

INFORMATION SEARCH AND SHOPPING  
PRACTICES OF OKLAHOMA CONSUMERS WHO  
PURCHASED APPAREL PRODUCTS VIA THE  
INTERNET

By  
CATHERINE GOFORTH KENNEMER

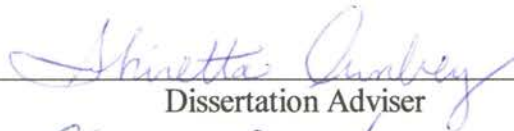
Bachelor of Science  
Mississippi State University  
Starkville, Mississippi  
1993

Master of Agribusiness Management  
Mississippi State University  
Starkville, Mississippi  
1994

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Dissertation Approved:

  
Dissertation Adviser







  
Dean of the Graduate College

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## Chapter I

### INTRODUCTION

As can be shown throughout history, fashions, consumer preferences, and industry have made both minor and significant changes. The evolving fashion industry is catapulted by the adoption and then obsolescence of specific trends of clothing styles and even choices and availability of fashion distribution, such as selling apparel via the Internet or catalog. In order to gain a greater understanding of the evolution of the fashion industry, in particular the adoption and/or rejection of specific retail venues such as the Internet, an in depth examination of consumer behavior is worthy.

Market researchers have long profiled the electronic commerce consumer as one who shops via the Internet simply for convenience (Anonymous, 1999; Bhatnagar, Misra, & Rao, 2000). Although convenience is without question a major contributor to the acceptance of online shopping, it certainly does not serve as the single factor in determining if a consumer will purchase a product from an online retailer. Although many consumers are fascinated by the idea of making many of their purchases via their home computers, the fact that consumers have been socialized to rely on shopping in brick-and-mortar stores remains prevalent (Forseter, 2001). It is further contended that consumers are socialized to expect all product choices to be available for viewing at the same time in the brick-and-mortar store which may not occur in an online format.



Furthermore, product marketers have honed the ability to decorate the packaging and product and/or store signage to draw upon all the consumer's senses and emotions. This emotional and sensory response to products still hampers other forms of nontraditional shopping for many consumers. For those consumers who like to touch a product before purchase or to inspect the quality of the product, online shopping is inadequate (Anonymous, 1999). When shopping for apparel in a traditional brick-and-mortar store environment, consumers engage their visual and tactile senses; however, when purchasing an apparel product via the Internet additional cognitive skills must be utilized (Then & DeLong, 1999). In addition, Forseter (2001) believes that the number of products provided on the Internet may overwhelm consumers. This author believes that consumers who prefer to shop via the Internet for convenience reasons wish to not spend their time searching among the available product choices.

On the other hand, some consumers are choosing to shop via the Internet. According to the 2002 Oklahoma Social Indicator Survey (Bureau for Social Research, 2002), 61% of consumers surveyed in Oklahoma have purchased a product from the Internet. With such a large percentage of Oklahoma consumers who reported having made an Internet purchase, further examination of Internet shoppers seems worthy of investigation. In particular, the research reported in this paper explores the percentage of Oklahoma consumers who have purchased an apparel product via the Internet and explores various aspects of their purchasing behaviors. In particular, the relationships among specific consumer shopping and information search behaviors and selected demographic characteristics are examined. According to the 2000 Oklahoma census (United States

Census Bureau) 51% of the population is female with 49% male. Sixty-nine percent of the Oklahoma population are between the ages of 25 and 64. A majority of the Oklahoma population resides in the geographical regions surrounding the metropolitan areas of Oklahoma City and Tulsa. In addition, 32.4% of Oklahomans lived in a household with children under the age of 18 with the average household size being 2.49 individuals, according to the 2000 census. A majority (56.6%) of Oklahomans reported having only a high school diploma or attending some college but not graduating. It is hypothesized that both certain demographic characteristics such as gender, age, geographic area of residence, household composition and size, and education level influence the online shopping behaviors of Oklahoma consumers; therefore, the demographic profile of the Oklahoma population will be compared to the findings from the current research project.

In addition to examining online shopping practices of Oklahoma consumers it is also of particular interest to this researcher to explore three specific indicators of consumer involvement with an apparel product category and the Internet retail format. These indicators do not directly measure the degree of consumer involvement, but do help to develop a consumer profile that will be useful to Internet marketers. The theoretical basis for this research project is the Consumer Decision Process Model developed by Engel, Blackwell, and Miniard (1986). This theoretical model identifies five stages of consumer decision making and includes stimuli and consumer characteristics that affect each stage of consumer decision making. For purposes of this research project, the information search stage of the Consumer Decision Process Model is utilized and adapted. A more thorough discussion of the theoretical basis is included in Chapter 2.

## Purpose

The purpose of this study was to investigate the shopping practices of Oklahoma consumers who purchased apparel products via the Internet in terms of 1) product category purchased via the Internet, 2) the degree of information search involved before the purchase is made, and 3) various consumer demographic characteristics.

## Objectives

1) To examine the relationships among apparel product categories purchased over the Internet by Oklahoma consumers and (a) time spent searching or browsing the Internet before making a purchase, (b) the number of websites browsed before making a purchase, and (c) the number of brand names considered before making a purchase.

2) To investigate Oklahoma consumers' reasons for purchasing apparel products from the Internet rather than purchasing apparel products from other retail sources.

3) To investigate relationships among the shopping practices of Oklahoma consumers who purchase apparel products over the Internet in terms of (a) time spent searching or browsing the Internet before making a purchase, (b) the number of websites browsed before making a purchase, and (c) the number of brand names considered before making a purchase and the following demographic characteristics: (a) age, (b) marital status, (c) employment status, (d) income level, (e) gender, (f) area of residence, (g) education level, and (h) household size. Based upon an examination of related scholarly literature and the identification of the specified demographic variables, six hypotheses are proposed in the following section.

## Hypotheses

H1: For each of the following response variables: (a) "the amount of time spent searching or browsing the Internet before making an apparel purchase," (b) "the number

of websites browsed before making an apparel purchase,” and (c) “the number of brand names considered before making a purchase,” there are no statistically significant differences in mean response associated with each of the six categories of the treatment variable “apparel product category purchased” (women’s apparel, women’s bras and panties, men’s apparel, children’s apparel, shoes, and accessories).

H2: For each of the following response variables: “marital status” and “gender,” there are no statistically significant differences in the distribution of each of the six categories of the treatment variable “apparel product category purchased” and no statistically significant difference in the mean age of consumer for each of the six categories of the treatment variable “apparel product category purchased.”

H3: There is no statistically significant difference in mean “time spent searching or browsing the Internet before making a purchase” for levels of each of the following treatment variables: (a) “area of residence,” (b) “education level,” (c) “employment status,” (d) “household size,” (e) “number of children in household,” (f) “income level,” and (g) “gender.”

H4: The response variable “number of websites browsed before making a purchase” is independent of each of the following treatment variables: (a) “education level,” (b) “employment status,” (c) “household size,” (d) “number of children in household,” (e) “income level,” and (f) “gender.”

H5: The response variable “number of brand names considered before making a purchase” is independent of each of the following treatment variables: (a) “education level,” (b) “household size,” (c) “number of children in household,” and (d) “income level.”

H6: The response variable “consumer reasons for choosing to purchase a product via the Internet” is independent of the treatment variable “area of residence.”

#### Working Definitions

In order to clarify specific terminology used within this study, the following working definitions are provided.

a) Consumer Involvement – Engel, Blackwell, and Miniard (1986) define involvement as “a reflection of strong motivation in the form of high perceived personal relevance of a product or service in a particular context” (p. 258).

b) Search – “The motivated activation of knowledge stored in memory or acquisition of information from the environment” (Engel, Blackwell, and Miniard, p. 494).

c) External Information Search - Schmidt and Spreng (1996) define external information search as the degree of attention and effort directed toward obtaining any additional information associated with products and/or the purchasing decision. (p. 247).

c) Oklahoma Consumers – For this research study, an Oklahoma consumer is defined as a randomly selected adult over the age of 18 residing in Oklahoma who has purchased an apparel product via the Internet.

d) Product Category Purchased – Oklahoma consumers were asked if they have ever purchased an apparel product even as a gift from specific product categories. The product categories referred to are as follows: 1) women’s apparel (pants, dresses, skirts, coats); 2) women’s bras and panties; 3) men’s apparel (pants, shirts, sweaters, jackets); 4) children’s apparel; 5) shoes; and 6) accessories (belts, scarves, handbags, jewelry).

e) Degree of Search – Degree of information search refers to the amount and levels of search for product information needed for a consumer to make a rational decision

regarding a purchase. Engel, Blackwell, and Miniard (1986) state that degree of search is directly related to a consumer's decision-making process. For this study three indicators of degree of search were examined. These indicators are as follows: 1) time spent searching or browsing the Internet before making a purchase, 2) the number of websites browsed before making a purchase, and 3) the number of brand names considered before making a purchase.

f) Marketing Stimuli – For this research project marketing stimuli refers to information (brand names, advertisements, etc.) created by the marketer (retailer or manufacturer) that serves as a catalyst for the consumer decision-making process.

#### Assumptions

According to findings from the 2002 Oklahoma Social Indicator Survey (Bureau for Social Research, 2002), 63.8% of Oklahoma consumers surveyed have Internet access in their homes and 61.0% reported having made a purchase through the Internet at least once. An assumption is made for the present research study that the percentage of Oklahoma consumers with Internet access in their homes will remain the same or even exceed the 63.8% reported in 2002. Likewise, the assumption is made that at least 61% of respondents will currently report that they have ever made a purchase through the Internet.

Presently, the array of apparel products offered on Internet websites is expansive. In addition, numerous retailers have added the Internet to their channels of distribution. For these reasons, it is assumed that consumers are likely to have been exposed to the availability of apparel products via the Internet. Therefore, exploring the shopping practices of Oklahoma consumers who have purchased apparel via the Internet is worthy

of study. Also, the respondents to this survey are assumed to be rational shoppers and to be able to report information that accurately reflects their actual shopping behavior.

This study assumes that the consumers surveyed performed the reported information search tasks themselves. A further study should examine shared information search behavior and shared consumer decision making among household members. In addition, the assumption is made that the consumers surveyed made no differentiation between national brand names and private label brand names. It is also assumed that at least one brand name was considered before a purchase was made. Lastly the objectives and hypotheses proposed for this study are based upon the Consumer Decision Process model developed by Engel, Blackwell, and Miniard (1986). The model and rationale used as a basis for this study is only one school of thought. Other researchers have developed additional theories concerning shopping behaviors and search behaviors.

#### Limitations

In this study the sample was chosen from the population of Oklahoma consumers; therefore, the results of this study are not generalizable beyond the shopping practices of Oklahoma consumers. In addition, the instrument used does not measure all variables that impact consumer involvement. The focus of this study was to investigate the shopping practices of Oklahoma consumers who purchased apparel products via the Internet in terms of product category purchased via the Internet, the degree of information search involved before the purchase is made, and various consumer demographic characteristics. A future study focusing on a more comprehensive investigation of consumer involvement in relation to apparel purchases via the Internet should follow this exploratory study.

In addition, respondents were asked to report the number of brand names considered before making a purchase via the Internet. Perhaps the respondents do not know what a brand name is. Lack of knowledge in this area may have limited the accuracy of responses. Also, exact household composition was not determined from this survey. This eliminates the possibility of knowing if other adults or even children within the household possibly assist with information search activities. Finally, because the questionnaire used in this survey did not include a question regarding type of Internet connection used by the respondent (dial-up modem versus high-speed Internet connection), it is not possible to determine if type of Internet connection may have impacted time spent searching for products when Internet shopping.

#### Chapter Organization

Chapter 1 provides an introduction to this research and lists and discusses the overall purpose of the current research as well as specific research objectives that were addressed during the course of this study. A comprehensive review of literature and discussion of the theoretical basis used in this project is provided in Chapter 2. Academic and trade literature is summarized to determine the current status of literature concerning e-commerce, consumer decision making, and consumer shopping behavior and orientations. The procedure for this study is outlined in Chapter 3 along with a discussion of the instruments used, sampling procedures, and data analysis procedures. In Chapter 4, results from the frequency count performed along with the additional analyses of data are reported and discussed. Finally, a summary of the preceding chapters, conclusions, and recommendations are provided in Chapter 5.



## CHAPTER II

### REVIEW OF RELATED LITERATURE

Based on the purpose and objectives of the research study, the Review of Related Literature examines the components titled “Electronic Commerce,” “Decision Making,” and “Shopping Behaviors and Shopping Orientations.” The “Decision Making” section includes background on the following areas: (a) Cognitive and Affective Processes in Decision Making, (b) Perceived Risk/Return and Product Involvement, (c) Information Availability and Search, and (d) Product Brands. The theoretical basis used for this research project is the Consumer Decision Process Model (Engel, Blackwell, and Miniard, 1986). A visual representation and written discussion of this model and its relationship to the current study is included after the presentation of the review of related literature.

#### Electronic Commerce

Over the last several years, the electronic commerce scholarly literature has greatly expanded. Online consumer shopping profiles have been developed and demographic information about online consumers has been gathered. The factors most important to the financial sustainability of e-tailers are bringing consumers to the site, convincing consumers to purchase, and establishing loyalty. Lynch, Kent, and Srinivasan (2001) examined factors that stimulate the initial purchase and create loyalty to e-tailers. The researchers found that for consumers who shop online and are unable to experience contact with product before purchase, trust is essential. However, the type of product may

affect the consumer's level of trust. Goldsmith & Goldsmith (2002) investigated consumers who had purchased apparel online versus consumers who had not purchased apparel online in terms of demographics and attitudes regarding online purchasing.

Individuals, who are classified as baby boomers were reported by Chiger (2001), as being the most typical demographic group to purchase from a catalog or from the Internet. Within this group of individuals ages 36-50, 56.9% had purchased a product from a catalog, but only 33.8% had purchased a product from the Internet in 2000. The percentages of catalog and Internet shoppers decrease with the increase of age of the survey respondents. Chiger (2001) also reported that 51.1% of respondents over the age of 50 purchased from a catalog during 2000, but only 20.6% of this over 50 age group had purchased a product over the Internet.

According to Bhatnagar, Misra, and Rao (2000), professional promotion and personal time deficiency is directly related. Thus, this particular category of consumers must seek retail formats that prove to be the most time efficient. Bhatnagar, Misra, and Rao (2000) propose that shopping online is the ideal format for career-minded, time deficient consumers who have experience using the Internet.

The purpose of the Then and DeLong (1999) study was to explore the current use and perceived expectations of apparel website experiences from the perspective of the consumer. In this study only two of the 20 respondents had made an actual apparel purchase from a website. A larger majority of respondents had visited an apparel website and 50% stated that they were return visitors to a particular website. In addition, 25% of the respondents reported that they had used apparel websites for information gathering

but not purchasing. According to Then and DeLong, apparel products have a better success rate online when size is not a critical factor.

Tan (1999) found that consumers perceive Internet shopping as a riskier retail format than the traditional brick-and-mortar retail format. Therefore, Tan proposed that consumers who have a high propensity to accept risk would be more likely to shop online. Scally (2000) wrote that brick-and-clicks retailers have a significant advantage over pure e-tailers by having a tangible store front for consumers to shop or to simply remind the consumer of its established physical presence.

Factors most important to the financial sustainability of e-tailers are bringing consumers to the site, convincing consumers to purchase, and establishing loyalty. Lynch, Kent, and Srinivasan (2001) examined factors that stimulate the initial purchase and create loyalty to e-tailers. The authors found that for consumers who shop online and are unable to experience contact with a product before purchase, trust is essential. However, the type of product may affect the consumer's level of trust. In addition, the complexity of the product, the consumer's involvement with the product, the degree of projected self-image through the product, or the perceived risk of purchasing the product may affect the level of trust.

### Consumer Decision Making

#### Cognitive and Affective Processes in Decision Making

Shiv and Fedorikhin (1999) proposed that when an individual is exposed to alternatives in a decision-making task, two types of processes may be elicited, one affective in nature and the other cognitive in nature. The author conducted two experiments that involved respondents choosing between two alternatives: one

(chocolate cake) which was assumed to be associated with high positive affect but less favorable cognitions, and a second alternative (fruit salad) which was assumed to be associated with low affect but more favorable cognitions. Shiv and Fedorikhin determined through the experiment that when an individual is faced with two decision alternatives, where one alternative (chocolate cake) is perceived as superior in affect but less desirable in cognitive terms as compared to the other alternative (fruit salad), choices are influenced by the level of processing allocated to the task and the method by which the alternatives are presented.

#### Perceived Risk/Return and Product Involvement

The scholarly literature regarding consumer decision making is quite extensive. Laurent and Kapferer (1985) studied the interaction of consumer product involvement with risk and the implications on decision making. The authors proposed that consumers' behavior patterns differ depending on the consumer's level of involvement with the product as well as the perceived utility from consumption of the product, the product's symbolic value, attached risk, and the probability of the consumer making a wrong decision.

In addition, much research has explored the various decision-making strategies utilized by consumers and the many facets of these strategies. Peter and Tarpey (1975) attempted to explain consumer preference for specific automobile brands through the use of three different decision-making strategies. The three strategies examined and compared to each other were as follows: 1.) minimization of perceived risk, 2.) maximization of perceived return, and 3.) maximization of net perceived return. Peter and

Tarpey determined that net perceived return was a more reliable predictor of the variance in automobile brand preference than perceived risk and perceived return.

Perceived risk has been examined in traditional retail formats as well as non-traditional retail formats such as catalog and Internet venues. In particular, the effect of perceived risk on purchasing apparel from catalogs has been studied. The relationship between purchasing frequency and dollar amount purchased was studied by Jasper and Ouellette (1994). These variables were studied in conjunction with inability to examine a product before purchase, consumer self-esteem, willingness to search for information, brand name attitudes, and consumer ability to visualize him/herself in a garment. Festervand, Snyder, and Tsalikis (1986) examined the effect of prior catalog shopping experience on perceived risk. In addition, respondents were asked to rate several products on each of six dimensions of perceived risk in both catalog and retail-store purchasing situations. The risk associated with catalog purchasing was perceived as greater than purchasing from the more traditional brick-and-mortar retail format. However, respondents who had had positive prior experience purchasing from a catalog perceived less risk from catalog purchasing than those who had never purchased from a catalog.

Tan (1999) examined factors defined as risk relievers that are believed to minimize perceived risk of Internet shopping when engaged in by the consumer. Tan chose to examine the reference group appeal, retailer's reputation, brand image, money-back guarantees, and free trial offers. The researcher determined that reference group appeal was the preferred risk reliever. Tan found that consumers perceive Internet shopping as a riskier retail format than the traditional brick-and-mortar retail format. Therefore, Tan

proposed that consumers who have a high propensity to accept risk would be more likely to shop online.

Personal characteristics may add to the risk perceptions of purchasing a product online. Bhatnagar, Misra, and Rao (2000) also believe that as consumers become more knowledgeable of the Internet, their perception of risk associated with purchasing online decreases. Miyazaki and Fernandez (2001) agree that greater individual Internet experience and knowledge reduce the level of perceived risk associated with online shopping. In addition, Miyazaki and Fernandez found in their research that greater Internet experience and reduced level of perceived online shopping risk is positively correlated with higher online purchase rates.

The level of risk deemed as acceptable is subjective meaning that individuals vary in the degree of risk that is accepted. The variation of risk acceptance may be dependent upon personal characteristics of the individual. Bhatnagar, Misra, & Rao (2000) proposed that the relationship between consumer benefits and risk is a function of personal characteristics. According to Bhatnagar, Misra, and Rao an individual who is Internet savvy would accept more risk than an individual who is rather unfamiliar or uncomfortable with browsing the Internet. In the past, some consumers have viewed online shopping as quite a risky venture. Therefore, the higher the consumer perceives the risk of purchasing a product via the Internet, the higher their perceptions of the risk in achieving the desired benefits from the product purchased or the retail format itself. The desired benefits possibly derived from the product itself refers to the consumers' expectations and beliefs about whether the product would function according to their expectations even before the product has been purchased and received. Product risk is

greatest when the product is technologically complex, if the product meets some ego-related need of the consumer, or is expensive (Bhatnagar, et. al, 2000). In addition product risk will be greater in product categories where the consumer values seeing, feeling, and touching the product. A second type of risk associated with purchasing online is financial risk. Financial risk refers more to the risk involved with purchasing from the Internet retail format rather than a specific product.

#### Information Availability and Search

Other areas of decision-making literature have focused on the availability and quality of information used in consumer decision making. Keller and Staelin (1987) studied the effects of available information on the consumer's ability to determine the best possible alternative in a choice set. The authors proposed that the quality of information available to a consumer improves decision effectiveness; whereas, increased information quantity decreases decision effectiveness. The 3-stage experiment to determine the effects of information overload showed information overload does negatively affect assessments.

Kim and Lennon (2000) conducted a frequency count of the available information in home-shopping segments. The frequency count also included a count of the types of available information as well as the sources of the available information. Kim and Lennon (2000) used the EBM Consumer Decision Process Model (CDP) as the theoretical basis for the study on home-shopping and information. Following the CDP model the findings showed that as consumers perceived more information, they tended to perceive less risk and increased purchase intent. Kim and Lennon proposed that

information is vitally important to consumers engaged in television shopping since consumers are dependent upon the television medium as its primary information source.

In addition to researching the importance of the presence and availability of information to decision making, the role of consumer search in the decision making process is worthy of research. Slama and Tashchian (1985) believe that purchase involvement and consumer information search behavior are related. The researchers found that purchase involvement exhibited a positive relationship to several factors that include family life cycle stage, education level, and level of income. The interaction of consumer product involvement and prior product knowledge and its effect on information source choice was examined by Chang and Huang (2002). The results of this study showed that information sources are relied upon more heavily when consumer prior knowledge is low, regardless of the level of product involvement invested by the consumer.

Midgley (1983) studied the importance of consumer search in the choice and purchase of a socially symbolic product. Adult males were questioned about the external information sources they used before purchasing a new suit. The results showed that the respondents of this study tended to depend upon information sources that were personal to them, such as advice from friends, rather than information that was controlled by retailers. In addition, the amount of external search sought by the respondents increased when the style of the suit being considered was perceived as being a social risk.

External information search is one of the primary variables under investigation in this research. Schmidt and Spreng (1996) defined external information search as the degree of attention directed toward obtaining any information related to a product and



useful to the decision-making process regardless of whether the decision is currently under consideration. Schmidt and Spreng proposed that a consumer's ability to search for information is the first determinant of the level of search that takes place. The authors defined perceived ability to search as the consumer's perceived capability of searching for any external information. Attributes of one's perceived ability to search include educational level, objective product knowledge, and subjective product knowledge. Schmidt and Spreng stated that according to the compilation of research on this attribute, higher levels of education enable consumers to identify, locate, and assimilate relevant information. Schmidt and Spreng define objective knowledge as what a consumer actually knows about a product. In other words, objective knowledge is the type and amount of product knowledge stored in the consumer's memory. On the other hand, Schmidt and Spreng define subjective knowledge as the consumer's perception of the amount of knowledge that he or she knows about the product. While subjective knowledge encompasses actual information stored in the consumer's memory, it also includes the consumer's self-assessment of this product information.

For example, if a consumer wishes to purchase new running shoes, has been running for exercise for sometime, and knows what product qualities she prefers in a running shoe. This consumer has a well-established level of objective product knowledge. However, this consumer does not know which brand names are better in quality and are within her price range. Before researching additional brand names, this consumer feels unable to make an optimal purchasing decision; therefore, at this point, the consumer has a relatively low level of subjective product knowledge. According to Schmidt and Spreng

(1996), this consumer is likely to engage in some type of external information search in order to make the optimal decision regarding the purchase of new running shoes.

### Product Brands

Product brand importance has been labeled as an important attribute of consumer decision making in the electronic commerce arena. A 2000 study examined how consumer brand choice can be affected by consumer experience and knowledge of the Internet (Ward & Lee, 2000). The results showed that as Internet experience increases consumers are more likely to search for additional product information and rely less on brand names as the only source of product information. Brand name importance in online formats appears to be dependent on the amount of information available to consumers. More specifically, when less information is available on specific product attributes available online, brand importance increases. Marketers should not rely entirely on brand names to solidify their position in the marketplace.

### Shopping Behaviors and Shopping Orientations

Chen-Yu and Seock (2002) examined shopping orientation and consumption patterns. Specifically, the authors chose to examine the apparel shopping frequency, consumption habits, and preferred store attributes of high school students. The purpose of this study was to examine any similarities and differences between male and female adolescent consumers as well as adolescent shoppers who can be characterized as impulse shoppers. Oates, Shufeldt, and Vaught (1996) studied the consumer behavior and perceived needs and wants of older consumers. In this study the researchers identified psychographic characteristics of the elderly consumer who purchased over-the-counter

drugs and sought to determine how specific psychographic characteristics related to preferred retail store attributes.

Shopping orientations of rural consumers were examined by Lumpkin, Hawes, and Darden (1986). Shoppers were characterized as inactive shoppers, active outshoppers, and thrifty innovators. Inactive shoppers reported shopping mostly at local retailers and tended to shop only because of necessity. On the other hand, active outshoppers shopped at a variety of local and urban retailers. Active outshoppers reported active lifestyles and higher incomes. In addition, these individuals shop for enjoyment. The thrifty innovator group tended to have lower incomes and to focus on saving time and being price conscious.

Westbrook and Black (1985) developed a profile of shoppers based on shopping motivations. Specifically, the shopping motivations examined were anticipated product utility, fulfillment of economic roles, optimization of purchase choice, need for stimulation, and desire for affiliation with others or to exercise power and authority. The specific shopping orientation profiles developed were: the involved shopper, the choice optimizer, the process-averse shopper, the apathetic shopper, the price-conscious shopper, and the nondescript shopper.

Alreck and Settle (2002) report that women tend to view shopping as a social and pleasing activity. In addition, the researchers determined from their study that women choose optimizing shopping strategies when shopping for clothing and clothing accessories. This finding is the inverse of the strategies chosen by men for the same product categories in this study. Furthermore, the results of the study showed that in general women have a more positive view of shopping than do men. However, no

significant differences were found between the perceived image of Internet shopping between men and women in this study.

Whelan (2001) discussed the female Internet shopper who has established trust in a website-affiliated brick-and-mortar store. Whelan describes this woman as one who may determine that a particular website is reputable, but ultimately finds herself browsing and making repeat purchases from a selection of websites that she trusts. Whelan further discussed that this trust often extends from trust she has developed with the affiliated brick-and-mortar stores. In addition, Whelan characterized convenience shoppers as consumers who do not mind finding a bargain but will not change their chosen shopping location to find a bargain.

Consumers' attitudes toward direct marketing were examined through in-home personal interviews (Akaah, Korgaonkar, & Lund, 1995). The researchers proposed that consumers' attitudes toward direct marketing are a product of shopping orientation and patronage intention. Market mavens are defined as individuals who have information about many kinds of products, places to shop, and other facets of markets, and initiate discussions with consumers and respond to requests from consumers for market information. (Feick & Price, 1987).

Gehrt and Carter (1992) examined the presence of multiple catalog shopping orientations. The researchers gathered psychographic and demographic characteristics in order to profile consumers based upon shopping orientations and behaviors. A profile of catalog shoppers and their frequency of shopping was developed by Jasper and Lan (1992). Consumers' lifestyles, demographics, and motivations for catalog shopping were profiled. The investigation showed that frequent catalog shoppers were older and better

educated than infrequent catalog shoppers. In addition the profile identified the more frequent catalog shoppers as being more concerned about shopping by catalog for convenience reasons.

Eastlick and Liu (1997) examined consumer perceptions of the attributes of television shopping programs and brick-and-mortar department and specialty stores. In addition consumer attitudes toward both television shopping programs and brick-and-mortar stores and frequency of shopping from catalogs and online shopping were investigated. Goldsmith and Goldsmith (2002) examined differences between consumers who have purchased apparel online and consumers who have not purchased apparel online. No differences were found in overall shopping enjoyment or the frequency of shopping between the two groups. No significant statistical relationship was found between the demographic variables of age, sex, and race and online apparel buying.

Zhan and Gery (2000) explored the relationships among consumers' levels of Internet experience, risk perceptions of purchasing online and actual online purchases made. The researchers conducted an examination of Internet users' concerns and perceived risk regarding online shopping. In addition to exploring the relationship between Internet experience and risk perception of online shopping, Zhan and Gery also examined consumers' level of experience with other non-traditional retail formats and their relationship to perception of risk and online purchasing behavior.

Paden and Stell (2000) claim that most web design guides assume that all online consumers respond to websites in similar manners; however, related academic research disputes this claim. This study described online shopping orientations and discussed methods for designing retail websites to account for consumer differences. Likewise, in a

2001 study, the authors surveyed online shoppers from twelve countries (Lynch, Kent, & Srinivasan, 2001). The results indicated that website quality, trust in the company, and positive affect toward the website are important in determining purchase behavior and consumer loyalty to the website.

Srinivasan, Anderson, and Ponnnavolu (2002) examined the attributes of customer loyalty in the online environment. The researchers examined customization, contact interactivity, care, community, convenience, cultivation, choice, and character in terms of each factors impact on a consumer's potential loyalty to the website. Scales were developed to measure the eight factors listed. The researchers discovered that all factors mentioned except convenience affect loyalty to the online sources investigated.

For this particular research study, it was necessary to include information from the extensive electronic commerce, decision making, and shopping behavior literature. The bulk of the electronic commerce literature focuses on developing consumer profiles for the electronic medium and exploring various components of consumer risk perceptions regarding electronic commerce. Decision making literature expands much farther than what is covered in this review of related literature. However, for purposes of this study, decision making literature was divided into the following categories of discussion: (a) Cognitive and Affective Processes in Decision Making, (b) Perceived Risk/Return and Product Involvement, (c) Information Availability and Search, and (d) Product Brands. Presented in the following section is a discussion of consumer involvement and presentation of the theoretical basis for this study, the Consumer Decision Process Model developed by Engel, Blackwell, and Miniard (1986).

## Theoretical Basis

Consumer involvement occurs when a product is perceived as being relevant in meeting the consumer's need or goal (Engel, Blackwell, & Miniard, 1986). The level of involvement can vary from one situation or product to the next. Firstly, involvement is based upon individual needs and desires. Involvement can be long-term, situational, or temporary. Involvement with a product develops if the individual perceives risk in the purchase or use of the product. The higher the level of perceived risk, the higher the level of involvement. When perceived risk reaches the individual's threshold, the individual will either not purchase the product or will seek to reduce risk to a minimum level by engaging in the search and alternative evaluation stages.

As the level of consumer involvement increases, the more important making the optimal purchasing decision becomes. A major factor in the consumer decision-making process is information search (Engel, Blackwell, and Miniard, 1986). Schmidt and Spreng (1996) define external information search as "the degree of attention, perception, and effort directed toward obtaining environmental information associated with consumption-related objects, regardless of whether the consumption objects are related to a specific purchase under consideration" (p. 247). Schmidt and Spreng propose that a consumer's ability to search for information is the first determinant of the level of search that takes place. The authors defined perceived ability to search as "the perceived cognitive capability of searching for and processing information" (p. 248). Attributes of one's perceived ability to search include educational level, objective product knowledge, and subjective product knowledge. For this reason, demographic variables along with basic computer and Internet usage were examined in this study. In addition Schmidt and

Spreng (1996) propose that situational involvement influences external information search. Situational involvement is defined as the level of involvement that occurs due to connection between a product or situation and the results of situation.

### Consumer Decision Process Model

According to Engel, Blackwell, and Miniard's (1986) Consumer Decision Process Model, consumers engage in a series of stages during decision making (See Figure 1). To be more specific, the Engel, Blackwell, and Miniard (EBM) model (1986) consists of five decision making processes: (a) problem recognition, (b) information search, (c) evaluation of alternatives, (d) purchase, and (e) post-purchase evaluation. The consumer begins the decision-making process by simply recognizing that a problem exists. Essentially this stage refers to the consumer's recognition of a need or want.

A consumer identifies a need when there is "a perceived difference between perception of 'what might be' as compared with the present state of affairs." (Engel, Blackwell, & Miniard, 1986, p. 477). There are three determinants of need recognition: 1) information stored in memory, 2) individual differences, and 3) environmental differences. After the acknowledgement of a need or want is established, the consumer progresses to the second stage where the consumer searches his or her memory for information about products that will possibly satisfy the recognized need or problem from stage one.

Search can be defined as the motivated activation of knowledge stored in memory or acquisition of information from the environment. Through this internal search into memory the consumer determines if the consumer's mind holds enough information to make a decision without conducting a further search for information. However, if



consumer involvement is perceived as high then an internal search will not provide all information the consumer deems is necessary to make an appropriate decision (Engel, Blackwell, & Miniard, 1986). If internal search is unsatisfactory then the consumer will engage in some type of external information search. Typically, if the consumer perceives the consumer involvement as low then an internal information search will be satisfactory. If consumer involvement is perceived as high, the consumer will then engage in external information search after determining that the internal search into one's own memory is either incomplete or unsatisfactory. The external search may occur due to the need to find information before making a purchase decision (pre-purchase search). Pre-purchase search typically refers to finding information necessary to make the best possible choice for an immediate purchase decision.

The other type of search is referred to as an ongoing search. A consumer who engages in ongoing search may be inclined to establish a collection of knowledge that can be recalled to make future decisions. This external search could involve searching the media, searching websites, asking advice from peers, or seeking a variety of other sources. This procedure of external search for information is of great interest for this particular research study. Electronic commerce consumers may seek external product information from related websites or from the website from which they intend to purchase products. Forseter (2001) proposes that the Internet may actually be a more viable information search tool than traditional retail outlets. When purchasing apparel online, consumers cannot perform external information searches with the actual product or sales person as they can if shopping at a brick-and-mortar store.

One attribute that affects the information search stage is product knowledge (Engel, Blackwell, & Miniard, 1986). Product knowledge involves the following: 1) awareness of product category and brands within the product category, 2) terminology, 3) product attributes, and 4) beliefs about product category and brands. Where to purchase a product can be a major decision for some consumers. In most cases, there will be multiple competitors. Decisions of where to buy are determined largely by purchase knowledge. The type of information, accessibility, and amount of information available to the consumer (Engel, Blackwell, and Miniard, 1986) also affect a consumer's external search.

Once the consumer has gathered enough information for his or her purpose the consumer then processes the information. After the search for information has been completed the consumer enters the alternative evaluation stage. During this stage the consumer considers the "formation and change in beliefs about the product or brand and its attributes, followed by a shift in attitude toward the act of purchase" (Engel et al., 1986, p. 479). Alternative evaluation basically involves the consumer using personal evaluative criteria to assess all available options of brands and products. Evaluative criteria are defined as "the standards and specifications used by consumers to compare different products and brands" (p. 479). Engel et al. (1986) also refers to evaluative criteria as the preferred attributes. Evaluative criteria are very subjective and are based upon individual differences and environmental influences. The consumer will compare these subjective evaluative criteria to all available products and brands. During this procedure the consumer will begin to form beliefs and attitudes about the available options. As new attitudes and beliefs are formed, existing attitudes and beliefs will be

reinforced and/or changed. In addition, attitudes and beliefs regarding the consumer's intention to purchase a particular product or brand will be formed or changed.

In the evaluation of alternatives stage evaluative criteria are used to compare different products and brands. Engel et al., (1986) define the evaluation of alternatives stage as "the process by which a choice alternative is evaluated and selected to meet consumer needs" (p. 513).

The alternatives from which choice is made are called the consideration set (Engel, et al., 1986). The consideration set is actually only a small segment of the total number of alternatives from which a consumer is able to choose. In order for a product or retail format to be chosen by the consumer the product or retail format must be included in the consumer's consideration set. The exclusion of the product or retail format from the consumer's consideration set leads the consumer to choose a product that is included in the consideration set – the competitor's product will be chosen (Engel et al., 1986). It is important to understand that the search and alternative evaluation stages are intertwined and may be quite complex. Consumer determinants include knowledge, involvement, demographics, age, income, gender, and education. If the given information helps to reduce perceived risks, consumers may move to the next stage, purchase (Engel et al., 1986). The final post-purchase evaluation stage results in satisfaction or dissatisfaction, which influences future purchase behavior.

For purposes of this study only the information search stage of the model is examined. This information search stage is only one small part of the Consumer Decision Process Model (see Figure 2). A void of scholarly studies that investigated information search behaviors of online consumers exists. This void along with the identification of

numerous scholarly studies that have examined demographic profiles for consumers of various retail formats has led to the development of the present study. Future studies designed to directly measure consumer involvement and additional shopping behaviors of online consumers who purchase apparel products are needed to expand upon the findings from this study.

## CHAPTER III

### METHODS

#### Introduction

The purpose of this study was to investigate the shopping practices of Oklahoma consumers who purchase apparel products via the Internet in terms of product category purchased via the Internet, the degree of information search involved before the purchase is made, and various consumer demographic characteristics. The objectives of this study were:

1. To examine the relationships among apparel product categories purchased via the Internet by Oklahoma consumers and (a) time spent searching or browsing the Internet before making a purchase, (b) the number of websites browsed before making a purchase, and (c) the number of brand names considered before making a purchase.

2. To investigate Oklahoma consumers' reasons for purchasing apparel products from the Internet rather than purchasing apparel products from other retail sources.

3. To investigate relationships among the shopping practices of Oklahoma consumers who purchase apparel products via the Internet in terms of (a) time spent searching or browsing the Internet before making a purchase, (b) the number of websites browsed before making a purchase, and (c) the number of brand names considered before making a purchase and the following demographic characteristics: (a) age, (b) marital status, (c) employment status, (d) income level, (e) gender, (f) area of residence, (g) education level, and (h) household size.

This chapter includes the following sections: a description of the sample used, development of the questionnaire, description of the instrument, and data collection procedures. This research project was developed in conjunction with the 2003 Oklahoma Social Indicator Survey that was administered by the Bureau for Social Research (BSR) at Oklahoma State University. The BSR conducts an annual telephone survey through which demographic data pertaining to various issues involving the Oklahoma population is collected. Individuals or organizations submit survey items they would like to investigate. The 2003 Oklahoma Social Indicator Survey was conducted in two independent surveys due to the large number of researchers contributing survey questions. Part 1 of the 2003 survey included the following topics: corn food products and grocery shopping, rehabilitation services, infant feeding and children's health, alcohol and drug use, mental health, and domestic violence, and Oklahoma public colleges and universities.

Questions and data about apparel Internet shopping as reported in this dissertation research project were included in Part 2 of the 2003 Oklahoma Social Indicator Survey. Other topics included in Part 2 are as follows: computer use and media capabilities, Internet use, business ownership, termite problems, lawns and gardens, and general Internet shopping. The first demographic and opinion data regarding Oklahoma consumers basic computer and Internet capabilities were collected through the 2002 Oklahoma Social Indicator Survey (Bureau for Social Research, 2002).

### Sample

Households were randomly selected from all Oklahoma telephone exchanges. Selection of the sample occurred in two stages. A random digit sampling method was

used. First, an Oklahoma household was randomly selected from all Oklahoma telephone exchanges. All known business telephone numbers were excluded and all randomly chosen telephone numbers were screened for disconnected numbers.

The sample was chosen in the following manner. From the selected household a randomly selected adult from within the household was chosen for interviewing. A technique called “the most recent birthday method” was used to randomly select an adult from within the randomly selected household. When the phone was answered the interviewer identified him/herself, stated the purpose of the phone call, and asked to speak with the person residing within the household who is over 18 and has had the most recent birthday. This method provided a completely random selection of an available adult residence of the selected household.

Interviewers were carefully trained and supervised students from Oklahoma State University. Computer Assisted Telephone Interviewing (CATI) software was used to accurately record all interviews. Interviews were conducted Monday through Thursday evenings and Friday afternoons. The total number of randomly selected telephone numbers included in the sample for Part 2 of the 2003 Oklahoma Social Indicator Survey was 6,294. Of this total 19% (n = 1, 224) of the telephone interviews were completed. Approximately 3% (n = 212) of individuals contacted refused to participate in the survey, and 2% (100) were unable to participate due to physical or language barriers. Another 24% (n = 1,511) of households were contacted at least six times before no further attempt at contact was made. Twelve percent (n = 760) of phone numbers remained active at the termination of the survey. Thirty percent (n = 2,487) of the randomly selected telephone

numbers were eliminated due to the telephone numbers either not working or not being a home phone number. Thus, the response rate for this survey was 32%.

#### Development of Questionnaire

The questionnaire was administered via random telephone interviews. The survey questions used for this dissertation research project were incorporated into Part 2 of the 2003 Oklahoma Social Indicator Survey. Questions pertaining to various topics were incorporated into Part 2. These topics are as follows: computer use and media capabilities, Internet use, business ownership, termite problems, lawns and gardens, general Internet shopping, and apparel Internet shopping. Of interest to this dissertation research project were findings from the computer use and media capabilities, Internet use, general Internet shopping, and apparel Internet shopping.

The first information to be gathered was a current documentation of Oklahoma consumers' general access to a computer from home or a business location. The researcher from the Department of Agricultural Economics at Oklahoma State University who submitted these questions agreed to allow the researcher of this dissertation research project to present the demographic findings for the question "Do you have access to a computer at home or work?" as baseline demographic information for this apparel Internet shopping study. In addition it is of use to this research to have the current percentage of Oklahoma consumers who have used the Internet and have ever made a purchase from any product category via the Internet. A question to determine the frequency of purchasing products of any type via the Internet was asked to respondents who report having purchased a product via the Internet. Two researchers from the Department of Design, Housing and Merchandising at Oklahoma State University who



submitted the questions for this topic allowed this researcher to report demographic frequency information for comparison with the apparel Internet shopping questions developed.

The questions developed by this researcher and the researcher's dissertation advisor addressed specific apparel Internet shopping behaviors. A total of five questions were asked regarding the shopping behaviors of Oklahoma consumers who purchase apparel products via the Internet. Percentages of specific apparel product categories purchased were gathered. Respondents were asked to answer several questions in relation to a specific apparel product that they have purchased via the Internet. For a specific product chosen, information was gathered that indicated the degree of search that a consumer engaged in before purchasing a specific apparel product. The final section of questions included in Part 2 of the Oklahoma Social Indicator Survey was a set of twenty-five demographic questions to gather both individual and household demographic information. For this particular research project findings from only eight of the twenty-five demographic questions were reported.

Multiple steps were taken to ensure sound procedure in the questionnaire development. Once the five questions for gathering shopping practices for consumers who purchase apparel products were developed by this researcher, the questions were reviewed by a faculty member with expertise in apparel merchandising and consumer behavior and by the micro-business Cooperative Extension specialist. The director of the Bureau for Social Research at Oklahoma State University reviewed the questions a second time.

## Description of Instrument

As previously discussed, the questions developed for this research project were incorporated into Part 2 of the 2003 Oklahoma Social Indicator Survey conducted by the Bureau for Social Research at Oklahoma State University. From the interviews conducted, four categories of data were gathered. First, documentation of Oklahoma consumers' general usage of the Internet and personal access to the Internet was noted. Secondly, data were gathered to determine the percentage of Oklahoma consumers who have ever made a purchase of any product via the Internet. Questions were also included to investigate the frequency of visiting retail websites and the frequency of purchasing products of any type via the Internet. Thirdly, frequencies of specific apparel product categories were denoted. In addition, respondents were asked to answer several questions regarding a specific apparel product that they have purchased via the Internet. For the identified product, information was gathered that indicated the degree of search that a consumer engaged in before purchasing a specific apparel product. The final category of data collected was demographic information. Relationships among specific demographic characteristics and other independent variables defined in this study were examined.

The following section includes a summary of the items included in the questionnaire along with an explanation for the inclusion of each item. Within each item's explanation, findings are reported for certain items that were included in the 2002 Social Indicator Survey that was administered by the Bureau for Social Research at Oklahoma State University (Bureau for Social Research, 2002). These 2002 findings are reported in order to provide baseline data for comparison and to support the justification for items included

in the present study. For a complete listing of questions included in the survey in the finalized format, see Appendix C.

According to the 2002 Oklahoma Social Indicator Survey 75.3% of Oklahoma consumers surveyed have used the Internet (Bureau for Social Research, 2002). Of these respondents 63.8% have Internet access in their homes and 47.4% have Internet access at their places of business. A majority of Oklahoma consumers surveyed (61%) in 2002 reported having made a purchase through the Internet. Since a large percentage of 2002 respondents reported having used the Internet and having made a purchase via the Internet, it was of great interest to determine if findings from the 2003 Oklahoma Social Indicator Survey would report similar percentages among Oklahoma consumers.

Therefore, five questions were asked regarding the basic computer use and general Internet use of Oklahoma consumers. The questions included asking if the consumer had access to a computer at home or a business location; if the consumer had ever used the Internet; if Internet access was available in the home or business; and if the consumer had ever purchased a product via the Internet. Respondents were able to answer yes, no, don't know, or could have refused to answer. Researchers in the Department of Agricultural Economics and the Department of Design, Housing and Merchandising at Oklahoma State University submitted these questions.

In 2002, 61% of Oklahoma consumers surveyed reported having made a purchase via the Internet (Bureau for Social Research, 2002). This large percentage warranted a further investigation of the purchasing practices of these consumers. Therefore, it was of interest to determine what types of products are being purchased via the Internet by Oklahoma consumers and the frequency with which Oklahoma consumers shop through

the Internet format. The reasons Oklahoma consumers choose to purchase from the Internet as well as choosing to make a purchase from another retail source is valuable information that was recorded and examined in relation to specific demographic variables.

Five questions that were related to general Internet purchasing behaviors were asked. The first two items addressed the frequency with which consumers visited Internet retail websites and the frequency of purchasing from Internet websites. For these two items survey participants were offered the following response alternatives: never, once or twice a year, once every few months, every month, or at least once a week. Respondents were asked to identify the most common item he or she purchased over the Internet. Possible choices are as follows: clothing including shoes, home furnishings, jewelry, computer-related products including software, home electronics, books, recorded music, travel services, or other. Respondents were also asked to indicate the primary reason for making an Internet purchase and the primary reason for not choosing to buy from the Internet. Possible responses for making a purchase were as follows: convenience, lower cost, enjoyable, time saving, easy to do, or other. Possible responses for choosing not to purchase via the Internet are as follows: concerned with safety and privacy; websites are hard to navigate; hard to return items or get support; cannot touch or feel item; websites do not provide accurate, timely, or enough information to make a decision; want to support local merchants; or other. Researchers in the Department of Design, Housing and Merchandising at Oklahoma State University submitted these questions.

The primary purpose of this study was to investigate the shopping practices of Oklahoma consumers who purchase apparel products via the Internet in terms of product

category purchased via the Internet and the degree of information search involved before the purchase is made. The questions outlined in the following section address the degree of information search involved before a purchase is made.

Questions were posed in order to determine specific shopping behaviors of consumers who purchased apparel products via the Internet within the last year. Respondents were read several apparel product categories and asked to respond yes, no, or don't know to having purchased a product within that category even as a gift. The apparel categories were as follows: women's apparel, women's bras and panties, men's apparel, children's apparel, shoes, or accessories. Respondents were then asked to think of a particular product from one category from which they responded yes and answer four questions about this product.

Respondents were asked how much time was spent searching or browsing the Internet before making this purchase. Possible responses were 15 minutes or less, 16-20 minutes, 31 minutes to 1 hour, or more than 1 hour, don't know, or refused to answer. In addition, respondents were asked to indicate the number of websites browsed and the number of brand names considered before making the purchase. These two questions were open-ended. Lastly, respondents were asked to indicate the reason for choosing to purchase this product via the Internet as opposed to another retail source. Possible responses were as follows: the product was not available in the physical store, the Internet was most convenient, incentives were offered to purchase from the website, the physical store is not geographically near you, you enjoy using the Internet, you discovered the product while browsing the Internet, other, don't know, or refused to

answer. These questions were developed and submitted by this researcher and the graduate advisor, with the approval of the dissertation advisory committee.

The last section of questions recorded demographic information of the sample. Twenty-five demographic questions were asked; however, only eight demographic questions were of interest and relevance to this particular research project. Demographic variables used in this research project are as follows: age, county of residence, marital status, education level, race, employment status, household size, and gender. For a complete listing of demographic questions asked and alternative responses see Appendix C.

The demographic questions were used to gather individual as well as household information about Oklahoma consumers who purchase apparel products via the Internet. These questions were used to address the third objective of this study. The demographic characteristics: (a) age, (b) marital status, (c) employment status, (d) income level, (e) gender, (f) area of residence, (g) education level, and (h) household size were examined in relation to the degree of search involved before making a purchase.

#### Data Collection Procedures

Because this research project is a part of the 2003 Oklahoma Social Indicator Survey administered by the Bureau for Social Research at Oklahoma State University the data were collected by means of telephone interviews. The survey sample for this study consisted of households selected randomly from all Oklahoma telephone exchanges. From a possible 6,294 potential respondents, a total of 1,224 interviews were completed. The 1,224 respondents answered questions pertaining to the following topics: computer use and media capabilities, Internet use, business ownership, termite problems, general

Internet shopping, and apparel Internet shopping. Forty-five percent (n = 553) of respondents reported having ever made a purchase through the Internet. Of these 553 respondents, 55.5% (n = 307) reported having purchased an apparel product via the Internet. The 307 individuals who reported having purchased apparel products via the Internet were asked several questions pertaining to their online apparel shopping practices.

#### Statistical Analysis of Data

Responses to the questions were tabulated and analyzed using the SPSS 11.0 for Microsoft Windows statistical package. Descriptive statistics were used to describe the sample. Percentages and frequencies were calculated first in order to report baseline information regarding the status on Oklahoma consumers who currently have Internet access in their homes and businesses. In addition, the percentages of Oklahoma consumers who have ever purchased a product of any type were reported. Frequencies and percentages were also reported for the following variables: (a) apparel product category purchased, (b) time spent searching the Internet before making a purchase, (c) the number of websites browsed before making a purchase, (d) the number of brand names considered before making a purchase, and (e) demographic characteristics. A one-way classification analysis of variance was used to determine any statistically significant differences between the mean response associated with each category of the identified treatment response and identified response variables in Hypotheses 1, 2, and 3. In addition, chi-square analysis was used to analyze categorical data included in Hypotheses 2, 4, 5, and 6.

## CHAPTER IV

### FINDINGS

#### Chapter Outline

A demographic profile for the sample is presented along with a comparison of this sample's demographic characteristics with the demographic composition of the general Oklahoma population as reported in the 2000 Census (United States Census Bureau). The demographic profiles are followed by reported frequencies for basic computer and Internet usage, general Internet shopping behaviors, and apparel Internet shopping behaviors. Findings for each of the six hypotheses are presented along with the statistical analyses performed and discussion of support or rejection of each of the null hypotheses.

From 6,294 potential respondents to the survey, a total of 1,224 telephone interviews were completed for Part 2 of the 2003 Oklahoma Social Indicator Survey. The 1,224 respondents answered questions pertaining to the following topics: computer use and media capabilities, Internet use, business ownership, and termite problems. Forty-five percent ( $n = 553$ ) of the respondents reported having ever made a purchase through the Internet. These 553 respondents were asked questions regarding their general Internet shopping behaviors. Of the 553 respondents who reported having made a purchase of any kind via the Internet, 55.5% ( $n = 307$ ) reported having purchased an apparel product via the Internet. These 307 individuals who reported having purchased apparel products via the Internet were asked several questions pertaining to their online apparel shopping practices.



### Demographic Profile of Sample

The sample for the present study was similar to the Oklahoma population. For the sample, 52.4% (n = 633) of respondents were male (compared to 49% male in the 2000 Oklahoma census) with 47.6% (n = 574) of respondents female (compared to 51% female in the 2000 census). The mean age reported in the 2000 Oklahoma census is 35.9 years of age for males and 38.3 years of age for females. For this research project respondent age was reported in categories with age ranges being almost evenly distributed. Percentages and frequencies for respondent age are as follows: “ages 18 – 24” (24.6%, n = 301); “ages 25-34” (18.6%, n = 228); “ages 35-44” (17.6%, n = 215); “ages 45-54” (12.6%, n = 154); “ages 55-64” (10.4%, n = 127); and “ages 65 and older” (14.5%, n = 177) (see Table 1). According to the 2000 Oklahoma Census (United States Census Bureau) 76.2% of the population report their race as “White” with 7.6% “Black,” and 7.9% “Native American.” Similar to the population, the majority of the respondents from this sample reported “White” (72.2%, n = 884) as their race with 8.4% (n = 103) reporting “Black” and 8.4% (n = 103) “Native American” and 8.9% reporting “Other.”

Reports of educational attainment from the 2000 Oklahoma census (United States Census Bureau) are very comparable to the educational attainment levels reported in this research project. For the Oklahoma population as a whole, 31.5% of Oklahomans are high school graduates only with 23.4% having attended some college but not graduating. Likewise, the majority of the sample for this project reported having only a high school diploma (33.3%, n = 410) or completing some college (23.1%, n = 283) (see Table 2). A smaller portion of the sample earned 4 year college degrees (12.8%, n = 156) or held post graduate degrees (6.2%, n = 76). Almost one-half of the sample for this research project

(48.7%, n = 596) reported being married and 31.3% (n = 383) reported having never been married.

Within the entire Oklahoma population, 57.9% reported being employed in 2000 (United States Census Bureau, 2000). For this sample, 51.2% of respondents (n = 626) reported their employment status as employed full-time followed by 17.2% (n = 210) retired, 11.3% (n = 138) employed part-time, 8.2% (n = 100) student, and 7.5% (n = 91) homemaker (see Table 3). Reported household income frequencies and percentages were widely distributed within the sample. Income levels ranged from 8.8% (n = 107) reporting a household income between \$30,000 and \$39,999 and 3.9% (n = 48) reporting a household income of under \$5,000. All reported household income categories for the sample are listed in Table 4. In addition, approximately one-half of the respondents reside within the geographical metropolitan areas of Oklahoma City (33.4%, n = 409) and Tulsa (23.2%, n = 383). The remainder of respondents reside within smaller geographical regions across the state of Oklahoma (see Table 5). Within this sample household composition was almost evenly distributed with 25.9% (n = 317) married with children, 22.8% (n = 279) married without children in household, 28.1% (n = 344) single with no children, and 20.8% (n = 254) reporting being a single parent (See Table 6). In terms of household size 39.2% (n = 480) reported a household size of three or four individuals and 27.2% (n = 215) reported a household size of only two individuals. A smaller percentage (17.5%, n = 215) reported a household size of only one individual and 13.5% (n = 166) reported a household size of five or more individuals. Within these reported household compositions, two adult households comprise 54.1%, n = 662) followed by one adult

within the household (22.8%, n = 280) and three adults residing within a household (15.4%, n = 188).

### Basic Computer and Internet Usage

Of the 1,224 respondents surveyed about basic computer usage, 70.2% (n = 859) reported having access to a computer at home or work. An even greater percentage (76.7%, n = 938) reported having used the Internet. Only 57.3% (n = 701) have Internet access in their homes and 44.4% (n = 540) reported having Internet access at their businesses. The percentage of Oklahoma consumers reporting having ever made a purchase from the Internet was only 45.2% (n = 553). This percentage was significantly lower than the survey finding from the 2002 Oklahoma Social Indicator Survey that reported 61% of Oklahoma consumers surveyed purchased a product from the Internet at least once (Bureau for Social Research, 2002).

In general, the percentage of respondents who browse the Internet looking at products of any type is only slightly greater than the percentage of respondents who report never looking for products on an Internet website. Almost one half (42.7%, n = 522) of the sample reported having never visited an Internet site to look for a product of any type. On the other hand, 16.6% (n = 203) reported browsing the Internet at least once a week, 13.8% (n = 169) browse one or two times a year, 13.7% (n = 167) browse once every few months, and 13.3% (n = 163) browse the Internet looking at products every month. A larger percentage of browsers (57.5%, n = 703) report never buying a product from the Internet. Twenty percent (n = 244) report purchasing products once or twice a year, 12.9% (n = 157) report making a purchase from the Internet once every few months,

8.1% (n = 99) make a purchase every month, and 1.6% (n = 19) report make a purchase via the Internet at least once a week.

### Apparel Shopping By Internet

Respondents who reported having made an apparel purchase via the Internet (n = 307) were asked a series of questions pertaining to their Internet shopping behaviors. Each respondent was asked if he or she had ever purchased an item even as a gift from the Internet from each of the following categories: women's apparel, women's bras and panties, men's apparel, children's apparel, shoes, and accessories. Categories with the largest percentage of purchases were women's apparel (27.9%, n = 145), men's apparel (39.2%, n = 204), and shoes (25.5%, n = 132).

Those who responded yes to having purchased an item within any of the six apparel product categories were then asked to choose one specific item they had purchased within the last year and answer four questions pertaining to this specific product. Only 5.1% (n = 16) reported having not made an apparel purchase via the Internet within the last year. These respondents were not asked the remaining questions. Six hypotheses were developed to test for any statistical significance among identified variables. The findings for these six hypotheses are presented in the following section.

### Findings for Proposed Hypotheses

H1: For each of the following response variables: (a) "the amount of time spent searching or browsing the Internet before making an apparel purchase," (b) "the number of websites browsed before making an apparel purchase," and (c) "the number of brand names considered before making a purchase," there are no statistically significant differences in mean response associated with each of the six categories of the treatment

variable “apparel product category purchased” (women’s apparel, women’s bras and panties, men’s apparel, children’s apparel, shoes, and accessories).

One-way analysis of variance was used to test the first hypothesis. The F values and p-values for each variable are as follows: number of websites browsed before making an apparel purchase ( $F = 1.083$ ,  $p\text{-value} = .370$ ), time spent searching the Internet before making a purchase ( $F = 2.003$ ) ( $p\text{-value} = .078$ ), and number of brand names considered before making a purchase ( $F = 1.062$ ) ( $p\text{-value} = .382$ ). Therefore, at the .05 level of significance, the null hypothesis was not rejected.

H2: For each of the following response variables: “marital status” and “gender,” there are no statistically significant differences in the distribution of each of the six categories of the treatment variable “apparel product category purchased” and no statistically significant difference in the mean age of consumer for each of the six categories of the treatment variable “apparel product category purchased.”

Chi-square analysis was performed to test for statistical significance in the distribution of each of the six categories of the treatment variable for the demographic variables “marital status” and “gender.” For the variable “marital status,” Hypothesis 2 was not rejected ( $F = .164$ ,  $p\text{-value} = .282$ ). However, the p-value for the demographic variable “gender” was .000 ( $F = 10.996$ ); therefore, the null hypothesis for the variable “gender” was rejected (see Table 7). A one-way analysis of variance was performed to test for statistical significance in the mean age of consumer for each of the six categories of the treatment variable. The p-value was .014 ( $F = 1.098$ ); therefore, for the variable “age” the null hypothesis was rejected (see Table 8).

H3: There is no statistically significant difference in mean “time spent searching or browsing the Internet before making a purchase” for levels of each of the following treatment variables: (a) “area of residence,” (b) “education level,” (c) “employment status,” (d) “household size,” (e) “number of children in household,” (f) “income level,” and (g) “gender.”

A one-way analysis of variance was used to determine any significant differences between time spent searching the Internet and levels of each of the identified demographic variables. For the variables “employment status” ( $F = .504$ ,  $p\text{-value} = .805$ ), “area of residence” ( $F = 1.684$ ,  $p\text{-value} = .138$ ), “number of children” ( $F = 1.431$ ,  $p\text{-value} = .213$ ), “gender” ( $F = .352$ ,  $p\text{-value} = .553$ ), “education level” ( $F = .380$ ,  $p\text{-value} = .823$ ), “income level” ( $F = .603$ ,  $p\text{-value} = .826$ ), the null hypothesis was not rejected. However, for the variable “household size” ( $F\text{ value} = 2.881$ ,  $p\text{-value} = .036$ ) the null hypothesis was rejected (see Table 9).

H4: The response variable “number of websites browsed before making a purchase” is independent of each of the following treatment variables: (a) “education level,” (b) “employment status,” (c) “household size,” (d) “number of children in household,” (e) “income level,” and (f) “gender.”

Chi-square analysis was used to test for statistical significance in the distribution of each treatment variable for the number of websites browsed before making a purchase. For the variables “education level” ( $p\text{-value} = .488$ ), “employment status” ( $p\text{-value} = .975$ ), “household size” ( $p\text{-value} = .952$ ), “number of children in household” ( $p\text{-value} = .928$ ), “income level” ( $p\text{-value} = .987$ ), “gender” ( $p\text{-value} = .331$ ), the null hypothesis was not rejected.

H5: The response variable “number of brand names considered before making a purchase” is independent of each of the following treatment variables: (a) “education level,” (b) “household size,” (c) “number of children in household,” and (d) “income level.”

Chi-square analysis was performed to test for statistical significance in the distribution of each treatment variable for the number of brand names considered before making a purchase. For “education level” (p-value = .632), “household size” (p-value = .950), “income level” (p-value = .691), the null hypothesis was not rejected.

H6: The response variable “consumer reasons for choosing to purchase a product via the Internet” is independent of the treatment variable “area of residence.”

Chi-square analysis was performed to test for statistical significance in the distribution of the categories of the variable “area of residence” for the response variable. For the variable “area of residence,” the p-value = .371. Therefore, at the .05 level of significance the null hypothesis for hypothesis 6 was not rejected.

#### Discussion

A large percentage of Oklahoma consumers surveyed (70.2%, n = 859) reported having access to a computer at home or work with 76.7% (n = 938) reporting having ever used the Internet. Although these numbers show that many Oklahomans are at least interested in computer and Internet technology, almost one-fourth of the survey respondents reported having never used the Internet. The shopping behaviors of this segment of the Oklahoma population should be studied to ascertain perceptions toward the Internet, reasons for not using the Internet, and their current shopping behaviors.

Findings from the 2002 Oklahoma Social Indicator Survey (Bureau for Social Research, 2002) showed that 61% of survey respondents had made a purchase from the Internet. However, the findings from this current study report that only 45.2% (n = 553) have made a purchase of any kind from the Internet. From the current research project of the 553 who reported having purchased an apparel product via the Internet, 55.5% (n = 307) reported having purchased an apparel product via the Internet at least once. This shows that apparel is now a commonly purchased product for Oklahoma Internet shoppers. This finding disputes the idea that consumers are afraid of purchasing apparel via the Internet.

For all apparel product categories, most respondents reported spending 30 minutes or less searching or browsing the Internet before making a reported purchase. Statistical analysis determined that household size does affect the amount of time spent searching or browsing the Internet before making a purchase. A majority (68.9%) of respondents who purchased apparel within the last year spent less than 30 minutes searching the Internet before making a purchase. More specifically, 36.4% (n = 106) spent 16-30 minutes searching the Internet before making a purchase; whereas, 32.5% (n = 94) spent 15 minutes or less searching the Internet before making the specified purchase. 16.2% (n = 47) searched the Internet 31 minutes to one hour before making their purchases with 14.9% (n = 43) searching the Internet for longer than one hour before making their purchases.

It is possible that the amount of time spent searching the Internet before making a purchase is impacted by various factors. For example, a consumer's mode of connecting with the Internet could impact length of time required to find the information needed to



make a purchase as some connection modes are slower than others (i.e., dial-up modem versus high-speed Internet services). In addition, a given consumer's use of Internet shopping in the mix of their shopping choices may impact time spent searching the Internet. For example, if a consumer visits a brick-and-mortar store and cannot find the size or color desired in a specific apparel product, he or she may go to the website of the same retailer to purchase the item. This type of search directed toward a pre-selected product would be likely take less time than a search involving consideration of all products offered by a particular Internet retailer.

Significant findings were not found between the response variable "number of websites browsed before making a purchase" and any of the identified demographic variables. Likewise, significant findings were not found between the response variable "number of brand names considered before making a purchase" and any of the identified demographic variables. As outlined in the Engel, Blackwell, and Miniard (1986) Consumer Decision Process Model, an internal information search into the consumer's memory may be sufficient if consumer involvement is perceived as low. For this research project the reported products purchased were perhaps basic staple items such as t-shirts or items commonly purchased from the website's physical store counterpart. Another possible explanation for respondents not choosing to look for external information such as exploring additional websites or considering additional brand names before making a purchase is a high level of trust in the chosen electronic retailer or brick-and-mortar retailer with a website.

The demographic characteristics gender and age did affect the apparel product category purchased via the Internet. Within product categories, apparel purchases made

tended to be gender specific. Males not surprisingly purchased more men's apparel. Females purchased more women's apparel, shoes, accessories, and children's apparel.

Although statistical analyses reported no significant findings for the variables "consumer reasons for purchasing a product via the Internet" and "geographic area of residence" the primary reasons for purchasing an apparel product from the Internet are still interesting to note. These primary reasons are as follows: the product was not available in physical store, the physical store was not geographically near, and the Internet was most convenient. In fact 32.7% (n = 95) reported purchasing apparel products via the Internet because the product desired was not available in the physical store. Likewise, 25.2% (n = 73) of respondents who purchased apparel products cited convenience as the primary reason for making the purchase via the Internet; and 23.9% (n = 69) reported that not having the physical store geographically near was the primary factor for choosing the Internet.

CHAPTER V  
SUMMARY AND CONCLUSIONS

Summary

The purpose of this study was to investigate the shopping practices of Oklahoma consumers who purchased apparel products via the Internet in terms of 1) product category purchased via the Internet, 2) the degree of information search involved before the purchase is made, and 3) various consumer demographic characteristics. Three objectives were identified for the study. These objectives are as follows:

- 1) To examine the relationships among apparel product categories purchased over the Internet by Oklahoma consumers and (a) time spent searching or browsing the Internet before making a purchase, (b) the number of websites browsed before making a purchase, and (c) the number of brand names considered before making a purchase.
- 2) To investigate Oklahoma consumers' reasons for purchasing apparel products from the Internet rather than purchasing apparel products from other retail sources.
- 3) To investigate relationships among the shopping practices of Oklahoma consumers who purchase apparel products via the Internet in terms of (a) time spent searching or browsing the Internet before making a purchase, (b) the number of websites browsed before making a purchase, and (c) the number of brand names considered before making a purchase and the following

- 4) characteristics: (a) age, (b) marital status, (c) employment status, (d) income level, (e) gender, (f) area of residence, (g) education level, and (h) household size.

The theoretical basis for this particular study is the Engel, Blackwell, and Miniard (1986) Consumer Decision Process Model. This model presents five stages of consumer decision making. According to the Consumer Decision Process Model, consumers engage in a series of stages during decision making (See Figure 1). To be more specific, the Engel, Blackwell, and Miniard model consists of five decision making processes: (a) problem recognition, (b) information search, (c) evaluation of alternatives, (d) purchase, and (e) post-purchase evaluation. As the level of consumer involvement increases, the more important making the optimal purchasing decision becomes. A major factor in the consumer decision making process is information search (Engel, Blackwell, and Miniard, 1986). Schmidt and Spreng (1996) also proposed that a consumer's ability to search for information is the first determinant of the level of information search that takes place.

Therefore, the information search portion of this model was utilized for the current research project. A consumer's ability to search is influenced by situational factors such as education and product knowledge. Therefore demographic variables as well as indicators of consumer involvement were included in this study. Three indicators of consumer involvement included in information search served as the primary variables for the study. These variables are as follows: (a) time spent searching the Internet before making a purchase, (b) the number of websites browsed before making a purchase, and (c) the number of brand names considered before making a purchase. After reviewing

scholarly literature and examining the theoretical basis chosen for this study, six hypotheses were developed for investigation.

Based on the purpose and objectives of the research study, three broad areas of related scholarly and trade literature were presented Chapter 2. These three research areas were as follows: (a) electronic commerce, (b) decision making, and (c) shopping behaviors and shopping orientations. The section regarding decision making was segmented into the following topical areas: (a) cognitive and affective processes in decision making, (b) perceived risk/return and product involvement, (c) information availability and search, and (d) product brands. The bulk of the electronic commerce literature focuses on developing consumer profiles for the electronic medium and exploring various components of consumer risk perceptions regarding electronic commerce. Decision making literature expands much farther than what is covered in this review of related literature. However, for purposes of this study, decision-making literature was divided into the above mentioned categories of discussion.

This research project was developed in conjunction with the 2003 Oklahoma Social Indicator Survey that was administered by the Bureau for Social Research (BSR) (Oklahoma State University, 2002). The BSR conducts an annual telephone survey through which demographic data pertaining to various issues involving the Oklahoma population are collected. Individuals or organizations submit survey questions they would like to investigate. The 2003 Oklahoma Social Indicator Survey was conducted in two independent surveys due to the large number of researchers contributing survey questions. The questions included in this research project were included in Part 2 of the 2003 Oklahoma Social Indicator Survey. A total of 1,224 telephone interviews were

completed for Part 2 of the social indicator survey. Respondents who reported having purchased an apparel product via the Internet were asked four questions regarding their apparel Internet shopping behaviors. A total of 307 respondents were asked the questions regarding apparel Internet shopping.

Statistical analysis of the data revealed several significant findings. Responses of males and females were determined to be statistically different in terms of the six apparel product categories purchased via the Internet. In addition, a significant difference in consumer age and each of the six apparel product categories was determined. Household size was also found to affect the time spent searching or browsing the Internet before a purchase was made.

### Conclusions

The most surprising finding from the current research project is the significant decrease in the number of Oklahoma consumers who have purchased a product via the Internet. Sixty-one percent of respondents from the 2002 Oklahoma Social Indicator Survey reported having purchased a product from the Internet; whereas, the current study revealed that only 45.2% of current respondents reported having ever purchased a product from the Internet. This phenomenon cannot be explained within the context of this research project; however, several possible explanations are offered. One possible explanation for the significant decrease in the number of Oklahoma consumers who have not purchased a product is a decreased threshold of personal risk. With an everchanging economy and a relatively unstable workforce in Oklahoma, consumers are possibly more cautious about spending or about purchasing via unfamiliar distribution channels, such as the Internet. On the other hand, for consumers who are comfortable with purchasing via

the Internet, the sheer magnitude of products available for purchase may be overwhelming. Lastly, many of the Oklahoma consumers who reported having purchased a product via the Internet in 2002 may have had an unsatisfactory experience with shopping via the Internet and have chosen to remain loyal to a more traditional or comfortable retail format.

However, of the 553 consumers (45.2%) who did purchase a product via the Internet as reported in this study, 55.5%,  $n = 307$  reported having purchased an apparel product at least once. Since the inception of the Internet and online shopping, skeptics have reported that consumers have been cautious or even uninterested in purchasing apparel via online retailers; however, the findings from this research project show that for this set of Oklahoma consumers surveyed, purchasing apparel via the Internet is a viable complement to traditional apparel shopping.

The statistical difference between males and females for each of the six product categories purchased is not surprising. The male respondents in this study reported purchasing mostly men's clothing. This finding infers that for this sample, the men who purchased apparel via the Internet were probably purchasing clothing for themselves. Many male consumers prefer to shop for themselves but do not enjoy shopping in a brick-and-mortar store environment. In addition, many male consumers do not like to try on apparel before making the purchase. Therefore, the Internet format may be ideal for many male consumers. On the other hand, the female respondents for this study tended to report purchasing products from a wider variety of apparel product categories. This can possibly be explained by the typical female role in the purchasing process. Female consumers tend to not only purchase items for themselves, but also serve as the primary

clothing buyers within a family unit, specifically for items such as children's clothing, shoes, and underwear.

A statistically significant difference was identified between the variables "age of respondent" and "apparel product category purchased." The significant finding between age and product category may be due to fit and sizing issues. Clothing styles for younger adults are currently rather unstructured and are not typically difficult to fit. However, as a consumer ages, fit becomes more important and more difficult. For many older consumers, clothing must be tried on before purchase; therefore, Internet and catalog shopping is not always appropriate for hard to fit categories such as pants and shirts.

A statistically significant finding was discovered between the variables "household size" and "time spent searching or browsing the Internet before making a purchase." Sixty-nine percent (n = 200) of respondents who purchased an apparel product via the Internet spent less than 30 minutes searching or browsing the Internet before making a purchase. As household size increases the amount of time available to spend browsing the Internet becomes more limited for most individuals.

#### Implications and Recommendations

A large number of consumers residing in Oklahoma appear to be wary of the Internet retail format. A future study should address the concerns and perceptions of Oklahoma Internet non-users in order to determine reasons for not utilizing the Internet for information gathering and for purchasing products. Possible questions to be addressed are "Why are Oklahoma consumers not purchasing via the Internet?" and "From what type of retailers and retail formats are Oklahoma consumers purchasing clothing?" As noted previously, a reliable involvement measure should be utilized to measure consumer



involvement with the product category purchased and the Internet retail format. Finally, it is noted that for the consumers who have purchased a product via the Internet, the Internet serves as a viable and convenient manner of apparel shopping.

This exploratory study examining the relationships between demographic characteristics, apparel product categories, and three indicators of consumer involvement provides several implications for industry and education. Since both gender and age of consumer affect the product category purchased, online retailers targeting the Oklahoma population should identify their specific target markets. Attention to target markets enables a retailer to more effectively procure and distribute products that are desired and needed by target consumers. The design and composition of the website should be appealing to the retailer's target market. Educators such as Cooperative Extension micro and small business specialists may find the demographic information useful in advising business owners with websites. Oklahoma businesses with websites may find the demographic findings useful in designing their websites for specific target markets.

Designing and implementing this exploratory study concerning the online shopping and information search behaviors of Oklahoma consumers has created a need for several possible future directions of research. Many Oklahoma consumers do not purchase products from the Internet. Thus, investigation of the types and locations of online businesses from which Oklahoma consumers purchase products is recommended. For example, do Oklahoma consumers purchase products from Oklahoma businesses? Do consumers who purchase apparel products purchase from specific categories of online retailers, such as discount retailers with websites, department store retailers with websites, or pure e-tailers? In addition, perceptions of the type of services offered and

expected via Internet retailers may prove useful to retailers who service consumers in primarily rural states such as Oklahoma.

According to this study, personal characteristics of the consumer do not have a great effect on indicators of involvement with purchasing apparel via the Internet. If involvement does exist in purchasing apparel, perhaps the involvement varies according to use of the product. A study examining the use of apparel products purchased and the degree of consumer involvement with the product purchased should be performed. For example, do consumers who purchase apparel items for events such as weddings, job interviews, or athletic sporting events attend more to product information, brand names, or other external information than do consumers who purchase basic staple items such as t-shirts via the Internet.

Additional consumer research could also be conducted to further identify specific characteristics of the Oklahoma online consumer. The role of teenagers or children living within a household in the online shopping decision-making process could prove useful to specific retailers. A greater examination of household size and time spent searching or browsing the Internet before making a purchase should also be implemented.

With only a few significant findings from the current study, it is indicated that many Oklahoma consumers who purchase apparel via the Internet may rely more on subjective product knowledge (what they already know about a desired product) and do not feel a great need to search for additional information before making an apparel purchase. However, the online shopping behaviors of Oklahoma consumers should continue to be tracked in order to develop a profile of shopping patterns for this segment of consumers.

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## APPENDIX A: FIGURES

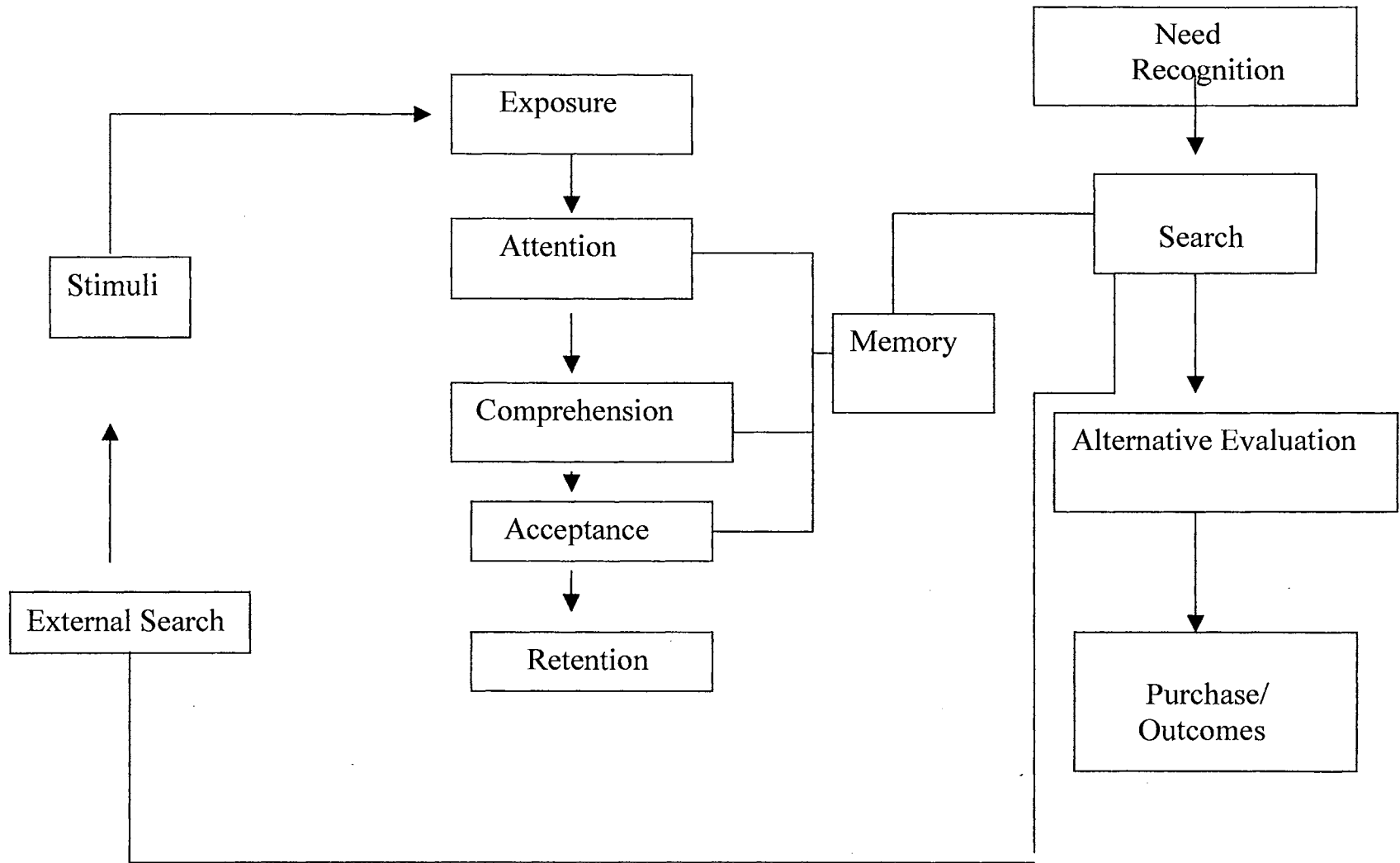


Figure 1: Consumer Decision Process Model (Engel, Blackwell, and Miniard, 1986)

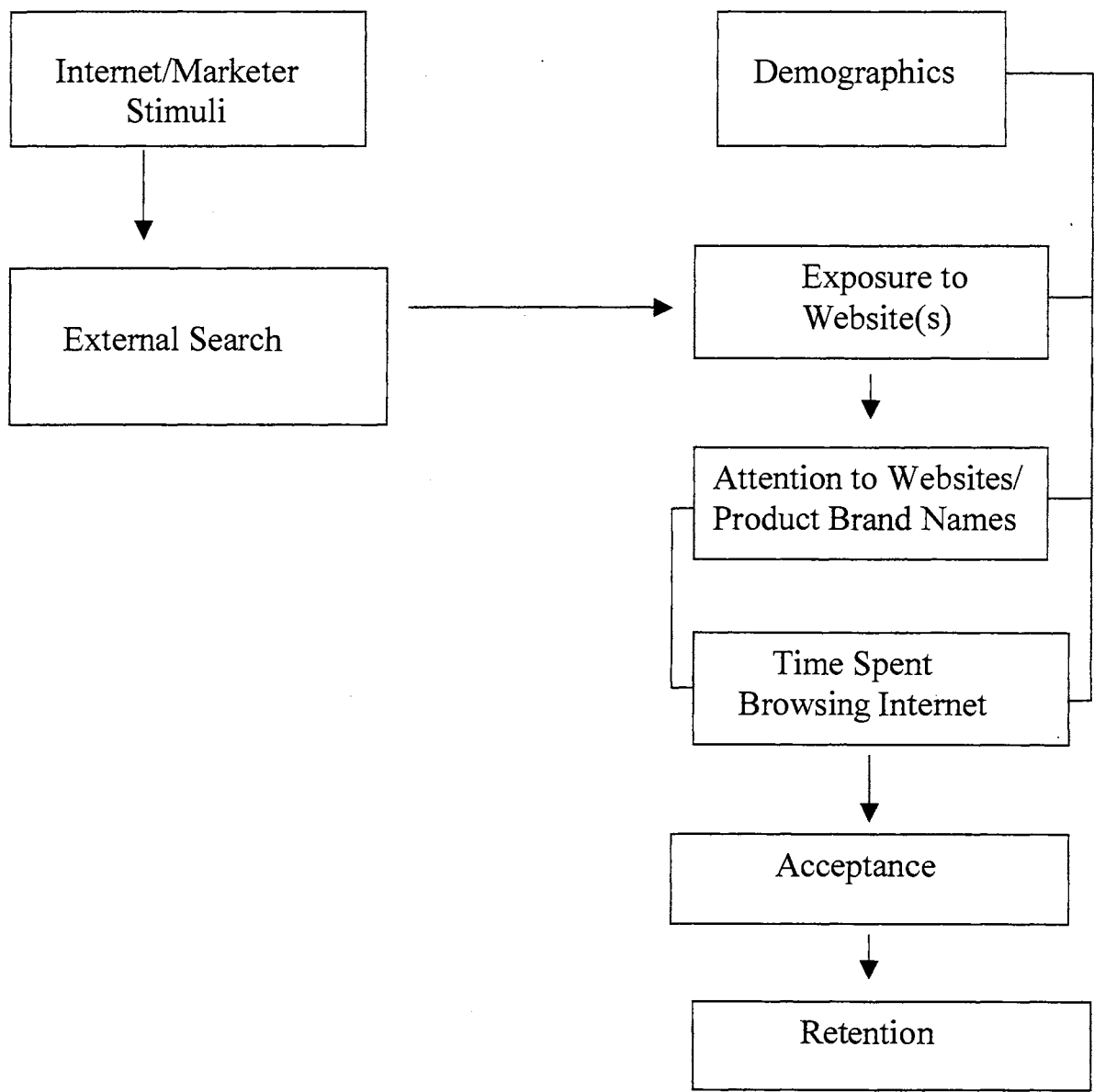


Figure 2: Adapted Segment of Consumer Decision Process Model



## APPENDIX B: TABLES

TABLE 1  
COMPOSITION OF SAMPLE BY AGE

Age Groups	Frequency	Percentage
Age 18-24	301	24.6%
Age 25-34	228	18.6%
Age 35-44	215	17.6%
Age 45-54	154	12.6%
Age 55-64	127	10.4%
Age 65 and older	177	14.5%
Missing	22	1.7%
Total	1,224	100%

TABLE 2  
COMPOSITION OF  
SAMPLE BY EDUCATION

Level	Frequency	Percentage
Less than high school	69	5.7%
Some high school	216	17.7%
High school graduate	410	33.3%
Some college	283	23.1%
4 year college degree	156	12.8%
Post graduate degree	76	6.2%
Missing	14	1.2%
Total	1,224	100%

TABLE 3  
COMPOSITION OF SAMPLE BY  
EMPLOYMENT STATUS

Status	Frequency	Percentage
Worked full time	626	51.2%
Worked part time	138	11.3%
Unemployed	22	1.8%
Student	100	8.2%
Retired	210	17.2%
Disabled	18	1.5%
Homemaker	91	7.5%
Missing	19	1.5%
Total	1,224	100%

TABLE 4  
COMPOSITION OF SAMPLE  
BY INCOME

Income	Frequency	Percentage
Under \$5,000	48	3.9%
\$5,000 - \$9,999	73	5.9%
\$10,000 - \$14,999	77	6.3%
\$15,000 - \$19,999	77	6.3%
\$20,000 - 24,999	98	8.0%
\$25,000 - \$29,999	88	7.2%
\$30,000 - 39,999	107	8.8%
\$40,000 - \$49,999	92	7.5%
\$50,000 - \$59,999	71	5.8%
\$60,000 - \$74,999	70	5.7%
\$75,000 - \$99,000	71	5.8%
\$100,000 or more	51	4.1%
Missing	301	24.6%
Total	1,224	100%

TABLE 5  
COMPOSITION OF  
SAMPLE BY GEOGRAPHICAL  
AREAS OF RESIDENCE

Area	Frequency	Percentage
Frontier	445	36.4%
Great Plains	122	10.0%
Green	433	35.4%
Kiamichi	46	3.7%
Lake	65	5.3%
Red Carpet	78	6.3%
Missing	35	2.8%
Total,	1,224	100%

TABLE 6  
COMPOSITION OF SAMPLE BY  
HOUSEHOLD COMPOSITION

Composition	Frequency	Percentage
Married with children	317	25.9%
Married without children in household	279	22.8%
Single, no children	344	28.1%
Single Parent	254	20.8%
Missing	30	2.5%
Total	1,224	100%

TABLE 7

CHI-SQUARE ANALYSIS OF APPAREL  
PRODUCT CATEGORY PURCHASED AND GENDER

	Value	df	p-value
Pearson			
Chi-Square	81.337	6	.000
Likelihood Ratio	86.409	6	.000
Linear-by-Linear Association	10.677	1	.001

TABLE 8

ANALYSIS OF VARIANCE OF APPAREL  
PRODUCT CATEGORY PURCHASED AND AGE

Variable		df	Mean Square	F	p-value
Age	Between Groups	6	4.810	2.722	.014
	Within Groups	325	1.767		

TABLE 9

ANALYSIS OF VARIANCE OF HOUSEHOLD  
SIZE AND TIME SPENT SEARCHING THE INTERNET

Variable		df	Mean Square	F	p-value
Time Spent Searching	Between Groups	3	2.935	2.881	.036
	Within Groups	311	1.018		

## APPENDIX C - SURVEY QUESTIONS



Questionnaire Item Related to Computer Use and Media Capabilities

Q1 Do you have access to a computer at home or work, yes or no?

- Yes
- No
- Don't know
- Refused to answer

Questionnaire Items Related to General Internet Use

Q2 Have you ever USED the Internet, yes or no?

- Yes
- No
- Don't know
- Refused to answer

Q3 Do you have Internet access in your HOME, yes or no?

- Yes
- No
- Don't know
- Refused to answer

Q4 Do you have Internet access at your place of BUSINESS, yes or no?

- Yes
- No
- Not applicable – no place of business
- Don't know
- Refused to answer

Q5 Have you ever made a PURCHASE through the Internet, yes or no?

- Yes
- No
- Don't know
- Refused to answer

Questionnaire Items Related to General Internet Purchasing Behaviors

Q6 How often do you visit Internet retail sites/stores to look for any kind of product or service.

- never
- once or twice a year
- once every few months
- every month
- at least once a week

Q7 How often do you buy any kind of product or service at any Internet retail site/store?

- never
- once or twice a year
- once every few months
- every month
- at least once a week

Q8 What is the most common item you purchase over the Internet? (Check only 1 category)

- Clothing including shoes
- Home furnishings
- Jewelry
- Computer related products, including software
- Home electronics
- Books
- Recorded music
- Travel services
- Other

Q9 What is your primary reason for making Internet purchases?

- Convenience
- Lower cost
- Enjoyable
- Time saving
- Easy to do
- Other

Q10 What is the primary reason you did not buy from Internet retail sites/stores?

- Concerned with safety and privacy
- Websites are hard to navigate
- Hard to return items or get support
- Cannot touch or feel item
- Websites do not provide accurate, timely or enough information to make a decision
- Want to support local merchants
- Other

Questionnaire Items Related to Apparel Internet Shopping

Q11 First, I'm going to read several product categories. For each one, please indicate "YES" if you have purchased a product over the Internet in that category. Respond "NO" if you have not purchased a product in that category over the Internet. Have you ever purchased women's apparel, such as pants, dresses, skirts or coats, even as a gift, yes or no?

- Yes
- No
- Don't know
- Refused to answer

Q12 Have you ever purchased women's bras and panties, even as a gift, yes or no?

- Yes
- No
- Don't know
- Refused to answer

Q13 Have you ever purchased men's apparel, such as pants, shirts, sweaters, or jackets, even as a gift, yes or no?

- Yes
- No
- Don't know
- Refused to answer

Q14 Have you ever purchased children's apparel, even as a gift, yes or no?

- Yes
- No
- Don't know
- Refused to answer

Q15 Have you ever purchased shoes, even as a gift, yes or no?

- Yes
- No
- Don't know
- Refused to answer

Q16 Have you ever purchased accessories, such as belts, scarves, handbags, or jewelry, even as a gift, yes or no?

- Yes
- No
- Don't know
- Refused to answer

Q17 Think about these apparel categories I've just mentioned and choose one category from which you have purchased a product within the last year. What is the category you have chosen?

- Women's apparel
- Women's bras and panties
- Men's apparel
- Children's apparel
- Shoes
- Accessories
- Don't know
- Refused to answer

Now, I'd like you to think of one specific PRODUCT that you have purchased over the Internet within this chosen category and answer some questions about that specific product. Do you have a specific product in mind that you purchased during the last year over the Internet?

Q18 How much time did you spend searching or browsing the Internet before making your purchase? Would you say 15 minutes or less, 16-20 minutes, 31 minutes to 1 hour, or more than 1 hour?

- 15 minutes or less
- 16-30 minutes
- 31 minutes to 1 hour
- More than 1 hour
- Don't know
- Refused to answer

Q19 Approximately how many websites did you browse before making the purchase?

- Range: 1-100
- Don't know
- Refused to answer

Q20 Approximately how many brand names did you consider before making the purchase?

- Range: 1-100
- Don't know
- Refused to answer

Q21 Why did you choose to purchase this product from the Internet rather than from another source? Was it because... the product was not available in the physical store, the Internet was most convenient, incentives were offered to purchase from the website, the physical store is not geographically near you, you enjoy using the Internet, or you discovered the product while browsing the Internet?

- The product was not available in the physical store
- The Internet was most convenient
- Incentives were offered to purchase from the website
- The physical store is not geographically near you
- You enjoy using the Internet
- You discovered the product while browsing the Internet
- Other
- Don't know
- Refused to answer

#### Questionnaire Items Related to Demographic Characteristics of Respondents

Q22 Please tell me how old you were on your last birthday.

- Range = 18-118
- Don't know
- Refused to answer

Q23 What county do you live in?

- Select from list of 77 counties

Q24 Are you married, never married, divorced, widowed, or separated?

- Married
- Never married
- Divorced
- Widowed or separated
- Married, but living apart
- Don't know
- Refused to answer

Q25 What is the highest level of school you have completed?

- Less than high school
- Some high school
- High school graduate
- Some technical school
- Technical school graduate
- Some college
- College graduate (bachelor's degree, BA, BS)
- Post graduate or professional degree (master's doctorate, MS, MA, PhD., Law degree, Medical degree)
- Other – specify
- Don't know
- Refused to answer

Q26 What race do you consider yourself? You can select one or more than one.

- White (Caucasian)
- Black (African American)
- Asian or Pacific Islander
- Native American or American Indian
- Other (some other national origin) – specify
- Don't know
- Refused to answer

Q27 Were you working full-time or part-time?

- Full-time
- Part-time
- Don't know
- Refused to answer

Q28 Do you consider yourself retired, unemployed, a student or a homemaker?

- Retired
- Unemployed
- A student
- A homemaker
- Disabled
- Don't know
- Refused to answer

Q29 How many people are living in your household now, INCLUDING yourself?

- Range: 1-19
- Don't know
- Refused to answer

Q30 How many of these persons are under the age of 18?

- Range: 0-19
- Don't know
- Refused to answer

Q31 Is your total household income (before taxes) \$20,000 or more, or is it less than \$20,000?

- \$20,000 or more
- Less than \$20,000
- Don't know
- Refused to answer

Q33 (If Q31 = \$20,000 or more) Now I'm going to mention a number of income categories. When I mention the category that describes your total household income (before taxes) in the last 12 months, please stop me.

- \$20,000-\$24,999
- \$25,000-\$29,999
- \$30,000-\$39,999
- \$40,000-\$49,999
- \$50,000-\$59,999
- \$60,000-\$74,999
- \$75,000-\$100,000
- \$100,000 or more
- Don't know
- Refused to answer

Q34 (If Q31 = less than \$20,000) Now I am going to mention a number of income categories. When I mention the category that describes your total household income (before taxes) in the last 12 months, please stop me.

- Under \$5,000
- \$5,000-\$5,999
- \$10,000-\$14,999
- \$15,000 - \$19,999
- Don't know
- Refused to answer

Q35 Gender

- Male
- Female



APPENDIX D - IRB FORM

**Oklahoma State University  
Institutional Review Board**

**Protocol Expires: 10/12/2004**

Date: Monday, October 13, 2003

IRB Application No HE0425

Proposal Title: Oklahoma Social Indicator Survey 2003 - Part G

Principal  
Investigator(s):

Christine Johnson  
306 HES  
Stillwater, OK 74078

Reviewed and  
Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

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Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the IRB procedures or need any assistance from the Board, please contact me, in 415 Whitehurst (phone: 405-744-5700, colson@okstate.edu).

Sincerely,



Carol Olson, Chair  
Institutional Review Board

VITA ②

Catherine Goforth Kennemer

Candidate for the Degree of

Doctor of Philosophy

Dissertation: INFORMATION SEARCH AND SHOPPING PRACTICES OF  
OKLAHOMA CONSUMERS WHO PURCHASED APPAREL  
PRODUCTS VIA THE INTERNET

Major Field: Apparel Merchandising

Education: Bachelor of Science, Apparel, Textiles and Merchandising, Mississippi  
State University, May 1993

Master's of Agribusiness Management, Mississippi State University,  
December 1994

Completed the Requirements for the Doctor of Philosophy degree at  
Oklahoma State University in May 2004.

Experience: Fine Jewelry Selling Specialist, J. C. Penney, McAlester, OK, August 2003  
- present.

Sales associate, Goody's Family Clothing, McAlester, OK, November  
2002 – June 2003.

Independent sales representative, McAlester, OK, June 2002 – March 2003.

Adjunct instructor, Tulsa Community College, August 2001 – December  
2001.

Graduate Research Associate, Oklahoma State University, November  
1998 – May 2000.

Family and Consumer Sciences Educator, OSU Cooperative Extension,  
August 1996 – September 1997.