UNDERSTANDING CONSUMERS' ONLINE

SHOPPING AND PURCHASING BEHAVIORS

By

JONGEUN KIM

Bachelor of Science
Kon Kuk University
Seoul, Korea
1996

Associate Art Degree
The Fashion Institute of Design & Merchandising
Los Angeles, California
1998

Bachelor of Science
Ewha Womans University
Seoul, Korea
1999

Master of Science
Kon Kuk University
Seoul, Korea
1999

Submitted to the Faculty of the
Graduate College of Oklahoma State University in
partial fulfillment of the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
July, 2004

UNDERSTANDING CONSUMERS' ONLINE

SHOPPING AND PURCHASING BEHAVIORS

Thesis Approved:

Dr. Glenn Muske

Thesis Adviser

Dr. Byoungho Jin

Dr. Hong Yu

Dr. Kathleen Kelsey

Dr. Al Carlozzi

Dean of the Graduate College

TABLE OF CONTENTS

Chapter **Page**

Chapter **Page**

Chapter **Page**

LIST OF TABLES

Table **Page**

Table **Page**

LIST OF FIGURES

Figure **Page**

CHAPTER I

INTRODUCTION

Today the Internet has captivated the attention of retail marketers. The Internet, as a retail outlet, is moving from its infancy used by only a few to a market with significant potential (Fojt, 1996; Shim, Eastlick, Lotz & Warrington, 2001). Millions of people are shopping online (Ainscough, 1996; Strauss & Frost, 1999). In the third quarter of 2003, retail e-commerce sales totaled $13.3 billion dollars. These third quarter e-commerce sales were 27 percent greater than those in the 3rd quarter of 2002 when $10.5 billion of online retail sales were made (U.S. Department of Commerce, 2003). While significant, those sales numbers still represents less than 1% of total retail sales of $8.6 trillion in U.S.

The growth in online sales can be partially attributed to the Internet's advantages of providing large amounts of information quickly and inexpensively and its growing accessibility (Bonn, Furr & Susskind, 1999). Yet, to reach its full potential, business owners who use ecommerce as a distribution channel need a clearer understanding of who buys online, what they buy online, why they buy online, and how the non-Internet buyer can be transformed into an online buyer in order to increase online sales. Once this information is available, the retailers can develop a clear strategy to retain existing and attract future consumers (Nucifora, 1997; Roha & Henry, 1998).

Today's online sales come from early technology adopters only a small minority of the total population (Rogers, 1995). Research indicates that 81% of those who browse web sites for goods and services do not actually make an online purchase (Gupta, 1996; Klein, 1998; Shim, et al., 2001; Westland & Clark, 1999). A browser is defined as an individual who searches and examines web site for product to get more information with the possible intention of purchasing using the Internet (Lee & Johnson, 2002).

Research has noted three primary reasons why people have not completed an on-line retail transaction. First, 35% of the shoppers fail to complete the transaction not because they do not want to buy, but because of technology problems, including a computer freeze, disconnect, or service interruption as measured by shopping cart technology (Shop.org, 2001; Tedeschi, 1999). Shopping cart technology, as the name suggests, allow users to gather items at a website and then complete a one-stop checkout. Online tracking of shopping cart activity can tell a merchant how many consumers put items into a shopping cart but never complete the transaction (Tedeschi, 1999). Second, other consumers are just trying the Internet shopping experience without any intention of making a purchase. A third group is on-line shoppers who start filing a cart but then leave the cart and the site without completing the transaction (Tedeschi, 1999). It is the last two groups, those who have no current intention of buying and those who abandon their cart, most often studied to determine why they have not made an online purchase. Reasons found included (a) lack of credit card security and privacy protection, (b) technical problems, (c) difficulty in

finding specific products, (d) unacceptable delivery fees and methods, (e) inadequate return policies, (f) lack of personal service, (g) inability to use sensory evaluation, and (h) previous experience (Fram & Grandy, 1995, 1997; Gupta & Chaterjee, 1996). Another frequently mentioned Internet shopping obstacle was slow download speeds or the time it took for a web site to be completely displayed on one's computer screen (Fram & Grandy, 1997; Peterson, 1996).

In trying to understand the reasons for non-completed transactions, Fishbein and Ajzen's behavioral intention model (1975) has often been used to study how an individual's attitude toward online shopping will influence that person's behavioral intention (Shim, et al., 2001; Westland & Clark, 1999). In the model, attitude has been viewed as a predictor of intention and finally actual behavior (Fishbein & Ajzen, 1975)

Yet the assumption that intention will predict actual behavior is somewhat suspect based on the large numbers of dropouts or those who note they are only browsing while online (Lee & Johnson, 2002). There is only limited research on the buyer who actually completes an online transaction (Lee & Johnson, 2002; Shim, et al., 2001). This research expands the literature by exploring who was the Internet buyer (BY) and comparing him or her to the three generally accepted non-buyer categories of the non-web user (NW), the online store visitor (WV), or the person who intended to buy online but did not complete the transaction (BR). This research will analyze the significant factors in previous online shoppers research to determine if those factors are also influential for the online buyers.

Purpose of the Study

The purpose of this research was to explore the differences between four potential groups of web users, the current non-web user, the user who only visits web stores with no intention to buy, the Internet browser who has an intention to purchase online but has never done so, and the person who has made an online purchase. The research focused on understanding the differences among the four groups in terms of demographics, current technology use and access, and current attitudes towards making a online purchase.

Such understanding will assist online merchants and web designers to develop online environments that can increase the use of the web for current online buyers and influence the non-buyer and his or her intention to buy. Previous work has examined the three groups of non-buyers but has rarely compared these groups to the online buyer. Understanding the transition from non-buyer to online buyer will strengthen the Internet as a substantial retail outlet.

The purpose suggests the following research questions:

1. Can the significant variables noted in other studies be more parsimoniously studied through clustering?
2. Are there significant differences between the four online consumer groups in terms of demographics, technology use and availability, and attitudes?

3. How does the consumer's demographics, technology use and availability, and attitudes influence his or her intention to buy online?

4. Can the respondents' attitudes towards consumer, marketing, and technology issues predict future Internet buyers or non-buyers?

5. Among Internet buyers, how does the respondent's demographics, technology use and availability, attitudes and the type of goods, experience or search, influence his or her purchase behavior?

Terms and Definitions

Attitude: An individual's internal evaluation of an object (Mitchell & Olson, 1981).

Electronic commerce (E-commerce): Conducting business transactions over the Internet or private networks (Donthu & Garcia, 1999). Electronic commerce is any transaction conducted over computer-mediated network channels that transfers ownership of, or rights to use goods or services, including business-to-business (B2B), business-to-consumer (B2C), and consumer-to-consumer (C2C).

E-tailer: Retailer who develops a shop in cyberspace and does business-to-consumer business on the Internet (Frings, 2001).

E tailing: Electronic retailing or business-to-consumer. Nontraditional retailing through the Internet, where the customer and the retailer communicated through an interactive electronic computer system (Frings, 2001).

Experience goods: A product such as clothing and shoes, that require more sensory evaluation, as people desire to feel and touch before buying (Klein, 1998).

Search goods: A product such as CDs, books, DVDs and software, defined as those dominated by product attributes for which full information can be acquired prior to purchase (Klein, 1998).

Internet: A worldwide network of computers that all use the TCP/IP communications protocol and share a common address space. It is capable of

providing virtually instant access to a vast storehouse of information (Donthu & Garcia, 1999).

Internet Purchase: Obtaining a product or service by paying money or using credit card using the Internet (Lee & Johnson, 2002)

Internet Browsing: Examining, searching for, looking at a product to get more information with the possible intention of purchasing using the Internet (Lee & Johnson, 2002).

Internet purchaser: Consumer who have had experience buying products on the Internet (Donthu & Garcia, 1999).

Internet purchasing: A behavior or an instance of buying.

Purchase Intention: A willingness or a plan that consumer think they will buy a product (s) in the future (Engel, Miniard, & Blackwell, 1995).

Retailing: Selling goods and services directly to the final consumer (Solomon, 1998).

Tactility: Having or pertaining to the sense of touch, smell, feel, sight, etc (Engel, Miniard, & Blackwell, 1995).

In this study, the terms of Internet shopping and online shopping were used as an alternative meaning of each other (Donthu & Garcia, 1999).

CHAPTER II

LITERATURE REVIEW

Understanding where and how Internet retail sales fit into the retail market requires an examination of several areas of literature. This review of literature began with examining the retailing and e-tailing. The second part of the literature review examined current use of the Internet and the Internet users' profile. The third area of the literature review builds a research framework. Then, research hypotheses were developed.

Retailing

Retail businesses are the most visible segment of the U. S. economy. The U. S. Census Bureau reported that 3 million retail businesses existed in 1999. Retail sales add significantly to a country's economic engine. In 2003, U.S. retail sales were expected to reach $8.7 trillion (U.S. Department of Commerce, 2003).

Modes of Retailing

Consumers today have more shopping choices than ever before with traditional retail stores, catalogs, and various cable television shopping opportunities, as well as the Internet (Sekely & Blakney, 1994; Szymanski &

Hise, 2000; Taylor & Cosenza, 1999). Yet for all of its diversity, retailing can be categorized into two broad types: in-store and non-store. In-store retailing, or brick and mortar, is the typical retailing method and represents the format where consumers come to a building where salespersons display and demonstrate the merchandise and its benefits, take orders and delivers the merchandise directly to the customer (Levy & Weitz, 1998).

While there is no widely accepted definition of non-store retailing, Gehrt and Carter (1992) suggested that non-store retailing includes sales transacted via mail, telephone, television, in person, vending machines and online. According to Kotkin (1998), non-store retailing accounted for 15 to 20% of total retail sales. The advantages of non-store retailing are increased sales without the need for physical retail space meaning smaller capital investments, fewer personnel costs, and an ability to better meet diverse needs (Maruyama, 1984). Non-store retailing includes the telemarketing, catalogue sales, door-to-door sakes, television shopping, and short-form commercial.

Telemarketing. Telemarketing is a direct selling of goods and services by telephone (Harden, 1996). According to American telemarketing association, telemarketing sales in 2000 exceed $500 billion (Palmer & Markus, 2000).

Catalogue sales. A retailing method where customers receive a catalogue and then purchases merchandise by placing an order usually either by phone or mail (Palmer & Markus, 2000). This category also includes sales that are the

result of other printed advertising materials such as fliers (Maruyama, 1984). Catalogue shopping represented $52 billion sales in U.S. in 1996. It is the catalog shopper who is most often considered the likely online consumer (Interactive Retailing, 1997; Internet Shopping, 1998). More than 50% of the computer users in a 1999 MasterCard International consumer survey responded that they would shop online rather than by mail and telephone if possible. Rosen and Howard (2000) hypothesized that catalogue sales transferred to the Internet will represent a significant portion of business-to consumer electronic revenues with an expected 40% of all catalogue sales transferred online by 2003.

Door to Door sales. This category represents the sale of goods or services with a purchase price of $25.00 or more in which the seller, or his representative, personally solicits the sale and the purchase is made at the buyer's home or at a place other than the seller's regular place of business (Maruyama, 1984).

Television shopping. There are three subset categories of television shopping including home shopping networks, infomercials, and the short-form commercial (Agee & Martin, 2001).

Home shopping networks are a retail format in which customers see products displayed during an often continuous television program, customers place orders for the merchandise by phone (Agee & Martin, 2001; Palmer & Markus, 2000). It is dominated by Home Shopping Network (HSN) and Quality,

Value, and Convenience (QVC) with $5 billion in total sales in together 2001 (U.S. Department of Commerce, 2003).

The infomercial is a three to 60 minute paid television advertisement that mixes entertainment with product demonstrations and solicits consumer orders via the telephone (Agee & Martin, 2001; Belch & Belch, 1993). It is a long version of the conventional commercial and focuses on persuading potential customers to make a direct response purchase. According to Direct Marketing (1999), infomercials generated sales $75 billion world wide in 1998. The short-form commercial is the standard two minutes or less paid television advertisement (Agee & Martin, 2001).

Current Use of Internet and A Profile of the Internet User

The Internet represents a globally linked network of computers providing people, businesses and corporations, educational institutions, governmental agencies and even countries the ability to communicate electronically (E-Marketer, 2002). Many studies have investigated the use of the Internet and found that it is most commonly used for information searching, product searching, shopping, sending e-cards, on-line banking, paying bills, communicating (including email and chatting), listening to music, playing games, and surfing (to browse or look at information on the web by pointing and clicking and navigating in a nonlinear way) (Bourdeau, Chebat, & Couturier, 2002; Hoffman & Novak, 1996; Hypersondage, 1996; Maignan & Lukas, 1997).

In 2000, 101 million Americans used the Internet with 62.5% of households having a PC at home and 42.9% of those households having access to the Internet in U.S. This compares to the 98% of households who owned a telephone and the 96% who had a television (E-Marketer, 2002; Ernst & Young, 2002; Jupiter Communications, 1999; Russell, Weiss, & Mendelssohn, 1998). The 42.9% of US households represent 45.9 million total households actively connected to the web. Those households represent a potential 88 million web buyers (E-Marketer, 2002; Ernst & Young, 2002). Today the demographics of the online population is similar to the overall U.S. population with 68% of online shoppers age 40 years or older and 51% female (CommerceNet, 2001).

E-Tailing

For the retailer, the Internet can represent everything from just another distribution channel to being the organizations' sole sales outlet (Van Tassel & Weitz, 1997). It can attract new customers, penetrate new markets, promote company brands and improve customer retention (Ernst & Young, 2001).

In the U.S., there are approximately 1,000,000 retailers currently selling products over the Internet (Direct Marketing Association, 1998). U.S. online retail sales totaled $5.3 billion in 1999, $7.8 billion in 2001, and were expected to reach $14 billion in 2003. These figures; however, still represent less than 1.6% of total estimated United States' retail sales (Rosen & Howard, 2000; U.S. Department of Commerce, 2003). Retail consumer sales via the Internet were

the most rapidly growing retail distribution channel with sales growth rates outpacing traditional retailing sales (Levy & Weitz, 1998). The average online consumer spent $392 in 2001, up 19% from $330 in 2000. More than 25% of those who bought something online in 2001 were first-time e-shoppers (Financial Times, 2002).

From the customer's point of view, the Internet (Mehta & Sivadas, 1995) offered the potential advantages of reducing shopping time and money spent. It allowed twenty-four hours a day access, provided perhaps better service, and gave the consumer a perception of control over the shopping experience (Alba, Lynch, Weitz, Janiszewski, Lutz, Sawyer, & Wood, 1997; Benjamin & Wigand, 1999; Cronin, 1996; Hoffman & Novak, 1996; Hoffman, Novak & Chatterjee, 1996; Maignan & Lukas, 1997; Poel & Leunis, 1999; Then & DeLong, 1999).

The acceptance of the Internet as a retail outlet for the consumer has been the focus of much research (Auger & Gallaugher, 1997; Cockburn & Wilson, 1996; Griffith & Krampf, 1998; Hoffman & Novak, 1996; Jones & Biasiotto, 1999; O'Keefe, O'Connor, & Kung, 1998; Palmer & Markus, 2000; Spiller & Lohse, 1997). Some studies have focused on the consumers' attitudes towards Internet shopping (Cowles, Little & Kiecker, 2002; Harden, 1996; Kunz, 1997; Poel & Leunis, 1999). Poel and Leunis (1999) suggested that the consumer's adoption of the Internet for retail purchases focused on three attributes, moneyback guarantees, price reductions, and well-know brands. Regan (2002) examined that the factors that would most strongly increase online shopping would be: (1) an increase in major catalog retailers taking steps to

convert customers into web buyers, and (2) overcoming the tactile need of online shoppers to become more comfortable with buying clothing without first touching or trying on the garment.

In 2000, twenty million Americans shopped online (U.S. Department of Commerce, 2000). By 2002, almost 26 million people purchased something from a website, up from 17 million in 1998 and 10 million in 1997 (Shop.org., 2003). Internet sales have been estimated at $327 billion worldwide in 2002 (Forrester Research, 2002) with all U.S. Internet transactions during that same time period of $144 billion (Rosen & Howard, 2000). The third quarter 2002, U.S. online retail sales were 10.5 billion dollar figure and rose to 13.3 billion in the third quarter of 2003 (U.S. Department of Commerce, 2003).

The Internet Shopper: A Profile

Research of the Internet shopper has typically included demographic questions of age, education and household income (Fram & Grandy, 1995; Gupta, 1995; Hypersondage, 1996; Mehta & Sivadas, 1995). Over time the Internet buyer, once considered the innovator or early adopter, has changed. While once young, professional males with higher educational levels, incomes, tolerance for risk, social status and a lower dependence on the mass media or the need to patronize established retail channels (Citrin, Sprott, Silverman & Stem, Jr, 2000; Ernst & Young, 2001; Mahajan, Muller & Bass, 1990; Palmer &

Markus, 2000; Rogers, 1995; Sultan & Henrichis, 2000), today's Internet buyer shows a diversity of income and education (U. S. Dept. of Commerce, 2003).

For Internet buyers, gender, marital status, residential location, age, education, and household income were frequently found to be important predictors of Internet purchasing (Fram & Grady, 1997; Kunz, 1997; Mehta & Sivadas, 1995; Sultan & Henrichs, 2000). Sultan and Henrichs (2000) reported that the consumer's willingness to and preference for adopting the Internet as his or her shopping medium was also positively related to income, household size, and innovativeness. In 2000, women represented the major online holiday season buyer (Rainne, 2002; Sultan & Henrichs, 2000). According to a report by the Pew Research Center (2001), the number of women (58%) who bought online exceeded the number of men (42%) by 16%. Among the woman who bought, 37% reported enjoying the experience "a lot" compared to only 17% of male shoppers who enjoyed the experience "a lot". More recently, Akhter (2002) indicated that more educated, younger, males, and wealthier people in contrast to less educated, older, females, and less wealthier are more likely to use the Internet for purchasing.

O'Cass and Fenech (2002) found that Internet buyers were more often opinion leaders, impulsive, and efficient Internet users. They trusted web security, were satisfied with existing web sites and had a positive shopping orientation. Eastlick and Lotz (1999) found that potential adopters of the interactive electronic shopping medium perceived a relative advantage of using

the Internet over other shopping format. They also found the Internet users to be innovators or early adopters.

Consumer Behavior

Consumer behavior is the study of the processes involved when an individual selects, purchases, uses or disposes of products, services, ideas, or experiences to satisfy needs and desires (Solomon, 1998). In order for the Internet to expand as a retail channel, it is important to understand the consumer's attitude, intent and behavior in light of the online buying experience: i.e., why they use or hesitate to use it for purchasing? Consumer attitudes seem to have a significant influence on this decision (Schiffman, Scherman, & Long, 2003) yet individual attitudes do not, by themselves, influence one's intention and/or behavior. Instead that intention or behavior is a result of a variety of attitudes that the consumer has about a variety of issues relevant to the situation at hand, in this case online buying.

The following review of the literature grouped the issues into three areas: consumer, marketing, and technology issues that most often are noted as influencing online shopping attitudes.

Consumer Factor

The consumer factor was suggested as important to online shopping and items included were privacy, security, time saving, ease of use, convenience, enjoyment, previous experience, company reputation and tactility (Udo, 2001).

Privacy. Privacy in a communications system or network is defined as a protection given to information to conceal it from others' access by the system or network (Komiak & Benbasat, 2004). Privacy concerns were the most frequent reason cited by consumers for not making online purchases (Byford, 1998; Furger, 1999; George, 2002; Milne, 2000; Miyazaki & Fernadez, 2001; Miyazaki & Krishnamurthy, 2002; Udo, 2001). The majority of studies suggested that respondents were concerned that information might be used to send them unwanted offers by this or other companies or accessed by a third party for non authorized activity (Business Week, 2000; George, 2002; Lenhart, 2000; Wang, Lee & Wang, 1998)

Security. Security is defined as that which secures or makes safe; protection; guard; defense (Komiak, & Benbasat, 2004). In this study, the term security was used in terms of financial security while privacy was the protection of personal information (Bhianmani, 1996; Burroughs & Sabherwal, 2002; Komiak & Benbasat, 2004; Moda, 1997; Salisbury, Pearson, Pearson & Miller, 2001; Udo, 2001). Online retailing has greater perceived security risks by consumers than does traditional brick and mortar retailing (Houston, 1998;

Kuczmarski, 1996). Research suggested that most consumers fear the risk of misused credit card information (Bhimani, 1996; Fram & Grady, 1995; Gupta & Chatterjee, 1996; Houston, 1998; Kuczmarski, 1996; Poel & Leunis, 1996).

To increase online shopping, merchants need to take the proactive steps to minimize the consumer's feeling of risk (Houston, 1998; Salisbury et al., 2001). One method of doing that includes building of consumer's trust in the online store (Cheskin Research, 1999; Komiak & Benbasat, 2004 Quelch & Klein, 1996). In the area of financial security, this meant proving the merchant's ability to safeguard personal data (Cheskin Research, 1999; Jarvenpaa, Tractinsky, & Vitale, 2000; Quelch & Klein, 1996; Singh & Sirdeshmukh, 2000). Garbarino and Johnson (1999) have proposed a satisfaction-trust-commitment-repurchase intention model and found that consumers' satisfaction would build trust which led him or her to repeat the purchases.

Time. Becker (1965) noted that the efficient use of time was a critical issue for the modern time-scarce consumer. Internet shopping can be viewed as a time saver for the shopper and the buyer (Alreck & Settle, 1995; Lohse, Bellman, & Johnson, 2000; Then & DeLong, 1999). As such, time positively influences Internet shopping as it can eliminate trips to the store and the long lines and delays when at the store (Alreck & Settle, 2002; Bhatnagar, Misra & Rao, 2000; Donthu & Garcia, 1999; Eastlick & Feinberg, 1999).

Ease of Use. According to Kunz (1997) and Taylor and Cosenza (1999), ease in using the Internet as a means of shopping positively impacted the consumer's online shopping behavior. A similar finding was noted by Segars and Grover (1993) and in Rogers's adoption innovation model (1995).

Convenience. One such attitude that influenced the non-store shoppers has been that of convenience (Berkowitz, Walton & Walker, 1979; Eastlick & Feinberg, 1999; Gehrt & Carter, 1992; Settle, Alreck & McCorkle, 1994; Shim & Drake, 1990; Shim & Mahoney, 1991). The non-consumer's primary motivation was to save time, money, and hassles associated with in-store shopping. Non-store shoppers sought to solve these issues by utilizing catalogs, cable television shopping, Internet, and other shopping formats (Stell & Paden, 1999). The same attitude of convenience carried over to the consumer's Internet shopping's behavior.

Convenience has been noted as positively influencing online purchasing behavior as it eliminated the necessity of having to travel to one or more stores. (Anderson, 1971; Eastlick & Feinberg, 1993; Gehrt & Carter, 1992; Settle et al., 1994; Stell & Paden, 1999). Internet shoppers more highly value convenience than did non-Internet shoppers (Bellman Lohse, & Johnson, 1999; Donthu & Garcia, 1999).

Enjoyment. Enjoyment in shopping can be two-fold: enjoyment from the product purchased as well as the process of shopping itself. Online shopping

like in-store shopping, provided both types of enjoyment and such enjoyment can positively or negatively influence online shopping (Eastlick & Liu, 1997; Forsythe & Bailey, 1996; Kunz, 1997; Taylor & Cosenza, 1999).

Previous Experience. Studies have found that more years of computer experience and use had a positive, direct effect on the user's acceptance of information technology (Balabanis & Reynolds, 2001; Bear, Richards, & Lancaster, 1987; Burroughs & Sabherwal, 2002; Citrin, Sprott, Silverman & Stem, Jr., 2000; Jarvenpaa & Todd, 1997; Kay, 1993; Klein, 1998; Liang & Huang, 1998; Lohse, et al., 2000; Moore & Benbasat, 1991; Salisbury, et al., 2001). This suggests that consumers with more years of computer use would be more likely to adopt the Internet for purchasing. Related technology variables identified by O'Keefe et al. (1998) included technology skill and the technology anxiety as significant elements that predicted online buying behavior.

Company Reputation. Having a positive company reputation can reduce the consumer's perceived risk of trying a new means of distribution (Srinivasan, Anderson, & Ponnavolu, 2002). Such a reputation is developed over time through long-term relationships with the consumer. A retailer's reputation is partially built on the customer's ability to have direct face-to-face contact with the store and its management (Schiffman & Sherman, 2003; Stephen, Hill & Bergman, 1996). Online stores, by not having direct contact with the consumer,

may have a more difficult time of establishing a reputation, thus decreasing the likelihood of online buying.

Tactility. The last consumer issue is the ability to test, in terms of touch and sight, a product before buying. Consumers express apprehension when buying a product without a tactile examination (Bhatnagar, Misra, & Rao, 2000).

Marketing Factor

Product Quality and Variety. When shopping, consumers want a broad range of quality, price, and variety in products. The online market allows for such diversity thus potentially increasing online sales (Eastlick & Liu, 1996; Kunz, 1997; Taylor & Cosenza, 1999).

Product Promotion. Product promotions attempt to influence the consumers' purchasing behavior (Blattberg & Wisniewsk, 1989; Bolton, 1989; Mulhern & Leone, 1991; Walters & Jamil, 2000; Woodside & Waddle, 1975). Like other retail methods, online channels have various promotional tools such as corporate logos, banners, pop-up messages, e-mail messages, and text-based hyperlinks to web sites. These type of promotions have positively affected Internet buying (Ducoffe, 1996; Gallagher, Foster & Parsons, 2001; Hirschman & Tompson, 1997; Korgaonkar, Karson & Akaah, 1997).

Delivery Methods. Online purchasing typically involves the use of a delivery service because of the physical separation between the buyer and seller. For the consumer, this separation brings a concern about the time lag between when a product is ordered and when it is received as well as the potential added cost of delivery. These concerns had a negative effect on online shopping. (Eastlick & Feinberg, 1994; Klassen & Gylnn, 1992; Tedeschi, 1999; Yrjola, 2001).

Return Policy. The separation of buyer and seller noted above also plays a role in the consumer's level of comfort in regard to product returns. Today, businesses often respond to a customer's request to return a product by offering to repair, substitute, or refund the customer's money. In the case of online shopping, where the majority of products have been delivered through some third-part means, the customer is now faced with utilitizing a similar service in the return process, an additional inconvenience and potential expense. These issues negatively affected online shopping behavior (Kunz, 1997; Taylor & Cosenza, 1999). It is important to note that since online shopping does not allow a consumer to examine the product before purchasing, online shopping has experienced higher return rates when compared to traditional retailing (Bhatnagar, et al., 2000). By the year 2005, it is estimated that 90 million items bought online will be returned (Forrester Research, 2002). By offering an easy and cheaper way to return items, customers would be more likely to buy from an online store (Kunz, 1997).

Customer Service. Walsh and Godfrey (2000) suggested that e-tailors might have an advantage over brick and mortar counterparts in the area of customer service with their use of personalized web sites, product customization, and value-added work. Similarly, Kunz (1997) asserted that individuals who sought customer service were likely to purchase at the online store.

On the other hand, the product delivery and product return issues may negate the perception of personal service (Schneider & Bowen, 1999). Modern consumers put a premium on personal service (Scott, 2000). The lack of face-to-face service is certainly a limitation for Internet shopping and may negatively affect it (Schneider& Bowen, 1999).

Technology Factor

To a degree, online buying will depend on the efficiency and availability of the technology (Bell & Gemmell, 1996; Hoffman, Kalsbeek & Novak, 1998). Three main technological factors were suggested as important to online shopping: the availability of personal computers and Internet access, download time and representativeness of pictures and colors (Eroglu, Machleit, & Davis, 2003: Seckler, 1998).

Availability of PC/Internet access. For online shopping to expand, the potential customer must first have access to a computer that has an Internet

connection (Cho, Byun, & Sung, 2003). In the USA, 62.5% of all households had a personal computer and 42.9% or 45.9 million households are actively connected to the Web (E-Marketer, 2002). Although practically all Americans can access the Internet from a public system, such as at libraries, doing so may represent a higher level of actual or perceived risk by revealing personal information on such public systems (Seckler, 1999).

Downloading Time. When a shopper visits a website, the visit involves time for the web page to be transmitted to the monitor. This time lag is of concern for e-tailers as users show little patience for slow downloads. Excessive download time negatively affects online shoppers' behavior and frustrated users left the site, abandoning their shopping carts and building negative opinions about that site and the company's reputation (Bank, 1997; Bell & Gemmell, 1996; Cho, Byun, & Sung, 2003; Fram & Grady, 1997; Hoffman, Kalsbeek & Novak, 1998; Iacobucci, 1998; Internet Shopping, 1998; Katz, Larson, & Larson, 1991; Larson, 1987; Peterson, Balasubramanian & Bronnenberg, 1997; Powell, 2001; Rebello, 1999; Weinberg, 2000). Powell (2001) maintained that a typical consumer will only allow eight seconds or less for download time creating a design and technology issue. It is estimated that in 2000, $4 billion in retail revenue was lost due to slow Internet downloads (U.S. Department of Commerce, 2003).

Representativeness of Pictures and Colors. Consumer behavior is also impacted by the accuracy of the product/s displayed. Varying technology may make it difficult to represent the true colors or dimensions of a product. This distortion made consumers uneasy about making an online purchase therefore, negatively affecting online shopping behavior (Eroglu, Machleit & Davis, 2003).

The final broad area of online shopping research studied has been the evaluation of what products are best suited to the online retail model (Liang & Huang, 1998). Researchers reported that certain product categories sell online better than others (Alba, et al., 1997; Klein, 1998; Peterson, Balasubramanian & Bronnenberg, 1997; Vijayasarathy. 2002). Rosen and Howard (2000) found that services such as travel, airline tickets, and financial services dominated business to consumer online sales. In the area of products, those products that were standardized or might be considered homogeneous, such as books, music and videos, had an advantage over differentiated or heterogeneous products (Liang & Huang, 1998). Another way to classify products is based on their tangibility, homogeneity, and differentiability. Search goods require less direct examination (such as books, computer software, etc.) and are therefore perceived as less risky to buy online as opposed to experience goods where customers want some assurance of quality, color, and construction (Klein, 1998; Liang & Huang, 1998; Vijayasarathy, 2002). Internet buyers of experience goods had the highest amount of consumer dissatisfaction than did other product categories (Engel,

Blackwell & Miniard, 1995; Klein, 1998; Liang & Huang, 1998; Rosen & Howard, 2000).

Research Framework

To date, the majority of online consumer behavior studies have focused on the consumers' intent to buy online and what variables influenced that intent (Yoh, 1999). Research has shown that significant numbers of consumers who intend to buy never actually complete the purchase (Shim, et al., 2001). Little research has evaluated the consumer who follows through on his or her intent and makes an online purchase. Such information is important to retailers who are interested in using the Internet as a marketing channel. Two theoretical models, Theory of Reasoned Action (Fishbein & Ajzen, 1975), and the Diffusion of Innovations Theory (Rogers, 1995) offer guidance in formulating a research framework that can be used to explore the research questions. Additionally, Cowles, Kieker & Little (2002)'s e-Retailing model provided some additional structure in the research framework development.

Fishbein and Ajzen (1975) provide a behavior explanation of the importance of attitudes on a prospective buyer's decision-making process. Fishbein and Ajzen's Theory of Reasoned Action (TRA) suggests that human beings behave in a reasoned manner trying to obtain favorable outcomes while meeting the expectations of others. TRA attempts to explain how attitudes are formed and how and why such attitudes affect the way people act. Fishbein and

Ajzen (1975) propose that a person's behavior is determined by his/her intention to perform that behavior. Intentions are a function of his or her attitude towards the behavior and the resultant outcome. Ajzen (1991) later defined attitudes as an individual's feeling, either positive or negative, that performance of the potential behavior will lead to the desired outcome. Intentions are assumed to capture the motivational factors that influence a behavior and can measure the amount of effort someone is willing to exert when performing a behavior.

When applying TRA to consumer behavior, consumers are believed to have a certain level of intention for each alternative selection. The alternative selected will be that which has the highest perceived reward value. TRA (Fishbein & Ajzen, 1975) is the most frequently applied theory to explain consumers' belief-attitude-behavior continuum (Mowen & Minor, 1998) and continues as the basis for related information systems research (Venkatesh, 2000). In this study Fishbein and Ajzen's (1975) TRA was used to examine the individual's as a predictor of intention and then intention as a predictor of behavior.

While Fishbein and Ajzen (1975) provide a behavioral explanation of attitudes on the decision-making process, Rogers (1995) provides a sociological approach to innovation and adoption. Rogers (1995)'s diffusion of innovations theory states that innovation is a process communicated through formal and informal channels over time between members in social systems.

When a new product or innovative technology is introduced in the market, consumers learn about it and then decide whether or not to adopt it. Adoption

implies that a consumer accepts the new technology and uses it on a regular basis. Innovations are diffused in the market as individual consumers make their decisions to adopt them at different times (Dickerson & Gentry, 1983). In the case of Internet purchasing the use of the Internet as shopping tool is serving such a phased adoption of use or adoption (Agarwal & Prasad, 1997, 1999). Consumers who were in the same category, such as non-web user, web-store visitor, Internet browser, and Internet buyer have some common characteristics (i.e. demographics) (Rogers, 1995).

Rogers' theory suggests how an innovation's benefits interacts with the potential adopter's characteristics and needs to influence the individual's decision to adopt or not to adopt an innovation. Rogers (1995) divides the adoption process into five stages; knowledge, persuasion, decision-making, implementation and confirmation. In the knowledge stage, an individual builds his or her understanding of the innovation and its function. Previous experiences with similar technology and personal characteristics of the individual mediate the potential for acquiring new knowledge. In the persuasion stage, an individual develops his or her beliefs and attitudes toward the innovation. During the decision-making stage, the potential adopter makes a decision either to adopt the innovation or not. If the decision is made to adopt, the consumer moves into the implementation stage. Finally in the confirmation stage, the consumer re-evaluates the adoption decision based on his or her level of satisfaction and then decides whether or not to continue to use the innovation.

Rogers' diffusion of innovations theory has been applied to research on consumer behavior (Gatignon & Robertson, 1985; Mahajan, et al., 1990; Wright & Charitt, 1995) as an explanation of the movement of new ideas, practices and products through a social system (Gatignon & Robertson, 1985; Wright & Charitt, 1998). When transferring Roger's model to this study's research questions, previous research has only addressed the consumer's intent to buy, by definition the first two or three stages of the model (Mahajan, et al., 1990; Shim, Eastlick, Lotz & Warrington, 2001; Sultan, 2000). This study attempts to evaluate the last three stages of the adoption process, decision-making, implementation and confirmation in analyzing the consumers Internet buying behavior.

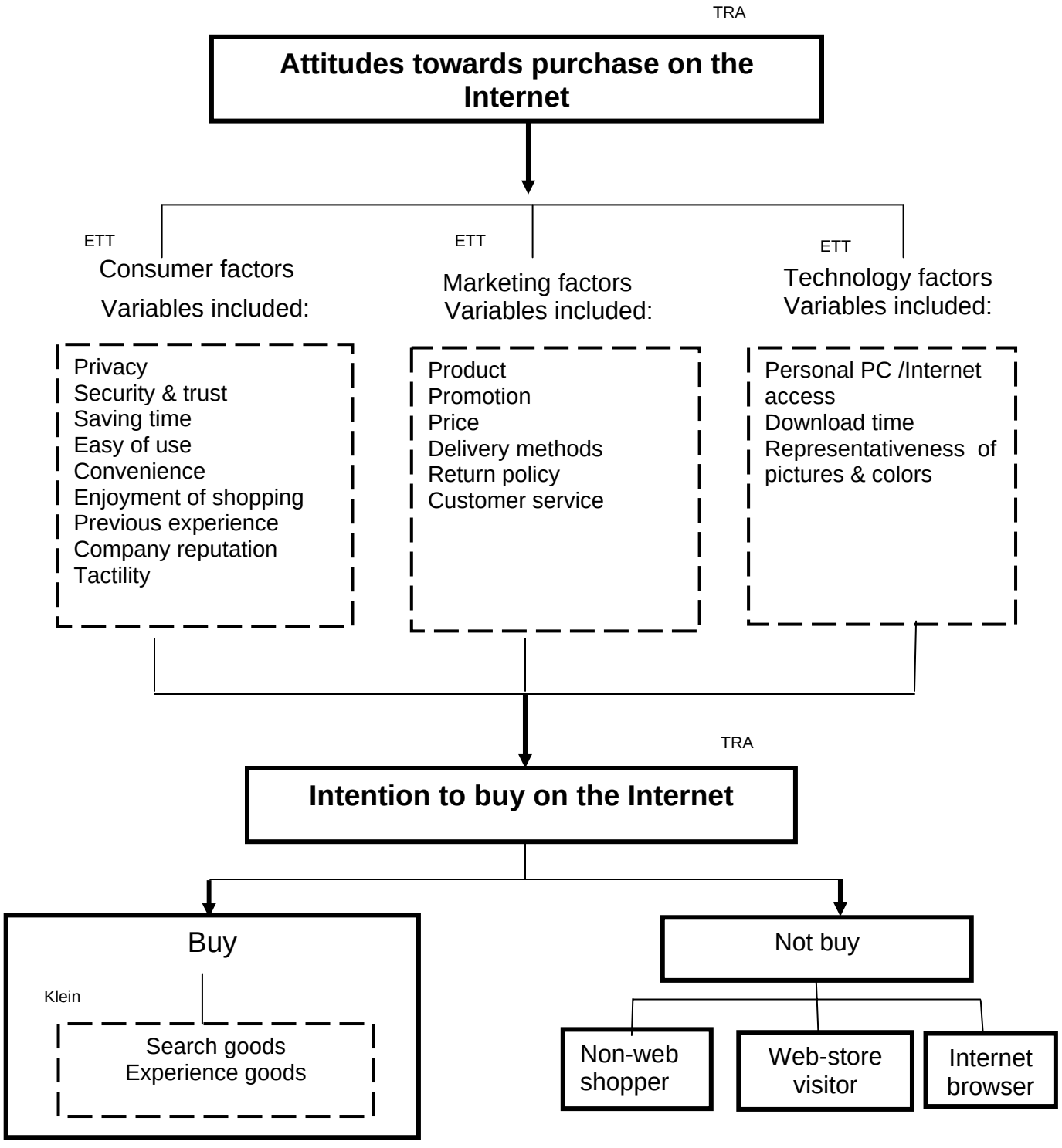
According to Lee and Johnson (2002), Internet purchasers and Internet non-purchasers had different attitudes about Internet shopping. Among them were different levels of comfort in providing financial information over the Internet. Other research has suggested that the current Internet store browsers were likely to be future buyers because of their familiarity with the Internet as a shopping tool (Shim, et al., 2001). Research has also noted that Internet browsers were also more aware of a product before going online, tended to have a greater level of confidence in their online shopping ability and had higher satisfaction for a product researched and purchased (Fram & Grady, 1995; Lee & Johnson, 2002; Seckler, 1998).

As attitudinal differences vary between the non-web shopper, the Internet store visitor, and the Internet store browser, it might be assumed that the Internet buyer will probably have different attitudes also in four main areas defined by the

literature; consumer issues, marketing issues, technology issues and product type (Cowles, Kieker, & Little, 2002).

Using Fishbein and Ajzen (1975)'s Theory of Reasoned Action that online buying behavior is a function of attitude and Cowles, Kieker, and Little's (2002) exploratory e-retailing theory, the various parts of one's overall attitudes based on previous research can be put into a hypothesized model of Internet buying. Figure 1 illustrates the framework for this research to predict online buying behavior.

Figure 1. Research Framework



Source;
TRA: The Theory of Reasoned Action (Fishbein & Ajzen, 1975 & 1980).
ETT: The E-tailing Theory (Cowles, Kieker, & Little, 2002).

Klein, L. R. (1998). Evaluating the potential of interactive media through a new lens: search versus experience goods.

Research Hypotheses

Based on the review of literature, the following research alternative hypotheses are developed.

Ha1: There will be internal consistency among the items used to comprise the theoretical factors.

Ha1a: Consumer factor

Ha1b: Marketing factor

Ha1c: Technology factor

Ha2: There will be significant differences in demographic and technology experiences between the combined Internet non-buyer group, non-web shoppers, web-store visitors, and Internet browsers, and Internet buyers.

Ha3: There will be significant differences in attitudes towards the theoretical factors between the combined Internet non-buyer group and Internet buyers.

Ha3a: Consumer factor

Ha3b: Marketing factor

Ha4: There will be significant differences in intention to purchase on the Internet between the two groups of consumers (Internet buyers and Internet non-buyers).

Ha4a: Consumer factor

Ha4b: Marketing factor

Ha5: There will be significant differences in demographic and technology experiences between the four groups of consumers (the non-web shoppers, web-store visitors, Internet browsers, and Internet buyers).

Ha6: There will be significant differences in attitudes between the four groups of consumers (the non-web shoppers, web-store visitors, Internet browsers, and Internet buyers) for the theoretical factors.

Ha6a: Consumer factor

Ha6b: Marketing factor

Ha7: There will be significant differences in one's intention to purchase on the Internet between the four group of consumers (the non-web shoppers, web-store visitors, Internet browsers, and Internet buyers).

Ha8: The respondents' attitude towards the consumer factor and marketing factor as well as differences in demographic and technology experience can predict who is more likely to be an Internet buyer.

Ha9: The attitude toward the two factors of consumer and marketing factors as well as demographics and technology experience will predict one's intention to purchase.

Ha10: Among Internet buyers, there will be differences in the demographic background and technology experience between the consumers who had purchased experience goods as opposed to those buying search goods.

Ha11: Among the Internet buyers, there will be differences in their consumer and marketing attitudes between the consumers who had purchased experiences good and search goods.

Ha12: There will be significant differences in Internet shopping experiences (Q78-84) between the two groups of consumers (Search and experience goods buyers).

Ha13: The attitude towards the consumer factor and marketing factor along with demographics and technology experiences will be able to predict which buyer will repeat a purchase.

CHAPTER III

METHODOLOGY

The purpose of the study was to explore the attitudes of respondents toward purchasing products on the internet. Four groups were examined including: The non-web user (NW); the visitor (WV)- no intent to purchase online; the browser (BR)- has intention but has never purchased; and the online buyer (BY). Differences in the respondent's attitudes and behaviors based on their level of online shopping involvement were explored. The consumers' attitudes and demographics were then used to predict future Internet buying intention. While research has often studied the first three groups, there has been limited examination of the online buyer and the variations between him or her and the non-buyer. Similarly, little research has examined the consumer who already buys online in regard to what they bought and if they will continue to shop online. The research protocol was approved by the Institutional Review Board at Oklahoma State University (HE0374) (Appendix A).

Subject Selection

Bruin and Lawrence's (2000) study suggested that college students were often users of technology in general and likely to buy products online. Because the online buyer still represents only a small number of online users and given

that today's college students represent a significant part of the online buying consumer and a long-term potential market, a purposive sample of U. S. college students served as the study population (Bruin & Lawrence, 2000). Purposive sampling is defined as a sample of subjects selected deliberately by researchers usually because they are more likely to meet one or more of the research criteria (Vogt, 1998). Today's web-savvy college students represent current and future targets for e-commerce companies. Students represent over sixty billion dollars in buying power today (Bruin & Lawrence, 2000; Forrester Research, 2002). Their higher than average levels of education can be expected to generate high levels of disposable income, making future online purchases even more likely. Online merchants, by focusing on this market, can create brand loyalty and lifetime consumers among a population who will eventually spend billions more of their dispensable dollars shopping online (Jover & Allen, 1996).

For students to actively participate in online purchasing, a critical tool is having a major credit card. Previous research indicated that between 70 and 80 percent of college students had at least one credit card and many had three cards or more (Anderson & Craven, 1993; Hayhoe & Leach, 1997; Xiao, Noring, & Anderson, 1995).

Development of Survey Questionnaire

A research instrument was developed based on a review of the literature (Chung, 2001; Fram & Grady, 1995; Lee & Johnson, 2002; Reynolds, 1974;

zymansk & Hise, 2000). Most of the items on the instrument were based on questions used in previous research. Some questions were used in their original form while others were modified slightly to address the specific nature of this study (Appendix B). Finally some of the questions were developed solely for this survey to address important concepts not previously addressed by previous studies. These questions were part of the pretest to examine their readability and that they captured the construct in question. Table 3.1 indicates the overall theoretical concepts and specific issues that each question was designed to measure.

The survey was divided into four sections. Section one examined the respondent's demographic information related to online shopping behaviors. The variables included age, gender, ethnicity, marital status, monthly income, and financial independence of the respondent. In section two, questions measured the respondents' previous personal experience with computers and the Internet.

Section three contained questions related to respondents' attitudes, intentions and behaviors about Internet shopping. In the first part of section 3 (questions 16 to 53), the scale of the measurement were measured using a five-point Likert scale (a= strongly disagree, b= disagree, c= neutral, d= agree, and e= strongly agree). Several items on each subscale were asked from a negative perspective in order to encourage the respondent to carefully read each question. Those questions were later reverse-coded to reflect that a higher score meant more positive attitude towards the online shopping. The third part of the section three asked about the respondent's Internet shopping intentions and

asked them to classify themselves among the four categories of Internet users. Both categorical and Likert-scale questions were used. Section four examined current online buyers in terms of their Internet purchasing experiences and future online buying intentions.

Pretest

A pre-test (N=118) was conducted with college students to test the survey questionnaire's readability and wording issues.

Survey Administration

Three universities from central United States were identified for data collection. At each university, a faculty member was identified and contacted requesting participation in the survey. At each university, surveys were provided along with a cover letter, informed consent script, and scantrons forms. Either the researcher or the cooperating faculty members administered the survey in classes where the instructor's permission has been given. Administration of the survey included a description of the survey. The verbal script was read informing the students of their voluntary participation rights and surveys, pencils and scantrons were distributed. Data was completed from the scantrons sheets using a reader at a university testing service center.

Table 3.1 Survey questions and references

Variables		**Survey Questions**	**Primary Authors**
Consumer Factor	Privacy	Q16, 29	Chung (2001), Udo (2001) Yoh (1999),
	Security	Q18, 21, 25, 27, 34	Chung (2001), Fram& Grady(1995), Szymansk& Hise (2000), Yoh(1999)
	Time saving	Q17, 23, 30	Chung (2001), Reynolds (1974), Yoh (1999)
	Easy of use	Q20, 28, 38	Chung (2001), Lee & Johnson (2002), Reynolds (1974)
	Convenience	Q24, 30	Chung (2001), Reynolds (1974)
	Enjoyment	Q31, 33, 39	Chung (2001)
	Company reputation	Q34, 51	Srinivasan et al. (2002)
	Tactility	Q32, 37	Bhatnagar et al. (2000)
Marketing Factor	Price	Q19, 22	Chung (2001), Reynolds (1974), Yoh (1999)
	Product	Q36, 41	Chung (2001), Kunz (1997), Reynolds (1974)
	Promotion	Q26, 35, 43	Chung (2001), Yoh (1999)
	Delivery	Q45, 49	Yoh (1999)
	Return	Q42, 47, 52	Bhatnagar et al. (2000)
	Customer service	Q44, 50	Chung (2001), Kunz (1997), Walsh & Goodfrey (2000)
Technology Factor	Access to Internet		Cho et al (2003), Seckler (1998), Yoh (1999)
	Download time	Q46	Fram & Grady (1997), Udo (2001)
	Representativeness	Q41, 48, 53	Eroglu et al. (2003), Yoh (1999)
Product Type	Experience / search goods	Q80, 82	Klein (1997), Shim et al. (2000)
Categorization Of consumers	Categorization of NW, WV, BR & BY*	Q72, 73, 77	Klein (1997), Lee & Johnson (2002), Shim et al. (2000)
	Intention to purchase	Q75, 81	Chung (2001), Lee & Johnson (2002), Yoh (1999)
	Purchasing experience	Q78-84	Chung (2001), Yoh (1999)
Technology experience	Personal technology experience	Q9-15, 72, 74, 76	Lee & Johnson (2002), Yoh (1999)
Demographics	Age, Gender, ethnicity, etc.	Q1-8	Chung (2001), Yoh (1999)

*NW: Non-web shopper, WV: Web-store visitor, BR: Online browser, BY: Online buyer

Data Preparation and Cleaning

Data were imported into SPSS for tabulation and analysis. Data was collected from three 343 respondents for analysis. The data for each participant was reviewed for completeness. Data were cleaned by deleting those respondents where data was missing on important questions such as a respondent's previous online experience and intention to purchase products online. During cleaning, six respondents were excluded as they failed to complete more than half of the survey. Another respondent was deleted for failure to provide answers to the classification variables used to determine shopping behaviors, Q73. Seven more respondents were deleted due to the lack of response to the marketing items. Similarly four respondents were deleted because of a failure to answer the technology questions. Finally, three respondents were deleted for falsified data as demonstrated by pattern responses (Dillman, 1991). These deletions reduced the sample size to 322 respondents (n=322).

Question 76 was dropped from the analysis due to the respondents' apparent misunderstanding of the word "search". The question was intended to measure the respondents' Internet search experience for products. When comparing the answer on question 76 with questions 73 and 77, there were multiple respondents who answered that they had not searched for products on the internet (question 76) but then answered "Yes" when asked if they had purchased a product on the Internet. Because of the specific response to

question 77 and the fact that many of these respondents also answered questions 78 and beyond, asking about the Internet purchases made, those respondents were coded as Internet buyers.

Question 73 was the primary question used to categorize respondents into the four groups of online shoppers. Respondents who indicated that they had previously purchased products over the Internet were classified as Internet buyers (n=99) while Internet browsers (n=88) were those who indicated that they had looked for specific products with an intention to buy but had not completed an Internet purchase. Web store visitors (n=66) were those respondents who indicated that they had visited a store's web-site but either had not made a purchase or even searched for specific products.

Although initially categorized as the non-web user(n=13), respondents who categorized themselves as that apparently confused the "non-web user" and the "non-web shopper". Analysis of these respondents indicated they had Internet use experience of more than 4 years (12 out of 13), had private Internet access (13 out of 13), and that they used the Internet for communication (12 out of 13), but they had not bought anything on the Internet nor had they shopped online, searched for products or abandoned a shopping cart. Therefore, in this analysis, the researcher regarded the non-web users as one who use the Internet for things other than shopping and re-categorized the group as non-web shoppers.

Internet buyers were further classified into two groups depending on the product type he or she most commonly purchased on the Internet, experience

goods or search goods. Experience good buyers were those who purchased the product category such as clothing, shoes, and accessory. Search goods included books, CDs, computer software, and hobby items. A separate question about one's most recent purchase was also asked but not analyzed in this study. Among the 83 Internet buyers, there were 49 experience goods buyers and 34 search goods buyers.

The data cleaning also examined the differences between the samples drawn from the three universities in terms of online shopping behavior, age, gender, ethnicity, marital status, income, self-support, credit card usage, and residence. Several key demographic questions showed significant differences therefore only the data from the university having the greatest number of responses were used for the study. Inadequate sample sizes from the other two universities made it impractical to run separate institutional analyses. This final data cleaning step left 266 respondents for use in the study (Results are shown in Table 4.2).

Consumer and marketing factor scores were calculated by summing the scores of the individual items for each factor respectively. The consumer factor scale represents the sum of the 20 items measured using a 5-point Likert scale (1-5 scale) from the survey questionnaire and ranged from 20 to 100. A mean was calculated as an overall indicator of the strength of the respondents answers. The marketing factor scale represents the sum of 14 items from the survey questionnaire again using a 5-point Likert scale (1-5 scale) and ranged from 14 to 70.

Data Analysis

The analyses for the study were divided into five phases. Phase I involved the testing of the theoretical model and examination of the internal reliabilities of the items measuring the theoretical concepts through use of Cronbach's alpha coefficients. Phase II involved the testing for differences between Internet buyers and non-buyers, comprised of all three non-buying groups, on Internet attitudes and their intention to purchase goods online. Phase III involved the prediction of online purchasing behavior based on the respondents' consumer and marketing attitudes, demographic characteristics, and technology experiences. Phase III involved analyzing the differences between the four groups of consumers (non-web shopper, web-store visitor, Internet browser, and Internet buyer) on demographic variables, technology experiences, and consumer and marketing attitudes. Additionally, differences among the respondents' intent to purchase goods on the Internet were examined. Phase IV involved a regression analysis predicting the consumers' intent to purchase on the Internet based on their consumer and marketing attitudes, demographic characteristics and technology experiences. Phase V involved analyzing the comparison of Internet buyers, classified as per their most common purchase, either experience goods or search goods, demographic characteristics, technology experiences, and intention to repeat their most recent Internet purchase.

Chi-Square analyses were used for comparisons of the demographic variables. Descriptive statistics, such as frequency analysis and mean scores, were used to describe the demographic variables and previous technology experience of the respondents. ANOVA was used to test differences in attitudes toward Internet shopping, intention to shop online and past experience with Internet shopping among the four consumer groups. T-tests were conducted to identify significant differences in Internet shopping behaviors, attitudes, intention to shop online, previous technology experience, and demographic background when evaluating only the buyer and non-buyer groups. Logistic regression analysis identified significant predictors of online purchasing for Internet buyers. Linear regression predicted the respondents' intention to purchase and the buyers' willingness to repeat a previous purchase behavior. Finally, chi-square analysis and t-test analyses were used to evaluate the differences between experience goods and search goods buyers as to their attitudes and purchasing intentions.

Phase I Testing the Theoretical Concept's Validity and Reliability (Ha1)

To assure that the results are meaningful, a research study must address problems of validity and reliability. Validity refers to the extent to which a given question predicts, with a measured degree of accuracy, the most correct answer. Reliability refers to the extent to which an instrument consistently measures the same construct, whenever it is conducted, in other words, consistency of responses (Windsor, Baranowski, Clark, & Cutter, 1994). Three elements of validity and reliability were explored: (1) internal validity (2) external validity, and (3) reliability.

Internal validity was related to the instrument used to collect data. The instrument was validated using three criteria: face validity; content validity; and internal consistency. Face validity is established during the development of an assessment tool and assessed prior to administration (Vogt, 1998). To ensure the tool is measuring what it is intended to measure, the researcher's advisory committee was asked about the tool's design, layout and purported content and those comments and suggestions were incorporated in the final draft.

Content validity requires an instrument to measure the critical foci of a specific problem. To strength the content validity of the questionnaire, a majority of the survey items used directly came from previous studies or needed slight modification (Chung, 2001; Yoh, 1999). Furthermore, the readability of the questionnaire was evaluated by using a pre-test with a similar respondent group.

External validity or generalizability refers to the extent in which findings of the study can be applied to other similar situations (Vogt, 1998). Because the study used purposive sampling rather than random samples, one cannot make broad claims from the findings of this study to other population. However, this study provides the groundwork for future examination of variables important in understanding online purchasing behaviors.

Cronbach's Alpha for the Theoretical Model. To assess internal consistency of the items for each of the theoretical concepts, a Cronbach's Alpha was computed for each factor assessing that the items were measuring the same concept. While desired α levels were 0.70 (Stevens, 2002; Vogt, 1998), this was an exploratory study so an alpha of 0.50 was acceptable (Tseng, DeVellis, Kohlmeier, Khare, Maurer, Everhart & Sandler, 2000). In addition, a correlation matrix for the items in each scale was evaluated to further examine the relationships among the items.

Phase II Testing Differences Between 2 Groups

Demographic Differences Between Internet Buyers and Internet Non-Buyers (Ha2). Question 77, which asked the respondents about their Internet purchasing experience, was used to classify the respondents as either Internet buyers or Internet non-buyers. Differences in general demographic characteristics and technology experiences for these two different consumer

groups were analyzed using chi-square analyses because the variables were nominal (categorical). Some demographic variables were recoded to minimize the problem of empty cells as described previously.

Attitudinal Differences for Internet Buyers and Internet Non-Buyers (Ha3). T-tests were used to analyze the differences in attitudes between Internet buyers or Internet non-buyers.

Differences in Intention for Internet Buyers and Internet Non-buyers (Ha4). To examine the differences among the current buyers and non-buyers in their intention to purchase a product on the Internet, a t-test analysis was used.

Phase III Testing the Differences Between Four Groups

Demographic Differences for Four Groups (Ha5). Differences in general demographic characteristics and technology experiences for the four different consumer groups were analyzed using chi-square analyses. The variables being studied were nominal (categorical). In order to minimize the issue of empty cells in the analysis, some variables were recoded. For example, when analyzing the ethnic variables, the original five categories, white, African American, Hispanic, Asian and other. As there were no Hispanic respondents and few Asians, the question was recoded into two categories, white and non-white ethnic background.

Attitudinal Differences for Four Groups (Ha6). To examine difference among the four consumer groups' attitudes on Internet consumer and marketing factors, differences in the mean factor scores were analyzed using ANOVA.

Differences in Intention to Purchase on the Internet for Four Groups (Ha7). To examine the four consumer groups' intention to purchase a product on the Internet, an ANOVA test was used.

Phase IV Prediction of Internet Purchasing Intention and Behavior

Prediction of Online Purchasing Behaviors (Ha8). To identify the variables that predict online purchasing behavior, a yes or no question, a binary logistic regression analysis was conducted. The consumer and marketing factors plus demographic characteristics, such as age, gender, ethnicity, and income, and technology experiences were used as predictors in the regression equation.

Predict the future Internet purchasing intention (Ha9). Linear regression was used to predict the respondents' intent to purchase on the Internet, Q75, using respondent's on consumer and marketing overall attitudes, demographics and technology experiences.

Phase V Examination of Online Buyers

Survey question 77, “Have you ever purchased a product on the Internet?” was used to identify respondents who had bought a product on the Internet. If so, they were asked to continue the survey to the end. Ninety nine students responded that they had previously purchased a product on the Internet. However, sixteen respondents did not answer the additional questions and were dropped from further analysis, leaving 83 Internet buyers with complete data regarding their past Internet purchases (n=83). The 83 Internet buyers were divided into two categories based on type of products purchased on the Internet, experience or search goods, question 82.

Differences in Demographic and Technology Experiences Between Experience Goods and Search Goods Buyers (Ha10). Differences in the general demographic characteristics and technology experiences for the two different buyer groups, experience goods buyers and search goods buyers, were analyzed using chi-square analyses.

Attitudinal Differences for Buyers Group (Ha11). T-tests were used to analyze the differences in one’s consumer and marketing factor scores toward Internet shopping between experience goods and search goods buyers.

Internet Buyers' Online Shopping Experiences Comparison (Ha12). Based on type of good purchased previously on the Internet, a t-test analysis determined if differences existed in respondents' Internet purchasing experiences as measured by the number of products purchased during the past 6 months, total time spent making the last purchase, product category for the last purchase, intention to repeat the same purchase for future, amount of money spent for the last purchase, and intention to continue to purchase on the Internet.

Prediction of Buyers' Repurchase Intention on the Internet by Attitudinal Factors (Ha13). Linear regression was used to predict the buyers' intent to repeat the same purchase on the Internet, Q81, using the consumer and marketing factors, demographic characteristics, and technology experiences as predictors.

Table 3.2. Summary of Hypotheses, Variables, and Data Analysis

Phase	Alternative hypotheses	Independent variable	Dependent Variable	Statistics
Phase I	Ha1 Internal consistency Ha1a: Consumer Factor Ha1b: Marketing Factor Ha1b: Technology Factor		Factor Scores Consumer factor Marketing factor Technology factor	Cronbach's alpha
Phase II	Ha2 Demographic & Technology experience (2 groups)	2 groups of consumers	Demographics Technology experiences	Chi-Square
	Ha3 Attitude (2 groups) Ha3a: Consumer Factor Ha3b: Marketing Factor	2 groups of consumers	Factor scores Consumer factor Marketing factor	T-test
	Ha4 Intention (2 groups)	2 groups of consumers	Intention (Q75)	ANOVA
Phase III	Ha5 Demographic & Technology experience (4 groups)	4 groups of consumers	Demographics Technology experiences	Chi-Square
	Ha6 Attitude (4 groups) Ha6a: Consumer Factor Ha6b: Marketing Factor	4 groups of consumers	Factor Scores Consumer factor Marketing factor	ANOVA
	Ha7 Intention (4 groups)	4 groups of consumers	Intention (Q75)	ANOVA
Phase IV	Ha8 Predict purchasing behavior	Factor scores, Demographics & Technology experiences	Purchasing behavior	Logistic regression
	Ha9 Predict purchasing intention	Factor scores, Demographics & Technology experiences	Intention (Q75)	Linear regression
Phase V	Ha10 Internet buyer	Experience goods buyer Search goods buyer	Demographics Technology experiences.	Chi-square
	Ha11 Buyers attitude Ha11a. Consumer Factor Ha11b. Marketing Factor	Experience goods buyer Search goods buyer	Factor scores Consumer factor Marketing factor	T-test
	Ha12 Buyers purchasing experience	Experience goods buyer Search goods buyer	Internet purchasing experiences	T-test
	Ha13 Buyers intention	Experience goods buyer Search goods buyer	Repurchase intention (Q81)	Linear regression

CHAPTER IV

Results

The primary purpose of the study was to add to the understanding of the Internet as a retail outlet and to better understand the person who has made an online purchase. Demographic characteristics, technology experiences, the respondent's consumer and marketing attitudes toward shopping on the Internet, and the type of goods purchased were examined and compared among consumers classified by their online buying intention and online buying behavior. This chapter presents the results of data analysis following the alternative hypotheses outlined in Chapter 2 and expanded upon in Chapter 3.

Phase I Reliability of Theoretical Concepts (Ha1)

Cronbach's alpha coefficients for the theoretical concepts are provided in Table 4.1. The consumer factor score was .860, exceeding the standard level of .7 (Stevens, 2002), while the marketing factor had a marginally acceptable alpha value of .541 (Tseng et al., 2000). The items on the technology factor, however, demonstrated low internal consistency with a coefficient of only .42. In further exploratory analysis of the individual technology items (results not reported here), none of the items showed any significant or substantial exploratory power. Therefore all of these questions were deleted

Table 4.1. Cronbach's α Coefficients for Theoretical Concepts

Theoretical Concepts	**Cronbach's α ($0<\alpha<1$)**
Consumer factor scale score Privacy Security Time saving Easy of use Convenience Enjoyment Company reputation Tactility	.860
Marketing scale score Price Product Promotion Delivery Return Customer service	.541
Technology factor scale score Access to Internet Download time Representativeness	.423

from further analysis.

To further explore the relationships between the items within each factor, bivariate correlations were generated (Appendix D). In the consumer factor's correlation matrix, most items shared moderate levels of correlation, where a Pearson Product-Moment Correlation (R) higher than .5 was considered as a high correlation (Cohen, 1988). The items indicating a high correlation included the perceived time saved shopping on the Internet (Q23) and the ease of usage when Internet shopping (Q20) (R= .64) and security (Q55) and privacy (Q54) (R= .65).

The internal consistency of the items included in the marketing factor were also moderate. A strong relationship was found between scores for returning products (Q67) and delivery issues (Q66) (R=.58) and also between customer service (Q68) and the product return issues (Q67) (R=.60). Several other of the relationships showed significant, but not overly strong, relationships. Based on the moderate alpha and the correlations among factor items, it was decided to use the marketing factor scale in the remaining analyses.

Phase II Comparisons of Internet Buyers vs. Non-Buyers

Demographic data for the sample are provided in Table 4.2. While the initial sample of 322 included students from three universities, #1 (n=35), #2 (21) and #3 (n=266), significant differences on key variables existed between students at each of the institutions. Those key variables included age, gender, number of credit cards held, and residence. Because of the differences between the institutions, only respondents from the largest sample were used for the remaining analyses.

Demographic Differences Between Internet Buyers and Non-Buyers (Ha2). For both groups, half of the respondents were between the age of 21 and 23 (55.6% for buyers and 48.5% for non-buyers) with approximately a quarter of them age 24 or older. Sixty one percent (n=60) of the Internet buyers and 55%

Table 4.2. Demographic Characteristics Comparisons Stratified by Institutions

Demographic	Category	#1 (n=266)	#2 (n=35)	#3 (n=21)	χ^2
Age	18-20 yrs	58 (21.8%)	3 (8.6%)	5 (23.8%)	13.86*
	21-23 yrs	136 (51.1%)	29 (82.9%)	13 (61.9%)	
	24 yrs +	72 (27.1%)	3 (8.6%)	3 (14.3%)	
Gender	Male	115 (43.2%)	1 (2.9%)	2 (9.5%)	28.84*
	Female	151 (56.8%)	34 (97.1%)	19 (90.5%)	
Ethnicity	White	213 (80.1%)	33 (94.3%)	18 (85.7%)	4.78
	Other	53 (19.9%)	2 (5.7%)	3 (14.3%)	
Marital	Married	41 (15.4%).	3 (8.6%)	0 (00.0%)	4.34
	Single	225 (84.6%)	32 (91.4%)	21 (100%)	
Income	No income	47 (17.7%)	8 (22.9%)	2 (9.5%)	4.94
	$1-500	98 (36.8%)	14 (40.0%)	5 (23.8%)	
	$501 +	121 (45.5%)	13 (37.1%)	14 (66.7%)	
Self support	Yes	106 (39.8%)	8 (22.9%)	6 (28.6%)	4.55
	No	160 (60.2%)	27 (77.1%)	15 (71.4%)	
Credit Card	None	88 (33.1%)	9 (25.7%)	5 (23.8%)	17.94*
	1-2	148 (55.6%)	18 (51.4%)	7 (33.3%)	
	3 +	30 (11.3%)	8 (22.9%)	9 (42.9%)	
Residence[a]	On campus	47 (17.7%)	1 (2.9%)	2 (9.5%)	10.81*
	Off campus	217 (81.6%)	34 (97.1%)	19 (90.5%)	

Data displayed as n (%), a. Two web-store visitors were missing on residence variable.
*p<.05

percent of the Internet buyers were single while 83% of the Internet non-buyers were single. Both groups were similar in monthly income with over 40% making more than $500. Internet buyers were slightly more likely to consider themselves self supporting (66%) compared to 57% of the non-buyers. Concerning the place of residence, 78% of Internet buyers lived in off- campus housing while 84% of the non-buyers lived off-campus (Table 4.3).

Based on whether or not the respondent was an Internet buyer or not, Table 4.3 displays the differences in demographic characteristics. The only significant difference in the demographic variables was in the number of credit cards owned (χ^2 (1, N = 266) = 9.92). Seventy-eight percent of Internet buyers

Table 4.3.Demographic Differences between Internet Buyers and Non-Buyers.

Demographic	Category	Internet non-buyer (*n*=167)	Internet buyer (*n*=99)	χ^2
Age	18-20 yrs	42 (25.1%)	16 (16.2%)	2.99
	21-23 yrs	81 (48.5%)	55 (55.6%)	
	24 yrs +	44 (26.3%)	28 (28.3%)	
Gender	Male	76 (45.5%)	39 (39.4%)	0.95
	Female	91 (54.5%)	60 (60.6%)	
Ethnicity	White	136 (81.4%)	77 (77.8%)	0.52
	Other	31 (18.6%)	22 (22.2%)	
Marital Status	Married	29 (17.4%)	12 (12.1%)	1.31
	Single	138 (82.6%)	87 (87.9%)	
Monthly Income	No income	34 (20.4%)	13 (13.1%)	2.25
	$1-500	59 (35.3%)	39 (39.4%)	
	$501 +	74 (44.3%)	47 (47.5%)	
Self-supported financially	Yes	72 (43.1%)	34 (34.3%)	2.00
	No	95 (56.9%)	65 (65.7%)	
Credit Card	None	66 (39.5%)	22 (22.2%)	9.92*
	1-2	81 (48.5%)	67 (67.7%)	
	3 +	20 (12.0%)	10 (10.1%)	
Residence[a]	On campus	25 (15.0%)	22 (22.2%)	3.32
	Off campus	140 (83.8%)	77 (77.8%)	

Data displayed as n (%)
[a] Two Web-store visitors were missing on residence variable
*p<.05

had at least one credit card while only 60% of the Internet non-buyers had a credit card. There were no significant differences in any of the demographic variables including age, ethnicity, marital status, income, self-supported, and residence variables between the Internet buyers and non-buyers.

Table 4.4 presents the differences in Internet and computer use and experiences between Internet buyers and non-buyers. Seventy two percent of the Internet buyers used the computer more than seven years as opposed to 61% of non-buyers. However, Internet buyers and non-buyers exhibited similar Internet usage experience of 85% vs. 82%. About half of both Internet buyers and non-buyers reported their primary use of the Internet was for communication.

Table 4.4. Consumers' Computer and Internet Use Experience Comparison for Internet Buyers and Non-Buyers.

Demographic	Category	Internet Non-buyer (n=167)	Internet buyer (n=99)	χ^2
Computer usage	<3year	20 (12.0%)	7 (7.1%)	4.65
	4-6 years	46 (27.5%)	21 (21.2%)	
	>7 years	101 (60.5%)	71 (71.7%)	
Internet usage	< 3 years	30 (18.0%)	15 (15.2%)	1.88
	>4 years	137 (82.0%)	84 (84.8%)	
Ability to use the Internet	Somewhat skillful	36 (21.6%)	18 (18.2%)	0.44
	Skillful	131 (78.4%)	81 (81.8%)	
Internet access	Private	163 (97.6%)	99 (100%)	2.41
	Public	4 (2.4%)	0 (0.0%)	
Speed of Internet	Slow	52 (31.1%)	25 (25.3%)	1.05
	Fast	115 (68.9%)	74 (74.7%)	
Hours of Internet usage	<3 hrs	67 (40.1%)	21 (21.2%)	11.00*
	3-10 hrs	72 (43.1%)	51 (51.5%)	
	>11 hrs	28 (16.8%)	27 (27.3%)	
Primary usage of Internet	Info search & shop	41 (24.6%)	30 (30.3%)	1.56
	Communication	92 (55.1%)	47 (47.5%)	
	Entertainment	34 (20.4%)	22 (22.2%)	

Data displayed as n (%)
*p<.05

Internet buyers were slightly more likely to use the Internet for information searches and shopping. Both groups (buyers = 48% and non-buyers = 55%) most often used the Internet for electronic communication including e-mail, e-cards, and chatting. Entertainment was least often the primary use with only 22% of buyers and 20 % of non-buyers indicating that as their primary use.

The only significant difference between the groups was in hours of Internet use with 27 % of buyers online over 11 hours per week and another 52% using it 3-10 hours, χ^2 (1, N = 266) = 11.00. Only 60% of the non-buyers used the Internet more than three hours per week. There were no significant differences between Internet buyers and non-buyers in years of computer and Internet use,

the level of Internet using skills, mode and speed of Internet access and the primary activity of Internet usage,

Attitudinal Differences Toward Internet Shopping Between Internet Buyers and Non-Buyers (Ha3). Internet buyers had more positive attitudes than non-buyers towards both the consumer (average score 74 vs. 62) and marketing factors (average score 42 vs. 39). This seems to indicate that Internet buyers viewed the online shopping more positively than did the Internet non-buyers (*t* (266) = -10.55, -5.43) (Table 4.5).

Table 4.5. Attitude Differences between Internets Buyer and Non-Buyers.

Factor	**Internet Non-Buyer (n=167)**		**Internet Buyer (n=99)**		***t***
	Mean	SD	Mean	SD	
Consumer factor	62.29	9.48	74.74	8.98	-10.55**
Marketing factor	38.62	5.31	42.06	4.39	-5.43**

**p<.0001

Intention toward Internet Shopping of Buyers and Non-Buyers (Ha4). Internet buyers significantly felt more strongly agreed that they would make a purchase on the Internet (Table 4.6) than did Internet non-buyers.

Table 4.6. Difference in Internet Purchase Intention between Internet Buyers and Non-Buyers

	Internet Non-Buyer (n=167)		**Internet Buyer (n=99)**		***t***
Factor	Mean	SD	Mean	SD	
Shopping Intention	3.12	1.32	4.69	0.62	-13.11**

**p<.0001

Phase III Examination of 4 Groups of Internet Shoppers

Demographic Differences among 4 groups of consumer (Ha5). More than half of the respondents (51.1%, n=136) were between 21 and 23 years old and 27.1% of the respondents were 24 years old or more. There were 115 male respondents (43.2%), and 151 female respondents (56.8%). Eighty percent of the respondents reported their ethnicity as white (n=213). Eighty-five percent (n=225) of the respondents were not married. In terms of income, 36.8% (n=98) of the respondents earned from $ 1 to $500 per month, 45.5% (n=121) of the respondents earned more than $500 per month and 17.7% reported earning no monthly income. Sixty-seven percent (n=178) of the respondents had one or more credit cards while 33% of the subjects did not have any credit cards. Eighty-two percent of the students (n=217) resided in off-campus housing while 17.7 % (n=47) lived on-campus (Table 4.7).

When examining the data divided into the four categories of consumers, 37% of the respondents indicated they were Internet buyers and 63% of the respondents described themselves as some type of non-buyer. These

Table 4.7. Demographic Differences among 4 Consumer Groups

Demographic	Category	Total (n=266)	Non-web shopper (*n*=13)	Web store visitor (*n*=66)	Internet browser (*n*=88)	Internet buyer (*n*=99)	χ^2
Age	18-20 yrs	58 (21.8%)	6 (46.2%)	16 (24.2%)	20 (22.7%)	16 (16.2%)	6.81
	21-23 yrs	136 (51.1%)	5 (38.5%)	32 (48.5%)	44 (50.5%)	55 (55.6%)	
	24 yrs +	72 (27.1%)	2 (15.4%)	18 (27.3%)	24 (27.3%)	28 (28.3%)	
Gender	Male	115 (43.2%)	4 (30.8%)	31 (47.0%)	41 (46.6%)	39 (39.4%)	2.20
	Female	151 (56.8%)	9 (69.2%)	35 (53.0%)	47 (53.4%)	60 (60.6%)	
Ethnicity	White	213 (80.1%)	11 (84.6%)	57 (86.4%)	68 (77.3%)	77 (77.8%)	2.56
	Other	53 (19.9%)	2 (15.4%)	9 (13.6%)	20 (22.7%)	22 (22.2%)	
Marital	Married	41 (15.4%)	1 (7.2%)	6 (9.1%)	22 (25.0%)	12 (12.1%)	9.64*
	Single	225 (84.6%)	12 (92.3%)	60 (90.9%)	66 (75.0%)	87 (87.9%)	
Income	No income	47 (17.7%)	4 (30.8%)	13 (19.7%)	17 (19.3%)	13 (13.1%)	3.73
	$1-500	98 (36.8%)	5 (38.5%)	23 (34.8%)	31 (35.2%)	39 (39.4%)	
	$501 +	121 (45.5%)	4 (30.8%)	30 (45.5%)	40 (45.5%)	47 (47.5%)	
Self support	Yes	106 (39.8%)	4 (30.8%)	35 (53.0%)	33 (37.5%)	34 (34.3%)	6.67
	No	160 (60.2%)	9 (69.2%)	31 (47.0%)	55 (62.5%)	65 (65.7%)	
Credit Card	None	88 (33.1%)	7 (53.8%)	29 (43.9%)	30 (34.1%)	22 (22.2%)	15.33*
	1-2	147 (55.2%)	5 (38.5%)	31 (47.0%)	44 (50.0%)	67 (67.7%)	
	3 +	31 (11.7%)	1 (7.7%)	6 (9.1%)	14 (15.9%)	10 (10.1%)	
Residence[a]	On campus	47 (17.7%)	4 (30.8%)	10 (15.6%)	11 (12.5%)	22 (22.2%)	10.85
	Off campus	219 (82.3%)	9 (69.2%)	54 (81.8%)	77 (87.5%)	77 (77.8%)	

Data displayed as n (%)

[a] Two web-store visitors were missing on residence variable

*p<.05

respondents were divided into non-web shoppers (4.9%), web-store visitors (24.8%), and Internet browsers (33.1%).

There was no significant difference among the four groups in terms of age, gender, ethnicity, income, self-support and residence. Only marital status (F (3, 266) = 9.64) and the number of credit card that respondents' showed significant differences (F (2, 266) = 15.33). Ninety two percent of the non-web shoppers were single while 91% of the web-store visitor and 75% of the Internet browsers were single. Finally 88% of Internet buyers were single and 12% were married. Seventy eight percent of the Internet buyers have one or more credit cards as opposed to 66% of Internet browsers, 56% of web store visitors and 46% of the non-web shoppers.

Table 4.8 presents Internet and computer usage experiences overall and divided by the four consumer groups. More than 90% of the respondents used the computer more than 4 years and 65% had used it more than 7 years. Eighty three percent of the respondents used the Internet more than four years and 80% of them replied their Internet use ability as skillful. Ninety nine percent of the respondents accessed the Internet through private means and only 1.5% accessed at the public place. Seventy one percent of the respondents had fast (cable, DSL or T1/T3) Internet servers. Sixty seven percent of the respondent used the Internet more than 3 hour per week. The primary use of the Internet was for communication purpose including e-mail, e-cards, and chatting reported by 52.3% (n=139) of respondents. The second highest use was for information, product searches and shopping (26.1%).

Table 4.8. Consumers' Computer and Internet Use Experience Comparison for 4 Consumer Groups

Tech Experience	Category	Total (n=266)	Non-web shopper (n=13)	Web-store visitor (n=66)	Internet browser (n=88)	Internet buyer (n=99)	χ^2
Computer use	<3year	27 (10.1%)	1 (7.7%)	7 (10.6%)	12 (13.6%)	7 (7.1%)	23.18*
	4-6 years	67 (25.2%)	4 (30.8%)	26 (39.4%)	16 (18.2%)	21 (21.2%)	
	>7 years	172 (64.7%)	8 (61.5%)	33 (50.0%)	60 (68.2%)	71 (71.7%)	
Internet use	< 3 years	45 (16.9%)	1 (7.7%)	12 (18.1%)	17 (19.3%)	15 (15.2%)	10.79
	>4 years	221 (83.1%)	12 (92.3%)	54 (81.8%)	71 (80.7%)	84 (84.8%)	
Ability to use the Internet	Some skillful	54 (20.3%)	5 (38.5%)	14 (21.2%)	17 (19.3%)	18 (18.2%)	3.01
	Skillful	212 (79.7%)	8 (61.5%)	52 (78.8%)	71 (80.7%)	81 (81.8%)	
Internet access	Private	262 (98.5%)	13 (100%)	63 (95.5%)	87 (98.9%)	99 (100%)	5.91
	Public	4 (1.5%)	0 (0.0%)	3 (4.5%)	1 (1.1%)	0 (0.0%)	
Speed of Internet	Slow (Dial up)	77 (28.9%)	7 (53.8%)	21 (31.8%)	24 (27.3%)	25 (25.3%)	4.96
	Fast (DSL etc.)	189 (71.1%)	6 (46.2%)	45 (68.2%)	64 (72.7%)	74 (74.7%)	
Hrs of Internet use	<3 hrs	88 (33.1%)	5 (38.5%)	30 (45.5%)	32 (36.4%)	21 (21.2%)	15.52*
	3-10 hrs	123 (46.2%)	8 (61.5%)	26 (39.4%)	38 (43.2%)	51 (51.5%)	
	>11 hrs	55 (20.7%)	0 (0.0%)	10 (15.2%)	18 (20.5%)	27 (27.3%)	
Primary use of Internet	Search & shop	71 (26.7%)	1 (7.7%)	21 (31.8%)	19 (21.6%)	30 (30.3%)	16.87
	Communication	139 (52.3%)	12 (92.3%)	37 (56.1%)	43 (48.9%)	47 (47.5%)	
	Entertainment	56 (21.0%)	0 (0.0%)	8 (12.1%)	26 (29.5%)	22 (22.2%)	

Data displayed as n (%)
*p<.05

For the Internet buyers, 93% had used a computer more than 4 years while 86% of the Internet browser did so. Eighty nine percent of the web-store visitors and 92% of the non-web shopper had used the computer over 4 years. Ninety two percent of the non-web shoppers used the Internet more than 4 years and 61% of them answered their Internet use ability as skillful while 89% of the web-store visitor had used the Internet over 4 years and 79% answered they were skillful. Eighty five percent of the Internet buyers had 4 or more years of Internet experience and 82% of them said they were skillful in using the Internet. Of the Internet browsers, 81% used the Internet more than 4 years and the same number answered they were skillful. Most of the respondents, with the lowest group the web-store visitor at 96%, answered that they had private Internet access. Seventy five percent of the Internet buyers had a fast Internet access and twenty five percent had a slow access. Similarly, 73% of the Internet browser had a fast Internet access, followed by the web-store visitors with 68%; however, only 46% of the non-web users had fast Internet access.

Seventy nine percent of the Internet buyers used the Internet three or more hours per week. This compared to 64% for the Internet browsers, 55% for visitors and 62% for non-web shoppers. Thirty percent of the Internet buyers indicated their primary Internet usage was information search and shopping (n=30), as compared to 22% of browsers and 32% of visitors while only one person (7.7%) from the non-web shopper answered that way**.**

There were significant differences among the four consumer groups in length of time respondents used the Internet per week and the primary use of the

Internet. There were no significant differences in years of computer and Internet use, the level of Internet using skills, or mode and speed of Internet access.

Attitudinal Differences toward Internet Shopping Between four Groups (Ha6). A one-way analysis of variance (ANOVA) test indicated that the four groups of consumers were significantly different in their attitudes towards the consumer (F (3, 266) = 42.09) and marketing factors (F (3, 266) = 13.22) involved with Internet shopping (Table 4.9).

Table 4.9 Attitudinal Differences for 4 Consumer Groups

Factor	Non-web shopper (n=13)		Web-Store Visitor (n=66)		Internet Browser (n=88)		Internet Buyer (n=99)		F
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Consumer Factor Score	56.2	5.7[a]	61.0	8.1[ab]	64.2	10.4[b]	74.7	9.0[c]	42.09**
Marketing Factor Score	34.8	6.3[a]	38.6	5.2[ab]	39.2	5.1[b]	42.1	4.4[c]	13.22**

[a...c] Different superscripts denote significant differences between groups by Tukey's *post hoc* analyses
**P<.0001

The buyers' consumer factor scores (M = 74.7, SD = 9.0) indicated that a more positive attitude toward Internet shopping than any other group of consumers; Internet browser (M = 64.2, SD =10.4), web-store visitor (M =61.0, SD = 8.1), and non-web shopper (M = 56.2, SD = 5.7) . Figures 4.1 and 4.2 display how the mean scores for the consumer factor stratified among the four groups.

The higher score for each factor indicates a more positive attitude toward Internet shopping. For the consumer factor, non-web shoppers have subscript a indicating a significant difference than those with “b” and “c” unless the others also have an “a”, like web-store visitors. As they share the “a” superscript with non-web shoppers, this means the two groups shared similar attitudes toward the consumer factor but are significantly different than Internet buyers and Internet browsers. Web-store visitors and Internet browsers, while showing no differences between them, ranked lower than buyers but significantly higher than non-web shoppers.

For the marketing factor, scores for non-web shoppers were not significantly different from web-store visitors but were significantly lower than those of Internet browsers and Internet buyers. Web-store visitors were not significantly different from Internet browsers but were significantly lower than those of Internet buyers. Internet buyers were significantly higher than all others.

Differences in Intention toward Internet Shopping among Four Groups (Ha7). Table 4.10 displays the means scores for the respondent’s future Internet shopping intention stratified by group. A one-way analysis of variance (ANOVA) test found significant differences among the four groups of consumers (F (3, 266) = 48.34). Internet buyers with an average mean score of 4.63 were

Figure 4.1 Mean Consumer Factor Scores Stratified by 4 Groups

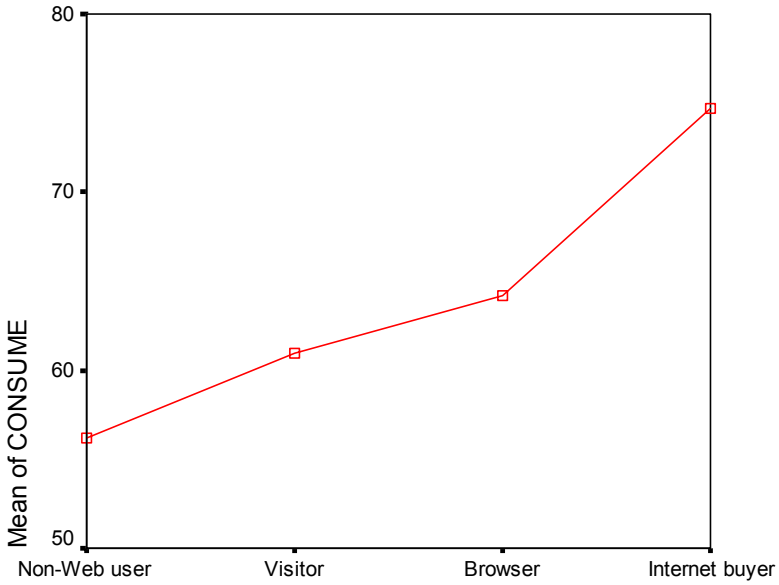


Figure 4.2 Mean Marketing Factor Scores Stratified by 4Groups

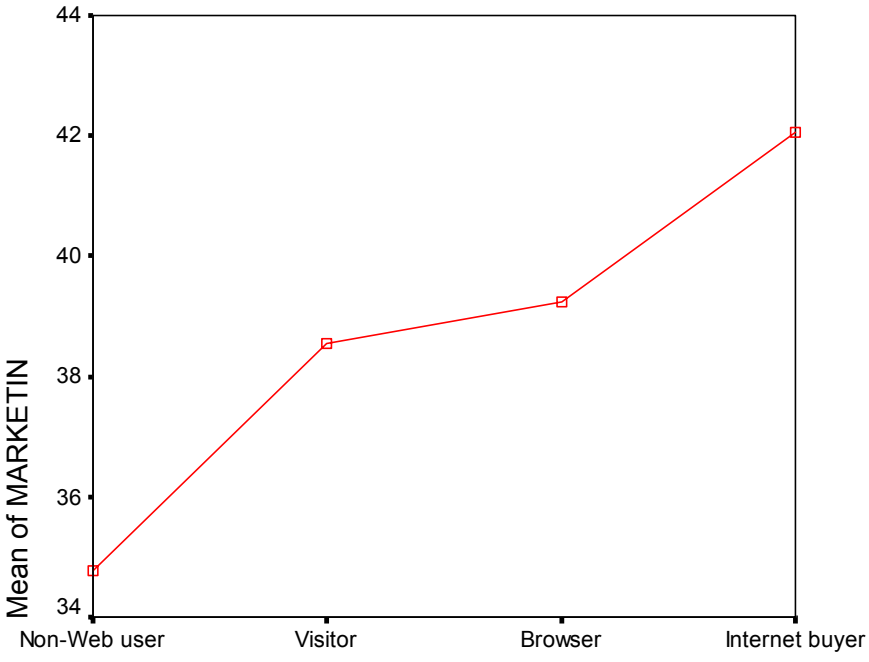


Table 4.10. Difference of Internet Purchase Intention among 4 Groups.

Factor	Non-Web shopper (n=13)		Web-store Visitor (n=66)		Internet Browser (n=88)		Internet Buyer (n=99)		F
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Future shopping intention	2.38	1.39[a]	2.88	1.41[ab]	3.41	1.17[b]	4.69	.62[c]	48.34**

[a...c] Different superscripts denote significant differences between groups by Tukey's *post hoc* analyses
**p<.0001

significantly more likely to consider making future online purchases than were non-web shoppers with an average mean score of 2.38, visitors of 2.88 and browsers of 3.41. Similarly, Internet browsers and visitors had higher intentions to buy online than did non-web shoppers. No significant differences existed between non-web shoppers and web-store visitors.

Predicting online purchasing (Ha8). To identify the variables significant in predicting online buying, a logistic regression analysis was conducted including demographic characteristics, technology experiences, and the consumer and marketing factors. The regression equation accounted for 48.8% of the variance explained in Internet purchasing behavior. The results of the logistic regression are presented in Table 4.11. Two variables were found to be significant ($p \leq .05$) and positive predictors of online shopping behavior, gender and the consumer factor score.

Table 4.11. Prediction for Online Purchasing Behavior

Predictor	β	***P***
Consumer factor score	.181	.000*
Marketing factor score	-.003	.954
Age	.085	.763
Gender	.705	.049*
Ethnicity	-.130	.787
Marital status	.764	.159
Income	.025	.926
Self-support	-.356	.374
Number of credit card	.280	.315
Residence	-.040	.937
Years of computer use	.471	.194
Years of Internet use	-.088	.883
Internet use ability	-.684	.181
Access to Internet	-6.407	.724
Speed of the Internet	.054	.891
Hours of Internet use	.145	.560
Primary usage of Internet	-.348	.178

R^2 =.426
F= 57.976
P < .05

The beta values shown represent the regression coefficient or the slope of the regression line. It indicates the amount of change in the dependent variable associated with one-unit change in a predictor variable. When β is positive, it indicates a positive or direct relationship between the predictor and dependent variable.

Phase IV Prediction of Intention for Internet Shopping

Predicting the Purchasing Intention (Ha9). The consumer and marketing factors along with the demographics and technology variables were also used to predict the consumers' intention to purchase products on the Internet, question

Table 4.12. Prediction of Intention to Online Purchasing.

Predictor	β	***P***
Consumer factor score	.074	.000*
Marketing factor score	-.010	.543
Age	-.073	.507
Gender	.029	.834
Ethnicity	.205	.256
Marital status	.013	.949
Income	-.091	.931
Self-support	-.254	.106
Number of credit card	-.098	.371
Residence	-.131	.445
Years of computer use	.505	.000*
Years of Internet use	-.375	.104
Internet use ability	.031	.870
Access to Internet	1.219	.034*
Speed of the Internet	-.152	.316
Hours of Internet use	.184	.069
Primary usage of Internet	-.115	.253

R^2 =.538
F= 8.704
P < .05

75 (Table 4.12). A significant overall model resulted (p<.0001) that explained 42.6% of the variance. The variables significant in the model were the consumer factor score (p<.0001), the years of computer use (p=<.0001) and having access of the Internet (p=.034). Both relationships were positive in nature.

Phase V Examination of Online Buyers

Differences in Demographic and Technology Experiences Between Experience Goods and Search Goods Buyers (Ha10). The study respondents answering yes to question 77 were classified as Internet buyers (n=99) and were

asked to answer the rest of the survey questions. Non-buyers were asked to stop at that point. One of the additional questions asked what type of product they most often purchased (Q82). This question was used to categorized buyers as experience or search good buyers. If a respondent answered he or she bought "other" or if they did not complete the survey, they were deleted from the analysis. This eliminated an additional 16 respondents from this final analysis leaving a study sample of 83 Internet buyers. Of the 83 Internet buyers, 49 were classified as experience goods buyers and 34 search goods buyers. The experience goods buyers purchased the product category of clothing and shoes. The search good buyer bought books, CDs, computer software, and hobby items (Table 4.13).

Experience and search good buyers differed in terms of gender (χ^2 (1, N = 83) = 0.60), marital status (χ^2 (1, N = 83) = 3.83), income (χ^2 (1, N = 83) = 19.98), and the number of credit cards held (χ^2 (1, N = 83) = 6.28) (Table 4.13). Experience good providers were more often female (73.5%), single (91.8%), earned $1 to $500 per month (53.1%), and had one or two credit cards (75.5%). The two groups did not differ in terms of age with over half of the sample 21-23 years old. The respondents were predominately white, were not self-supporting (approximately 65% of both groups) and most likely resided off-campus.

Table 4.14 analyzed how experience good buyers and search good buyers differed in terms of their computer and Internet experience. Experience good buyers had significantly fewer years of experience using computers, 55.1%

Table 4.13 Demographic Differences for Experience and Search Goods Buyers

Demographic	Category	Total (n=83)	Experience goods buyers (n=49)	Search goods buyers (n=34)	*F*
Age	18-20 yrs	12 (14.5%)	8 (16.3%)	4 (11.8%)	0.60
	21-23 yrs	45 (54.2%)	27 (55.1%)	18 (52.9%)	
	24years +	26 (31.3%)	14 (28.6%)	12 (35.3%)	
Gender	Male	32 (38.6%)	13 (26.5%)	19 (55.9%)	3.42*
	Female	51 (61.4%)	36 (73.5%)	15 (44.1%)	
Ethnicity	White	62 (74.7%)	33 (67.3%)	29 (85.3%)	7.30
	Other	21 (25.3%)	16 (32.7%)	15 (14.7%)	
Marital status	Married	12 (14.5%)	4 (8.2%)	8 (23.5%)	3.83*
	Single	71 (85.5%)	45 (91.8%)	26 (76.5%)	
Income	No income	13 (15.7%)	3 (6.1%)	10 (29.4%)	19.98*
	$1-500	29 (34.9%)	26 (53.1%)	3 (8.8%)	
	$501 +	41 (49.4%)	20 (40.8%)	21 (61.8%)	
Self support	Yes	29 (34.9%)	17 (34.7%)	12 (35.3%)	0.00
	No	54 (65.1%)	32 (65.3%)	22 (64.7%)	
# of credit cards	None	18 (21.7%)	10 (20.4%)	8 (23.5%)	6.28*
	1-2	56 (67.5%)	37 (75.5%)	19 (55.9%)	
	3+	9 (10.8%)	2 (4.1%)	7 (20.6%)	
Residence	On campus	19 (22.9%)	14 (28.6%)	5 (14.7%)	2.19
	Off campus	64 (77.1%)	35 (71.4%)	29 (85.3%)	

*$p<.05$

had 7 or more years as opposed to search good buyers where 88.2% had 7 or more years (χ^2 (1, N = 83) = 11.18). Experience goods buyers also spent significantly less time using the Internet averaging 10 hours or less(85.7%) as opposed to search good providers where 44% spent 11 hours or more (χ^2 (1, N = 83) = 9.80).

Finally search good buyers spent more time using the Internet for entertainment (35% vs. 10%) but less for shopping and communication. There were no differences in the years of Internet use, self-judged level of Internet use skill, how represent access the Internet and the speed of that Internet access.

Table 4.14. Computer and Internet Use Experience Comparison for Experience and Search Goods Buyers

Technology Experience	Category	Total (n=83)	Experience goods buyers (n=49)	Search goods buyers (n=34)	*F*
Computer use	1-3 yrs	7 (8.4)	17 (14.3)	0 (0.0)	11.18*
	4-6 yrs	19 (22.9)	15 (30.6)	4 (11.8)	
	7 yrs +	57 (68.7)	21 (55.1)	36 (88.2)	
Internet use	1-3 yrs	15 (18.1)	12 (24.5)	3 (8.8)	3.33
	4 yrs +	68 (81.9)	37 (75.5)	31 (91.2)	
Internet ability	Somewhat Skillful	16 (19.3)	12 (24.5)	4 (11.8)	2.09
	Skillful	67 (80.7)	37 (75.5)	30 (88.2)	
Internet access	Private	83 (100.0)	49 (100.0)	34 (100.0)	A
	Public	0 (0.0)	0 (0.0)	0 (0.0)	
Speed of Internet	Dial-up	19 (22.9)	13 (26.5)	6 (17.6)	0.90
	High speed	64 (77.1)	36 (73.5)	28 (82.4)	
Hours of Internet Use	< 3 hrs	18 (21.7)	11 (22.4)	7 (20.6)	9.80*
	3-10 hrs	43 (51.8)	31 (63.3)	12 (35.3)	
	11hrs+	22 (26.5)	17 (14.3)	15 (44.1.)	
Primary Internet usage	Search& shop	28 (33.7)	20 (40.8)	8 (23.5)	8.21*
	Communication	38 (45.8)	24 (49.0)	14 (41.2)	
	Entertainment	17 (20.5)	5 (10.2)	12 (35.3)	

a. No statistics were computed because the variable's value was constant
*p<.05

Attitudinal Differences for Experience Goods and Search Goods Buyers (Ha11). The experience goods buyers and search goods buyers were compared as to their attitudes towards the consumer and marketing factors (Table 4.15). The two group of buyers did not significantly differ.

Table 4.15. Attitudinal Differences for Experience and Search Goods Buyers

Factor	Experience goods buyer (n= 49)		Search goods buyer (n= 34)		*t*
	Mean	SD	Mean	SD	
Consumer Factor Score	76.16	9.35	73.44	8.00	1.46
Marketing Factor Score	42.27	4.64	41.62	4.11	1.01

*p<.05

Internet Buyers Shopping Experiences Comparison (Ha12). Experience goods buyers and search goods buyers were compared regarding their online purchasing experiences (Table 4.16). Thirty five percent (n=17) of the experience goods buyers had purchased 2-5 items and 33% (n=16) had purchased 6-10 items during the past 6 months while half of the search goods buyers had purchased 2-5 items but only 18% of search goods buyer purchased 6-10 items over the past 6 months. Moreover, 22% of the experience goods buyers had purchased more than 11 items but only 6% of the search goods buyers made that many purchases within the last 6 months.

Forty five percent of experience goods buyers (n=22) spent less than 1 hour during their last online-shopping experience. Nearly 53% of search goods buyers (n=18) had, however, spent less than 1 hour making their last purchase.

Individuals that most commonly purchased experience goods were more likely to have bought a search good product for their last purchase (20%) as opposed to only one typical search good provider (2.9%) who had last bought an experience good. Seventy percent or more of both groups indicated they were very likely to repeat the same purchase on the Internet. Thirty eight percent (n=13) of search goods buyers spent $21-50 on their last purchase while 39% of experience good buyers spent $51-100. Overall experience good buyers spent, on average, more for their last purchase.

In terms of Internet buyers' intentions to continue making online purchases, 94% of the experience goods buyers (n=46) indicated that they would while 97% of search goods buyers indicated the same thing.

Table 4.16 Internet Purchasing Experience Comparisons between Experience and Search Goods Buyers.

Experiences	Category	Experience goods buyer (n=49)	Search goods buyer (n=34)
# of product purchased for Last 6 months	1 item	5 (10.2)	6 (17.6)
	2-5 items	17 (34.7)	20 (58.8)
	6-10 items	16 (32.7)	6 (17.6)
	11-20 items	8 (16.3)	0 (0.0)
	20 items +	3 (6.1)	2 (5.9)
Total time spent for last purchase	<1 hour	22 (44.9)	18 (52.9)
	1-3 hours	21 (42.9)	13 (38.2)
	4-6 hours	1 (2.0)	2 (5.9)
	7-9 hours	2 (4.1)	1 (2.9)
	9 hour +	3 (6.1)	0 (0.0)
Product category for last purchase	Experience goods	39 (79.6)	1 (2.9)
	Search goods	10 (20.4)	33 (97.1)
Repeat the Same purchase intention	Very likely	4 (8.2)	1 (2.9)
	Unlikely	3 (6.1)	0(0.0)
	Neutral	2 (4.1)	2 (5.9)
	Likely	1 (2.0)	7 (20.6)
	Very likely	39 (79.6)	24 (70.6)
Amounts of money spent for last purchase	<$20	3 (6.1)	9 (26.5)
	$21-50	15 (30.6)	13 (38.2)
	$51-100	19 (38.8)	5 (14.7)
	$101-200	8 (16.3)	0 (0.0)
	>$201	4 (8.2)	7 (20.6)
Intention to Continue shop On the Internet	Very unlikely	0 (0.0)	1 (2.9)
	Unlikely	0 (0.0)	0 (0.0)
	Neutral	3 (6.1)	0 (0.0)
	Likely	2 (4.1)	4 (11.8)
	Very likely	44 (89.8)	29 (85.3)

Experience good buyers and search good buyers significantly differed only in terms of the number of items bought online with experience good buyers averaging 2.73 items as opposed to 2.18 for search good buyers (t (83) = 2.88). The two groups did not differ in their responses to the other questions about their online buying behavior (Table 4.17).

Table 4.17 Internet Purchasing Experience Comparison between Experience and Search Goods Buyers.

Factor	Experience goods buyer (n= 49)		Search goods buyer (n= 34)		*F*
	Mean	SD	Mean	SD	
#of products purchased	2.73	1.06	2.18	.94	2.88*
Time for last purchase	1.84	1.09	1.59	.74	0.79
Repurchase Intention	4.39	1.30	4.56	.86	4.35
Money for last purchase	2.90	1.03	2.50	1.44	6.03
Intention to continue	4.84	.51	4.76	.75	1.05

*p<.05

Prediction of Buyers' Repurchase Intention on the Internet by Attitudinal Factors (Ha13). The attitudes of Internet buyers toward Internet shopping as well as demographic and technology variables were used to predict the buyers' intention to repeating previous purchases (Table 4.18). Four variables were significant including gender (p=.031), ethnicity (p=.032), Internet-usage ability (p<.0001), and the consumer factor (p=.008). All four of the variables had a positive slope, meaning they all made continued buying on the Internet more likely. In regard to gender, women, coded as a 2, were more likely than men, coded as a 1, to repeat the same purchase on the Internet.

Table 4.18. Prediction of Buyers' Intention to Repeat the Same Purchase Online.

Predictor	β	***P***
Consumer Factor score	0.04	0.008*
Marketing Factor score	-0.03	0.208
Product-type purchased	0.34	0.238
Age	0.01	0.980
Gender	0.63	0.031*
Ethnicity	0.74	0.032*
Marital status	-0.77	0.055
Income	-0.02	0.924
Self-support	0.49	0.089
Number of credit cards	-0.06	0.804
Residence	0.15	0.666
Years of computer use	0.22	0.411
Years of Internet use	-0.54	0.188
Internet use ability	1.37	<0.0001
Speed of the Internet	-0.11	0.705
Hours of Internet use	0.20	0.332
Primary usage of Internet	-0.20	0.287

R^2= .346
F value 11.125

Summary of the Hypotheses Results

The summary of the research hypotheses and the respective results are following. When testing the research frameworks (alternative hypothesis 1), the consumer factor and marketing factor had adequate internal consistency to be used in the study, while the technology factor failed to reach meaningful alpha level (Summary results also shown in Table 5.1).

The demographic characteristics and technology experiences between the Internet buyers and non-buyers consumer groups differed only with the number of credit cards held and hours of Internet usage thus offering partial support for alternative hypothesis 2. Alternative hypothesis 3 examined if the Internet buyers

group and non-buyers groups shared dissimilar attitudes towards consumer and marketing factors. The alternative hypothesis was supported. Internet buyers group and non-buyers group significantly varied in their intention to make online purchases thus supporting alternative hypothesis 4.

The demographic characteristics and technology experiences between the four consumer groups differed on marital status and the number of credit card held thus offering partial support for alternative hypothesis 5. Alternative hypothesis 6 examined if the four groups of consumers shared dissimilar attitudes towards consumer and marketing factors. The alternative hypothesis was supported. All four groups of consumers significantly varied in their intention to make online purchases thus support alternative hypothesis 7.

The consumer factor and gender were found to be significant predictors of Internet purchasing offering supporting for alternative hypothesis 8. The years of computer use, access to the Internet and the consumer factor were significant predictors of the respondent's Internet purchasing intention and supported alternative hypothesis 9.

When comparing the Internet buyers by their most commonly purchased product types, the groups differed on gender, the number of credit cards, the years of computer use, and the respondent's primary Internet use thus partially supporting alternative hypothesis 10. There was no significant attitude differences between the experience goods buyers and search goods buyers regarding on the consumer and marketing factor, thus, not supporting alternative hypothesis 11.

When comparing Internet buyers online purchase experiences, only the number of products purchased was significantly different between the experience goods buyers and search goods buyers only partially supporting alternative hypothesis 12. Finally on the respondent's intent to repurchase the same product, the two groups of buyers were found to be significantly different in gender, ethnicity, Internet use ability, and the consumer factor, thus partially supporting alternative hypothesis 13.

CHAPTER V

DISCUSSION AND IMPLICATION

Buying on the Internet is one of the most rapidly growing modes of shopping demonstrating a double-digit annual increase in sales in recent years (Forrester Research, 2001; Levy & Weitz, 2001; U.S. Department of Commerce, 2000). Reasons for such growth seem to arise from its advantages such as convenience, the ability to be seen as a leisure activity, savings of time and effort, and its 24 hours a day and 7 days a week access. Although Internet buying has shown rapid growth, it also has been hampered by the real or perceived perceptions of consumers that it lacks privacy and security while also suffering from issues in product delivery and returns and tactility.

The primary purpose of the study was to explore the profile of Internet buyers and compare them to the non-buyers in terms of demographic characteristics, technology experiences, and his or her attitudes towards consumer and marketing issues. Such information will help e-tailers as they work to develop more effective and efficient online retail outlets. This chapter interprets the data and provides recommendations for Internet marketers. Comments about web shoppers and web sites in general are offered as are specific strategies for moving the non-buyers in each of the groups to buyers as well as how to best market to existing search and experience goods buyers.

In general, the study findings indicated that it is possible to collectively measure respondents' consumer and marketing attitudes as a single factor. This offers greater parsimony in model building, thus, improving statistical testing. Not only do the items hold together as a scale but they also moderately correlate with each other. One score can replace the twenty individual items found within the consumer area or the fourteen items in the marketing area. It is important to note, however, that while the composite score offers a gain in data analysis, there is a corresponding loss in the specificity as to which variable most specifically influences one's attitude.

Overall, the consumer factor showed a strong relationship in predicting online purchase intention and behavior while the marketing factor only showed a moderate relationship. The consumer factor was not only significant between the four groups but was also significant throughout the study in terms of predicting who intends to buy online and who actually does buy online. As a single factor, it represents individual issues found important by other studies (Fram & Grady, 1997; Kunz, 1998; Then & Delong, 1999). In the study findings, the respondent's consumer attitude factors was a more significant predictor of Internet purchasing than were demographic characteristics such as gender, ethnic profile and income. These findings are consistent with previous studies that found convenience, time saving, ease of using and customer service to be predictors of online shopping intention (Shim & Kotsiopulos, 1994; Then & Delong, 1999).

The marketing factor showed little predictive ability in this study. This may have been influenced by the weak relationship identified by the moderate alpha

coefficient. The technology items did not hold together at all as a single factor. This may be related to the study sample, the vast majority of whom exhibited high technology use and experience.

The study found no significant difference in the computer use or Internet access among the four groups of consumers. Again, this may be reflective of the study sample because other recent studies have reported differences but used samples other than college students who typically have better technology access and experience than the general population (Bruin & Lawrence, 2000). The college student sample used in this study did not see technology as a barrier to Internet shopping.

One technology item that was related in predicting online buying intention was that of the respondent's number of hours of Internet use. The more time consumers spent online, the more likely they were to make a purchase. It was also important that consumers had private Internet access. Those Internet users with private access had higher intentions to purchase on the Internet. These findings are consistent with Koyuncu's and Lien's (2003) study and fits with traditional thinking about the safety and privacy issues of the Internet that suggests buying online at a public site adds one more substantial possibility of a person's personal data being misused.

Recommendations for Internet Marketers by Sub Group

Besides offering some general approaches to increasing the number and frequency of online purchases, the data offers specific insights as to how each group differs in their thoughts about buying products online. Such insights offer e-tailers suggestions on how to more effectively reach each segment and perhaps move them into Internet buyers. Before going into these specific ideas, however, a revisit of Rogers' (1995) diffusion of innovation theory may be helpful. This theory has been used to explain the consumers' Internet shopping adoption (Akhter, 2003; Yoh, 1999). The theory offers a five-step innovation adoption process; knowledge, persuasion, decision, implementation, confirmation. The non Internet buyer is either at step two or three in that process. Depending on which group the consumer is currently in, he or she has more or less interest in exploring the Internet for shopping and buying purposes.

As a positive beginning, the data does indicate that, at least among this sample, the respondents were all using the Internet for some purpose. The goal is to move that person through the adoption steps to where he or she has some interest in purchasing online, seeks additional information about it, contemplates taking that next step and then actually buys online. Remembering where people are in regards to the steps of the decision making process can be helpful in encouraging them to take the next step. Internet buyers are already at the trial stage where the individual makes full use of the innovation. Yet, even with this group, Roger's theory offers guidance in that the retailer's goal is to have that

person return to buy more goods and services. The theory recognizes this by its inclusion of a stage where the person evaluates his or her last experience in preparation for deciding whether or not to continue the full use of the innovation.

It is important in this discussion of Roger's theory to remember that there is a sequential path that people must pass through in their movement from being a non-web shopper to eventually being an Internet buyer. Yet, the speed of that change is not predetermined. Such movement can occur with glacial slowness or can happen practically simultaneously in one web site visit. In other words, current non-web users could become the Internet buyers practically instantly with sufficient motivation, as might web-store visitors and Internet browsers, if that visit met their needs and wants.

Non-web shoppers

Non-web shoppers were those consumers who reported that they never shopped online. While scoring the lowest in their consumer and marketing attitudes, this group did have fairly high intentions to use the Internet for shopping, scoring higher than web-store visitors. They therefore represent a group that the e-tailer must consider in his or her marketing plans.

Previous studies have indicated that the non-web shopper did not feel comfortable using the Internet (Balabanis & Reynolds, 2001; Burroughs & Sabherwal, 2002; Citrin, Sprott, Silverman & Stem, Jr., 2000; Lohse, et al., 2000; Salisbury, et al., 1998). In this case the respondents had Internet experience,

but not Internet buying experience. One model that might encourage this person to make that first purchase is a model similar to the Gap's experiments. Gap Inc. currently offers visitors to its physical store a discount coupon to try online shopping and an additional 10 % discount coupon of entire purchase for the first time shopper if the customer is willing to give his or her email address. Taking this one step further, merchants could install computers in the store and have sales persons trained to help familiarize the user with the online shopping experience. While training, the clerk could provide information regarding that company's Internet shopping's security protection. These services would let the non-web shopper experience the convenience, speed, simplicity of the process, availability of detailed product information and, hopefully, enjoyment the surfing experience and realize the ease of buying online instead of waiting at the check out line at the traditional retail store.

Web-Store Visitors

Web-store visitors were the consumers who browsed Internet stores but had no specific intention to purchase products on the Internet. The web-store visitors' major Internet use (68%) was for communication and entertainment such as email, chatting, sending cards, playing games, and/or listening to music. Visiting online stores for shopping was a secondary use. While the consumer and marketing attitudes toward Internet shopping of the web store visitor were higher than that of the non-web shopper, this group may be the most difficult to

convert into an online buyer. They showed the lowest intention of making future online purchases. This might mean that the web-store visitors do not intend to change his or her current shopping venue whether it be brick and mortar stores or other non-store retail channels.

To move this group into being an Internet buyer, the e-tailer might want to focus on what this group does like to do online, communicate, surf, and find entertainment. The idea that follows was discussed by Jarvebpaa and Tractinsky (1999) and Komiak and Benbasat (2004) of building trust. The e-tailer can first form a relationship with the consumer. This can be done by providing good product information plus highlighting upcoming events and sales occurring in its traditional stores plus they can send general product information and highlight product availability. They can also open a communication site and/or an entertainment site in order to first attract the web store visitors to visit their online site for a purpose other than shopping. The idea is to build awareness and a long-term relationship.

Internet Browsers

Internet browsers were the consumers who shopped through the Internet with an intention to purchase a product but had not yet completed an online transaction. Internet browsers and buyers presented similar characteristics and attitudes toward Internet shopping. Both groups had the intention of buying, a key behavior predictor according to the Shim, et al. (2001), but this group had so

far failed to act on that intention. Internet browsers had the second highest intention score and also the second highest factor scores on both their attitude towards the consumer issues and their attitude towards the marketing issues of the Internet. Yet they have never completed an online purchase thus suggesting there are some issues that need to be overcome.

Because Internet browsers have positive attitudes toward the use of the Internet as an alternative shopping tool, there may be several things the e-tailer can try. First the e-tailer can build trust. Trust develops over time and becomes an antecedent to commitment, the initial step in converting an online shopper into a buyer (Quelch & Klein, 1996; Singh & Sirdeshmukh, 2000). Based on the finding that respondents who stayed longer online were more likely to make a purchase. The merchant might also find ways to encourage the browser to stay longer for searching and shopping on the Internet. This may mean making the online store entertaining and dynamic. If the web site can encourage people to stay around, one might expect to see more browsers become buyers.

It also may be that, even though the literature suggests that Internet browsers agree with the relative advantages of Internet shopping, they still prefer to make the purchase at the brick and mortar stores or they couldn't finalize the transaction. For the first reason, a substantial discount for buying online may encourage them to make that first purchase. The second reason could be a result of several technology issues. If this is the case, the merchant must first obtain more data regarding the problem. Setting up an easy email site to report such technology problems might be a good first step. The browsers might also

hesitate to purchase products online because of their financial security concern (Udo, 2001). Continued marketing around this issue might be the answer. Another reason could be the tactility-related, or the ability to examine by see and touch a product before purchasing (Bhatnagar, et al., 2000; Komiak & Benbasat, 2004). Perhaps this issue can be overcome with liberal return policies. Such return, and the corresponding delivery problems, might be overcome by incentives, building an alliance with a delivery service company, shortening the shipping time and lowering or eliminating both the delivery and return shipping charges or to set a certain amount of purchase for free delivery thus also bolstering the e-tailers' sales.

Internet Buyers

The goal of marketing is to increase sales and profits. Marketing professionals know that the ability to increase sales is often most easily done by focusing on the current buyers. It is the analyzing and understanding of the current buyers' purchasing behaviors where marketers and e-tailers should perhaps make their first move towards the development of a more fully integrated marketing and communication plan. The Internet buyers were the consumers who had purchased a product through the Internet. Based on these findings, the Internet buyers were mostly single with some income and lived off-campus. They had a computer and Internet access, considered their Internet skills as good, and had more years of Internet using experience as opposed to any of the

groups who had not made an online purchase. Internet buyers had a positive attitude toward the consumer and marketing factors of Internet purchasing and they also showed a higher intention for future online shopping than Internet non-buyers. They already see Internet shopping as a convenient, easy to use, and a time and effort saving activity. Internet buyers considered Internet shopping safe with privacy protection and secure financial payment processing. They trusted the merchants thus minimizing the tactility issue and believed Internet shopping has reasonable delivery and return policies.

To encourage this group to buy more may be as simple as encouraging them to spend more time at the store web site based on the connection between length of time that consumers spent on the computer and the likelihood of being a buyer. Marketers and e-tailers should try to make their online stores more entertaining by using up-to-date technology, such as 3-D, animation, or video clips. By doing so consumers may spend more time surfing the store, thus staying at the site longer and perhaps leading to more purchases. The merchant could consider discounts for online buying and may tie the discounts to the amount of goods already purchased online. As both Internet buyers and non-buyers used the Internet for communication, marketers and e-tailers should also be in regular communication with the buyers through such things as promotional emails advertising their specials or a buyers chat room where previous buyers can discuss topics related to the store. It also may be possible to offer the online buyer special or unique services.

Stratified Internet Buyers: Experience Goods Buyers vs. Search Goods Buyers

For the respondents who were Internet buyers, the study offers additional information based on the most commonly purchased item, experience goods or search goods. These two groups of buyers were similar in their demographic backgrounds including age, ethnic profile, marital status, self-support, and residence; however, gender was significant between the two groups. This phenomenon was consistent with the previous studies (Liang & Huang, 1998; Vijayasarathy, 2002). Female respondents were more likely to purchase experience goods than search goods. This gender preference is reflected in the categories of experience goods which are apparel, beauty products, and accessory items. Male consumers were more likely to buy search goods such as CDs (Lee & Johnson, 2002; Liang & Huang, 1998; Peterson et al., 1997; Rosen & Howard, 2000; Vijayasarathy, 2002).

According to the findings of the current study, experience goods buyers have purchased significantly more items than search goods buyer from e-stores even though there was an absence of sensory examination of the product before purchase. Experience goods buyers had more years of online experience and spent a longer time searching for information and shopping online than search goods buyers. This suggests that e-tailers need to offer full and complete product descriptions and pictures to increase the experience goods buyers'

feeling of security without a sensory examination. This findings of experience and time online suggests that trust is relevant and can be developed by e-tailers.

The attitudes of the experience goods and search goods buyers toward online buying were similar to each other. However, their Internet purchasing experiences were somewhat different. Search goods buyers were more likely to spend more than 11 hours a week on the Internet as opposed to experience goods buyers. However, their use was for communication and entertainment, not shopping. They had spent less time in actually making their last purchase as opposed to experience good buyers. For search goods buyers, e-tailer should make their web-store fast and clear so that these buyers can rapidly make their purchases.

The current research found that current positive feelings and attitudes toward Internet shopping were influenced by the Internet buyers' previous online experiences and encouraged them to make future purchases. This finding is supported by other research (Eastlick & Lotz, 1999; Liang & Huang, 1998). It is therefore important that the e-tailer make every effort to ensure that the buyers experiences are a positive as possible.

In summary, overall consumers' issues were a significant indicator for future online purchase intention and behavior. Another global issue in increasing online buying would seem to be increasing the amount of time spent online. The study also supports the idea of classifying where the consumer is in terms of marking an online purchase. From such classification, more specific recommendations are offered such as to offer online demonstrations in the store

for the non-web shoppers or to focus on creating a site that attracted the web-visitors to spend some time. For Internet browsers, discounts may be a key. For existing buyers, understanding what they buy and then making the online purchase quicker for the search good buyers or offering more information for the experience good buyers may be possible tactics.

Not only does this study provide guidance to the e-tailer who is trying to encourage more online buying, but the finding of this study contributes to the consumer behavior literature in four ways. First, it offers some clarification into the primary area of concern, that of the consumer factor. Second, the study confirms that an individual's attitude is a predictor of intention supporting the finding of Shim, et al.'s (2001) study. Going one step further, the individual's intention to purchase online is a predictor of purchasing behavior. Finally, the data adds to the research that suggests the possibility of categorizing consumers by their profiles into four groups; non-buyers; non-web shoppers, web-store visitors, and Internet browsers, and Internet buyers. Each of these groups can be separately distinguished and analyzed as to their profile and why each has or has not yet adopted online buying as a behavior.

Table 5.1 Result, Conclusion and Recommendation

Alternative Hypotheses	Result	Conclusion	Interpretation	Recommendation
H1a Consumer factor	Alpha=.860	Internal consistency shown.	All 9 subitems measured consumers' attitude toward Internet shopping.	• E-tailers need to address overall CF to be successful instead focusing only one or two individual item.
H1b Marketing factor	Alpha =.541	Internal consistency shown	All 6 subitems measured marketers' attitude toward Internet shopping	• E-tailers need to address overall MF to be successful instead focusing only one or two individual items.
H1c Technology factor	Alpha =.423	No internal consistency demonstrated.	Items did not measuring a similar theme.	
H2 Demographic/ Technology experience (2 groups)	S.D	# of credit card Hrs of Internet use	Buyers more likely to have a credit card. Buyer stayed on Internet longer.	• Longer stay at the e-store, buy more; by offering entertaining, variety of information and/or features. • Offering credit card account by building alliance with Credit Card Company.
H3a Consumer factor	S.D.	Buyers had more positive attitude towards CF on the Internet shopping	Increase attitudes of non-buyers in CF.	• Address privacy protection policy • Address credit card payment security policy; so that customers do not have to worry about their personal and financial information being revealed. • Present detailed product description with 3D visions on model, alternative view, and enlarge view. • Fast and straight forward check out • Educational information offering related the product
H3b Marketing factor	S.D.	Buyers had more positive attitude towards MF on the Internet shopping	Increase attitudes of non-buyers in MF	• Product feature description- • Virtual community; consumers' post purchase opinion and discussion site. • Price and product comparison service for the similar price or similar product. • Well organized, categorized and frequent updating site. • Facilitate fast and inexpensive or free

				shipping and minimal returning fee ;alliance with delivery service company. • Pre printed returning label
H4 Intention (2 groups)	S.D.	Buyers and non-buyers differed in their future purchase intention.	Buyers had higher future purchase intention than non-buyers.	See the H3 recommendation.
H5 Demographic/ Technology experience (4 groups)	S.D.	Marital status Number of credit card Hrs of Internet use Primary Internet use	Single individuals bought more. 1-2 credit cards 3-10hrs per week All 4 groups' primary Internet use was for communication	See the H3 recommendation.
H6a Consumer factor	S.D.	All 4 consumer groups differed on their CF attitude towards the online shopping.	Buyers had more positive attitude toward the CF of online shopping.	• Improve CF of e-store to be successful. • Sending email with offering loyal customer' coupon to revisit the existing customer and new customer's coupon for potential customers. • Sending newsletter with new product information and upcoming events. • Create a clear and easy web site structure for short computer experience users.
H6b Marketing factor	S.D.	All 4 consumer groups differed on their MF attitude towards the online shopping	Buyers with more positive marketing attitude were more positive toward online shopping.	
H7 Intention(4 groups)	S.D.	4 groups had different levels of intention to buy online.	Previous buyers had the highest future purchase intention.	
H8 Predict purchasing behavior	S.D.	Consumer factor Gender	More positive attitude toward CF more likely to be a buyer. Females were more likely to be buyers.	See the H3 recommendation.
H9 Predict future Intention	S.D.	Consumer factor Years of computer use Internet access	Positive attitude on the CF greater online purchase intention. Longer time used the computer, the more likely to have future purchase Intention	See the H3 recommendation.

H10 Buyers demographic/technology experience	S.D.	Marital status Income No. of credit card Gender Years of computer use Hours of Internet use Primary Internet use	Female, single consumers bought more experience goods. More SG had longer computer use experience. SG use Internet more for communication and entertainment purpose	• Use communication and entertainment site. • Offering free email address
H11a Consumer factor	N.S.	EG and SG showed no difference in their CF/MF attitudes.		• EGs need detailed product description, such as feature description, 3D vision on model, enlarged view, alternative view and consumer's post purchase comments • SGs need straight forward process check out and clear store structure for easy finding the product.
H11b Marketing factor	N.S.			
H12 Internet purchasing experience	S.D.	Number of products purchased	EG bought more products & spent longer time, and had higher intention to continue.	
H13 Predicting buyers' Intention to repeat a previous purchase	S.D.	Consumer factor Gender Race Internet use ability	Both of EG, SG was very likely to repurchase on the Internet.	See the H3 recommendation.

CHAPTER VI

CONCLUSION

Despite the remarkable growth in Internet sales, there is evidence to suggest that there are many consumers shopping with intent to buy at retail web sites who for some reason do not complete the transaction. The purpose of this study was to examine those individuals that completed an Internet purchase and to compare them to those who just shop and brows. The study examined four consumer groups, non-web shoppers, web-store visitors with no intention of purchasing, Internet browsers with an intention to purchase and Internet buyers, using an empirical model based partially on Fishbein and Ajzen's "Theory of Reasoned Action" (1975) and Cowles, Kieker, and Little's "E-tailing Theory" (2002).

As hypothesized by the framework, the research identified two factors, a consumer factor and a marketing factor, among the four groups. Differences in demographics and technology use were also noted between the groups. Based on the findings such as the relationship between time spent online and online buying and the significant of the consumer factor overall, suggestions were offered to retailers interested in selling via the Internet. .

There are several limitations to the study. First, Internet retailers must consider the results of this study carefully since it represented only a small, purposive sample. Also the nature of the sample, data collection methods, and

research structure must be taken into account. The study was cross-sectional in nature and represented a one-time data collection. For future research, a longitudinal study would be helpful to avoid such disadvantages. Further research might try to examine the consumers' Internet shopping by repeating the same survey periodically. Then the results of the study can examine how respondents' attitudes change before and after purchase and /or how those changes may differ on a first- time purchase or a later purchase.

Future studies should explore the consumers' Internet purchasing behavior by collecting separate data for an experience goods sample and one set for a search goods sample. Also more work must be done in a descriptive research study on further developing the distinctions between experience goods and search good buyers. Also, the respondents of the study were all college students and, thus, may not be representative of the overall population. Future studies should examine a broader sample. Moreover, comparing college students from rural, suburban, and urban schools might also provide critical insights for the e-tailers.

In order to be effective, an Internet shopping environment must focus on the consumer and marketing factors of Internet shopping. In order to facilitate Internet purchasing, e-tailers should acknowledge both of the consumer and marketing factors collectively and improve the quality of service at their Internet stores

Today's consumers are savvy, regarding information, technology, and shopping both from hedonic and utilitarian points of view. All four groups studied,

have their own beliefs, attitudes, decision-making strategies, and experiences. To attract all four groups of consumers to Internet buying, e-tailers will need to tailer specific parts of his or her marketing campaign to meet the specific demands and needs of each group. They need to understand that just as in brick and mortar retailing the Internet customer is not a homogeneous group. It represents a variety of individuals with different attitudes and online shopping intentions. E-tailers need to focus on what the consumers want in exchange for their money, time, and effort not only in terms of product and customer service but also Internet experience.

BIBLIOGRAPHY

Agarwal, R., & Prasad, J. (1997). The role of innovation characteristics and perceived voluntariness in the acceptance of information technologies. *Decision Sciences 28(*3), 557-582.

Agarwal, R., & Prasad, J. (1999). Are individual differences germane to the acceptance of new information technologies? *Decision sciences 30(*2), 361-391.

Agee, T. ,& Martin, B. A. (2001). Planned or impulse purchases? How to create effective infomercials. *Journal of Advertising Research, 41(*6), 35-42.

Ainscough, T.L. (1996). The Internet for the rest of us: Marketing on the World Wide Web. *Journal of Consumer Marketing, 13(*2), 36-47.

Ajzen, I. (1991). The theory of planned behavior: Some unresolved issues. *Organizational Behavior and Human Decision process, 50,* 179-211.

Akaah, I., Korgaonkar, P.K., & Lund, D. (1995). Direct marketing attitudes. *Journal of Business Research, 34(*3), 211-220.

Akhter, S (2002). Digital divide and purchase intention: Why demographic psychology matters. *Journal of Economic Psychology, 24,* 321-327.

Alba, J., Lynch, J., Weitz, B., Janiszewski, C., Lutz, R., Sawyer, A., & Wood, S. (1997). Interactive home shopping: Consumer, retailer, and manufacturer incentives to participate in electronic marketplace. *Journal of marketing, 61,* 38-53.

Allen, C. (2000). Effective online merchandising techniques. [Online]. Available: http://www.clickz.com/cgi-bin/gt/print.html?article=2892

Alreck, P.L.,& Settle, R.B. (1995). *The survey research handbook*. McGraw Hill: Chicago.

Anderson, C.,& Craven, M. J. (1993). Credit card use and payment practices among a sample of college students. *Proceedings of 6th Annual conference of the Association for Financial Counseling and Planning Education,* 48-159.

Anderson, Jr. W.T. (1971). Identifying the convenience-oriented consumer*. Journal of Marketing Research, 8*, 179-184.

Auger, P., & Gallaugher, J. M. (1997). Factors affecting the adoption of the Internet–based sales presence for small businesses. *Information Society, 13(*1), 55-74.

Balabanis, G., & Reynolds, N. (2001). Consumer attitudes towards multi-channel retailers' web sites: The role of involvement, brand attitude, Internet knowledge and visit duration. *Journal of Business Strategies, 18(*2), 105-132.

Bank, D. (1997, March). What's clicks? *Wall Street Journal, 230*, R1-R4

Bear, G.G., Richards, H.C.,& Lancaster, P. (1987). Attitude toward computer: Validation of computer attitude scale*. Journal of Educational Computer Research, 13,* 207-218.

Becker, G.S. (1965). A theory of allocation of time. *The Economic Journal, 229*, 493-517.

Belch, G. E., & Belch, M. A. (1993). *Advertising and promotion*: An integrated marketing communications perspectives. Burr Ridge, IL Irwin, 1993.

Bell, G., & Gemmell, J. (1996). On ramp prospects for the information super highway dream. *Communications of the ACM, 39(*6), 37.

Bellman, S., Lohse, G., & Johnson, E.J. (1999). Predictors of online buying behavior. Association for Computing Machinery. *Communications of the ACM, 42(*12), 32-38.

Benjamin, R., & Wigand, R. (1999). Electronic market and virtual value chains on the information superhighway. *Sloan Management Review, 36*, 62-72.

Berkowitz, E.N., Walton, J.R., & Walker, O.C. (1979, Summer). In–home shoppers: The market for innovative distribution systems. *Journal of Retailing, 55*, 15-33.

Bhatnagar, A., Misra, S., & Rao, H.R. (2000). On risk, convenience, and Internet shopping behavior. *Communications of ACM, 43(*1), 98-105.

Bhianmani, A (1996). Securing the commercial Internet. *Communications of the ACM, 39*(6), 29-36.

Blackwell, R. D., Miniard, P. W., & Engel, J.F. (2001). *Consumer behavior*. Troy, MO: Harcourt College Publishers.

Blattberg, R., & Wisniewsk, K. (1989). Price-induced patterns of competition. *Marketing Science, 8(*4), 291-309.

Bolton, R. (1989). Relationship between market characteristics and promotional price elastics. *Marketing Science, 8(*2), 153-169.

Bonn, M. A., Furr, H. L., & Susskind, A. M. (1999). Predicting a behavioral profile for pleasure travelers on the basis of Internet use segmentation. *Journal of Travel Research, 37*, 333-340.

Bourdeau, L., Chebat, J., & Couturier, C. (2002). Internet consumer value of university students: E-mail-vs.-Web users. *Journal of Retailing and Consumer Services, 9(*2), 61-69.

Bruin, M., & Lawrence, F. (2000). Differences in spending habits and credit use of college students. *The Journal of Consumer Affairs, 34(*1), 113-133.

Burroughs, R. E., & Sabherwal, R. (2002). Determinants of retail electronic purchasing: A multi-period investigation, *INFOR, 40(*1), 35-56.

Business Week (2000). A flowing threat, *Business Week*, 96.

Byford, K. S. (1998). Privacy in cyberspace: Constructing a model of privacy for the electronic communications environment. *Rutgers Computer and Technology Law Journal, 24*, 1-74.

Carn, N.G., Rabinski, J.S., & Vernor, J.D. (1995). Structural trends impacting retail business. *Economic Development Review, 13(*2), 10-12.

Chau, P.Y.K. (1996). An empirical assessment of a modified technology model. *Journal of Management Information System 13(*2), 185-204.

Cheskin Research and Studio Archetype/Sapient (1999). *eCommerce Trust Study*. January

Cho, S., Byun, J., & Sung, M. (2003). Impact of the high-speed Internet on user behaviors: case study in Korea. *Internet Research 13(*1), 49-60.

Chung, E. (2001). *Factors influencing purchase decisions of online apparel shoppers.* Unpublished doctoral dissertation, University of California, Davis.

Citrin, A.V., Sprott, D.E., Silverman, S.N., & Stem, D.E. (2000). Adoption of Internet shopping: the role of consumer innovativeness. *Industrial Management & Data Systems, 100(*7), 294-300.

Cockburn, C., & Wilson, T. D. (1996). Business use of the World Wide Web. *International Journal of Information Management 16(*2), 82-102.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences, 2d ed. Hillsdale, NJ: Erlbaum.*

CommerceNet Consortium /Nielsen Media Research. (2001). The commercenet /Nielsen Internet demographics survey [Online]. Available: http:// www.commerce.net/,14.

Cowles, D. L., Kieker, P., & Little, M. (2002). Using key information insights as a foundation for e-tailing theory development. *Journal of Business Research, 55(*8), 629-636.

Cronin, M. (1996). *Global advantage on the Internet: From corporate connectivity to international competitiveness*. New York, N.Y.: Van Nostrand Reinhold,

Cude, B. J. (2000). Barriers to business-to-consumer electronic commerce. *Perspectives, 3.* Mississippi State, Mississippi State: Southern Rural Development Center.

CyberAtlas. (1998). *who's on the Net in the U.S.?* [On-line]. Available: http://cyberatlas.com/market/demographics/index.html

Darian, J.C. (1987). In-home shopping: Are there consumer segments? *Journal of Retailing, 63(*2), 163-186.

Darby, M. R., & Karni, E. (1973, April). Free competition and the optimal amount of fraud. *Journal of Law and Economics, 16*, 67-86.

Dickerson, M.D., & Gentry, J.W. (1983). Characteristics of adopter and non-adopters of home computers. *Journal of Consumer Research, 10,* 225-235.

Dillman, D.A. (1991). The design and administration of mail surveys*. Annual Review of Sociology, 17, 225-249.*

Direct Marketing Association (1998). *1997 Statistic fact book*. New York: Author.

Donthu, N., & Garcia, A (1999). The Internet shopper. *Journal of Advertising Research, 39(*2), 52-58.

Ducoffe, R. H. (1996). Advertising value and advertising on the web. *Journal of Advertising Research, 36(*5), 21-35.

Eastlick, M.A., & Feinberg, R.A. (1999). Shopping motives for mail catalog shoppers. *Journal of Business Research, 45,* 281-299.

Eastlick, M.A., & Lotz, S. (1999). Profiling potential adopters and non-adopters of an interactive electronic shopping medium. *International Journal of Retail and Distribution Management, 27(*6), 209-223.

E-marketer (2002). Estate. http://www.emarketer.com/eStats.

Engel, J.F., Blackwell, R.D., & Miniard, P.W. (1995). *Consumer behavior* (8th ed.). Orlando, FL: The Dryden Press.

Ernst & Young (2000, January). Global online retailing: An Ernst and Young special report, Section 2. *Stores, 12*, 12.

Ernst & Young (2001). *The Annual Ernst & Young Internet Shopping study: The digital channel continues to gather steam*. Washington, D. C.: National Retail Federation.

Ernst & Young (2002). *The Annual Ernst and Young Internet Shopping Study*, New York.

Eroglu, S., Machleit, K., & Davis, L. (2003, February). Empirical testing of a model of online store atmospherics and shopper responses. *Psychology and Marketing, 20(*2), 139-150.

Eroglu, S., Machleit, K., & Davis, L. (2003, February). E-satisfaction and e-loyalty: A contingency framework. *Psychology and Marketing, 20(*2), 123-138.

Financial Times (2002). A heartening statistic for struggling dot-com. [Online]. Available: http://news.ft.com/news/industries/internet&e-commerce.

Fishbein, M. A., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research.* Reading, MA: Addison-Wesley.

Fojt, M. (1996). Doing business on the information superhighway. *Internet Research, 6*(2), 79-81.

Forrester Research Inc. (2002). “NRF/ Forrester online research index.” Cambridge, MA: Forrester Research, Inc. [Online]. Available: http:// www.forrester.com.

Forsythe, S. M., & Bailey, A.W. (1996). Shopping enjoyment, perceived time poverty, and time spent shopping. *Clothing and Textile Research Journal, 14*(3), 185-191.

Fram, E. H., & Grandy, D.B. (1995). Internet buyers: Will the surfers become buyers? *Direct Marketing, 57(*10), 63-65.

Fram, E. H., & Grandy, D.B. (1997). Internet shoppers: Is there a surfer gender gap? *Direct Marketing, 59*(1), 46-50.

Frings, G. S. (2001). *Fashion: From concept to consumer*. Upper Saddle River, NJ: Prentice-Hall

Furger, R. (1999). On the Web you have no secret. *PC World.17(*7), 29.

Garbarino, E., & Johnson, M.S. (1999). The different roles of satisfaction, trust, and commitment in customer relationships. *Journal of Marketing, 63*(2), 70-88.

Gallagher, K., Foster, K., & Parsons, J. (2001). The medium is not message: Advertising effectiveness and content evaluation in print and on the Web. *Journal of Advertising Research, 41(*4). 57-70.

Gatignon, H., & Robertson, T. S.(1985, August). A prepositional inventory for new product forecasting*. Journal of Marketing Research, 10,* 308-311.

Gehrt, K.C., & Carter, K. (1992). An exploratory assessment of catalog shopping orientations: the existence of convenience and recreation segments. *Journal of Direct Marketing, 6(*1), 20-39.

George, J. F. (2002). Influences on the Internet to make Internet purchases. *Internet Research: Electronic Networking Application and Policy, 12(*2), 165-180.

Golmolski, B. (2000, November). Can you avoid being a victim of the never-ending dot-com fallout? *InfoWorld*. [Online]. Available: http:// www.infoworld.com/articles/op/xml/00/11/13/001113opgartner.xml.

Grant, A.E., Guthrie, K.K., & Ball-Rokeach, S.J. (1991). Television shopping: A media system dependency perspective. *Communication Research, 18(*6), 773-798.

Graphic, Visualization & Usability (GVU) Internet survey. (2001). [Online]. Available: http://www.cc.gatech.edu/gvu/usersurveys/survey

Green, P.E., & Srinivasan, V (1978). Conjoint analysis in consumer research: issues and outlook. *Journal of Consumer Research, 5*, 103-123.

Griffith, D. A., & Krampf, R. E. (1998). A content analysis of retail Web sites. *Journal of Marketing Channels, 6(*3/4), 73-86.

Gupta, S. (1996). The fourth www consumer survey. Shermes project on collaboration with GVU Centre's 4th www user survey. Available: http://www.umich.edu

Gupta, S., & Chaterjee, R. (1996). Consumer and cooperate adoption of the World Wide Web as a commercial medium. In R.A. Peterson (Ed.), *Electronic Marketing and the Consumer, pp*123-138.

Harden, A.J. (1996). TV shopping: A summary of women's attitudes gained through focus group discussions*. Journal of Family and Consumer Sciences, 88(*4), 58-62.

Harrison, A.W., & Rainer, R.K., Jr, (1992). The influence of individual differences on skill in endures computing. *Journal of Management Information Systems, 9(*1), 93-111.

Harrison, D.A., Mykytyn, P. P., & Riemenschneider, C. K. (1997). Executive decisions about adoption of information technology in small business: Theory and empirical tests. *Information Systems Research, 8(*2), 171-195.

Hart, C., Doherty, N., & Elle-Chadwick, F. (2000). Retailer adoption of the Internet – Implications for retail marketing. *European Journal of Marketing, 34*(8).

Hayhoe, C.R., & Leach, L.J. (1997). An exploration of college students credit use. *A poster presentation at the Annual conference of American Association of Family and Consumer Sciences,* Washington, DC

Hazel, D. (1996). Non-store retailing comes together with chains. Chain store age state of the industry. *Supplemen,* August, 32-33.

Hirschman, E. C., & Tompson, C. J. (1997). Why media matter: Toward a richer understanding of consumers' relationships with advertising and mass media. *Journal of Advertising, 26(*1), 43-60.

Hof, R. D., (1999). Is that e-commerce roadkill I see? *BusinessWeek,* 96.

Hoffman, D.L., Kalsbeek, L., & Novak, T.P. (1996, December). Internet and Web use in the USA. *Communications of the ACM, 39,* 36-46.

Hoffman, D. L., & Novak, T. P. (1996). Marketing in hypermedia computer-mediated environments: Conceptual foundation. *Journal of Marketing, 60*, 50-68

Hoffman, D. L., Novak, T.P., & Chatterjee, C. (1996). Commercial scenarios for the Web: Opportunities and challenges, *Journal of Computer-*

Mediated Communication1(3). [Online], Available: http://www.usc.edu/dept/annenberg/journal.html

Hoffman, D. L., Thomas, P. N., & Marcos, P. (1999). Building consumer trust in online*. Communications of the ACM, 42(*4), 50-56.

Hoffman, D. L., Novak, T. P., & Peralta, M. (1999). Building consumer trust online. *Communications of the ACM, 42(*4), 80-85.

Holak, S. L., & Lehmann, D. R. (1990). Purchase intention and the dimensions of innovation: an exploratory model. *The Journal of Product Innovation Management 7(*1), 59-75.

Holbrook, M.B. (1994). *The nature of customer value: an axiology of services in the consumption experience*. In Rust, R. T. & Oliver, R.L. (Eds). (1994). Service quality: New directions in theory and practice, Sage Publications, Thousand Oak, pp. 21-71.

Holbrook, M.B. (1999). *Introduction to customer value*. In: M.B. Handbook, (Ed). Customer value: A framework for analysis and research, Routledge, New York, pp. 1-28.

Houston, P. (1998). Banks have what Web wants-trust. [Online]. The ZDNET News Channel. :http://www.zdnet.com/zdnet/content/zdnet/0130/280952.html[02/02/1998].

Hypersondage (1996, October). 1996 Web trends. [Online]. Available: http://www.branches-vous.com/que.htm

Iacobucci, D. (1998). Services: What do we know and where shall we go? A view from marketing. In R.E. Swartz, D.E. Bowen, & D. Iacobucci (Eds.),

Advances in Services Marketing and Management, 7, pp. 1-96. Greenwich, CT: JAI Press.

Interactive Retailing (1997, January). *Chain Store Age Executive, 73* (1), 2A-19A.

Internet Shopping (1998, January). An Ernst & Young special report (1998). *Stores,* 1-28.

Jarvenpaa, S. L., & Tractinsky, N. (1999). Consumer Trust in an Internet Store: A Cross-Cultural Validation*. Journal of Computer Mediated Communication, 5(*2).

Jarvenpaa, S.L., Tractinsky, N., & Vitale, M. (2000). Consumer trust in an Internet store. *Information Technology Management, 1*(1/2), 45-71.

Jarvenpaa, S.L., & Todd, P.A. (1997). Consumer reactions to electronic shopping on the World Wide Web. *International Journal of Electronic Commerce, 1(*2), 59-88.

Johnson, D. (1997). Who's on the Internet and why. *The Futurist, 32(*6), 11-12.

Jones, K., & Biasiotto, M. (1999). Internet retailing: current hype or future reality? *The International Journal of Retailing Distribution & Consumer Research, 9(*1), 69-79.

Jover, M.A., & Allen, J. L. (1996). Knowledge and use of credit cards by college students. *Proceedings of the 25th Annual conference of the Eastern Family Economics and Resource Management Association,* 189-191.

Jupiter Communication. (1999). Defining the Internet shopper: The Jupiter/NFO Consumer Survey, 1, Attitudes, Objectives and Behavior. [Online]. Available: http://www.jup.com/store/studies/jup_nfo1/

Katz, K. L., Larson, B. M., & Larson, R. C. (1991, Winter) Prescription for the waiting-in-line blues: Entertain, enlighten, and engage. *Sloan Management Review, 32*, 44-53.

Kay, R.H. (1993). An exploration of the theoretical and practical foundations for assessing attitudes toward computers: The computer attitude measure (CAM*). Computers in Human Behavior, 9,* 371-386.

Klassen, M.L., & Gylnn, K.A. (1992, Summer). Catalog loyalty: Variables that discriminate between repeat and non-repeat customers. *Journal of Direct Marketing, 6*, 60-67.

Klein, L. R. (1998). Evaluating the potential of interactive media through a new lens: Search versus experience goods. *Journal of Business Research, 41*, 195-203.

Komiak, S.X., & Benbasat, I. (2004). Understanding customer trust in agent-mediated electronic commerce, web mediated electronic commerce and traditional commerce. *Information Technology and Management, 5*(1/2), 181-207.

Korgaonkar, P.K. (1984). Consumer shopping orientations, non-store retailers and consumers' patronage intentions: A multivariate investigation. *Journal of the Academy of Marketing, 12*, 11-22.

Korgaonkar, P. K., Karson, E.J., & Akaah, I. (1997). Direct marketing advertising: The assents, the dissents, and the ambivalent. *Journal of Advertising Research, 37(*5), 41-55.

Kotler, P. (2001). *Marketing management*, Prentice-Hall, Englewood Cliff, NJ

Kotkin, J. (1998). The mother of all malls. *Forbes*, 60-65.

Koyuncu, C., & Lien, D. (2003). E-commerce and consumer's purchasing behavior. *Applied Economics, 35,* 721-726.

Kraut, R. (1996). The Internet at home. *Communications of the ACM, 39(*12), 33-35.

Kuczmarski, T. D. (1996). What is innovation? The art of welcoming risk. *Journal of Consumer Marketing, 13*(5), 7-11.

Kunz, M.B. (1997). On-line customers: identifying store, product and consumer attributes which influences shopping on the Internet. Unpublished doctoral dissertation. The University of Tennessee, Knoxville.

Larson, R.C. (1987, November/December). Perspectives on queues: Social justice and the psychology of queuing. *Operations Research, 35*, 895-904.

Ledere, A.L., Maupin, D.J., Sena, M.P., & Zhuang, Y. (2000). The technology acceptance model and the World Wide Web*. Decision Support System, 29,* 269-282.

Lee, M., & Johnson, K. K. P. (2002). Exploring differences between Internet apparel purchasers, browsers and non-purchasers. *Journal of Fashion Marketing and Management, 6(*2), 146-157.

Lenhart, A., (2000). Who's not online: 57 percent of those without Internet access say they do not plan to log on. Pew Internet and American life project. [Online]. Available: http://www. pewinternet.org.

Levy, M., & Weitz, B. A. (1998). *Retailing management* (4th ed.). New York, NY: McGraw-Hill

Liang, T. P., & Huang, J. S. (1998). An empirical study on consumer acceptance of products in electronic markets: A transaction cost model. *Decision Support Systems,* 24, 29-43.

Li, K.., Cheng K., & Russell, M. G. (1999). The impact of perceived channel utilities, shopping orientations, and demographics on the consumer's online buying behavior. *Journal of Computer Mediated Communication, 5(*2).

Lohse, G.L., Bellman, S., & Johnson, E.J. (2000). Consumer buying behavior on the Internet. *Journal of Interactive Marketing, 14(*1), 15-29.

Mahajan, V., Muller, E., & Bass, F.M. (1990). New product diffusion models in marketing: A review and directions for research*. Journal of Marketing, 54*, 1-26.

Maignan, I., & Lukas, B.A. (1997). The nature and social uses of Internet: a qualitative investigation. *Journal of Consumer Affairs, 31(*2), 345-371.

Marganosky, M.A. (1997). Retailing and the Internet: a perspective on the top 100 US retailers. *International Journal of Retail & Distribution Management, 25(*11), 372-377.

Maruyama, K. (1984). Growth of non-store sales. *Dentsu Japan Marketing/Advertising, 2(*2), 13-30.

McCorkle, D.E. (1990). The role of perceived risk in mail order catalog shopping. *Journal of Direct Marketing, 4*(4), 26-35.

Mehta, R., & Sivadas, E. (1995). Direct marketing on the Internet: An empirical assessment of consumer attitudes. *Journal of Direct Marketing, 9(*3), 21-32.

Milne, G. (2000). Privacy and ethical issues in database/Interactive marketing and public policy: a research framework and overview of the special issue. *Journal of Public Policy & Marketing, 19(*1), 1-6.

Mitchell, A., & Olson, J. C. (1981). Are product attribute beliefs the only mediator of advertising effects on brand attitudes? *Journal of Marketing Research,* 18, 318-322.

Miyazaki, A. D., & Fernadez, A. (2001). Consumer perceptions of privacy and security risks for online shopping*. The Journal of Consumer Affairs, 35*(1), 24-44.

Miyazaki, A. D., & Krishnamurthy, S. (2002). Internet seals of approval: Effects on online privacy policies and consumer perceptions. Working paper.

Moda, J. (1997, October). Privacy issues surrounding the Internet. *PC Week*, 83.

Moor, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information Systems Research, 2,* 192-222.

Moorthy, S., Rachford, B. T., & Talukdar, D (1997, March). Consumer information search revisited: Theory and empirical analysis. *Journal of Consumer Research, 23*, 263-277.

Mowen, J.C., & Minor, M. (1998). *Consumer behavio*r (5th ed.). Upper Saddle River, NJ: Prentice-Hall.

Mulhern, F. J. (1997). Retail marketing: From distribution to integration. *International Journal of Research in Marketing, 14*, 103-124.

Netdictionary [Online] (2001). Available: http://www.netdictionary.com/html/i.html.

Nucifora, A (1997). Despite the hype, Internet numbers add up, *Business News, 46(*19).

O'Cass, A. (2000). An assessment of consumer's product, purchase decision, advertising and consumption involvement in fashion clothing. *Journal of Economic Psychology, 21,* 545-576.

O'Cass, A. (2001). Consumer self-monitoring, materialism and involvement in fashion clothing. *Australasian Marketing Journal, 9(*1), 46-90.

O'Cass, A., & Fenech, T. (2002). Web retailing adoption: Exploring the nature of Internet users Web retailing behavior. *Journal of retailing and consumer services, 10(*2), 81-94.

O'Keefe, R. M., O'Connor, G., & Kung, H. J. (1998). Early adopters of the Web as a retail medium: Small company winners and losers. *European Journal of Marketing, 25(*1), 38-43.

Palmer, J. W. (1997). Electronic commerce in retailing: Differences across retail formats. *The Information Society, 13(*1), 75-91.

Palmer, J. W., & Markus, M. L. (2000). The performance impacts of quick response and strategic alignment in specialty retailing. *Information Systems Research, 11*(3).

Pavitt, D. (1997). Retailing and the super highway: The future of the electronic home shopping industry. *International Journal of Retail & Distribution Management, 25(*1), 38-43.

Peterson, R. A. (1996). Electronic marketing: Vision, definitions, and implications of the Internet for consumer marketing. *Journal of the Academy of Marketing Science, 25(*4), 329-346.

Peterson, R. A., Balasubramanian, S., & Bronnenberg, B. J. (1997). Exploring the implications of the Internet for consumer marketing. *Journal of Academy of Marketing Science, 24(*4), 329-346.

Pew Research Center (2001). More online, doing more: 16 million newcomers gain Internet access in the last half of 2000 as women, minorities, and families with modest incomes continue to surge online. Retrieved July 24, 2001. [Online]. Available: http://www.pewinternet.org/reports/toc.asp?Report=30.

Phillips, L.A., Calantone, R., & Lee, M.-T. (1994). International technology adoption. *Journal of Business and Industrial Marketing, 9(*2), 16-28.

Poel, D.V., & Leunis, J. (1996). Perceived risk and risk reduction strategies in mail-order versus retail store buying. *The International Review of retail, Distribution and Consumer Research, 6(*4), 351-371.

Poel, D. V., & Leunis, J. (1999). Consumer acceptance of the Internet as a channel of distribution. *Journal of Business Research, 45(*3), 249-256.

Poon, S., & Jevons, C. (1997). Internet-enabled international marketing: a small business network perspective. *Journal of Marketing Management, 13*, 29-41.

Powell, T. (2001). Slow speed kills. *Network World, 18(*24), 51-52.

Pratt, J. H. (2002). *E-Biz.com: Strategies for small business success*. Washington, DC: U. S. Small Business Administration.

Quelch, J.A., & Klein, L. R. (1996, Spring). The Internet and international marketing, *Sloan Management Review, 37,* 60-75.

Rainne, L. (2002). *Internet and American life.* Washington, D. C.: Pew Internet and American Life Project.

Rebello, K. (1999, July 26). The road to Webville. *Business Week,* EB11.

Regan, K. (2002, March 6). How bricks conquered the Net. *E-Commerce Times*. Available: http://www.ecommercetimes.com/perl/story/16631.html.

Retail Online (1998). *Lifestyle Monitor*, 9, 9-11.

Reynolds, F. D. (1974). An analysis of catalog buying behavior. *Journal of Marketing, 38*, 47-51.

Reynolds, J. (1997). Retailing in computer-mediated environments: electronic commerce across Europe, *International Journal of Retail & Distribution Management, 25(*1), 29-37.

Rogers, E. M. (1995). *Diffusion of innovations* (4th ed.). New York: The Free Press.

Roha, R. R., & Henry, E. (1998). These home business are smokin'. *Kiplinger's Personal Finance Magazine, 52(*3), 142-149.

Rosen, K.T., & Howard, A.L. (2000). E-retail: gold rush or fool's gold? *California Management Review, 42(*3), 72-100.

Rowley, J. (1996), Retailing and shopping on the Internet, *International Journal of Retail & Distribution Management,24(*3), 26-37.

Russell, J.A., Weiss, A., & Mendelssohn, G.A. (1998). Affect grid: A single-item scale of pleasure and arousal. *Journal of Personality and Social Psychology, 57*, 493-502.

Salisbury, W.D., Pearson, R.A., Pearson, A.W., & Miller, D.W. (2001). Perceived security and World Wide Web: Purchase intention. *Industrial Management and Data Systems, 101(*3/4), 165-177*.*

Salvaggio, J., & Bryant, J. (1989). *Media use in the information age: emerging patterns of adoption and consumer use*. Lawrence Erlbaum Associates, Hillsdale, NJ

Schiffman, L.G., Sherman, E., & Long, M.M. (2003). Toward a better understanding of the interplay of personal values and the Internet*. Psychology & Marketing, 20(*2), 169-186.

Schneider, S. (1992). Vital mummies: Performance design for the show-window mannequin. Unpublished doctoral dissertation, New York University.

Schneider, B., & Bowen, D. E. (1999). Understanding customer delight and outrage. *Sloan Management Review, 41*(1), 35-46.

Scott, J.T. (2000). Clicks and mortar: the future of e-commerce. *Office Solutions, 17(*4), 35-39.

Seckler, V. (1998, October). Apparel marketers getting online. *Women's Wear Daily, 14*, 1-14.

Segars, A.H., & Grover, V. (1993). Re-examining perceived ease of use and usefulness: A confirmatory factor analysis. *MIS Quarterly*, 517-525.

Sekely, W. S., & Blakney, V. L. (1994). The effect of response position on trade magazine readership and usage. *Journal of Advertising Research, 34*(6), 53.

Settle, R.B., Alreck, P.L., & McCorkle, D.E. (1994). Consumer perceptions of mail/phone order shopping media. *Journal of Direct Marketing, 8(*3), 30-45.

Shop.org. (2001). Shop. Org. Press Room. Washington, D.C.: National Retail Federation. [Online]. Available: http://www.shop.org.

Shim, S., & Drake, M.F. (1990). Consumer intention to utilize electronic shopping. *Journal of Direct Marketing, 4(*3), 22-52.

Shim, S., Eastlick, M. A., Lotz, S. L., & Warrington, P. (2001). An online prepurchase intentions model: The role of intention to search. *Journal of Retailing, 77,* 397- 416.

Shim, S., & Kotsiopulos, A. (1994). Technology innovativeness and adopter categories of apparel/gift retailers: from the diffusion of innovation perspective. *Clothing and Textiles Research Journal, 12(*2), 46-57.

Shim, S., & Mahoney, M.Y. (1991). Electronic shoppers and non-shoppers among videotex users. *Journal of Direct Marketing, 5(*3), 29-38.

Shop.org. (2001). Statistics: Vertical market. [Online]. Available: http://shop.org/learn/stats_vm_popular.html

Silverman, D. (1998, November). The Internet beckons but fashion continues to be wary of the Web. *Women's Wear Daily*, *1*, 6-7.

Simpson, L., & Lakner, H.B. (1993). Perceived risk and mail order shopping for apparel. *Journal of Consumer Studies and Home Economics, 17*, 377-398.

Singh, J., & Sirdeshmukh, D. (2000). Agency and trust mechanisms in consumer satisfaction and loyalty judgments. *Academy of Marketing Science Journal, 28*(1), 150-168.

Sohn, Y. S., Joun, H., & Chang, D.R. (2000). A model of consumer information search and online network externalities. *Journal of Interactive Marketing, 16*(4), 2-14.

Solomon, M. R. (1998). *Consumer behavior*. New York, NY: Prentice Hall.

Spiller, P., & Lohse, G.L. (1998). A classification of Internet retail stores. *International Journal of Electronic Commerce, 2(*2), 29-56.

SPSS, Inc (1999). *Statistical Package for the Social Sciences*, SPSS, Inc. (Computer Software), Chicago, IL

Srinivasan, S.S., Anderson, R., & Ponnavolu, K. (2002). Customer loyalty in e-commerce: an exploration of its antecedents and consequences. *Journal of Retailing, 78*, 41-50.

Stell, R., & Paden, N. (1999). Vicarious exploration and catalog shopping: a preliminary investigation. *The Journal of Consumer Marketing, 16(*4), 332-346.

Stevens, J. (2002). *Applied Multivariate Statistic for Social Sciences*. 4th edition. Lawrence Herubaun Associate. Mahwah, NJ

Stephen, D. L., Hill, R.P., & Bergman, K. (1996). Enhancing the consumer-product relationship: Lessons from the QVC home shopping channel. *Journal of Business Research, 37(*3), 193-201.

Strauss, J., & Frost, R. (1999). *Marketing on the Internet*. Prentice-Hall, Englewood Cliffs, NJ.

Sultan, F., & Henrichs, R.B. (2000). Consumer preferences for Internet services over time: initial explorations. *The Journal of Consumer Marketing, 17(*5), 386-403.

Szymanski, D., & Hise, R. T. (2000, Fall). E-satisfaction: An initial examination. *Journal of Retailing, 76*, 309-322.

Taylor, S. L., & Cosenza, R. M. (1999). A conceptual choice model for hospital services. *Journal of Marketing theory and Practice, 7(*4), 20-33.

Taylor, S., & Todd, P.A. (1995). Understanding information technology usage: A test of compelling models. *Information Systems Research, 6(*2), 144-175.

Taylor, S., & Todd, P.A. (1995). Assessing IT usage: the role of prior experience. *MIS Quarterly, 19(*4), 561-570.

Tedeschi, B. (1999, March). Internet retailers are attracting lots of window shoppers. Now the push is on to turn those shoppers into buyer. New York Times, New York, 4.

Then, N., & DeLong, M. (1999). Apparel shopping on the Web. *Journal of Family and Consumer Sciences, 91(*3).

Thompson, R. L., Higgins, C. H., & Howell, J. M. (1994). Toward a conceptual model of utilization, *MIS Quarterly, 15(*1), 125-43.

Tseng, M., DeVellis, R. F., Kohlmeier, L., Khare, M., Maurer, K. R., Everhart, J. E., & Sandler, R. S. (2000). Patterns of food intake and gallbladder disease in Mexican Americans. *Public Health Nutrition*, 3, 233-243.

Udo, G. (2001). Privacy and security concerns as major barriers for e-commerce: A survey study. *Information Management & Computer Security, 9(*4).

U.S. Census Bureau. [Online] (1997). Available: http://www.census.gov/mrts/www/current.htm.

U.S. Census Bureau. (1999). Available: http://www.census.gov/mrts/www/current.htm.

U.S. Census Bureau. [Online] (2001). Available: http://www.census.gov/mrts/www/current.htm.

U. S. Census Data for Internet usage. (1998). [Online]. Available: (Table No. 917: www.census.gov/statab/freq/98s0917.txt)

U. S. Department of Commerce. (2000). Falling through the net: Toward digital inclusion. Washington, D.C.: U.S. Dept of Commerce. Available: http://search.ntia.doc.gov/pdf/fttn00.pdf

U.S. Department of Commerce. (2003). Estimated quarterly US retail e-commerce sales. Washington, D.C.: U.S. Dept of Commerce. Available: www.census.gov/mrts/www/current.html

Van Tassel, S., & Weitz, B.A. (1997). Interactive home shopping: all the comforts of home. *Direct Marketing, 59*(10), 40.

Venkatesh, V. (2000). Determinants of perceived ease of use: integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information System Research, 11(*4), 342-365.

Venkatesh, V., & Davis, F. D. (1996). A model of the antecedents of perceived ease of use: development and test. *Decision Sciences, 27(*3), 451-482.

Vijayasarathy, L.R. (2002). Product characteristics and Internet shopping intentions. *Internet Research: Electronic Networking Applications and Policy, 12(*2), 411-426.

Vogt, W.P. (1998). *Dictionary of Statistics & Methodology* (2nd ed.). Sage publication: Thousand Oaks, CA.

Walsh, J., & Godfrey, S. (2000). The Internet: A new era in customer service. *European Management Journal, 18*(1), 85-92.

Walters, R.G., & Jamil, M. (2000). Exploring the relationship between shopping trip type, purchases of products on promotion, and shopping basket profit. *Journal of Business Research, 56*, 17-29.

Wang, H., Lee, M.K.O., & Wang, C. (1998). Consumer privacy concerns about Internet marketing. *Communications of the ACM, 41(*3), 63-70.

Warrington, P., & Shim, S. (2001). An empirical investigation of the relationship between product involvement and brand commitment. *Psychology & Marketing, 17*(9), 761.

Webster's New Collegiate Dictionary (2002). *G & C Merriam Company*, Springfield.

Weinberg, B. D. (2000). Don't keep your Internet customer wait too long at the (virtual) front door. *Journal of interactive marketing, 14(*1), 30-39.

Weinstein, A. (1994). *Market segmentation*. Irwin Publishing, New York, NY

Westland, J.C., & Clark, T.H.K. (1999). *Global electronic commerce: Theory and case studies*, Boston, MIT Press.

Windsor, R., Baranowski, T., Clark, N., & Cutter, G. (1994). Evaluation of health promotion, health education, and disease prevention programs. 2, 234-239. Mountain View, CA, Mayfield Publishing Company.

Woodside, A.G., & Waddle, G.L. (1975, June). sales effects of in-store advertising and price specials. *Journal of Advertising Research, 15*, 29-34.

Woolin, L. D., & Kargaonkar, P. K. (2002). Web advertising: Discerning web users' beliefs, attitudes, and demographics. *International Journal of Advertising*, 16.

Wright, M., & Charitt, D. (1995). New product diffusion models in marketing: an assessment of two approaches*. Marketing Bulletin, 6*, 32-41.

Xiao, J. J., Noring, F. E., & Anderson, J. G. (1995). College students' attitudes towards credit cards. *Journal of Consumer Studies and Home Economics*, 19, 155-174.

Yoh, E. (1999). *Consumer Adoption of the Internet for apparel shopping.* Unpublished doctoral dissertation, Iowa State University, Ames.

Yrjola, H (2001). Physical distribution considerations for electronic grocery shopping. *International Journal of Physical Distribution & Logistics Management, 31(*9/10).

APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL

Oklahoma State University
Institutional Review Board

Protocol Expires: 6/4/2004

Date: Thursday, June 05, 2003 IRB Application No HE0374

Proposal Title: UNDERSTANDING THE CONSUMERS' ONLINE SHOPPING PURCHASING BEHAVIOR

Principal Investigator(s):

JongEun Kim
800E Hall of Fame E-21
Stillwater, OK 74074

Glenn Muske
440 HES
Stillwater, OK 74078

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

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 Sharon Bacher, the Executive Secretary to the IRB, in 415 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,

Carol Olson, Chair
Institutional Review Board

APPENDIX B

RESEARCH QUESTIONNAIRE

Online Shopping Survey

Read and answer the questions by filling in the appropriate bubble on the answer sheet. Please answer as honestly as possible.

Your participation is voluntary, and you may decline to answer any questions you choose. This survey is conducted under the guidelines established by the Institutional Review Board at Oklahoma State University. If having any questions regarding your rights on your voluntary participation with the survey, contact JongEun Kim, or Dr. Glenn Muske (muske@okstate.edu). You may also contact Dr. Carol Olson (colson@okstate.edu) or Sharon Bacher (sbacher@okstate.edu) at 405-744-5700

JongEun Kim, Ph D Candidate
Department of Design, Housing and Merchandising
College of Human Environmental Sciences
Oklahoma State University
Phone: (405) 624-6353
E-mail: Kimje@okstate.edu

Section 1

Direction*: Read the question and select the answer that best describes you by filling in the appropriate bubble on the answer sheet.*

1. What is your age?
   (a) 18 - 20 yrs old
   (b) 21 - 23 yrs old
   (c) 24 - 26 yrs old
   (d) 27 yrs +

2. Gender
   (a) Male
   (b) Female

3. Race
   (a) White
   (b) African American
   (c) Hispanic
   (d) Asian
   (e) Other

4. Marital status
   (a) Married
   (b) Single

5. What is your average monthly Income?
   (a) No income
   (b) $ 1- $500
   (c) $501 - $800
   (d) $801- $ 1500
   (e) $1501 +

6. Are you self-supported?
   (a) Yes
   (b) No

7. How many credit card(s) do you use?
   (a) None
   (b) 1 - 2
   (c) 3 - 4
   (d) 4 - 5
   (e) More than 5

8. Do you live:
   (a) On-campus
   (b) Off-campus

Section 2.

Direction*: Read the question and select the answer that best describes you by filling in the appropriate bubble on the answer sheet.*

9. How many year(s) have you used a computer?
   (a) Never used computer
   (b) Less than 1 year
   (c) 1 – 3 years
   (d) 4 – 6 years
   (e) 7 yrs +

10. How many year(s) have you used the Internet?
   (a) Never used the Internet
   (b) Less than 1 year
   (c) 1 – 3 years
   (d) 4 –6 years
   (e) 7 years +

11. Indicate your ability to use the Internet
   (a) Not skillful
   (b) Somewhat skillful
   (c) Skillful
   (d) Very skillful
   (e) Don't use

12. What is your primary access to the Internet?
   (a) In your home/ Dorm room/ Apartment/ Work office
   (b) At university computer labs
   (c) Public facility (library, Apt computer lab, etc.)
   (d) Other
   (e) No access

13. How do you access to the Internet?
   (a) Dial-up (modem)
   (b) High speed (DSL/ Cable/ T1)
   (c) No access

14. How many hours per week do you use the Internet?
   (a) Never
   (b) Less than 3 hours
   (c) 3 - 10 hours
   (d) 11 - 20 hours
   (e) 21 hours +

15. What is your primary **personal use** of the Internet (not for work)?
   (a) Information and product search
   (b) Purchasing
   (c) E-mail / E-card / Other communication (i.e., chatting)
   (d) Game / Music/ Program downloading / Entertainment
   (e) On-line banking/ Pay bills

Section 3.

Please provide your thoughts about Internet shopping for the statement that best describes you. Mark the appropriate answer by filling in bubble on the answer sheet.. ***If you do not have an answer, please leave the question blank.***

Products: limited to material items such as books, clothing, software, CDs, etc. This does not include service items such as airline tickets.

Internet Purchase: defined as **obtaining a product** by **paying** money or using credit card on the Internet.

Internet Shopping: defined as **examining, searching for, browsing for or looking at** a product to get more information with the possible intention of purchase on the Internet

	(a)	(b)	(c)	(d)	(e)
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
16. I am willing to give my **personal information** when shopping on the Internet.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
17. I can **save time** by shopping on the Internet.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
18. I **trust the security** of online payment methods such as credit card.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
19. I can **save money** by shopping on the Internet.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
20. Internet shopping is **easy to do.**	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
21. I am concerned about possible **interception of financial information** by an unidentified third party.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
22. I found myself checking **prices** when shopping even for small items.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
23. Internet shopping **saves me time**.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
24 Internet shopping is **convenient.**	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
25. I would be more likely to shop on the Internet if **credit card security** was Insured.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
26. Internet **promotions** such as banner advertisement, sales, or free gifts are attractive to me.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
27. Online shopping is **safe for credit card use.**	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
28. I would be more likely to shop on the Internet if the Web site was **easy to use.**	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**

		(a)	(b)	(c)	(d)	(e)
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
29.	I trust the e-tailor **privacy** policies specified on their Web sites.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
30.	I shop online where I can **reduce my efforts** in traveling, walking, parking, waiting, and carrying as much as possible.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
31.	I **enjoy** shopping on the Internet.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
32.	I want to **see and touch** products before I buy them.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
33.	Online shopping is a way I like to spend my **leisure time**.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
34.	When the Internet retailers are not **fully identified**, I worry about whether they are **reliable**.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
35.	I usually watch online **advertisements** for sale announcements.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
36.	Internet shopping provides a better **quality** product.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
37.	I prefer to compare products by **see and touch** before I buy them.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
38.	I like to shop on the Internet where it is **easy** to compare many products and screen them in order to choose the one I like.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
39.	Shopping on the Internet is one of my favorite **leisure activities**.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
40.	When shopping on the Internet **pictures and colors are clear** and **representative** of the products.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
41.	Internet shopping provides more variety of **products.**	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**

	(a)	(b)	(c)	(d)	(e)
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
42.	I would be more likely to shop online if product **returns** were easier.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
43.	I read **advertisements** when I shop online.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
44.	Traditional retail stores offer me better **services** than online stores.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
45.	When shopping on the Internet, I am satisfied with the **delivery system.**	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
46.	The primary computer I use for Internet shopping is **too slow.**	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
47.	I am satisfied with the **return policy** of Internet shopping.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
48.	I would be more likely to shop online if the **pictures** of the items were **clearer**.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
49.	I would be more likely to shop online if **faster delivery** was insured.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
50.	I **get better service** when shopping on the Internet than traditional retail store**.**	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
51.	When shopping on the Internet, the store's **reputation** concerns me.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
52.	I don't like to pay **returning** postage when returning online purchases.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**
53.	I would be more likely to shop online if more **extensive descriptions** of items were included.	**(a)**	**(b)**	**(c)**	**(d)**	**(e)**

***Direction**: When making an online purchase, rank the importance of the following items.*

	(a) Not important	(b) Somewhat important	(c) Very important
54. Privacy protection	**(a)**	**(b)**	**(c)**
55. Secure payment process	**(a)**	**(b)**	**(c)**
56. Time saving	**(a)**	**(b)**	**(c)**
57. Ease of use	**(a)**	**(b)**	**(c)**
58. Convenience	**(a)**	**(b)**	**(c)**
59. Enjoyment	**(a)**	**(b)**	**(c)**
60. Company reputation	**(a)**	**(b)**	**(c)**
61. Previous experience	**(a)**	**(b)**	**(c)**
62. See and touch before buy	**(a)**	**(b)**	**(c)**
63. Save money	**(a)**	**(b)**	**(c)**
64. Product variety	**(a)**	**(b)**	**(c)**
65. Promotion	**(a)**	**(b)**	**(c)**
66. Delivery time and fee	**(a)**	**(b)**	**(c)**
67. Return policy	**(a)**	**(b)**	**(c)**
68. Customer service	**(a)**	**(b)**	**(c)**
69. Personal Internet access	**(a)**	**(b)**	**(c)**
70. Download time	**(a)**	**(b)**	**(c)**
71. Clear product color/ features	**(a)**	**(b)**	**(c)**

***Direction**: Read the question and select the answer that best describes you by filling in the appropriate bubble on the answer sheet.*

72. How often do you go shopping online?
    (a) Never
    (b) Rarely (less than once per month)
    (c) Seldom (1-3 times per month)
    (d) Often (once per week)
    (e) Very often (more than once per week)

73. When thinking of my use of Internet for shopping and/or buying, typically I am a :
    (a) Non-Web user
    (b) Visitor (look for general product information only)
    (c) Browser (look for specific information but would not buy online)
    (d) Internet buyer (look for specific product information and would buy /have bought online)

74. How often do you abandon a shopping cart?
    (a) Never
    (b) Rarely (less than once per month)
    (c) Seldom (1-3 times per month)
    (d) Often (once per week)
    (e) Very often (more than once per week)

75. Are you willing to purchase a product on the Internet?

Unlikely (a) (b) (c) (d) (e) **Likely**

Section 4.

***Direction:** Read the question and select the answer that best describes you by filling in the appropriate bubble on the answer sheet.*

76. Have you ever **searched** for a product on the Internet?
    (a) Yes
    (b) No

77. Have you ever **purchase**d a product on the Internet?
    (a) Yes
    (b) No

If your answer is "No", please stop at here. If your answer is "Yes", please continue the survey on the next page.

78. How many products have you purchased on the Internet during the past 6 months?
    (a) 1 item
    (b) 2 – 5 items
    (c) 6 – 10 items
    (d) 11 – 20 items
    (e) 20 items +

79. How much total time did you spend on the Internet making your last **purchase**?
    (a) Less than 1 hr
    (b) 1 – 3 hrs
    (c) 4 – 6 hrs
    (d) 7 – 9 hrs
    (e) 9 hrs +

80. From what product category was your last Internet **purchase**?
    (a) Clothing/ Accessory/ Shoes
    (b) Books/ DVD/CD
    (c) Computer/ Electronics/ Software
    (d) Pets/ Gardening/ Hobby items
    (e) Other

81. In reference to **Q 80**(above), would you make this same purchase again?
    Unlikely (a) (b) (c) (d) (e) **Likely**

82. What is the most **common item(s)** that you **purchase** on the Internet? *Do not answer if you have made no purchase.*
    (a) Clothing/ Accessory/ Shoes
    (b) Books/ DVD/ CD
    (c) Computer/ Electronics/ Software
    (d) Pets/ Gardening/ Hobby items
    (e) Other

83. How much did you spend on your last **purchase** on the Internet?
    (a) Less than $20
    (b) $21- $ 50
    (c) $51 - $ 100
    (d) $101 - $ 200
    (e) $201 +

84. Will you continue to make purchases on the Internet?
    Unlikely (a) (b) (c) (d) (e) **Likely**

Thank you very much for your participation!

APPENDIX C

A letter of request the participation.

Dear The professor of the class

My name is JongEun Kim, Ph D Candidate Design, Housing, and Merchandising Department at Oklahoma State University. I am currently involved in collecting data for my dissertation. My project involves a better understanding of the Internet buyer.

The purpose of the study is to explore the variables that affect one's intent to purchase and to determine if those variables are significant in the transformation of a shopper into a buyer.

The results of this research will enable online stores to better serve its potential clientele. This study represents an initial examination of the question. Approximately 300 students from 4 universities will be given the survey. I would ask you to give the survey sometime between June 10, 2003 and June 20, 2003. The survey will take about 15 minutes to complete.

I have enclosed a script regarding the student's rights in regards to this study including their right not to participate and how their identity will be protected. Please read this scrip to your class before giving the survey. No individual names are requested on either the answer sheet or survey booklet. All reports using the data will be done only in a summary form. Each student's input is very important so as to understand customer's Internet shopping and purchasing behavior.

Questions or concerns about this study can be answered by contacting JongEun Kim at (405) 624-6353, jekheaven@aol.com or Dr.Glenn Muske at (405) 744-5776, Muske@okstate.edu. This survey is conducted under the guidelines established by the Institutional Review Board at Oklahoma State University. If you have any questions on your participation with the survey please contact with Dr. Carol Olson (colson@okstate.edu) or Sharon Bacher (sbacher@okstate.edu) at OSU Institutional Review Board at 405-744-5700.

Thank you for your assistance.
Sincerely,

JongEun Kim
800e Hall of Fame D21
Stillwater, OK 74075
(405) 624-6353
jekheaven@aol.com

APPENDIX D

CORRELATION MATRIX FOR FACTORS

	Q16	Q17	Q18	Q20	Q21	Q23	Q24	Q25	Q27	Q28	Q29	Q30	Q31
Q17	0.36*												
Q18	0.48*	0.27*											
Q20	0.31*	0.51*	0.24*										
Q21	0.14*	0.12*	0.30*	-0.13*									
Q23	0.35*	0.70*	0.21*	0.64*	0.06								
Q24	0.24*	0.51*	0.22*	0.70*	-0.05	0.72*							
Q25	0.02	0.24*	-0.08	0.29*	-0.40*	0.31*	0.44*						
Q27	0.37*	0.23*	0.64*	0.16*	0.29*	0.22*	0.12*	-0.12*					
Q28	0.22*	0.16*	0.06	0.26*	-0.08	0.16*	0.24*	0.24*	0.07				
Q29	0.34*	0.23*	0.51*	0.37*	0.11*	0.32*	0.35*	0.05	0.50*	0.19*			
Q30	0.27*	0.43*	0.09	0.36*	0.05	0.54*	0.47*	0.28*	0.10	0.21*	0.22*		
Q31	0.42*	0.51*	0.36*	0.45*	0.14*	0.53*	0.52*	0.19*	0.28*	0.20*	0.30*	0.48*	
Q32	0.15*	0.15*	0.31*	0.08	0.33*	0.18*	0.03	-0.23*	0.35*	0.00	0.27*	0.08	0.23*
Q33	0.18*	0.21*	0.06	0.06	0.07	0.18*	0.16*	-0.03	0.08	0.16*	0.00	0.18*	0.42*
Q34	0.07	-0.07	0.12*	-0.14*	0.20*	-0.03	-0.16*	-0.24*	0.22*	-0.15*	0.00	-0.10	-0.06
Q37	0.27*	0.28*	0.39*	0.14*	0.36*	0.26*	0.14*	-0.25*	0.43*	-0.02	0.34*	0.14*	0.32*
Q38	0.28*	0.47*	0.26*	0.34*	0.17*	0.42*	0.33*	0.15*	0.22*	0.16*	0.24*	0.31*	0.57*
Q39	0.20*	0.20*	0.03	0.04	0.20*	0.2*	0.06	-0.08	0.14*	0.06	-0.09*	0.28*	0.30*
Q54	-0.24*	-0.18	-0.11*	-0.13*	-0.22*	-0.17*	-0.12*	0.11*	-0.09*	-0.11*	-0.03	-0.21*	-0.21*
Q55	-0.13*	-0.05	-0.10	-0.06	-0.08	-0.05	-0.11	0.00	-0.08	-0.03	-0.01	-0.05	-0.07
Q56	0.12*	0.19*	-0.04	0.24*	0.02	0.26*	0.17*	0.09	0.06	0.20*	0.07	0.17*	0.23*
Q57	0.10	0.13*	-0.04	0.14*	-0.02	0.19*	0.17*	0.20*	-0.04	0.20*	0.05	0.13*	0.11
Q58	0.11	0.15*	-0.01	0.16*	0.03	0.25*	0.19*	0.23*	-0.02	0.08	0.11	0.25*	0.24*
Q59	0.02	-0.08	-0.08	-0.07	0.03	-0.03	-0.11*	-0.05	-0.05	-0.01	-0.09	0.05	0.05
Q60	-0.19*	-0.09	-0.17*	-0.11	-0.22*	-0.09	-0.05	0.25*	-0.25*	-0.07	0.03	-0.10	-0.09
Q61	0.05	0.02	-0.07	0.06	-0.09	0.14*	0.12*	0.07	-0.04	-0.01	0.05	0.11*	-0.01
Q62	-0.19*	-0.27*	-0.31*	-0.23*	-0.22*	-0.29*	-0.24*	0.02	-0.31*	-0.04	-0.20*	-0.21*	-0.38*
Q72	0.37*	0.46*	0.27*	0.39*	0.18	0.45*	0.37*	0.10	0.21*	0.15*	0.14*	0.35*	0.56*
Q74	0.17*	0.24*	0.03	0.23*	0.04	0.36*	0.23*	0.09	0.09	0.07	0.07	0.26*	0.20*
Q76	-0.11	-0.14	-0.14*	-0.17*	0.01	-0.13*	-0.13*	-0.08	0.03	0.03	-0.09	-0.07	-0.24*
Q77	-0.26*	-0.22*	-0.47*	-0.21*	-0.09	-0.18*	-0.13*	-0.06	-0.29*	-0.03	-0.27*	-0.17*	-0.25*
Q78	0.17*	0.21*	0.14*	0.16*	0.11	0.32*	0.25*	0.01	0.19*	0.12*	0.11	0.25*	0.31*

*P<.05

	Q32	Q33	Q34	Q37	Q38	Q39	Q54	Q55	Q56	Q57	Q58	Q59	Q60
Q33	0.22*												
Q34	0.29*	0.06											
Q37	0.75*	0.26*	0.30*										
Q38	0.23*	0.39*	-0.05	0.26*									
Q39	0.17*	0.67*	0.18*	0.29*	0.31*								
Q54	-0.12*	-0.20*	-0.08	-0.25*	-0.19*	-0.28*							
Q55	-0.13*	-0.13*	-0.15*	-0.13*	-0.06	-0.12	0.65*						
Q56	0.19*	0.13*	0.06	0.13*	0.14*	0.11	-0.05	0.03					
Q57	-0.01	0.03	-0.05	-0.10	0.03	0.06	0.04	0.12*	0.51*				
Q58	0.10	0.05	-0.01	0.01	0.12*	0.04	0.10*	0.21*	0.56*	0.63*			
Q59	0.10	0.20*	0.03	0.02	0.01	0.21*	0.00	0.03	0.38*	0.39*	0.37*		
Q60	-0.13*	-0.18*	-0.18*	-0.24*	-0.04	-0.21*	0.42*	0.36*	0.10	0.25*	0.24*	0.19*	
Q61	-0.02	-0.05	-0.01	-0.01	-0.02	-0.02	0.13*	0.13*	0.38*	0.26*	0.27*	0.29*	0.29*
Q62	-0.55*	-0.25*	-0.07	-0.56*	-0.32*	-0.20*	0.17*	0.15*	0.01	0.14*	0.05	0.10	0.21*
Q72	0.29*	0.47*	-0.02	0.36*	0.51*	0.40*	-0.35*	-0.14*	0.29*	0.05	0.14*	0.12*	-0.23*
Q74	0.16*	0.29*	0.06	0.17*	0.30*	0.39*	-0.29*	-0.16*	0.20*	0.01	0.02	0.03	-0.21*
Q76	0.01	0.02	0.14*	-0.01	-0.12*	0.04	-0.08	-0.08	-0.05	-0.08	-0.08	-0.03	-0.15*
Q77	-0.17*	-0.01	0.03	-0.19*	-0.19*	-0.02	-0.01	0.00	-0.03	-0.11	-0.12*	0.04	0.02
Q78	0.20*	0.24*	0.10	0.32*	0.32*	0.34*	-0.23*	-0.02	0.27*	0.13	0.12	0.12	-0.07

***P<.05**

	Q61	Q62	Q72	Q74	Q77
Q62	0.12*				
Q72	0.05	-0.38*			
Q74	-0.06	-0.17*	0.46*		
Q76	0.12	0.06	0.22*	0.12*	
Q77	0.04	0.23*	-0.27*	0.04	0.23*
Q78	0.21*	-0.21*	0.55*	0.31*	0.05

***P<.05**

	Q19	Q22	Q26	Q35	Q36	Q41	Q42	Q43	Q44	Q45
Q22	0.12*									
Q26	0.06	0.13*								
Q35	-0.08	0.00	0.41*							
Q36	0.22*	0.09	0.20*	0.27*						
Q41	0.25*	0.07	0.08	0.03	0.11					
Q42	0.08	0.15*	0.02	-0.01	0.14*	0.16*				
Q43	-0.05	0.07	0.50*	0.56*	0.18*	0.08	0.02			
Q44	0.14*	-0.03	0.04	0.13*	0.23*	0.23*	-0.07	-0.02		
Q45	0.16*	0.04	-0.07	-0.10	0.08	0.21*	-0.09	-0.20*	0.17*	
Q47	0.05	-0.06	0.06	-0.04	0.05	0.12*	-0.32*	-0.12*	0.17*	0.27*
Q49	0.02	0.08	0.09	0.06	0.22*	0.14*	0.38*	0.15*	0.03	-0.01
Q50	0.08	0.08	0.21*	0.30*	0.35*	0.12*	-0.03	0.20*	0.35*	0.16*
Q52	-0.10	-0.31*	-0.09	0.09	0.03	-0.22*	-0.34*	-0.03	0.04	-0.14*
Q63	0.08	0.11	0.09	0.01	0.11	0.01	0.02	0.05	0.08	0.06
Q64	0.12*	0.03	0.08	0.00	0.05	0.19*	0.15*	0.10	0.05	0.07
Q65	-0.03	-0.10	0.17*	0.27*	0.13*	-0.04	-0.11*	0.25*	0.01	-0.06
Q66	-0.10	0.02	0.05	-0.01	-0.02	-0.05	0.21*	0.08	0.02	-0.04
Q67	-0.25*	0.02	0.00	0.03	-0.16*	-0.01	0.20*	0.04	-0.12*	-0.10
Q68	-0.13*	0.06	0.09	0.11	-0.04	-0.02	0.08	0.08	-0.02	-0.05

***P<.05**

	Q47	Q49	Q50	Q52	Q63	Q64	Q65	Q66	Q67
Q49	-0.15*								
Q50	0.15*	0.08							
Q52	0.17*	-0.18*	0.10						
Q63	0.03	0.00	0.15*	-0.04					
Q64	-0.02	0.13*	0.02	-0.16*	0.45*				
Q65	0.02	-0.02	0.18*	0.07	0.31*	0.41*			
Q66	-0.06	0.23*	-0.03	-0.22*	0.30*	0.30*	0.36*		
Q67	-0.08	0.15*	-0.06	-0.14*	0.21*	0.31*	0.34*	0.58*	
Q68	0.03	0.14*	0.12*	0.02	0.30*	0.29*	0.33*	0.27*	0.60*

***P<.05**

Correlations

	Q12	Q13	Q40	Q46	Q48	Q53	Q69	Q70
Q13	0.22*							
Q40	-0.16*	-0.01						
Q46	0.01	0.30*	0.02					
Q48	0.20*	0.15*	-0.07	-0.05				
Q53	0.15*	0.03	0.03	0.02	0.52*			
Q69	-0.05	0.07	0.00	-0.02	0.06	0.03		
Q70	-0.03	0.03	-0.04	-0.05	0.10	0.20*	0.53*	
Q71	0.01	0.15*	-0.07	0.00	0.32*	0.32*	0.29*	0.39*

***P<.05**

VITA

JongEun Kim

Candidate for the Degree of

Doctor of Philosophy

Dissertation: UNDERSTANDING CONSUMERS' ONLINE SHOPPING AND PURCHASING BEHAVIOR

Major Field: Human Environmental Sciences
Area of Specialization: Design, Housing and Merchandising

Biographical:

Education:

Associated Art Degree (A.A.) 1996 -1998
The Fashion Institute ff Design & Merchandising (FIDM)
Los Angeles, California USA

Bachelor of Science Degree (B.S.) 1992 -1996
Department of Clothing and Textiles
College of Art and Home Economics, Kon-Kuk University, Seoul, Korea

Bachelor of Science Degree (B.S.) 1994 -1996
Department of Sociology
College of Social Science, Ewha Womans University, Seoul, Korea

Master of Science Degree (M.S.) 1996 -1999
Department of Clothing and Textiles
College of Art and Home Economics, Kon-Kuk University, Seoul, Korea
Major: Social & Psychological Study of Clothing

Completed the requirement for the Doctor of Philosophy degree with a major in Human Environmental Sciences at Oklahoma State University in August 2004

Professional Experience:

Assistant Professor in Central Michigan University, Mount pleasant, MI
Department of Human Environmental Studies, 2003 - 2004

Professional Memberships:

International Textile and Apparel Association, Inc (ITAA),
United States Association of Small Business for Entrepreneurship (USASBE),
American Association for Higher Education (AAHE),
Korea Society of Clothing and Textile (KSCT),
The Korean Society of Costume (TKSC)

Name: JongEun Kim Date of Degree: July, 2004

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: UNDERSTANDING CONSUMERS' ONLINE SHOPPING AND PURCHASING BEHAVIORS

Pages in Study: 143 Candidate for the Degree of Doctor of Philosophy

Major Field: Apparel Merchandising and Design

Scope and Method of Study: The purpose of this study was to examine individuals that had completed an Internet purchase and compared them to other Internet shoppers and browsers.

The exploratory study examined the differences among non-web shoppers, web-store visitors with no intention of purchasing, Internet browsers with an intention to purchase and Internet buyers. The comparison was made based on a theoretical model derived in part from Fishbein and Ajzen's "Theory of Reasoned Action" (1980) and Cowles, Kieker, and Little's "E-tailing Theory" (2002) and a comprehensive literature review. The model identified the theoretical factors anticipated to influence the four groups and their level of online shopping.

Two hundred sixty-six college students in Oklahoma served as purposive research samples. Using Cronbach's alpha scores, the reliability and validity of the hypothesized factors was examined. To identify if Internet buyers differed from non-buyer in terms of demographic characteristics, computer and Internet use and/or experience, attitude toward the Internet shopping and online purchasing intention, thirteen hypotheses were proposed and analyzed using chi-square, t-tests, ANOVA, and logistic and linear regression.

Findings and Conclusions: Profiles of each of the four groups of online consumers, Internet buyers, Internet browsers, web-store visitors, and non-web shoppers, were developed. Significant differences in terms of marital status, number of credit cards hold, hours of Internet use and primary use of Internet were found. Also the items that comprised the consumer factor were significant in not only who intended to make a purchase online but also who actually completed the transaction.
To increase online sales, e-retailers would find it helpful to consider the results of this study, understanding however that it represents only a small, purposive sample. Internet retailers should provide convenience, secure transactions, and a complete description as well as ample visual presentations of merchandise. Retailers should also provide an enjoyable atmosphere in order to make Internet shopping advantageous over other retail outlets. Results of the study suggest that successful e-tailers will respond to the individual needs of each group if they desire to move them through the stages of non-shoppers to buyers.

ADVISOR'S APPROVAL: Dr. Glenn Muske