

CONSUMERS' BEHAVIORAL INTENTIONS REGARDING ONLINE  
SHOPPING

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This study investigates the consumers' intention towards Internet shopping. The Theory of Planned Behavior is used to predict behavioral intention (BI), which is a function of attitude, subjective norm, and perceived behavioral control (PBC). The effects of demographic and personal variables on BI are also examined. Data analysis (n = 303) indicates that attitude, subjective norm, perceptions of behavioral controls, and previous purchases are significant predictors of behavioral intention. *Product/Convenience, Customer Service* (attitude factors), *Purchase and Delivery, Promotional Offers, Product Attribute* (factors of PBC), subjective norm, hours spent online, money spent online, and previous purchases discriminate respondents of high BI from low BI. Behavioral intention of shopping online is highest for *Specialty Products* followed by *Personal, Information Intensive, and Household Products*.

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## TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....	iii
LIST OF TABLES .....	v
LIST OF ILLUSTRATIONS .....	vi
1. INTRODUCTION.....	7
Statement of Problem.....	7
Rationale .....	11
Purpose of Study .....	12
Limitations .....	13
Assumptions.....	13
Operational Definitions.....	13
2. REVIEW OF LITERATURE.....	16
The Theory of Planned Behavior .....	16
Findings of Previous Studies .....	18
Summary.....	24
3. METHODS.....	26
Research Objectives.....	26
Research Design.....	27
Data Analysis .....	37
4. RESULTS.....	41
Descriptive Statistics of Demographics and Other Variables.....	41
Factor Analysis .....	44
Prediction of Behavioral Intention.....	51
High Behavioral Intention Versus Low Behavior Intention.....	55
5. SUMMARY AND DISCUSSION.....	59
Conclusions.....	62
Study Limitations.....	65
Recommendations for Future Research .....	66
APPENDIX.....	68
Sample Cover Letter .....	69
Survey instrument .....	70
REFERENCE LIST .....	78

## LIST OF TABLES

Table	Page
1. Major Findings on Medium of Shopping and Shopper Characteristics.....	21
2. Summary of Instrument Items by Variable and Type of Data.....	36
3. Summary of Statistical Tests Used for Data Analysis .....	39
4. Demographic Characteristics of the Respondents .....	42
5. Descriptive Statistics of Other External Variables .....	44
6. Factor Analysis of Attitude.....	45
7. Factor Analysis of Perceptions of Behavioral Control .....	47
8. Correlation Between Previous Purchases and Future Purchase Intentions for Products and Services.....	48
9. Factor Analysis of Products and Services Purchased Online .....	50
10. Regression Analysis: Predictors of Attitude, Subjective Norm and Perceived Behavioral Control. ....	52
11. Regression Analysis: Predictors of Behavioral Intentions of Shopping Online.....	53
12. Correlation Analysis: Predictors of Behavioral Intentions of Shopping Online.....	55
13. Discriminant coefficient, means, and standard deviations for demographic variables .....	57

## LIST OF ILLUSTRATIONS

Figure	Page
1. Theory of Planned Behavior .....	17
2. The Research Model .....	28

## INTRODUCTION

### Statement of Problem

Technology is evolving rapidly, with great change predicted for the retailing format. In these uncertain times it has become mandatory for retailers to understand how consumers are reacting to these changes and what their intentions are in this regard.

Shopping is still a popular pastime, but shopping downtown or in a mall is growing less popular. Increasingly, Americans are shopping by computer, television, or telephone, buying what they want quickly and efficiently. This causes a serious threat to the country's traditional retail industry and to the large number of people it employs (Morgenson, 1993).

The Internet began as a government and military communications network in the early 1970s and soon became a tool for academic researchers to communicate and share computing power. Two decades later it has taken on global proportions and shifted from the government and academic sectors into the consumer market. Here it acts as a channel through which millions of people communicate, perform research, find entertainment, and, most recently, buy and sell products and services ("Internet Shopping," 1996).

According to recent projections Internet is growing at the rate of 10 to 20 percent every month (Breitenbach & Van Doren, 1998; Murphy, 1998; Thompson, 1997). An estimated 100 to 150 million people will be Internet users by the year 2000 as mentioned in many studies (Barker and Groenne, 1997; McBride, 1997; Paul, 1996). The figure for the number of people in the world who will have access to the Internet by the year 2000



is projected to be 250 million (“Radical Internet stirs up retailing,” 1997). Currently, at least one home in four in the U.S. has access to the Internet (Clark 1999). It has also been reported that the number of registered Internet commerce sites has more than doubled, from 600,000 to 1.7 million, during the period 1996-1997 (Applegate et al. 1999).

The many channels of the information superhighway will enable an explosion of consumer choice (“Information Superhighway,” 1995), resulting in increased customer control. Consumers are slowly becoming more in control of how, where, and when they shop. This increased customer control is another marketing trend that is likely to gain momentum in the future (Horowitz, 1996).

The marketing message will become more customized as vendors learn more about their customer, and the Internet will move the trend away from mass marketing to customized marketing (Horowitz, 1996). The challenge for corporate leaders is to understand this change and learn what it means for them. This can be accomplished by assessing consumers’ perceptions of these changes and their intentions about them.

With the aggressive competitive environment, the high cost of retailing space and the growing labor shortage, electronic marketing is too promising to ignore (Klien, 1988). As described by Rowley (1996), advantages of retailing on the Internet include the following: (1) ability of small businesses to extend their reach, (2) elimination of the prohibitive entry costs of new industries, (3) possibility of interaction with customer representative and immediate ordering, (4) elimination of some costs associated with store, salespeople, and warehousing, (5) compared to conventional catalogs, lack of printing and mailing costs, as well as rapid change and updating of information, (6)

continuously improving interfaces and functionality, and (7) extensive advertising for a small outlay. Apart from these benefits, online retailing also cuts distribution costs by 25 to 30 percent, offers larger product assortment and reduces out-of-stock conditions while eliminating the expenses related to conventional stores (Burke, 1997).

In spite of the obvious advantages of online retailing the sales results have not been very promising. Burke (1997) stated:

Of the \$2.2 trillion in U.S. retail sales, only about \$60 billion are through non-store retail formats, including catalogs, television, and direct mail. TV and other electronic sales account for just \$3 billion, or one-seventh of one percent of the total. And 40 percent is jewelry! If we look just at sales through the Internet and on-line services, the total for 1995 was about \$350 million, or less than 0.02 percent of the total. (p. 82)

Similar concerns have been discussed in other studies as well. A study by Korgaonkar & Wolin (1999) found that only a very small fraction of the 2.5 trillion spent on shopping in 1997 actually came from online spending. A study on Internet shopping (Internet shopping, 1996) summarized that:

About 30% of US consumers (half of all PC users) have daily access to the Internet via home, work or school . . . estimates show that about 1% of US consumers are purchasing items over the Internet . . . more than a quarter of heavy Internet users (those that filled out the survey on the Internet) have already purchased items over the Internet. (p. MC6)

This shows that only a small fraction of those with online capabilities are currently online shoppers. The reason could be that it is not the technology but the way consumers feel about high-tech purchasing that is holding back development of the field (Reda, 1995). Hence, it is imperative that marketers understand the depth of consumer acceptance or their intentions for this medium of retailing.

Most current online shopping services fail to deliver a satisfying shopping experience, and, until they do, they are unlikely to attract many consumers away from traditional retail channels (Reda, 1995, p. 20). Some people simply do not like technology, a situation that can slow the Internet's penetration (Horowitz, 1996, p. 130). Many consumers still do not feel comfortable giving out their credit card number over the Internet; one survey revealed that only about 44% of Internet shoppers use credit cards to make their purchases ("Internet Shopping," 1996). Some regulatory issues regarding electronic commerce like marketing to children, unsolicited e-mails and taxation also need to be resolved (Burke, 1997). Many other inhibiting factors in consumer's mind, deter them from shopping online; for example, they are concerned about the lack of privacy or the unreliability of the seller. Certain other concerns in the mind of the consumers are related to security, speed of access, branding, product availability and distribution (Jones & Biasiotto, 1999). Jones and Biasiotto concluded that as the above-mentioned issues are addressed, consumer acceptance would accelerate over the next five years.

From the above, it is evident that the need exists to gauge the intentions of consumers with regard to shopping online. Both manufacturers and retailers attempt to

anticipate desires and demands of consumers (Engel, 1986). The idea that consumption can be forecasted by behavioral intentions holds considerable appeal for retailers. Before retailers consider investing in online stores, they need an accurate idea of consumer trends in this market segment. It is important for the retailers to understand whether consumers will accept the online retailing format, or what type of products or services are more suitable to be marketed online. Knowing these facts will enable the marketer to target the consumer effectively. The marketing mix and product mix for the online store can be better planned if the above-mentioned facts and trends are better understood.

This study utilizes the Theory of Planned Behavior (TPB), a theory designed to predict and explain human behavior in specific contexts. Here the context is the behavior of shopping, using the Internet as the retailing medium. The model claims that people tend to perform behaviors that are predicted to be favorable and would avoid the ones that have an unfavorable prediction (Fishbein & Ajzen, 1975). TPB postulates that behavioral intention is the direct antecedent of the actual behavior. Behavioral intention (BI) is defined as an individual's likelihood of engaging in the behavior of interest and it is a function of three components: (1) Attitude ( $A_b$ ), (2) Subjective Norm ( $SN_b$ ), (3) Perceived Behavioral Control ( $PBC_b$ ). These are further discussed in the third chapter under conceptual framework.

#### Rationale

Internet shopping is a relatively new retail medium that affects manufacturers, retailers, and consumers. Although sales of products from the Internet account for only a small percentage of total retail sales, millions of consumers shop and buy on the Internet.

Electronic commerce is expected to grow from \$520 million in 1996 to \$6.5 billion in the early 2000s, and the number of North Americans shopping online is expected to grow from 10 million to 33 million (Peter & Olson, 1999). If Internet retailing proves to be a success and is accepted by the consumers, it would mean some changes in the way of doing business for the manufacturers and retailers. To remain competitive, these manufacturers and retailers must decide how to react to the new opportunities. Before making a large financial commitment it is important that all the implications of this change be understood. Apart from the technical support considerations, consumers' acceptance of this new technology may impact a business's success in online retailing. Online retailers will be successful only if they provide value to the consumers; hence, Internet marketers should understand the customers' expectations and intentions regarding Internet shopping. Research can help these online retailers to understand their customers, satisfy their needs and wants, and create value for them.

This research will help marketers to better understand the customers' intentions concerning Internet shopping. It is hoped that the study will indicate the behavioral intentions of consumers toward Internet shopping and also identify the variables that predict behavioral intentions of consumers'.

#### Purpose of Study

The purpose of this study was to predict the consumers' behavior in regards to online shopping. These predictions were based on the consumers' demographics and intentions. This study also identified individual demographic characteristics and other variables that distinguish those who have high intention from those who have low

intention to utilize Internet shopping. The effect of past purchases via Internet, computer expertise, hours spent online and money spent online were investigated in reference to future purchase intentions. The facilitators and inhibitors of online shopping in reference to the consumers were also explored. The study concluded with an examination of the product categories and services that have a potential to be retailed online successfully.

#### Limitations

The examination of the behavioral intentions of shopping online was limited to the purchase of products and services; hence, it did not include the behavior of browsing for information or free use of these products and services online.

The sample selection was also limited to the names on a purchased mailing list. The respondents who completed the survey online were not restricted by country of origin.

#### Assumptions

This research was based on the assumption that intention to perform the behavior, perceived behavior control, and past behavior are the best predictors of actual behavior (Ajzen, 1991; Peter & Olsen, 1999). The researcher also assumed that the respondents would answer truthfully, and that the mailing list purchased was representative of the overall population of North American consumers who have access to the Internet.

#### Operational Definitions

Internet shopping: Some retailers are selling on the Internet using the relatively low-tech selling vehicle of e-mail, which facilitates communication between the retailer and the customer. Other more established tools such as Telnet and Gopher have been

used to support shopping activities, but the fastest growing segment of the Internet is the World Wide Web. Here, cyber-malls, virtual storefronts, interactive Web pages, and online data entry forms are being established. Consumers use these facilities to engage in Internet shopping.

Attitudes: Attitude can be defined as a person's overall evaluation of a favorableness of the particular behavior. It is an affective response at a low level of intensity and arousal. According to the Theory of Planned Behavior attitude toward performing, a behavior has a direct relationship to behavioral intention and is based on the underlying salient beliefs associated with the attitude and the evaluation of these beliefs by consumers. The attributes for measuring these beliefs and evaluation of consequences were generated from a review of the literature. Questions on evaluation of beliefs were asked regarding the importance of these attributes, and respondents were required to rate on a 7-point scale of 'very important' to 'very unimportant'. The beliefs regarding these attributes were measured by asking, "How likely is it that Internet shopping would provide...?" (Rated as 'very likely' to 'not at all likely').

Subjective norm: Subjective norms reflect consumers' perceptions of what they think other people want them to do. Subjective or social norms represent the influence of "important others" to perform or not to perform the behavior. Consumers' salient normative beliefs regarding "doing what other people want me to do" and their motivation to comply with the expectation of these other people are combined to form their subjective norms. This was measured by the statement, "Most people who are

important to me would think I should not/I should shop over the Internet”, rated on a 7-point scale from ‘I should not’ to ‘I should’.

Perceived behavioral control: Perceived behavior control refers to people’s perception of the ease or difficulty of performing the behavior of interest. In other words, it is an individual’s confidence in his/her ability to perform the behavior based on the presence or absence of requisite resources and opportunities.

Behavioral intention: Behavioral intention is a plan to perform an action: “I intend to go shopping this afternoon.” In other words, behavioral intentions reflect the individual’s likelihood of engaging in the behavior of interest. Intentions are produced when beliefs about the behavioral consequences of the action and social normative beliefs are considered and integrated to evaluate alternative behaviors and select among them. This was measured by asking, “Assuming Internet shopping is easily available to you, indicate the probability that you will shop over the Internet in the next 6 months?”, to be rated from ‘very improbable’ to ‘very probable’.



## REVIEW OF LITERATURE

Internet shopping makes it possible for consumers to shop 24 hours a day without having to leave the home. Certain benefits and perceived risks of online shopping in consumers' minds greatly influence their intentions to shop over the Internet. This study focused on the prediction of the intentions of consumers to shop on the Internet. A good measure of behavior can be obtained from behavioral intention, as predicted by the Fishbein model (Peter & Olsen, 1999). Many other studies have examined the relationship between intentions and actions; the review of the studies can be found in a variety of sources (Ajzen, 1988; Ajzen & Fishbein, 1980; Canary & Seibold, 1984; Sheppard, Hartwick, & Warshaw, 1988). Retailers can utilize the predicted behavioral intention to forecast demand. Behavioral intention is a function of three components: (1) attitudinal component, (2) normative component, and (3) degree of perceived behavioral control. The Theory of Planned Behavior (Ajzen, 1991) is described in the next section. The relationship between the various variables is shown in the research model following the next section. This chapter is concluded with a discussion of the findings of previous research dealing with related topics. The findings are summarized in table form.

### The Theory of Planned Behavior

A good measure of behavior can be obtained from intention to perform the behavior (BI) as predicted by the Fishbein behavioral intention model (Fishbein & Ajzen, 1975). The Theory of Planned Behavior (TPB) is an extension of the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

The model claims that people tend to perform behaviors that are predicted to be favorable and that they tend to avoid those that have an unfavorable prediction (Fishbein & Ajzen, 1975). According to TPB, behavioral intention is the direct antecedent of the actual behavior. Behavioral intention (BI) is defined as an individual's likelihood of engaging in the behavior of interest and it is a function of three components: (1) attitude ( $A_b$ ), (2) subjective norm ( $SN_b$ ), (3) perceived behavioral control ( $PBC_b$ ). These are further discussed in chapter three under conceptual framework

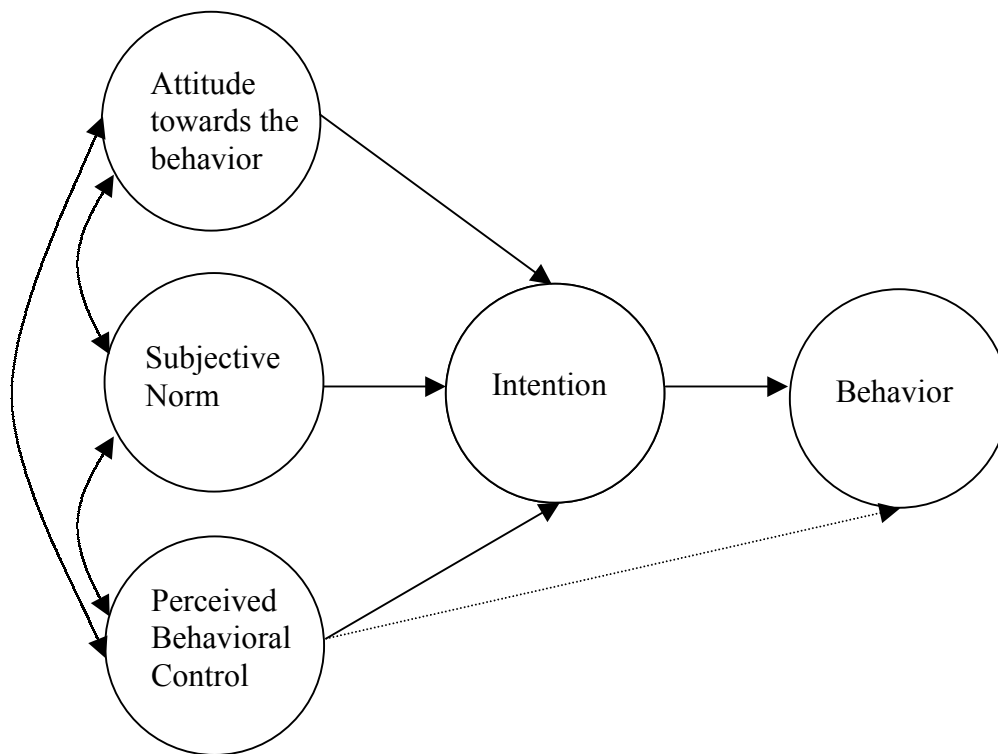


Figure 1. Theory of planned behavior.

The idea that consumption can be forecasted by behavioral intention holds considerable appeal for retailers. Both manufacturers and retailers try to anticipate the desires and demands of the consumers (Engel, 1986). In this light, it becomes imperative for the retailers to investigate the consumers' intention towards Internet shopping.

### Findings of Previous Studies

#### Internet Shopping

Many recent studies have investigated the feasibility of electronic commerce from the manufacturer or the retailer's side (Berthon, Leyland & Watson, 1996; Breitenbach & VanDoren, 1998; Hoffman & Novak, 1996; Jones & Biasiotto, 1999; Murphy, 1998; Peterson, Balasubramanian & Bronnenberg, 1997; Reynolds, 1997). But relatively few have focused on this issue from the consumers' perspective. Burke (1997) stated, "A major part of the forecasting problem is that multiple constituencies are involved – consumers, manufacturers, retailers, and technology firms . . . One needs to examine the motivations and constraints of each group when building forecasts" (p. 353).

Jarvenpaa and Todd (1996-97) conducted research on Consumer reaction to electronic shopping on the World Wide Web (WWW). They related the reactions of consumers to the factors of product perception, shopping experience, customer service, and perceived consumer risk. With regards to product perceptions they found that consumers were impressed by the breadth of stores but disappointed with the depth of merchandise offered. Shopping experience was found to be generally enjoyable, time and effort saving by the consumers but the goal directed shopping was reported as difficult.

Customer service was not very satisfactory for many of the respondents. The study also reported perceived risks as being a barrier to shopping on the WWW.

A study by Kunz (1997) on Internet shopping found that online shoppers are opinion leaders, innovators, and domain specific to the Internet. The study also found that men are more likely to purchase via the Internet, and those who intend to shop online are likely to be young. People living in large metropolitan areas are less likely to shop online as compared to those living in suburban areas of small metropolitan populations. This research also summarized the findings of previous studies on what store characteristics of catalog, in-home, and Internet shopping influence consumers' choice of alternate shopping mediums. According to Kunz (1997):

If consumers perceive the medium will 1) save them time, 2) be convenient to use/patronize, 3) provide merchandise with good value for the price and 4) merchandise of good quality, 5) involve low risk, 6) provide customer satisfaction, while 7) offering credit accounts and accepting charge cards, they will be more likely to choose that alternative shopping medium (p. 27).

Consumer intention can be predicted by utilizing Fishbein's behavioral intention model. A few studies have used this model to predict intentions and to identify high-intention and low-intention consumers (Johansson & Nebenzahl, 1987; Shim & Drake, 1990). Shim and Drake concluded that attitudinal component and normative belief were similarly important in predicting electronic shopping intention, not taking into account the motivation to comply. They also developed a profile of the potential users of electronic shopping in terms of shopping habits, computer ownership and usage, mail

order purchase experience, and demographics. The differences in characteristics of high- versus low-intention consumers were also analyzed. They were found to be different in terms of five factors of shopping habits, computer usage, mail order purchase experience, and some demographics.

Harden (1992) investigated consumers' attitudes regarding the use of electronic shopping for apparel information search or purchase, using Roger's (1962) diffusion theory. Participants in the study felt that electronic shopping was comparatively new and that the changes needed to adopt this form of shopping were not compatible with their life style. It was also reported that consumers viewed this form of shopping as lacking relative advantages and being too complex to use. Electronic online in-home shopping was not much discussed in the participants' social system, nor was it easily available to try or observe. These were found to be some of the reasons for slow diffusion of this shopping method. Table 1 summarizes some of these findings.

A study was conducted by Mathwick (1997), in which she contrasted the shopping experiences of catalog customers with those shopping through an Internet environment. The Internet shopping experience was found to be slightly more functional in nature -- characterized by perceptions of efficiency and economic value -- whereas the catalog shopping environment delivered the efficiency and economic value of the Internet, as well as heightened perceptions of aesthetic appeal and playfulness.

Table 1. Major Findings on Medium of Shopping and Shopper Characteristics

Authors (Date)	Sample	Demographics	Significant Variables			
			User characteristics	Product categories	Shopping medium characteristics	Type of shopping medium
Weeks et al. (1998)	191 female		fashion opinion leadership (+) clothing interest inventory (+) shopping orientation	apparel	convenience (-) familiarity (+)	in-store (vs. non-store)
Alba et al. (1997)				traditional retail products	Providing alternatives for consideration	interactive home shopping
Kunz (1997)	462 web users	Age young(+) gender male (+) education occupation sales/service/clerical workers (+) income high (+)	opinion leadership (+) domain specific (+) innovativeness (+) market maven propensity	books and magazines (+) business services (+) legal services (-) financial services (-) music products (+) clothing computer products (+) electronics information resources travel products (+) children's' products food and drink college and education services auto products mortgage lending (-)	saving time convenience ease of payment company reputation brand reputation price quality of merchandise variety of merchandise reduced risk (+) customer service	Internet
Jarvenpaa et al. (1996-97)	220 Shoppers				Product perceptions (+) Shopping experience Customer service (-) Perceived risk (-)	Electronic mall (WWW)

(+) denotes a positive relationship. (-) denotes a negative relationship.

(table continues)

Table 1. (*continued*)

Authors (Date)	Sample	Demographics		Significant Variables		
				User characteristics	Product categories	Shopping medium characteristics
Mehta & Sivadas (1995)	375 Internet users	age education gender occupation		targeted advertisements untargeted advertisements	e-mail newsgroups	direct marketing on the Internet
Harden (1992)	34 women	age children at home(+) occupation income		apparel	innovation communication social system time	electronic on-line in-home shopping
Shim & Drake (1990)	384 consumers nationwide	sex marital status age income education occupation number of preschool children in the household (+)	mail order purchase experience satisfaction with local shopping time conscience impulse buying fashion interest computer usage shopping center interest		variety of brands assortment quality value for the price variety of services ease of credit adequate sales information up-to-date/fashionable items	electronic shopping

(+) denotes a positive relationship. (-) denotes a negative relationship.

(*table continues*)

Table 1. (continued)

Authors (Date)	Sample	Demographics	Significant Variables			
			User characteristics	Product categories	Shopping medium characteristics	Type of shopping medium
Shim & Drake (1990)	348 consumers nationwide	income marital status age children	self-confidence (+) time pressure (+) planned shopper (+) local shopping condition(-) large mall shopper (-) previous purchaser (+)	apparel	convenience (+) assortment (+) quality (+) ease of return (+) fashion items (+)	mail order
Sharma et al. (1983)	86 undergraduate business students			low shopping effort high shopping effort	information adequacy financial risk confidence in choice perceived time pressure (+ for catalog)	electronic shopping systems catalog

(+) denotes a positive relationship. (-) denotes a negative relationship.

(table continues)



McMellon, Schiffman and Sherman (1997) investigated the senior (over 55 years old) consumers' online behavior. The study found that the two groups of seniors, technology lovers and technology users, significantly differ in terms of need for cognition and communication. Overall tech-lovers were more likely to be enjoying the online experience and were more active online than tech-users.

#### Other In-Home Shopping Formats

Many in-home shopping formats are popular and much used: for example, mail order, TV, telephone order, and catalog. Shim and Drake (1990) conducted a study on consumer intentions to purchase apparel by mail order, analyzing beliefs, attitudes, and decision process variables. They found that the two groups of high intention and low intention to utilize mail order shopping for apparel have relatively distinct profiles in terms of individual characteristics, social influences, and situational influences.

Weeks, Brannon and Ulrich (1998) researched young adult female consumers of apparel in regards to their preference for non-store versus in-store shopping. Findings suggest that specialty store was most preferred and television least preferred shopping medium. Overall respondents preferred specialty in-store experience to non-store store shopping. The sample respondents were found to be: (1) fashion opinion leaders, (2) highly interested in their clothing, (3) confident in their appearance, (4) price-conscious, and (5) not time-conscious. Convenience and familiarity with the shopping medium also has an effect on preference of in-store versus non-store shopping.

In a study done by Sharma (1983) the purchasing processes of low shopping effort and high shopping effort items via electronic shopping systems and catalog were

compared. The study variables were information adequacy, financial risk, confidence in choice, and perceived time pressure. The findings from the relevant studies are summarized in Table 1. As is evident from the above, there exists a need for further understanding of the consumer's expectations and intentions in regards to online shopping. This understanding will help marketers to deliver value to the consumers and be successful online retailers.

### Summary

With recent technological advancements and reduced costs, computers are more affordable, and access to the Internet and World Wide Web is more readily available. Increasing number of consumers are going online every day. According to the previous studies, more research is needed in the area of consumers' intentions regarding the use of Internet as a shopping medium. Is it necessary for retailers and manufacturers to ascertain the feasibility of an online store? It would be advisable if a significant number of consumers intend to shop online in the near future. This is an opportunity in the retail environment that should be investigated. This study hopes to predict the consumers' intentions towards Internet shopping for traditional retail products by analyzing the consumers' attitudes and beliefs regarding Internet as a shopping medium.

## METHODS

Because of the importance of consumer intention as a tool of demand forecast, this study was designed to examine consumers' intentions to use Internet shopping. The research objectives and conceptual framework are explained in the following sections. A model showing the relationships among the variables follows these sections. The last half of this chapter is devoted to a description of instrument development and a definition of the population and sample. This chapter concludes with data collection and analysis procedures.

### Research Objectives

Consumers' shopping intentions towards retail products and services were examined during the course of this research. The specific objectives of the study were as follows: (1) to determine whether external variables (demographic characteristics and personal variables) affect the consumers' attitudes, subjective norms and perceived behavioral control; (2) to determine whether consumers' behavioral intentions can be predicted from their attitude, subjective norm, perceived behavioral control, and external variables (demographic characteristics, personal variables and previous purchases); (3) to investigate the characteristics that differ between consumers having high-intention to shop online and low-intention consumers in terms of their attitude, subjective norm, perceived behavioral control, and external variables (demographic characteristics, personal variables and previous purchases); (4) to investigate the relationship between previous purchases and future purchase intentions; and (5) to identify the product

categories and services having a potential to be retailed online successfully from a consumer acceptance point of view.

## Research Design

### Conceptual Framework: The Theory of Planned Behavior

This model claims that people tend to perform behaviors that are predicted to be favorable and tend to avoid those that have an unfavorable prediction (Fishbein & Ajzen, 1975). The idea that consumption can be forecasted by behavioral intention holds considerable appeal for manufacturers and retailers. Both manufacturers and retailers attempt to anticipate the desires and demands of consumers (Engel, 1986). For the purpose of this study, the model was extended to include the effects of some external variables like demographic characteristics and personal variables (computer experience, hour spent online per week, amount of money spent online, and previous online purchases). Figure 2 indicates the research model for this study.

### Behavioral Intention

The theory of planned behavior postulates that behavioral intention is the direct antecedent of the actual behavior (B). In this study B is the intention to shop online in the next six months. Behavioral intention (BI) is defined as an individual's likelihood of engaging in the behavior of interest and is a function of three components: (a) attitude ( $A_b$ ), (b) subjective norm ( $SN_b$ ), and (c) perceived behavioral control ( $PBC_b$ ).

#### The attitudinal component of behavioral intention.

According to the model, a person's attitude towards performing a specific behavior ( $A_b$ ) has an indirect relationship to behavior and is based on the summed set of

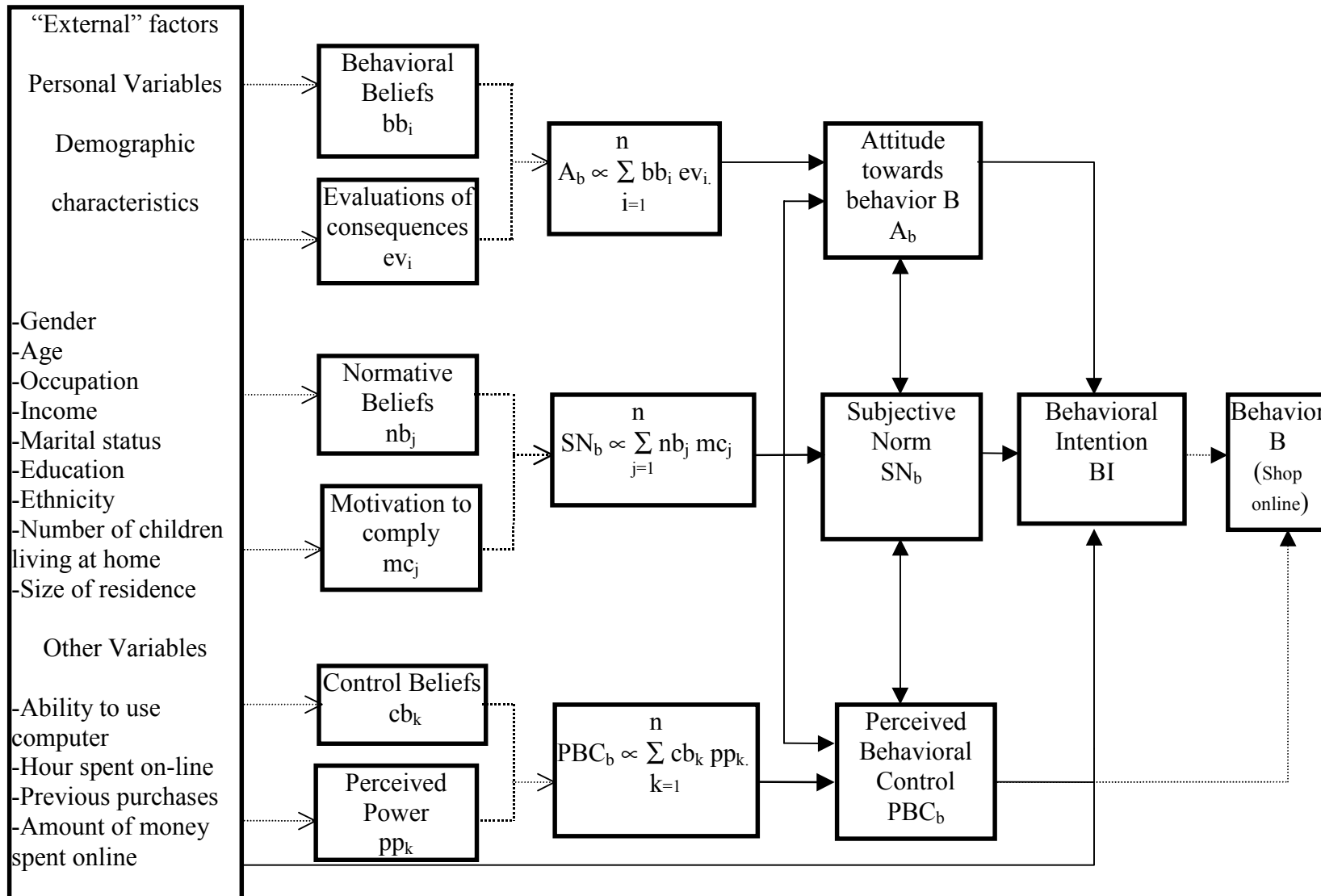


Figure 2. The Research Model

underlying salient beliefs ( $bb_i$ ) associated with the attitude and the evaluation ( $ev_i$ ) of these beliefs by consumers. Symbolically, this can be expressed as:

$$A_b = \sum_{i=1}^n bb_i ev_i$$

where:

$bb_i$  = belief that performing behavior B leads to consequence or outcome i

$ev_i$  = consumer's evaluation of the outcome i

n = number of salient beliefs the person holds about performing behavior B.

Subjective norm: the second component of behavior intention.

The subjective norm ( $SN_b$ ) represents the consumer's perceptions of what he/she thinks about what the referent wants him/her to do. It is a function of two subcomponents: the associative normative beliefs ( $nb_j$ ), which reflects the consumer's perception of what the referent thinks about whether he/she should or should not perform behavior B; and the consumer's motivation to comply with the referent j ( $mc_j$ ). These determinants of SN can be symbolically represented as:

$$SN_b = \sum_{j=1}^n nb_j mc_j$$

where:

$nb_j$  = normative belief

$mc_j$  = motivation to comply with referent j

n = number of relevant referents.

Perceived behavioral control: the third component of behavioral intention.

Perceived control over behavior is based on the beliefs regarding the resources or opportunities an individual possesses and the obstacles or impediments he/she anticipates. Perceived behavioral control can be determined from two subcomponents: (a) control belief ( $cb_k$ ) – perceptions of obstacles or resources affecting the behavior, and (b) perceived power ( $pp_k$ ) – importance of these barriers or resources. Symbolically, this can be expressed as:

$$PBC_b = \sum_{k=1}^n cb_k pp_j$$

where:

$cb_k$  = control belief

$pp_k$  = perceived power

$n$  = number of relevant referents.

Variables Studied

The dependent variable was behavioral intention to shop online. The independent variables were attitudes, subjective norm, perceived behavioral control, computer and Internet usage, and demographics. Computer and Internet usage was measured for computer expertise, hours spent online, and money spent online. Previous online purchases were also measured. Online purchases were measured for many product/service categories, adapted with minor variations from Kuntz (1997). Consumer demographic characteristics were measured for gender, age, occupation, income, marital status, and education. Additional demographic information was included regarding ethnicity, number of children in the house, and size of residence.

### Instrument Development

For the purpose of this study, the respondents were presented with the questionnaire regarding Internet shopping. The format of the behavioral intention components' scales followed the recommendations of Ajzen and Madden (1985). The first section assessed evaluations of 15 possible consequences of decisions regarding where to purchase.

The 15 attributes adapted from Seitz (1987) with minor changes included 24-hour access, access to a variety of brands from which to select, adequate sales information, convenience, ease of credit for guaranteed or defective merchandise, ease of navigation, ease of payment options, good customer service, good quality of the merchandise, reasonable price, reduced risks, time saved, up-to-date/fashionable items, variety of merchandise, and variety of services. Each of these outcomes was rated on a 7-point scale, with end points labeled 'very unimportant' and 'very important.' The following section in the questionnaire assessed the belief strength associated with each of the possible outcomes by means of a 7-point scale ranging from 'not at all' to 'very likely.' Thus the question, "How likely is it that shopping on the Internet will lead to saving time?" was rated on a scale ranging from 'not at all' to 'very likely.' The measure of behavioral belief with respect to each outcome was multiplied by the corresponding evaluation, and the sum over the 15 items served as a belief-based measure of attitude toward shopping online.

A more direct measure of attitude was obtained by means of a set of evaluative semantic differential scales. The idea "shopping online would be" was rated on two



bipolar adjective scales 'good – bad' and 'pleasant – unpleasant.' The sum of these two scales served as a measure of attitude.

Subjective norms were also assessed in two ways. The first measure was based on normative beliefs concerning any three referents (A, B, and C) important to the respondents. The strength of each normative belief “ ‘A’ would approve/disapprove your shopping online” was assessed on a 7-point 'disapprove' to 'approve' scale. Respondents also indicated their motivation to comply with each referent on a 7-point scale ranging from 'disagree' to 'agree' rating questions such as “in general, I want to do what ‘A’ thinks I should do.” Each normative belief score was multiplied by motivation to comply with the referent, and the sum of the products constituted the belief based measure of the subjective norm. The subjective norm was also measured in a more general fashion by requesting the respondents to indicate on a 7-point scale “how likely is it that most people who are important to you would think you should shop online” ranging from 'unlikely' to 'likely'. The respondents were also required to indicate on a 7-point scale “how likely is it that most people who are important to you would strongly approve of your shopping online” ranging from 'out of your control' to 'under your control'. The sum of scores for these two items served as a direct measure of the subjective norm.

To measure perceived behavioral control, 28 items were selected from the review of literature; these items were known to be of concern to the consumers. The items concerned privacy, reliability of the retailer, product attributes, and many other issues. On a 7-point scale respondents rated each perceived power item as being 'very unimportant' to 'very important'. The 28 items were: (1) word-of-mouth, (2) virtual tour/experience, (3) unrestricted access to the Internet, (4) trained, licensed raters to personally inspect and

evaluate products, (5) toll-free complaint hotlines, (6) three dimensional product simulations, (7) specially designed “trial stores”, (8) product/company information, (9) privacy assurance, (10) online club membership benefits, (11) no or low shipping and handling charges, (12) money-back guarantees, (13) knowing what personal information is collected and how it is used, (14) information on reliability of the seller, (15) give-aways, (16) frequent visitor points, (17) free trials, (18) fast delivery time, (19) familiarity with online purchase procedures, (20) entertainment, (21) credit card security, (22) coupon redeemable online, (23) cheaper prices than retail stores, (24) access to a major credit card, (25) ability to inspect and update information collected by the vendor, (26) ability to examine merchandise, (27) ability to communicate with the vendor, and (28) ability to choose whether vendors can obtain or resell data about you. The respondents were also asked to indicate how likely it was that the lack of the above mentioned 28 items would prevent them from shopping online. These control belief items were rated on a 7-point scale ranging from ‘very unlikely’ to ‘very likely’. Each perceived power was multiplied by the corresponding control belief, and the sum of the products constituted the measure of perceived behavioral control. This variable was also measured directly by requesting the respondents to indicate on a 7-point scale “if they had access to the Internet, shopping online in the next six months would be” ranging from ‘difficult’ to ‘easy.’ The same question was also rated on a 7-point scale ranging from ‘out of your control’ to ‘under your control’ and the sum of scores for these two items served as the direct measure of perceived behavioral control.

To explore the familiarity with computer and Internet shopping, four items were included in the survey. The first question gauged the respondent's perception of his/her

computer ability. This was measured on a 7-point semantic differential scale from ‘a beginner’ (1) to ‘an expert’ (7) at its two opposite ends. The next three questions were adapted from Kuntz (1997). One of the questions required the respondents to indicate the average number of hours they spent weekly over the Internet. This item was measured using the following levels: (1) less than 5, (2) 5-10, (3) 11-15, (4) 16-20, (5) 21-25, (6) more than 25. Another question examined the previous purchases on a 7-point scale ranging from ‘never’ to ‘6 or more times.’ This question also included a column on future purchase intentions measured on a 7-point ‘very unlikely’ to a ‘very likely’ scale. The product categories for purchases from the Internet were categorized into these areas: (1) Auto/automotive products, (2) Books, magazines or greeting cards, (3) Business services, (4) Clothing jewelry or accessories, (5) College services/education, (6) Computer software or hard ware, (7) Electronics - TV, VCR, CD player, (8) Entertainment or leisure, (9) Financial services, (10) Flowers, (11) Food and drinks, (12) Furniture and home furnishings, (13) Health and beauty product, (14) Information, (15) Legal services, (16) Real estate/Mortgage lending, (17) Music tape or CD, (18) Pharmaceuticals, (19) Collectibles/arts and crafts, (20) Travel related products/services, and (21) Other. Finally, the respondents were asked to indicate the amount of money they have spent online in the past 6 months. The response categories included: (1) \$100 or less, (2) \$101-\$300, (3) \$301-\$500, (4) \$501-\$700, and (5) \$701 or more.

Consumer demographic characteristics were measured for gender, age, occupation, income, marital status, and education. Additional demographic information included ethnicity, number and age of children in the house, and size of residence. Age was measured in seven levels as follows: (1) 18-24, (2) 25-29, (3) 30-34, (4) 35-44, (5)

45-54, (6) 55-64, and (7) 65 and over. Income was measured as total household income in the past year, before taxes. The scale included six levels: (1) less than \$9,999, (2) \$10,000-\$29,999, (3) \$30,000-\$49,999, (4) 50,000-\$69,999, (5) 70,000-\$89,999, (6) 90,000 - and over. Marital status was measured in three categories: (1) single/never married, (2) married/living with a partner, and (3) separated/widowed/divorced. A respondent's education was measured in six categories: (1) high school or less, (2) some college, (3) associate or two year college degree, (4) bachelor's degree, (5) graduate degree (Master's, Ph.D., etc.), and (6) other. Additional demographic information included in the survey regarded ethnicity, as measured in five categories: (1) Native American, (2) African American, (3) Asian, (4) Hispanic, (5) Caucasian, and (6) Other. Since previous research studies (e.g., Kuntz, 1997) regarding selection of alternative shopping mediums have included presence of children in the home, this item was included in this survey. The respondents were required to indicate the number of children living with them in five categories: (1) none, (2) under 6 years old, (3) 6 to 11 years old, (4) 12 to 17 years old, and (5) 18 years and older. Occupation was measured in 11 categories, adapted from the SRI VALS2 online survey (SRI International, 1995). The categories of occupation included in this item were: (1) professional or technical, (2) manager or administrator, (3) machine operator or laborer, (4) government or military worker, (5) farmer/agriculture, (6) clerical worker, (7) service worker, (8) student, (9) sales worker, and (10) education. The last category in the form of "other" was included to accommodate for any other occupation not listed above. A final question regarding size of residence was adapted from Mitchell (1983), to determine urban versus rural location of subjects. The categories of measurement for this item included: (1) large central city (250,000 or more), (2)

medium central city (250,000 or more), (3) suburb of large central city, (4) suburb of medium central city, (5) small city, town or village.

The instrument items by variable and type of data are summarized in Table 2.

Table 2. Summary of Instrument Items by Variable and Type of Data.

Variable	Measures	Instrument Item(s)	Type of Data
Independent	Attitude	I: 3	Interval
	Behavioral beliefs	I: 2	
	Evaluation of consequences	I: 1	
Independent	Subjective norm	I: 4	Interval
	Normative belief	I: 8.	
	Motivation to comply	I: 8.	
Independent	Perceived behavioral control	I: 5	Interval
	Perceived power	I: 6	
	Control belief	I: 7	
Independent	Computer use	II: 1, 2	Interval
	Money spent online	II: 4	Interval
Dependent	Behavioral Intention	II: 3ii	Interval
Independent	Past Behavior	II: 3i	Interval
Independent	Demographics	III: 1, 4, 6, 8, 9	Nominal
		III: 2, 3, 7	Interval
		III: 5	Ordinal

### Population and Sample

The population consisted of adults (over the age of 18) living in the United States who have access to the Internet. A mailing list (n = 3000) of people who have a computer at home and have access to the Internet was purchased. This list was purchased from a mailing list broker, having a nationwide database of addresses of respondents who had

indicated that they owned a computer and had access to Internet. A sample of 3000 addresses was randomly selected from this nationwide database.

#### Data Collection

A pilot study was conducted in October 1999 (n = 30). Most of the respondents were university students. Some changes were made to the survey instrument based on the comments of the respondents. The actual data were collected in November – December, 1999. A total of 3,000 surveys were mailed to Internet users from the mailing list. After a week, follow-up postcards were mailed to the same set of 3,000 addresses. The survey was also placed online and publicized in 12 Internet related newsgroups. The link to the survey was also provided on the follow-up postcards.

#### Data Analysis

At the end of December, 1999 a total of 340 responses were received by mail, 275 of which were usable. Thirty-eight respondents who received surveys by mail went online and responded online, of these, 28 were usable. The 20 responses from people who heard about the survey through newsgroups were not included in the analysis because their demographic characteristics were significantly different from the mail survey respondents. The total number of cases analyzed was 303, giving a response rate of 10.10%.

The data collected for this study were analyzed using the Statistical Package for the Social Sciences (SPSS). The summary of statistical tests used for analysis of data is presented in Table 3. The external variables, demographic characteristics and personal variables, of the respondents were summarized using descriptive statistics.

For some of the analysis requiring interval data, the demographic variable, gender, was coded as dummy variable (0 = male, and 1 = female). The most frequent response for annual household income was over \$90,000; this could be because the mailing list purchased consisted of individuals owning a computer, which puts them in a higher income bracket.

Marital status was also coded as a dummy variable (0 = married/living with a partner, and 1 = single/separated/widowed) for some of the analysis. Analysis involving education excluded the response category “other.” Ethnicity and occupation were not included in further analysis because responses were clustered around a few response categories. Most of the respondents were Caucasian (87.80%) and indicated their occupational category as either professional/technical (50.50%), or manager/administrator (24.10%).

Data reduction techniques were applied to several of the variables to convert the individual variable items into manageable factors. The fifteen items measuring attitude were reduced to factors by principal components factor analysis. The twenty-eight items measuring perceptions of behavioral control were also reduced to factors by principal component factor analysis.

To investigate the relationship between previous purchase and future behavioral intention, multiple correlations were conducted for all the twenty product and service categories. These product and service categories were also factor analyzed. Multiple regression analysis was performed to predict the three sub-components of behavioral intention (attitude, subjective norm and perceived behavioral control) in terms of demographic variables (gender, age, income, marital status, education, number of

children living at home, and size of residence) and other personal variables (computer expertise, hours spent online, and amount of money spent online). Regression analysis was also performed to predict behavioral intention in terms of its three subcomponents (attitude, subjective norm and perceived behavioral control), demographic variables (gender, age, income, marital status, education, number of children living at home, and size of residence) and other personal variables (computer expertise, hours spent online, and amount of money spent online).

Table 3. Summary of Statistical Tests Used for Data Analysis

Independent Variables	Dependent Variables	Statistical Procedures
Demographics		Descriptive
Personal variables		Descriptive
Attitude		Factor analysis
Perceived behavioral control		Factor analysis
Previous purchases	Future purchase intentions	Correlation
Products and services		Factor analysis
Demographics	Attitudes Subjective Norms Perceived Behavior Control	Multiple regression
Attitude Subjective norm Perceived Behavioral Control Demographic variables Personal Variables Previous purchases	Behavioral Intentions	Regression analysis
Demographic variables Personal Variables	Behavioral Intention (High and low)	Discriminant analysis



Discriminant analysis was performed to compare high behavioral intention (BI) and low BI of online shopping on demographic variables (gender, age, income, marital status, education, number of children living at home, and size of residence) and other personal variables (computer expertise, hours spent online, and amount of money spent online).

## RESULTS

### Descriptive Statistics of Demographics and Other Variables

#### Consumer Demographics

A demographic profile of the respondents, summarized in Table 4, indicates that 51.50% of the respondents were 45 to 54 years of age. More of the respondents were males, 70% versus 30% females. The annual household income indicated by the respondents was \$90,000 or over for about 67.10% of the respondents, followed by \$70,000 to \$89,999 for 15.40% of the respondents. Ninety-three percent of the respondents were married or living with a partner. There was not much ethnic diversity among the respondents, indicated by the fact that 87.80% were Caucasian. Overall the education level of the respondents was high, more than 70% indicated either a bachelor's or a graduate degree. About a quarter of the respondents, 22.40% reported no children at home, while little over 60% reported having either one or two children at home. The most frequently reported occupational category was professional or technical (50.50%), followed by manager or administrator, 24.10%. The size of residence most commonly reported, was suburban of large central city (31.70%), followed by small city/town or village, large central city and medium central city at 27.40%, 19.10% and 16.50% respectively.

Table 4. Demographic Characteristics of the Respondents

Variables	Frequency (N = 303)	Percent
<b>Gender</b>		
Male	212	70.00
Female	91	30.00
<b>Age</b>		
18 – 24 years old	3	1.00
25 – 29	4	1.30
30 – 34	21	6.90
35 – 44	84	27.70
45 – 54	156	51.50
55 – 64	33	10.90
65 and over	1	0.30
<b>Annual Household Income</b>		
Less than \$9,999	0	0.00
\$10,000 - \$29,999	1	0.30
\$30,000 - \$49,999	15	5.00
\$50,000 - \$69,999	35	12.00
\$70,000 - \$89,999	45	15.40
\$90,000 and over	196	67.10
<b>Marital Status</b>		
Single/never married	7	2.30
Married/living with a partner	282	93.10
Separated/widowed/divorced	14	4.60
<b>Education</b>		
High school or less	19	6.30
Some college	17	5.60
Associate or two year college degree	32	10.60
Bachelor's degree	104	34.30
Graduate degree	131	43.20
<b>Ethnicity</b>		
Native American	6	2.00
African American	6	2.00
Asian	9	3.00
Hispanic	8	2.60
Caucasian	266	87.80
Other	7	2.30

(table continues)

Table 4. (continued)

Variables	Frequency (N = 303)	Percent
Number of Children Living with you		
0	68	22.40
1	92	30.40
2	104	34.30
3	30	9.90
4	8	2.60
5	1	0.30
Current Occupation		
Professional or Technical	153	50.50
Manager or Administrator	73	24.10
Machine operator or Laborer	3	1.00
Government or Military worker	14	4.60
Farmer/Agriculture	1	0.30
Clerical worker	4	1.30
Student	4	1.30
Sales worker	7	2.30
Education	13	4.30
Other	31	10.20
Size of Residence		
Large central city	58	19.10
Medium central city	50	16.50
Suburban of Large central city	96	31.70
Suburban of Medium central city	15	5.00
Small city/town or village	83	27.40

#### Other External Variables

Other personal variables are summarized in Table 5. As is evident from Table 5, a little more than 60% of the respondents indicated that they spend less than 5 or 5-10 hours a week online. Some 15.50% spend 11-15 hours while about 10.90% spend more than 25 hours online. Thirty-three percent of the respondents spent less than \$100 online in the last six months, on the other hand, 28.10% spent more than \$700 online. Responses indicated that 15.20% spent \$101-\$300 and 16.20% spent \$301-\$500 online. Computer

experience was measured on a 7-point scale ranging from ‘beginner’ to ‘expert’, 10.60% of the respondents marked either 1 or 2, while 32.00% marked 6 or 7 indicating a high level of computer literacy.

Table 5. Descriptive Statistics of Other External Variables

Other Variables	Frequency (N = 303)	Percent
Hours per week spent online		
Less than 5	89	29.40
5 – 10	95	31.40
11 – 15	47	15.50
16 – 20	24	7.90
21 – 25	15	5.00
More than 25	33	10.90
Money spent online		
\$100 or less	100	33.00
\$101 - \$300	46	15.20
\$301 - \$500	49	16.20
\$501 - \$700	22	7.30
\$701 or more	85	28.10
Computer Experience		
1 – Beginner	13	4.30
2	19	6.30
3	35	11.60
4	56	18.50
5	83	27.40
6	74	24.40
7 – Expert	23	7.60

### Factor Analysis

#### Consumer Attitudes

Principal components factor analysis; using the alpha method with varimax rotation was performed on the 15 individual items of the attitude scale. As summarized in Table 6, the individual items loaded on two separate factors with Eigen values greater than 1, which together explained 56.92% of the variance. Factor loadings range from 0.57 to 0.82. Factor 1, Product/Convenience was composed of six items of attitude, access to a

variety of brands, good quality of the merchandise, convenience, up-to-date fashionable items, reasonable price, and saving time. The Cronbach's alpha for this factor was 0.82.

Factor 2, Customer Service included five items of attitude - ease of credit for returned merchandise, good customer service, ease of payment options, ease of navigation and reduced risks. The Cronbach's alpha for this factor was 0.87. Four items were excluded because either they loaded on both the factors or their factor loading was less than 0.50. These four items were: (1) 24-hour access, (2) adequate sales information, (3) good quality of the merchandise, and (4) variety of service. The two factors reflect different issues important to respondents regarding their attitude towards online shopping. The mean score for these factors indicate that Product/convenience related attitudinal factor was more favorable than Customer Service regarding online shopping.

Table 6. Factor Analysis of Attitude

Factors	$\alpha$	Eigen-value	Variance	Factor Loading
<u>Items measuring attitude</u>				
Product/convenience	0.82	7.45	28.78	
Access to a variety of brands				0.82
Good quality of the merchandise				0.80
Convenience				0.66
Up-to-date/fashionable items				0.62
Reasonable price				0.62
Saving time				0.57
Customer Service	0.87	1.09	28.14	
Ease of credit for returned merchandise				0.81
Good customer service				0.80
Ease of payment options				0.79
Ease of navigation				0.68
Reduced risks				0.63

#### Perceptions of Behavioral Control

The indirect measure of perceived behavioral control was obtained from summing the product of each of the 28 items of perceived power with its corresponding control

belief item. Prior to the summation the 28 products were subject to principal component factor analysis with varimax rotation, resulting in five factors. Table 7 presents these five factors with Eigen values greater than one, which together explain 60.22% of the variance. Factor loadings ranged from 0.53 to 0.85.

Factor 1, Purchase and Delivery retained six items: cheaper prices than retail stores, shipping and handling charges, money back guarantees, credit card security, access to major credit card, and delivery time. The internal consistency (reliability characteristics) of each factor was measured by Cronbach's coefficient alpha. The coefficient alpha of factor 1 was 0.89.

Factor 2, Reliability of Vendor was composed of seven items: resell personal information, collection and use of personal information, information on reliability of the seller, inspect/update information collected by vendor, privacy assurance, toll-free complaint hotlines, and communicate with the vendor. The Cronbach's alpha of factor 2 was 0.81.

The third factor, Promotional Offers, included five items: free give-away, frequent visitor points, free trials, online club membership, and, entertainment. The Cronbach's alpha of factor 3 was 0.87.

The fourth factor was named Product Attribute. The items loading under this factor were specially designed "trial stores", word-of-mouth endorsements, virtual tour and/experience, and, 3-dimentional product simulations. The Cronbach's alpha of factor 4 was 0.74.

The fifth factor, Access, included two items: access to the Internet, and raters. The coefficient alpha of factor 5 was 0.55. Four items were excluded because either they

loaded on two factors or their factor loading was less than 0.50. These items were: (1) product/company information, (2) familiarity with online purchase procedures, (3) coupon redeemable online, and (4) ability to examine merchandise.

Table 7. Factor Analysis of Perceptions of Behavioral Control

Perceptions of Behavioral Control	$\alpha$	Eigenvalue	Variance	Factor Loading
Purchase and Delivery	0.89	9.33	17.07	
Cheaper prices than retail stores				0.80
Shipping and handling charges				0.77
Money back guarantees				0.74
Credit card security				0.73
Access to major credit card				0.70
Delivery time				0.63
Reliability of Vendor	0.87	3.85	15.68	
Resell personal information				0.76
Collection and use of personal information				0.74
Information on reliability of the seller				0.70
Inspect/update information collected by vendor				0.69
Privacy assurance				0.60
Toll-free complaint hotlines				0.54
Communicate with the vendor				0.52
Promotional Offers	0.81	1.35	12.39	
Free Give-away				0.85
Frequent visitor points				0.83
Free trials				0.71
Online club membership benefits				0.64
Entertainment (cool graphics; links to interesting activities)				0.61
Product Attribute	0.74	1.23	9.46	
Specially designed “trial stores”				0.68
Word-of-mouth endorsement				0.67
Virtual tour/experience				0.67
3-Dimensional product simulations				0.67
Access	0.55	1.11	5.64	
Access to the Internet				0.78
Raters to inspect and evaluate products				0.53



As is indicated by the mean scores, perception of behavioral control was highest for Product Attributes; followed by Promotional Offers, Access, Reliability of Vendor and Purchase and Delivery, respectively. Further analysis involving perceptions of behavioral control were conducted using the five factors (Reliability of Vendor, Promotional Offers, Purchase and Delivery, and Product Attribute) derived earlier.

### Behavioral Intention

#### Previous Purchases and Future Purchase Intentions

Respondents indicated their previous purchases and future purchase intentions for the twenty product and service categories. Pearson correlations were used to determine significant relationships between previous purchases and future purchase intentions.

Table 8. Correlation Between Previous Purchases and Future Purchase Intentions for Products and Services.

Products and services	Correlation coefficients (n =303)
Autos/automotive products	0.51**
Books, magazine or greeting cards	0.64**
Business services (Consumer research, Communication)	0.68**
Clothing, jewelry or accessories	0.68**
College services/education	0.57**
Computer software or hard ware	0.59**
Electronics - TV, VCR, CD player, etc.	0.59**
Entertainment or leisure	0.49**
Financial services (Tax returns, Stocks, Home banking)	0.64**
Flowers	0.76**
Food and drinks (groceries/ meals)	0.45**
Furniture and home furnishings	0.49**
Health and Beauty products	0.50**
Information (Credit history reports, Survey reports)	0.64**
Legal services	0.54**
Real estate/Mortgage lending	0.34**
Music tape or CD	0.65**
Pharmaceuticals	0.58**
Collectibles/arts and crafts	0.52**
Travel related products/services	0.62**

\*p<.05, \*\*p<.01, \*\*\*p<.001.

In this analysis all twenty items showed significant correlation, with the correlation coefficients ranging from 0.34 for real estate/mortgage lending, to 0.76 for flowers. All the correlation coefficients were significant at the .01 level. The implications from this finding could be that the online purchase experience in most of the product categories was favorable for the respondents. Since there is a positive correlation between previous and future purchase intentions it can be concluded that an important issue is to get the consumer to make the first online purchase.

#### Products and Services Purchased Online

Factor analysis, using Alpha method with varimax rotation, was employed to more efficiently analyze the product categories and develop patterns of products, which can be compared and analyzed together. Table 7 presents the results of this analysis. The products load on four factors having an Eigen value more than one, explaining 58.85% of the variance. Factor loadings ranged from 0.55 to 0.78. Factor 1, Personal Products was composed of five items: music tape or CD, health and beauty products, clothing and jewelry or accessories, collectables/arts and crafts, and flowers. All these are products that heavily rely on personal preferences and can be purchased alone. The second Factor, Specialty Products, included five items: computer software or hardware, entertainment or leisure, electronics – TV, VCR, CD player, financial services, and travel related products/services. The properties common to all these products and services is that the consumer does not have to actually see these products to make a purchase decision. It is possible in most cases to get the required information online to make the purchase decision. Factor 3, Information Intensive retained four items: legal services, real estate/mortgage lending, information, and business services. The common features here

are that, on an average, most of these products or services are purchased based on intensive information research. The fourth factor was named Household Products. The items loading under this factor were food/drinks, and, furniture/home furnishings. Four items were excluded because either they loaded on two factors or their factor loading was less than 0.50. These four items were: (1) autos/automotive products, (2) business services, (3) college services/education, and (4) flowers.

Table 9. Factor Analysis of Products and Services Purchased Online

Products or Services	$\alpha$	Eigen-value	Variance	Factor Loading
Personal	0.80	8.05	17.79	
Music tape or CD				0.70
Health and Beauty Products				0.66
Clothing, jewelry or accessories				0.65
Collectables/arts and craft				0.61
Flowers				0.55
Specialty	0.82	1.50	17.77	
Computer software or hardware				0.67
Entertainment or leisure				0.65
Electronics – TV, VCR, CD player				0.65
Financial services (Tax return, Stocks)				0.64
Travel related products/services				0.59
Information Intensive	0.75	1.19	14.07	
Legal services				0.78
Real estate/Mortgage lending				0.71
Information (Credit history reports, Survey reportS)				0.62
Business services (Consumer research)				0.56
Household	0.72	1.03	9.22	
Food and drinks (groceries and meals)				0.78
Furniture and home furnishings				0.55

Many respondents indicated having purchased and intending to purchase toys over the Internet. This response was made in the “other” category, which was not included in the factor analysis. Behavioral intention of shopping online was highest for

Specialty Product category followed by Personal, Information Intensive and Household Products respectively, as indicated by their mean scores.

#### Prediction of Behavioral Intention

Multiple regression analysis was performed to predict the three sub-components of behavioral intention (attitude, subjective norm and perceived behavioral control) in terms of demographic and other personal variables. The final equation for attitude had an  $R^2$  value of 0.22 ( $F = 8.00, p < 0.001$ ) and was predicted by three specific variables (Table 10). Gender, computer expertise, and amount of money spent online came out to be significant predictors of attitude towards online shopping. None of the other variables were significant. As Table 10 reveals, the relationship between subjective norm and the demographic and the personal variables is not significant ( $p > 0.05$ ); they are not significant predictors of subjective norm. The equation for perceived behavioral control (PBC) had an  $R^2$  value of 0.15 ( $F = 5.00, p < 0.001$ ) and was predicted by three variables. Age, computer expertise and amount of money spent online came out to be significant predictors of perceived behavioral control towards online shopping. None of the other variables were significant.

Further correlation analysis between attitude and gender ( $r = 0.14, p < .05$ ) revealed that female respondents had a more favorable attitude towards online shopping. Correlation between attitude and computer experience ( $r = 0.22, p < .001$ ) indicates that if a consumer is adept with computers, his/her attitude towards online shopping is likely to be more favorable. Similar results are also obtained from the correlation between attitude and amount of money spent online ( $r = 0.36, p < .001$ ).

The lack of predictor variables for subjective norm can be attributed to the fact that fewer people acknowledge today that they are influenced by other people's opinions. This was also evident from many comments made by the respondents on the survey to the effect that "I don't care what other people think", next to the question dealing with the motivation to comply with referents.

Table 10. Regression Analysis: Predictors of Attitude, Subjective Norm and Perceived Behavioral Control.

External Variables	Attitude	Subjective norm	Perceived Behavioral Control
1. Demographics			
Gender	0.14*		
Age			-0.14*
Income			
Marital status			
Education			
Number of children living at home			
Size of residence			
2. Personal			
Computer expertise	0.13*		0.18**
Hours spent online			
Amount of money spent online	0.32***		0.23***
Final Statistics			
R	0.47	0.19	0.39
SS	449.27	12849.60	262.37
df	10.00	10.00	10.00
MS	44.93	1284.96	26.24
F	8.00***	1.01	5.00***
R <sup>2</sup>	0.22	0.04	0.15
Adjusted R <sup>2</sup>	0.20	0.00	0.12

\*p<.05, \*\*p<.01, \*\*\*p<.001.

Multiple regression analysis was also performed to predict behavioral intention for the four, product/service categories (Personal, Convenience, Informative Intensive and Household) in terms of its three subcomponents (attitude, subjective norm and

perceived behavioral control), demographic and other personal variables. The final equation for behavioral intentions of each of these product categories is summarized in Table 11.

Table 11. Regression Analysis: Predictors of Behavioral Intentions of Shopping Online

Variable	Personal	Specialty	Information Intensive	Household
1. Internal variables				
Attitude Factors				
▪ Product/convenience	0.18**			
▪ Customer service				
Subjective Norm	0.12*	0.12*		
Perceived Behavioral Control Factors				0.19*
▪ Purchase and delivery				
▪ Reliability of vendor				0.13*
▪ Promotional Offers				
▪ Product Attributes				
▪ Access				
2. Demographics				
Gender		-0.10*		
Age				
Income				
Marital status				
Education				
Number of children living at home				
Size of residence				
3. Other variables				
Computer expertise				
Hours spent online				
Amount of money spent online				-0.12*
Previous purchases	0.56***	0.55***	0.55***	0.44***
Final Statistics				
R	0.69	0.72	0.62	0.60
SS	275.60	380.98	183.71	211.45
df	19.00	19.00	19.00	19.00
MS	14.51	20.05	9.67	11.13
F	11.70***	14.50***	8.06***	7.33***
R <sup>2</sup>	0.47	0.52	0.38	0.36
Adjusted R <sup>2</sup>	0.43	0.49	0.33	0.31

\*p<.05, \*\*p<.01, \*\*\*p<.001.

The equation for BI regarding Personal Products had an  $R^2$  value of 0.47 ( $F = 14.51, p < 0.001$ ) and was predicted by Product/Convenience related attitudinal factor, subjective norm and previous purchases. The other variables were not significant predictors. The equation for BI regarding Specialty Products had an  $R^2$  value of 0.52 ( $F = 14.50, p < 0.001$ ) and was predicted by subjective norm, gender and previous purchases. The negative sign of beta for gender suggests that male respondents reported a higher intention to purchase Specialty Products online as compared to females. The other variables were again found not to be significant predictors. As Table 11 reveals the equation for BI regarding Information Intensive Products/Services had an  $R^2$  value of 0.38 ( $F = 8.06, p < 0.001$ ) and was predicted by previous purchases only. The other variables were not significant predictors. The equation for BI regarding Household products had an  $R^2$  value of 0.36 ( $F = 7.33, p < 0.001$ ) and was predicted by two of the perceptions of behavioral control factors: Purchase and Delivery and Promotional Offers. It was also predicted by amount of money spent online and previous purchases. The other variables were again found not to be significant predictors.

The results of further correlation analysis between behavioral intention of the four, product/service categories (Personal, Specialty, Information Intensive and Household) and its three subcomponents (attitude, subjective norm and perceived behavioral control), demographic and other personal variables are presented in Table 12. Correlations between previous purchases and future purchase intentions were strongest among all correlations. Some demographic variables are not correlated with any of the four product purchase intentions. The correlations of age: income, number of children living at home, and size of residence, with intentions were insignificant. The correlation

between gender and BI regarding Personal and Household Products, 0.15 ( $p < .01$ ) and 0.13 ( $p < .05$ ), indicates that females have higher intention to shop online in these product categories. Single respondents with more computer expertise have indicated a higher intention to shop online in Personal and Specialty product categories.

Table 12. Correlation Analysis: Predictors of Behavioral Intentions of Shopping Online

Variable	Personal	Specialty	Information Intensive	Household
1. Internal variables				
Attitude Factors				
▪ Product/convenience	0.36**	0.25**	0.21**	0.21**
▪ Customer Service	0.32**	0.23**	0.26**	0.26**
Subjective Norm	0.37**	0.35**	0.19**	0.23**
Perceived Behavioral Control Factors				
▪ Purchase and Delivery	0.14**	0.20**	0.17**	0.25**
▪ Reliability of Vendor	0.18**	0.24**		0.19**
▪ Promotional Offers	0.26**	0.19**	0.16**	0.25**
▪ Product Attributes	0.23**	0.26**		0.18**
▪ Access	0.12*	0.19**		
2. Demographics				
Gender	0.15**			0.13*
Age				
Income				
Marital status	0.14*	0.13*		
Education				
Number of children living at home				
Size of residence				
3. Other variables				
Computer expertise	0.12*	0.30**		
Hours spent online	0.25**	0.29**	0.14*	0.15*
Amount of money spent online	0.32**	0.49**	0.16**	
Previous purchases	0.63**	0.66**	0.56**	0.49**

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

### High Behavioral Intention Versus Low Behavior Intention

Discriminant analysis was performed to compare high behavioral intention (BI) and low BI of online shopping on three subcomponents BI (attitude, subjective norm and perceived behavioral control), demographic (gender, age, income, marital status,



education, number of children living at home, and size of residence) and other personal variables (computer expertise, hours spent online, amount of money spent online, and previous purchases).

The respondents indicating 1, 2 or 3 as an average response for future behavior intention (averaged over all 20 product/service categories) were classified as low BI and those responding as 5, 6 or 7 as high BI (Shim & Drake, 1990). The rest were classified as unsure and not included in further analysis. There were 22.80% unsure (n = 35), 65.70% low BI (n = 199) and 11.60% high BI (n = 69). Since the groups had very uneven distribution the implications from this analysis should be viewed with caution.

Nine variables appear to discriminate respondents of high BI from low BI of shopping online, as indicated in Table 13. The first variable was the attitudinal factor, Product/Convenience. The results indicated that the respondents having high BI had significantly more favorable attitude than the other group. The second variable was the attitudinal factor, Customer Service. The results indicated that the respondents having high BI had significantly more favorable attitude than the other group in this regard.

Subjective norm scores were also significantly higher for high BI group. Three of the five factors of PBC varied for the two groups. Specifically the Purchase and Delivery, Promotional Offers and Product Attribute factors of PBC were found to be higher in high BI group. The two groups were not significantly different on any other demographic variable.

The rest of these discriminating variables were hours spent online, money spent online and previous purchases; high BI group indicated significantly higher scores for these variables. The nine variables as indicated by the discriminant analysis, correctly

distinguished high BI from low BI 90.70% of the time. From this analysis it can be concluded that the respondent having a high BI of shopping online in the next six months has a favorable attitude towards online shopping, thinks people who are important to him/her approve of it, and cares more about Purchase and Delivery, Promotional Offers and Product Attributes. This person is also likely to be spending 11 – 15 hours a week online. The high BI respondent had made on an average 2 – 3 previous purchases online spending about \$501 – 700 in the last six months.

Table 13. Discriminant coefficient, means, and standard deviations for demographic variables

Variables	Standardized canonical discriminant function coefficient	Means (SD)	
		Group I Low BI	Group II High BI
1. Internal variables			
Attitude Factors			
▪ Product/convenience	0.17***	33.42 (8.52)	38.98 (6.98)
▪ Customer service	-0.03**	26.65 (10.24)	32.49 (11.41)
Subjective Norm	0.19***	8.26 (3.27)	10.57 (2.84)
Perceived Behavioral Control Factors			
▪ Purchase and delivery	0.23*	9.37 (4.94)	11.76 (7.73)
▪ Reliability of vendor	-0.26	11.81 (6.05)	13.50 (6.66)
▪ Promotional Offers	0.06*	17.81 (6.80)	20.61 (7.06)
▪ Product Attributes	0.22*	18.57 (7.13)	21.92 (7.54)
▪ Access	-0.13	15.44 (7.56)	16.15 (8.06)
2. Demographics			
Gender		0.29 (0.46)	0.17 (0.38)
Age	-0.32	4.65 (0.92)	4.80 (0.76)
Income	0.04	5.41 (0.89)	5.60 (0.77)
Marital status	0.07	0.05 (0.23)	0.03 (0.18)
Education	0.00	4.03 (1.19)	3.80 (1.21)
Number of children living at home	-0.04	1.29 (1.01)	1.37 (1.13)
Size of residence	0.02	2.99 (1.48)	3.03 (1.40)
	-0.04		

(table continues)

Table. 13 (continued)

Variables	Standardized canonical discriminant function coefficient	Means (SD)	
		Group I Low BI	Group II High BI
3. Other variables			
Computer expertise	-0.10	4.54 (1.52)	5.10 (1.37)
Hours spent online	-0.22**	2.43 (1.54)	3.33 (1.84)
Amount of money spent online	0.11***	2.44 (1.52)	4.03 (1.59)
Previous purchases	0.87***	1.55 (0.62)	2.77 (1.19)
Centroid of the groups			
Group I (Low BI)			-0.27
Group II (High BI)			1.67
Canonical Correlations			
Wilks' lambda			0.56
Chi-square			0.69
			75.87***
Discriminant analysis classification results		Predicted Group Membership	
		Group I %	Group II %
	Group I (low BI)		
	Group II (high BI)		
Percent of grouped cases correctly classified		90.70%	
Gender		0 = male, 1 = Female	
Age		1 = 18 –24 to 7 = 65 and over	
Income		1 = less than \$9,999 to 6 = \$90,000 and over	
Marital status		1 = Married, 2 = Single/Divorced	
Education		1 = High school to less to 5 = Graduate degree	
Number of children living at home		0 = none to 6 = 18 or older	
Size of residence		1 = Large central city to 5 = small city	
Computer expertise		1 = beginner to 7 = expert	
Hours spent online		1 = less than 5 to 6 = more than 25	
Amount of money spent online		1 = \$100 or less to 5 = \$701 or more	

\*p<.05, \*\*p<.01, \*\*\*p<.001.

The following chapter summarizes the findings and provides implications for the retailer.

## SUMMARY AND DISCUSSION

The purpose of this study was to predict the consumer's behavior in regards to online shopping. These predictions were based on the consumer's attitudes, subjective norms, perceptions of behavioral control, demographic and personal characteristics. The Theory of Planned Behavior was used as theoretical framework with some minor modifications.

An average consumer's life is becoming more hectic everyday. People are seeking ways to simplify their life. The emphasis now is to do things faster and better. As a result of this trend, consumers may try new ways to do things like shopping. The new way to shop could be via Internet, as more and more people have access to the Internet now. How should retailers deal with this new development? Should they plan for an online presence or go ahead and start retailing online? Will the consumers accept this new format of retailing? What are the important features consumers want? These were some of the issues examined in this research.

Fifteen retailing medium characteristics were analyzed in terms of attitude towards shopping medium. Subjective norms were derived from three important referents. And perceptions of behavioral control were explored for 28 resources and inhibitors of online shopping. Previous purchases and future purchase intentions were analyzed across 20 product/service categories. Additionally, consumer demographics and other personal variables like computer experience, hours spent online, money spent online and previous purchases were also included.

The 15 items of attitude were factor analyzed to give meaningful groups for further analysis. Two factors resulted, Product/Convenience, and Customer Service. The 28 perceptions of behavioral intention were also reduced to five factors based on factor loading. These factors were: (1) Purchase and Delivery, (2) Reliability of Vendor, (3) Promotional Offers, (4) Product Attribute, and (5) Access. Factor analysis was also used to group products/services together, based upon the intention to purchase online in the next six months. These factors were: (1) Personal, (2) Specialty, (3) Information Intensive, and (4) Household Products/Services.

Analysis indicated that attitude towards online shopping can be predicted by three variables, gender, computer expertise and amount of money spent online. Respondents who had more experience with computers and had spent more money online had more favorable attitude towards online shopping. Female respondents also on an average had more favorable opinion. None of the variables studied came out to be significant predictors of subjective norm. Perceived behavioral control was predicted by three variables: age, computer experience, and amount of money spent online. Younger respondents had more perceived control. Experience of the computer and money spent online also correlated positively with perceptions of behavioral controls.

Intention to shop online for different product categories was predicted by different variables. BI regarding Personal Products was predicted by Product/Convenience (attitude factor), subjective norm and previous purchases. Intentions regarding Specialty Products were predicted by subjective norm, gender and previous purchases. Male respondents indicated higher intentions to purchase these products online. Information Intensive products did not have any significant predictors except for previous purchases.

Intentions regarding Household Products were predicted by perceptions of behavioral control in regards to Purchase and Delivery, as well as Promotional Offers. It was also predicted by amount of money spent online and previous purchases. Further correlation analysis indicated that females have higher intentions to shop online in Personal and Household product categories. Single respondents with more computer expertise have indicated a higher intention to shop online in Personal and Specialty product categories. Age, income, number of children living at home and size of residence were not insignificant predictors of BI.

There were 22.80% unsure, 65.70% low BI and 11.60% high BI. This could indicate that there is a big segment of market that can be targeted to influence their intention from unsure and low BI to high BI. The nine variables, Product/Convenience, Customer Service (attitude factors), Purchase and Delivery, Promotional Offers, Product Attribute (factors of PBC), subjective norm, hours spent online, money spent online and previous purchases appear to discriminate respondents of high BI from low BI of shopping online.

The implications from this study could be that the online purchase experience in most of the product categories was favorable for the respondents. Since there is a positive correlation between previous and future purchase intentions it can be concluded that an important issue is to get the consumer to make the first online purchase.

Behavioral intention of shopping online was highest for Specialty product category, which included products/services like: (1) computer software or hardware, (2) entertainment or leisure, (3) electronics – TV, VCR, CD player, (4) financial services (Tax return, Stocks), and (5) travel related products/services. Behavioral intention of

shopping online was second highest for Personal product category, which included products/services like: (1) music tape or CD, (2) health and beauty products, (3) clothing, jewelry or accessories, (4) collectables/arts and craft, and (5) flowers. This category was followed by Information Intensive products/services like: (1) legal services, (2) real estate/mortgage lending, (3) information (credit history reports, survey reports), and (4) Business services (consumer research). The product/service category with the least behavioral intention to shop in the next six months was Household Products, for example: (1) food and drinks and (2) furniture and home furnishings.

### Conclusions

Retailers seek to make a profit by serving the needs of customer groups. To retain the customer loyalty the customer's expectations should be met or exceeded. Understanding the customers' needs, characteristics, expectations and behavior is crucial for a marketing organization's success.

In this study, an attempt was made to determine whether external variables (demographic characteristics and personal variables) affect the consumers' attitudes, subjective norms and perceived behavioral control. This research indicates that attitude towards online shopping can be predicted by three variables, gender, computer expertise and amount of money spent online. Respondents who had more experience with computers and had spent more money online had more favorable attitude towards online shopping. Female respondents also had more favorable opinion. None of the variables studied came out to be significant predictors of subjective norm. This could also be because of the respondent's reluctance to acknowledge the influence of others in their decision making process. Perceived behavioral control was predicted by three variables:

age, computer experience, and amount of money spent online. Younger respondents had more perceived control. Respondents with more experience of the computer and who had spent more money online indicated higher perceptions of behavioral controls. In other words, familiarity with computers, and online purchase and payment procedures had a positive influence on the respondent's attitude and perceptions of behavioral control.

This study also explored whether consumers' behavioral intentions can be predicted by their attitude, subjective norm, perceived behavioral control, and external variables (demographic characteristics and personal variables). The predictor variables for different product/service categories were different. BI regarding Personal Products (music tape or CD, health and beauty products, clothing, jewelry or accessories, collectables/arts and craft, and flowers) was predicted by Product/Convenience (attitude factor), subjective norm and previous purchases. Intentions regarding Specialty Products (computer software or hardware, entertainment or leisure, electronics – TV, VCR, CD player, financial services (tax return, stocks), and travel related products/services) were predicted by subjective norm, gender and previous purchases. Male respondents indicated higher intentions to purchase these products online. Information Intensive Products (legal services, real estate/mortgage lending, information (credit history reports, survey reports), and Business services (consumer research)) did not have any significant predictors except for previous purchases. Intentions regarding Household Products (food and drinks, and furniture and home furnishings) were predicted by perceptions of behavioral control in regards to Purchase and Delivery, as well as Promotional Offers. It was also predicted by amount of money spent online and previous purchases. The demographic variables such as age, income, number of children living at home, and size



of residence were not significant predictors of behavioral intention. It is interesting to note that female respondents had higher intentions to shop online in Personal and Household product categories. Single respondents with more computer expertise had indicated a higher intention to shop online in Personal and Specialty product categories. These are important considerations for marketers while targeting and promoting their products.

The characteristics that differ between consumers having high-intention to shop online and low-intention consumers in terms of their attitude, subjective norm, perceived behavioral control, and external variables (demographic characteristics and personal variables) were also explored in this study. The nine variables, Product/Convenience and Customer Service (attitude factors), Purchase and Delivery, Promotional Offers and Product Attribute (factors of PBC), subjective norm, hours spent online, money spent online and previous purchases appear to discriminate respondents of high BI from low BI of shopping online. Working to make the online purchase experience very pleasant and satisfactory, the retailers can influence the perceptions of consumers. The retailers can also dispel the misconceptions the consumer has in regards to online purchase process, helping the consumer to make an online purchase.

The relationship between previous purchases and future purchase intentions were also investigated in this study. The results indicate that respondents who have made previous purchases have higher intentions of future purchases. This could be because their purchase experience met or exceeded their expectations. It becomes important to encourage the consumer to make the first purchase. The future purchases will follow.

Finally, an attempt was made to identify the product categories and services having a potential to be retailed online successfully from a consumer acceptance point of view. Behavioral intention of shopping online in the next six months was highest for Specialty Product category, indicating a higher potential of successful online retailing as compared to other product/service categories. Behavioral intention of shopping online was second highest for Personal Product category, followed by Information Intensive Products/Services. The product/service category with the least behavioral intention to shop in the next six months was Household Products.

From this study it can be concluded that the respondent having a high BI of shopping online in the next six months, (1) has a favorable attitude towards online shopping, (2) thinks people who are important to him/her would approve it, and (3) cares more about Purchase and Delivery, Promotional Offers and Product Attributes (factors of PBC). This person is also likely to be spending 11 – 15 hours a week online. The high BI respondent has made on an average 2 – 3 previous purchases online spending about \$501 – 700 in the last 6 months.

#### Study Limitations

The findings from this study may not be generalizable to the population as a whole, since the demographic characteristics were not normally distributed in the sample. The respondents were predominately in the age group of 45 – 54 years, 51.50%, approximately 67.10% were in the income group of \$90,000 or higher, and some 93% respondents were married or living with a partner. These percentages may be more representative of the population who are interested in Internet. However, the sample should be expanded to include other occupations, ages and income levels. Apart from this

variability the sample should also have international representation to be more representative of consumers with access to online shopping. Data collection method should include different ways to reach more consumer segments.

The behavior intention studied was for the next six months. If this time frame was increased the intentions could be higher. Also, the behavior studied was purchasing and not browsing for information. Retailers should also consider that respondents might be visiting sites to gather information and then purchase via traditional store format. Even if respondents have not indicated a high BI of online shopping for some product categories, they may still be searching for pre-purchase information. Having an online presence, even if actual retailing is not done online, can satisfy this need.

#### Recommendations for Future Research

Future studies could compare the differences between intentions of shopping online and demographics of people who respond to mail surveys with respondents who fill the survey out online. Having a broader sample will also lend itself to comparative analysis, facilitating market segmentation when retailing online.

The comments on the survey indicate that many respondents hesitate to acknowledge the influence of others in their decision making process. These hesitations may have led to some inaccurate measurements of subjective norm. Future studies may have to rephrase or refine these scales based on their pilot studies. Browsing behaviors online should also be examined. Many consumers have indicated a low BI to shop online in the next six months, but this does not indicate that they will not research their options online prior to making an actual purchase.

Retailers need to know how to segment the online population, target them better and be able to come up with effective product placement strategies that will give the organization a chance to compete effectively in the future. Internet is a relatively new retailing medium and much more research is required in this area to create exchanges that satisfy both individuals' and organizational goals.

## APPENDIX

## Sample Cover Letter

January 24, 2001

Dear consumer,

The School of Merchandising and Hospitality Management at University of North Texas, is conducting a survey **on consumers' attitudes and intentions regarding Internet shopping**. This research will help retailers to better understand the trends in consumer behaviors. Since you are an important consumer, we are requesting you to participate in this study by filling out the enclosed questionnaire.

Please complete the questionnaire and return it **within a week** in the stamped reply envelope provided. Your participation in this study is voluntary and all the responses will be kept **confidential**.

Please answer **all** the survey questions. Incomplete surveys have to be excluded from data analysis. This survey will take approximately 10 minutes of your time.

We value your opinion and we would like to thank you for taking time to fill out the survey. If you have any questions concerning this project, please do not hesitate to contact me at (940) 565-2439.

Sincerely,

Shefali Kumar  
Graduate student

Youn-Kyung Kim, Ph.D.  
Associate Professor

This project has been reviewed and approved by the University of North Texas Institutional Review Board for the Protection of Human Subjects in Research 940/565/3940.

## Survey Instrument

### Section I - Consumer Survey of Shopping Intentions

This section deals with your opinion and preferences regarding shopping. *(Please circle the answer of your choice).*

1. How **IMPORTANT** is each of the following items when you decide “**where to purchase**”?

(Where to purchase: store, catalogue, TV/Cable, Internet)

	Very Unimportant				Very Important			
24-Hour access	0	1	2	3	4	5	6	
Access to a variety of brands	0	1	2	3	4	5	6	
Adequate sales information	0	1	2	3	4	5	6	
Convenience	0	1	2	3	4	5	6	
Ease of credit for guaranteed or defective merchandise	0	1	2	3	4	5	6	
Ease of navigation (Flipping catalogue, moving in store, clicking links)	0	1	2	3	4	5	6	
Ease of payment options	0	1	2	3	4	5	6	
Good customer service	0	1	2	3	4	5	6	
Good quality of the merchandise	0	1	2	3	4	5	6	
Reasonable Price	0	1	2	3	4	5	6	
Reduced risks (personal safety)	0	1	2	3	4	5	6	
Saving time (no queues, no traffic)	0	1	2	3	4	5	6	
Up-to-date/fashionable items	0	1	2	3	4	5	6	
Variety of merchandise	0	1	2	3	4	5	6	
Variety of services (Mall: banking, hair care, medical in one place)	0	1	2	3	4	5	6	

2. How **LIKELY** is it that shopping on the **INTERNET** will lead to:

	Not at all			Very likely			
24-Hour access	0	1	2	3	4	5	6
Access to a variety of brands	0	1	2	3	4	5	6
Adequate sales information	0	1	2	3	4	5	6
Convenience	0	1	2	3	4	5	6
Ease of credit for guaranteed or defective merchandise	0	1	2	3	4	5	6
Ease of navigation (clicking links)	0	1	2	3	4	5	6
Ease of payment options	0	1	2	3	4	5	6
Good customer service	0	1	2	3	4	5	6
Good quality of the merchandise	0	1	2	3	4	5	6
Reasonable Price	0	1	2	3	4	5	6
Reduced risks (personal safety)	0	1	2	3	4	5	6
Saving time (no queues, no traffic)	0	1	2	3	4	5	6
Up-to-date/fashionable items	0	1	2	3	4	5	6
Variety of merchandise	0	1	2	3	4	5	6
Variety of services (Mall: banking, hair care, medical in one place)	0	1	2	3	4	5	6

3. Shopping online would be:

<b>Bad</b>	__ : __ : __ : __ : __ : __ : __	<b>Good</b>
<b>Unpleasant</b>	__ : __ : __ : __ : __ : __ : __	<b>Pleasant</b>

4. How likely is it that most people who are important to me would:

think you should shop online: **Unlikely**    \_\_ : \_\_ : \_\_ : \_\_ : \_\_ : \_\_ :    **Likely**

—

strongly approve of your shopping online: **Unlikely**    \_\_ : \_\_ : \_\_ : \_\_ : \_\_ : \_\_ :    **Likely**

—

5. If you had access to the Internet, **shopping online** in the **next 6 months** would be:

<b>Difficult</b>	__ : __ : __ : __ : __ : __ : __	<b>Easy</b>
<b>Out of your control</b>	__ : __ : __ : __ : __ : __ : __	<b>Under your control</b>



6. How **IMPORTANT** would each of the following items be for you to **PURCHASE** over the **internet**?

	Very Unimportant			Very Important			
	0	1	2	3	4	5	6
Word-of-mouth endorsements from other users	0	1	2	3	4	5	6
Virtual tour/experience	0	1	2	3	4	5	6
Unrestricted access to the Internet	0	1	2	3	4	5	6
Trained, licensed raters to personally inspect & evaluate products	0	1	2	3	4	5	6
Toll-free complaint hotlines	0	1	2	3	4	5	6
Three dimensional product simulations	0	1	2	3	4	5	6
Specially designated “trial stores” (see and try the goods and services)	0	1	2	3	4	5	6
Product/company information	0	1	2	3	4	5	6
Privacy assurance (confidentiality of information collected)	0	1	2	3	4	5	6
Online club membership benefits	0	1	2	3	4	5	6
No or low shipping and handling charges	0	1	2	3	4	5	6
Money-back guarantees	0	1	2	3	4	5	6
Knowing what personal information is collected and how it is used	0	1	2	3	4	5	6
Information on reliability of the seller	0	1	2	3	4	5	6
Give-aways (Freebies just for visiting the sites)	0	1	2	3	4	5	6
Frequent visitor points	0	1	2	3	4	5	6
Free trials	0	1	2	3	4	5	6
Fast delivery time	0	1	2	3	4	5	6
Familiarity with on-line purchase procedures	0	1	2	3	4	5	6
Entertainment (Cool graphics; links to interesting activities)	0	1	2	3	4	5	6
Credit card security	0	1	2	3	4	5	6
Coupon redeemable online	0	1	2	3	4	5	6
Cheaper prices than retail stores	0	1	2	3	4	5	6
Access to a major credit card	0	1	2	3	4	5	6
Ability to inspect and update information collected by the vendor	0	1	2	3	4	5	6
Ability to examine merchandise	0	1	2	3	4	5	6
Ability to communicate with the vendor	0	1	2	3	4	5	6
Ability to choose whether vendors can obtain (or resell) data about you.	0	1	2	3	4	5	6

7. How **LIKELY** is it that, the following **WOULD KEEP YOU** from shopping online?

	Very Unlikely				Very Likely		
	0	1	2	3	4	5	6
Lack of word-of-mouth endorsements from other users	0	1	2	3	4	5	6
Lack of virtual tour/experience	0	1	2	3	4	5	6
Restricted access to the Internet	0	1	2	3	4	5	6
No trained, licensed raters to personally inspect & evaluate products	0	1	2	3	4	5	6
No toll-free complaint hotlines	0	1	2	3	4	5	6
Lack of three dimensional product simulations	0	1	2	3	4	5	6
Lack of specially designated “trial stores” (see and try the goods and services)	0	1	2	3	4	5	6
Lack of product/company information	0	1	2	3	4	5	6
Lack of privacy assurance (confidentiality of information collected)	0	1	2	3	4	5	6
Lack of online club membership benefits	0	1	2	3	4	5	6
High shipping and handling charges	0	1	2	3	4	5	6
No money-back guarantees	0	1	2	3	4	5	6
Not knowing what personal information is collected and how it’s used	0	1	2	3	4	5	6
Lack of information on reliability of the seller	0	1	2	3	4	5	6
No give-aways (Freebies) just for visiting the sites	0	1	2	3	4	5	6
Lack of frequent visitor points	0	1	2	3	4	5	6
Lack of free trials	0	1	2	3	4	5	6
Long delivery time	0	1	2	3	4	5	6
Lack of familiarity with on-line purchase procedures	0	1	2	3	4	5	6
Lack of entertainment (Cool graphics; links to interesting activities)	0	1	2	3	4	5	6
Lack of credit card security	0	1	2	3	4	5	6
No coupons redeemable online	0	1	2	3	4	5	6
Higher prices than retail stores	0	1	2	3	4	5	6
No access to a major credit card	0	1	2	3	4	5	6
Inability to inspect and update information collected by the vendor	0	1	2	3	4	5	6
Inability to examine merchandise	0	1	2	3	4	5	6
Inability to communicate with the vendor	0	1	2	3	4	5	6
Inability to choose whether vendors can obtain (or resell) data about you.	0	1	2	3	4	5	6

8. Think of **three** people who are **important** to you: (Please state the relationship).

**A** \_\_\_\_\_, **B** \_\_\_\_\_, **C** \_\_\_\_\_.

'A' would: Disapprove	__ : __ : __ : __ : __ : __	Approve <b>your shopping online.</b>
'B' would: Disapprove	__ : __ : __ : __ : __ : __	Approve <b>your shopping online.</b>
'C' would: Disapprove	__ : __ : __ : __ : __ : __	Approve <b>your shopping online.</b>

In general, I want to do what 'A' thinks I should do: Disagree	__ : __ : __ : __ : __ : __	<b>Agree.</b>
In general, I want to do what 'B' thinks I should do: Disagree	__ : __ : __ : __ : __ : __	<b>Agree.</b>
In general, I want to do what 'C' thinks I should do: Disagree	__ : __ : __ : __ : __ : __	<b>Agree.</b>

### Section II - Internet usage

In this section your computer proficiency and Internet use are explored. *Please check (✓) the option that best describes your response.*

- Do you consider yourself  
a beginner \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ an expert  
in using a computer.
- On average, how many **hours per week** do you spend on-line?  
\_\_\_\_\_ Less than 5                      \_\_\_\_\_ 11-15                      \_\_\_\_\_ 21-25  
\_\_\_\_\_ 5-10                                      \_\_\_\_\_ 16-20                      \_\_\_\_\_ More than 25

3. Have you **PURCHASED** any of the following products or services over the **Internet** in the **last 6 months**? And, do you **intend to purchase** these products or services via Internet in the **next 6 months**? (Circle one number for previous purchase and one for future purchase intentions)

	Previous purchases							Future purchase intentions						
	Never			6 or more times				Very unlikely			Very likely			
	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Autos/automotive products	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Books, magazine or greeting cards	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Business services (Consumer research, Communication)	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Clothing, jewelry or accessories	0	1	2	3	4	5	6	0	1	2	3	4	5	6
College services/education	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Computer software or hard ware	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Electronics - TV, VCR, CD player, etc.	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Entertainment or leisure	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Financial services (Tax returns, Stocks, Home banking)	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Flowers	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Food and drinks (groceries/ meals)	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Furniture and home furnishings	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Health and Beauty products	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Information (Credit history reports, Survey reports)	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Legal services	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Real estate/Mortgage lending	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Music tape or CD	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Pharmaceuticals	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Collectibles/arts and crafts	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Travel related products/services	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Other (Specify_____)	0	1	2	3	4	5	6	0	1	2	3	4	5	6

4. How much have you **spent online** in the past 6 months?.....  
 \_\_\_\$100 or less    \_\_\_ \$101 - \$300    \_\_\_\$301 - \$500    \_\_\_\$501 - \$700    \_\_\_ \$701 or more

### Section III - Background Information

The following background information questions are included only to help us interpret your responses in relation to other questions. Your responses here and throughout the questionnaire will be held strictly CONFIDENTIAL. *Please check (✓) one box for each question.*

1. Are you?  Male  Female
  
2. What is your current **age**?  
 18 - 24  35 - 44  65 and over  
 25 - 29  45 - 54  
 30 - 34  55 - 64
  
3. What is your **annual household income** from all sources before taxes?  
 Less than \$9,999  \$30,000 - \$49,999  \$70,000 - \$89,999  
 \$10,000 - \$29,999  \$50,000 - \$69,999  \$90,000 - and over
  
4. What is your **marital status**?  
 Single/never married  Married/living with a partner  Separated/widowed/divorced
  
5. What is the highest level of **education** you have completed?  
 High school or less  Associate or two year college degree  
 Bachelor's degree  Graduate degree (Master's, Ph.D., JD, MD, etc.)  
 Other (please specify \_\_\_\_\_)
  
6. Which of the following best describes your **racial or ethnic identification**?  
 Native American  Asian  Caucasian  
 African American  Hispanic  Other (\_\_\_\_\_)
  
7. For each age category, please fill in the **number of children living with you**.  
 None  6 to 11 years old  18 years and older  
 Under 6 years old  12 to 17 years old
  
8. What best describes your **current occupation**?  
 Professional or technical  Farmer/agriculture  Sales worker

Manager or administrator       Clerical worker       Education  
 Machine operator or laborer       Service worker       Other   
 Government or military worker       Student

9. What is the size of your **residence area**?

Large central city (250,000 or more)       Suburban of large central city  
 Medium central city (50,000 – 250,000)       Suburban of medium central city  
 Small city, town or village

**Thank you very much for your time and effort!**

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