two items were deleted due to factor loadings below .60. Three factors were extracted and rotated, which accounted for 75% of the variance. Next, a confirmatory factor analysis was conducted for validating the factor structure of information source driven from exploratory factor analysis. Factor loadings ranged from .68 to .92, which were significant at the .001 level. Overall, model fit of the three-factor structure was within an acceptable range(χ^2=64.86, df=17, p<.001; GFI=.93; AGFI=.84; RMR=.049). Cronbach's alpha coefficients ranged from .78 to .85. Thus, measurements were deemed to be reliable and valid for further analysis.

As shown in <Table 2>, the consumer information source in online purchasing for clothing was classified into three types: Online source, offline retail source, and mass media. Factor 1, *Online Source* includes online external sources(e.g., web-shopping sites, online word-of-mouth(WOM), posted consumers' opinions), and internal sources(e.g., previous

Table 2. Confirmatory factor analysis of information sources in online purchasing for clothing

Types of Information Source	Factor loadings[a] (t-value)	Mean	SD	Rank[b]
Online Source(α=.85; VE=.64)		3.34	1.59	
Other Web-shopping sites related to my purchases	.91 (16.22)	3.49	1.96	4
Previous online purchase experience or knowledge	.88 (15.56)	4.31	2.14	1
Other consumers' opinions posted on the Web	.72 (11.39)	2.91	1.77	6
Talking to a salesperson on the Web or telephone	.68 (10.65)	2.66	1.80	7
Offline Retail Source(α=.83; VE=.73)		3.96	1.82	
Displays in stores	.81 (12.98)	4.02	1.94	2
Manufacturers' catalogs and pamphlets	.90 (14.96)	3.90	2.01	3
Mass Media(α=.78, VE=.70)		3.00	1.49	
TV advertisements	.92 (14.85)	3.44	1.79	5
Radio advertisement	.75 (11.48)	2.55	1.50	8

a: all significant at .001
b: Rank of mean score
Goodness of Fit Statistics: Chi-square(χ^2)=64.86(df=17, p<.001), GFI(Goodness of Fit Index)=.93, AGFI(Adjusted Goodness of Fit Index)=.84, RMR(Root Mean Square Residual)=.049, NFI(Normed Fit Index)=.96.
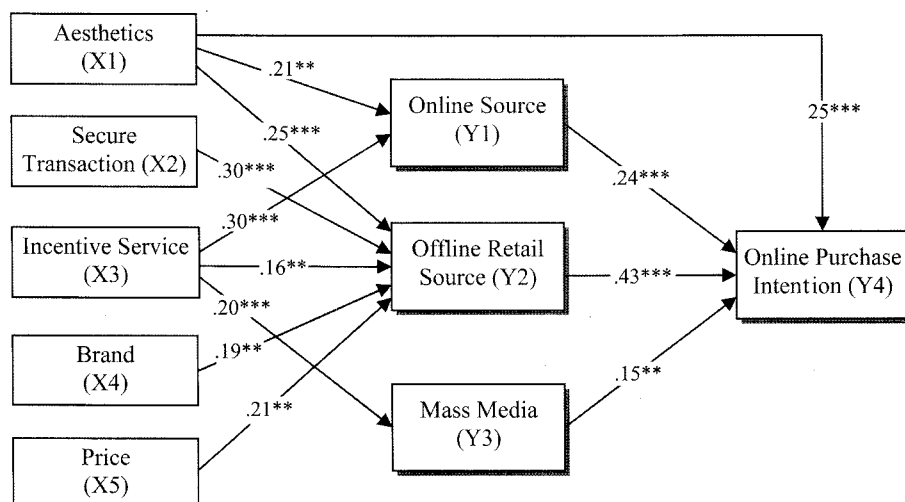
online purchase experiences or knowledge). This finding is not consistent with Klein and Ford(2003)'s study that classified online information sources into more distinct groups, such as online neutral, online direct and online WOM. For clothing, however, different online sources were unified regardless of personal and impersonal or external and internal sources for clothing. Factor 2, *Offline Retail Source* contained two items regarding visits to traditional retail stores or dealers including store displays or the examination of catalogs. Factor 3, *Mass Media*, included two items related to information from advertising and other types of marketer-produced communication, such as television or radio advertisements. Consumer information source for online clothing purchases is multidimensional including electronic and traditional sources, supporting the idea that consumers tended to rely on traditional direct information sources, such as retail store visits along with online independent sources(Bei et al. 2004).

For descriptive analysis, the mean of offline retail source was the highest(M=3.97), followed by online source(M=3.44), and mass media(M=3.00). More specifically, online internal source(i.e., previous online purchase experience or knowledge) was the most

highly used(M=4.31), followed by offline retail sources, such as store displays(M=4.02), manufacturer's catalogs(M=3.90), and other web-shopping sites(M= 3.49). Offline retail search tended to be the most frequent form of search when purchasing clothing online, followed by online search. This finding supports the interactivity of information between online and offline(Ariely, 1999) in the online decision making process.

2. Path Model of Consumer Information Search for Online Clothing Purchases

A path analysis was undertaken to examine the relationships among shopping attributes, information sources, and purchase intentions for clothing in the context of online shopping by using LISREL 8.53. In a hypothetical path model, the five factor scores of online shopping attributes(e.g., aesthetics, secure transaction, incentive service, brand, price) served as independent variables(X1-X5). Three factor scores of each information source, such as online source (Y1), offline retail source(Y2) and mass media(Y3), and online purchase intention for clothing(Y4) served as dependent variable(Fig. 1).

Goodness of Fit Statistics: Chi-square(χ^2)=15.17(df=4, *p*=.034), Goodness of Fit Index (GFI)=.98, Adjusted Goodness of Fit Index (AGFI)=.90, Root Mean Square Residual (RMR)=.037
**p<.01, ***p<.001

Fig. 1. Path diagram for consumer information search in online clothing purchases.

The initial estimation of the path model demonstrated that the chi square value of 32.64 was significant(df=8, p=.00). Other fit statistics(GFI=.97; AGFI =.81; RMR=.05) are marginal to accept data(Hair et al., 1998). We also considered maximum modification index to improve the hypothetical model by adding the direct effect of aesthetics on online purchase intention for clothing. This supports the idea that aesthetic virtual image is critical to encourage consumers to purchase clothing online(Verton, 2001). The revised model indicated that the chi-square value of 15.17 was acceptable(df=7, p=.034) by Hair et al. (1995)'s recommended level. The difference of chi square values between the proposed and modified models was significant($\Delta\chi^2$=17.47, df=1, p<.001), implying that the freed parameter(γ_{41}) imposed in the path model significantly contributed to improve the model. Other fit statistics were within acceptable ranges(GFI=.98; AGFI=.90; RMR=.037), and the path model was acceptable for testing the hypotheses. The path model illustrated in <Fig. 1> demonstrated that online shopping attributes were significant predictors in determining type of consumers' information search for online clothing purchases. In addition, the information search was more likely to encourage online purchase intentions for clothing.

1) Consumer Information Source by Online Shopping Attributes

As shown in <Fig. 1>, the consumer information source was partially related to online shopping attributes for online clothing purchases. Specifically, the online source was significantly affected by two factors of shopping attributes, aesthetics(γ_{11} =.21, p< .01) and incentive services(γ_{31}=.30, p<.001). With respect to traditional information sources, offline retail source was significantly affected by all five factors of shopping attributes. More specifically, the secure transaction had the highest effect on offline retail source(γ_{22}=.30, p<.001), followed by aesthetics (γ_{12}=.25, p<.001), price(γ_{52}=.21, p<.001), brand(γ_{42} =.19, p<.01), and incentive services(γ_{32}=.16, p<.01). In addition, mass media was significantly affected by incentive service(γ_{33}=.20, p<.001), suggesting that respondents who consider incentives for online shopping were likely to rely on additional information sources(e.g., television and radio advertisements). The findings suggested that online consumers engaged in various information search activities using online and offline sources by the perceived importance of shopping attributes in online decision making for clothing. Thus, *hypothesis 1a* was supported.

Consumers who concern incentive benefits are more likely to engage in online search, whereas consumers concerning security or privacy are more likely to rely on traditional retail source when purchasing clothing online. As expected, for aesthetic attributes, consumers are likely to use both information sources, i.e., online and offline. However, the effect of aesthetic attribute was slightly higher on offline retail source than online source. Additionally, the aesthetic factor had a direct effect on online purchase intention for clothing(γ_{41} =.25, p<.001). This implies that an aesthetically well-developed website may lead to consumers' simplified information processing by reducing search cost for making an online

Table 3. Total effects of online shopping attributes on information search

Online Shopping Attributes	Consumer Information Sources		
	Online Source	Offline Retail Source	Mass Media
	Γ_{ij} (t-value)	Γ_{ij} (t-value)	Γ_{ij} (t-value)
Aesthetics(X1)	.21 (3.28)**	.25 (4.07)***	.02 (0.32)
Secure transaction(X2)	.11 (1.65)	.30 (4.87)***	.08 (1.18)
Incentive service(X3)	.30 (4.68)***	.16 (2.64)**	.20 (4.67)***
Brand(X4)	.09 (1.36)	.19 (3.19)**	.05 (0.70)
Price(X5)	.02 (0.35)	.21 (3.39)**	.00 (0.07)
R^2 for structural equations	.16	.26	.04

**p<.01, ***p<.001

purchase decision for clothing.

Compared with other traditional information sources (e.g., mass media and offline retail source), online source was highly affected by transaction related factors, such as incentive services(e.g., membership benefits, or visitor points), promotional incentives (e.g., free gifts, prizes) or payment options available for making a purchase decision on the Internet. Interestingly, price attribute was significantly related to only offline retail source, supporting the idea that price sensitive consumers are likely to visit traditional retail stores or use manufacturers' printed sources for price comparison-shopping(Ray, 2001). Aesthetic attributes, particularly, had greater effects on offline retail source than online source, supporting Rowley(2002)'s suggestion that traditional information sources more than electronic sources were used for purchasing products(e.g., clothing) via the Internet. Thus, *hypothesis 1b* was supported(Table 3).

2) Effects of Consumer Information Source on Online Purchase Intention

Online purchase intention for clothing was significantly influenced by three factors of consumer information source. Consumers' reliance on offline retail source, had the most robust effect on online purchase intention(β_{42}=.43, p<.001), followed by online source (β_{41}=.24, p<.001), and mass media(β_{43}=.15, p<.01). This result is consistent with previous findings that the consumer information search is more likely to encourage online purchase intention for clothing (Watchravesringkan & Shim 2003). Thus, *hypothesis 2a* was supported. Specifically, consumers' reliance on offline retail source was more likely to increase online purchase intentions for clothing, than was that online source or mass media. Thus, *hypothesis 2b* was supported, suggesting that consumers' traditional information search by attributes plays an important role in encouraging purchase intentions for clothing.

V. Conclusions and Implications

This study explores consumer's multi-channel information search behavior by shopping attributes,

and its effects on purchase intention for clothing in online decision making. In the online context, consumer information source was classified into three types: Online source, Offline retail source, and Mass media. From the information processing perspective, this finding supports previous findings that consumers use the Internet and traditional retail channels differently in two stages of the shopper decision process(Peterson et al., 1997; Pulliam, 1999). Given substantially limited information for sensory products, such as clothing over the web, the traditional information search(i.e., using retailer or manufacturer sources) is becoming an even greater necessity as much as the online search for clothing-specific information(e.g., aesthetics), supporting the information interactivity between online and traditional sources (Alba et al., 1997; Ariely, 1999; Klein & Ford 2003; Schlosser, 2000). Furthermore, this study found a similar pattern in information search for clothing purchases between online and offline. Aesthetic and incentive service was sought as the most important information for purchasing clothing online as much as brick-and-mortar store. This finding is consistent with previous results(Ha & Stoel, 2004; Laroche et al., 2000). Therefore, the findings support the synergy in multi-channel retailing for clothing in terms of consumers' information search process(Bei et al., 2004; Häubl & Trifts, 1999).

From a managerial perspective, this study provides implications for multi-channel retailing for apparel. A multi-channel retailer with online presence has to strive harder to ensure that the needs of the customers are met. For online clothing purchases, traditional retailer was found as one of sources for online consumers to obtain information regarding aesthetic, incentives, brand, or price. In particular, the perceived importance of aesthetic attributes did have a significant impact on online search as well as offline retail search, eventually leading to online purchase intentions. This suggests the importance of "experiential approach" to visual merchandising for decreasing uncertainty of product information on style, size, and fabric through comparison-shopping between online and offline. In fact, consumers are increasingly using various channels and approaches in the

process of obtaining information and making a purchase(Wind & Mahajan, 2002). In the context of online shopping, security or privacy issue is critical to consumers' reliance on traditional retail source, suggesting an emphasis on a risk-free image with in a website. One possible way is to encourage credit card companies to make consumer protection assurances in order to reduce consumers' security and privacy risk. For feel-and-touch products(e.g., clothing), therefore retailers who synchronize across channels will be better positioned for success in competitive environment.

In addition, online retailers need to strike a balance between offering all positive value about shopping online and saving the shopping cost required by the consumers. For instance, incentive service attributes (membership benefits, free gifts, etc.) were most important predictor of consumers' reliance on online sources. E-retailers should emphasize "economic approach" to sales promotion over the Internet, which can capture web browsers or to retain existing customers on their shopping sites – especially given that online apparel shoppers tend to revisit them for information search and multiple transactions(Reichheld et al., 2000). At the same time, multi-channel retailers(i.e., traditional, catalog, or online retailers) can provides opportunities for strategic development. It allows for coordinating merchandising and customer service program across channels to present and have a similar shopping experience with a certain apparel brand across the multi-channels. Therefore, they can include (a) advertising online transaction services on the mass media(e.g., television and radio) to attract newcomers by emphasizing incentive programs(e.g., first-time buyer discounts), accurate delivery, or ease of payment options; (b) developing brick-and-mortar retailers' relationship with online consumers by accepting returns that were purchased through their online channel; and (c) site designs to create a consumer-centric online shopping experience by employing advanced technological applications(e.g., 3D virtual dressing room), which reduce perceived risks and minimize consumers' search costs.

The findings of this study should be interpreted

with caution due to the sampling limitation. We also recommend that, for future studies, information agents - expertise(e.g., prior experience or knowledge), perceived risks, and situations(i.e., holiday, time pressure) - be examined to ascertain how those variables influence the degree of external search for online decision making(Bhatnagar & Ghose, 2004; Kulviwat et al., 2004). In addition, demographics, such as gender, were important predictors in determining online shopping behavior for clothing products (Ha & Stoel, 2004; Kim & Kim, 2004). Such studies can expand online information processing theory including online decision making across different product categories.

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요 약

본 연구는 온라인 의사결정과정에서 온라인 쇼핑속성, 정보원 및 구매의도와 관련된 소비자 정보탐색의 경로모델을 밝히고자 하였다. 연구대상은 미국 남서부지역의 대학교에 재학중인 대학생으로 표본으로 설문조사 하였으며, 총 219명의 이용 가능한 자료가 수집되었다. 자료분석을 위해 요인분석과 LISREL8.53을 이용하여 경로분석을 실시하였다. 연구결과, 소비자의 온라인 의복구매를 위한 정보원은 온라인 정보원, 소매점 정보원, 대중매체의 세가지 유형으로 분류되었다. 특히, 온라인 의복구매를 위해 소매점 정보원(점포내 디스플레이, 제조업체의 팜플렛 또는 카달로그)을 더 많이 이용 하는 것으로 나타났다. 추정된 경로모델을 살펴보면, 온라인 쇼핑속성의 중요도가 정보탐색에 유의한 영향을 미쳤다. 특히 온라인 의복구매시, 소비자의 온라인 정보원 이용은 거래관련속성 즉 구매유인서비스(incentive service)에 의해 가장 크게 영향을 받는 반면, 소매점 정보원 이용은 심미성, 가격 등의 제품 및 시장관련속성의 중요도에 의해 더 크게 영향을 받는 것으로 나타났다. 또한 소비자의 세가지 탐색유형 모두 구매의도에 정적인 효과를 보이고 있었으며, 다른 정보원에 비해, 소매점 정보원 이용이 온라인 의복구매의도에 가장 큰 효과를 보였다. 따라서, 본 연구는 온라인 쇼핑속성별 소비자의 차별화된 정보탐색 패턴이 온라인 구매의도를 증가시키고 있음을 확인함으로써, 의류제품의 멀티채널 소매전략(Multi-channel retailing) 방향이 논의되었다.