

Internet Users' Attitudes and E-Commerce Behaviors

A Dissertation by

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ABSTRACT

According to Nua Internet Surveys 201 million people are using the Internet worldwide. The Internet has evolved from a communications tool for a select group of scientists to a commercial juggernaut that is predicted to change the way people buy and sell things across a number of industries. This research focuses on consumer behavior in this new medium. The Consumer Decision Process can be categorized into five sub-processes including: (a) Motivation and Need Recognition, (b) Information Search, (c) Alternatives Evaluation, (d) Purchase Decision and Purchase, and (e) Purchase Outcomes. This research considers nine Internet behaviors across these five consumer behavior processes. The behaviors studied include clicking on banner ads, reading e-mail advertisements, searching for product information in online stores and using search engines, using comparison engines and online reviews to evaluate alternatives, purchase products, and access online customer support via e-mail and web sites. Internet user attitudes and intention to use the Internet for each of the behaviors were studied within the theoretical constructs of the Theory of Reasoned Action. It was found that that attitudinal component of the Theory of Reasoned Action was consistently predictive of users' intention to participate in all nine of the consumer behaviors during the 2000 holiday shopping season.

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Internet Users' Attitudes and E-Commerce Behaviors

Originally used to share research ideas among a few scientists, the Internet has blossomed into a cultural phenomena. Since 1995, NFO has been conducting mail surveys of a representative sample regarding the use of technology (Jupiter Communications, 1999). In the latest survey, over 50% of the US population has access to the Internet either through school, work, or at home (Jupiter, Communications, 1999). According to the Internet Society, as of July 1999, the number of hosts (a computer with a registered Internet Protocol (IP) address) on the Internet has reached nearly sixty million (Zakon, 1999). This is a reported increase from just under six million four and half years ago (Zakon, 1999). Research to date has primarily focused on the demographics of users (Kehoe, Pitkow, & Rogers, 1999), number of devices connected, overall traffic (Zakon, 1999), and amount and type of online transactions (Jupiter Communications, 1999).

The three steps to understanding user interactions are to determine: (a) who are the users; (b) what are their tasks; and (c) in what environments are the users accomplishing those tasks (Beyer & Holtzblatt, 1998; Mayhew, 1999). While, the current research has described the demographics of the Internet population and some aspects of consumer behavior, it has been both incomplete and relatively atheoretical (Weber & Roehl, 1999). This

research focuses on consumer behavior (tasks) in this new medium (context).

The purposive actional field of a consumer purchase can be analyzed in terms of the sub-processes of the Consumer Decision Process including: (a) Motivation and Need Recognition, (b) Information Search, (c) Alternatives Evaluation, (d) Purchase Decision and Purchase, and (e) Purchase Outcomes. This research considers nine Internet behaviors across these five consumer behavior processes. The behaviors studied include clicking on banner ads, reading e-mail advertisements, searching for product information in online stores and using search engines, using comparison engines and online reviews to evaluate alternatives, purchase products, and access online customer support via e-mail and web sites. The purpose of this research was to assess users' attitudes regarding these online consumer behaviors. Internet user attitudes and intentions to use the Internet for each of the behaviors were studied within the theoretical constructs of the Theory of Reasoned Action. The Theory of Reasoned Action (Fishbein, 1980) was used to examine the relationship between the attitude and future intention to participate in each of the behaviors. On the basis of Fishbein's (1980) work one would expect that positive attitudes toward these behaviors would be necessary though not sufficient to produce an individual internet purchase under most purposive

actional (or reasoned action a'la Fishbein) consumer purchase field conditions.

The Internet Consumer

This study examines the attitudes of Internet users regarding Internet consumer behaviors and their intentions to participate in those behaviors over the next twelve months. The Internet consumer is drawn from the overall population of Internet users. For the purposes of this study, the Internet consumer is defined as any person who participates in any of the consumer processes discussed in the subsequent section (Consumer Behavior and the Internet). Prior to delineating each of the five consumer processes a brief discussion of the expanding population of the Internet is necessary.

The Expanding Internet

Research targeting Internet users has found that the online population is younger, more educated, and more affluent than the general public (Bellman, Lohse, & Johnson, 1999; Jupiter Communications, 1998 & 1999; Kehoe, Pitkow & Rogers, 1999). The greatest disparity between the general population and the online community is in terms of wealth. Seventy-seven percent of the non-poor (household income > \$25,000) have Internet access through work, school, or at home while the same is true for only 48% of the working poor and unemployed (NTIA & US Department of Commerce, 1999). In their latest Internet survey, Kehoe,

Pitkow, and Rogers (1999) found that the average Internet household income was over \$55,000 per year. This is consistent with other research (Jupiter Communications, 1999; Weber & Roehl, 1999; White & Manning, 1998).

In general, non-white populations are under-represented (Bellman, Lohse, & Johnson, 1999; Heldrich, 1999; NTIA & US Department of Commerce, 1999; U.S. Census Bureau, 1999) (See Table 1). Further, rural households are under-represented regardless of wealth or ethnic origin (NTIA & US Department of Commerce, 1999). While these things are generally true, irrespective of the manner of analysis, Internet access and personal computer (PC) ownership is increasing across all user populations in the U.S. (Bellman, et al, 1999; Childs, 1999; Kehoe, et al, 1999; NTIA & US Department of Commerce, 1999).

Table 1
Comparison Of The Internet Population With The General U. S. Population

Variable	Internet Population	U.S. Population
Mean Household Income	\$55k/year	\$39k/year
White (non-Hispanic)	88.1%	71.7%
African American	2.3%	12.0%
Hispanic	1.8%	11.6%
Asian/Pacific Islander	7.1%	4.0%
Central City	37.0%	29.8%
Suburban	49.0%	50.7%
Rural	14.0%	19.5%

According to Nua Internet Surveys, there were 201 million people online in September of 1999 (1999). This worldwide estimate describes an individual as "online" if they have accessed the Internet within the three months prior to the survey. Thirty-seven percent of American households or 118 million Americans have access to the Internet (Jupiter, 1999; Nua Internet Surveys, 1999).

Electronic Commerce (E-Commerce)

The percentage of the buying population that uses the Internet as a medium for purchasing goods and services is expected to grow from 22% in 1998 to 36% in 2003 (Gantz & Glasheen, 1999). It is expected that Internet spending in

the year 2000 will be over \$200 billion (Bellman et al, 1999). The total amount of commerce conducted over the Internet is expected to exceed \$300 billion by 2002 and top one trillion dollars in the year 2003 (Gantz & Glasheen, 1999; Wilken, 1999). In total, 65 to 74 percent of the online population participates in product research or purchases products online (Jupiter Communications, 1998 & 1999). Those users who purchase products online report a higher satisfaction with the Internet than those who don't (Jupiter Communications, 1999).

It has been found that those most likely to purchase products using the Internet are experienced Internet users (Tracy, 1998). These Internet purchasers are defined as living the "wired" lifestyle (Bellman et al, 1999). That is, they have been using the Internet for years, receive many e-mails per day, and spend time on the Internet daily (Bellman et al, 1999).

While spending is the predominant measure of e-commerce activity it is by no means the only activity of online consumers. It has become acceptable to define other online activities as e-commerce related (Jupiter Communications, 1999). Some of these activities include reading news, looking for product information, monitoring stock information, searching for software and accessing banking services through the Internet (Bellman et al, 1999; Kehoe et al, 1999). While many of these activities fall into classic

consumer behavioral categories, current research has not discussed these activities in terms of the spectrum of consumer behavioral processes (Bellman et al, 1999; Jupiter Communications, 1998 & 1999; Kehoe et al, 1999). The framework for these behavioral categories, the research regarding these behaviors relative to e-commerce, and the Theory of Reasoned Action applicability to these behaviors will be discussed.

Consumer Behavior and the Internet

For centuries individuals have been engaging in the consumer decision processes to obtain products. These include: (a) Motivation and Need Recognition, (b) Information Search, (c) Alternatives Evaluation, (d) Purchase Decision and Purchase, and (e) Purchase Outcomes (Engel, Blackwell, & Miniard, 1993). Each of these processes is associated with specific consumer behaviors. Over time, as technology has changed and Internet usage has become more common, opportunities for both businesses and users have been made possible (Butler & Peppard, 1998). The Internet enables businesses to broaden their market with new types of direct marketing techniques such as placing banner ads on web sites or targeting specific users by narrow-casting e-mail only to the most interested potential customers (Butler & Peppard, 1998). Users of the Internet can take advantage of the technology by saving time researching, finding, and purchasing products from home and

by signing up for e-mail lists that automatically send them advertisements of their choice (Butler & Peppard, 1998).

Motivation and Need Recognition

Need recognition is associated with a perceived discrepancy between a desired state and actual state. Motivation is dictated by an individual's assessment that that discrepancy is large enough to take steps to ameliorate it and that those steps are within the means of that person. Activation occurs prior to recognition. The activation of a need is dictated by several factors including time, changed circumstances, product acquisition, product consumption and marketing influences (Engel et al, 1993).

Consumers participate in several online behaviors that give an indication that users have given advertisers the opportunity to influence the motivation and need recognition process. Nearly 25% of the browsing population report clicking on banner ads during the previous week (Jupiter Communications, 1999). At the same time, one fourth of those consumers who conducted online purchases stated that their purchases were influenced by banner ads (Anderson Consulting, 1999a). Nearly every web page is designed with a marketing space. Other online behaviors that fall into the motivation and need recognition process include instances when consumers register their software or hardware and indicate that they would like to receive product updates and when consumers "sign up" for a mailing list to receive

an e-mail that notifies them of the latest and greatest deal (see www.airtran.com). By the end of 1999, Internet Service Providers (ISP) were providing Internet access for free to customers willing to receive ads from the ISP's partners (Parker, 1999). A consumer that actively participates in clicking on banner ads, indicates an interest in future product offerings during registration, or signs up for a subscriber-list email is indicating that they have given advertisers the opportunity to influence the first stage of the consumer decision process.

Information Search

This consumer decision process includes two major types of information search behaviors. Internal information search is based on the users' previous experiences and knowledge and requires a retrieval of facts and experiences from memory. External information search consists of collecting information from other sources that could include ads, Internet resources, consumer reports, friends, and important others (Engel et al, 1993). An external search is defined by the extent of the search (the number of the brands examined, "stores" visited, product attributes assessed, and information sources consulted); the direction of the search (the brands examined, "stores" visited, product attributes assessed, and information sources consulted); and the sequence of the search (order of the brands examined, "stores" visited, product attributes

assessed, and information sources consulted) (Engel et al, 1993).

In regard to the information search process, 74% of the online community browses web sites for information on products. Browsing and pricing online products is so common on the Internet that several web sites serve as clearinghouses for product reviews and comparisons (see www.buyerszone.com). Further, the use of intelligent agents to search out the lowest price and to recommend, for example, music and other products is already in practice (Maes, Guttman, & Moukas, 1999). While intelligent agent technology is on the rise it has not been embraced at a level where we could expect to find many users using intelligent agents to find information regarding products. All online user populations make significant use of Internet search engines, and many of them use those search engines to look for information about products in which they are interested (Bellman et al, 1999; Jupiter Communications, 1999).

Alternative Evaluation

The third process associated with consumer behavior involves the comparison of alternatives for mediating the perceived need-state of the consumer. It is important to note that even though alternative evaluation and information search are presented in separate sections in this paper, the consumer often alternates rapidly between behaviors in these

two stages in such a manner that they are fundamentally occurring at the same time or in the same session. For example, as users peruse a store or web site it would be common for them to move rapidly from an information search behavior (obtaining information about an alternative) to an alternative evaluation behavior (comparing the price and features of the alternative with other previously researched alternatives, see www.bestbookbuys.com) (Engel et al, 1993).

The relevant online behaviors for the alternative evaluation stage are comparison of products on desired attributes such as features or price from online resources including reading online reviews, communicating with other users, or using comparison engines. Butler and Peppard (1998) associate the use of intelligent shopping agents and product comparison sites that allow users to compare products in single space. Another source for product evaluation online is access to referents. These referents can be as informal as online reviews on e-commerce sites (e.g. www.amazon.com) or as formal as moderated discussion groups. With these discussion groups it is possible to develop a virtual community that has more evaluative power in terms of quantity and quality than traditional referent groups (Hagel & Armstrong, 1997).

Purchase Decision and Purchase

This stage is characterized by the consumer's decision to obtain a product or service and the exchange of payment

for that product or service. There are many factors that influence the ultimate purchase decision. These include consumer resources, motivation and involvement, knowledge, attitudes, personality, values and lifestyle (Engel et al., 1993). Of all the behaviors associated with consumer behavior product purchase is the easiest to observe. For the purpose of this research the actual purchase of a product or service via the Internet is the behavior of interest.

Purchase Outcomes

Customer satisfaction is a major component of purchase outcome, although not exclusive. The satisfaction component of purchase outcome is associated with two states of the consumer: satisfaction and dissatisfaction. Specific behaviors are associated with this stage that apply to e-commerce. These include: accessing customer support web sites, receiving the product via delivery truck; installing the product; and returning the product for refund. Also, companies are providing the latest drivers to their computer hardware components and latest updates to their software, as well as offering 24-hour e-mail help online. The focus of this research will be customer support via web sites and e-mail help.

Consumers' successes and failures in this phase of the purchase process are likely critical to their future involvement with Internet e-commerce. Further, both the Purchase Decision and Purchase and Purchase Outcomes

processes are tightly linked to the nature of risk for the consumer. While the consumer can remain relatively anonymous in previous behavioral categories, these last two processes are associated with a commitment and a degree of trust (at least to the level of the price and importance of the product) associated with as many as five different entities, including: the credit card company, the product maker, the product seller, the delivery company, and the technical support company (Novak & Hoffman, 1998). With each additional middle entity, the possibility of a breakdown in one of the systems prior to product delivery increases cumulatively. In one study, conducted during the 1999 holiday season, it was found that nearly 25% of all e-commerce transaction attempts were unsuccessful (Anderson Consulting, 1999b). The study did not address other areas that could potentially break down in the delivery of the product or service to the consumer, such as a delayed delivery or inappropriate charges to consumers' credit cards.

Theory of Reasoned Action

Many theories have attempted to demonstrate the relationship between attitudes and behavior, but the Theory of Reasoned Action (TRA) has demonstrated an unparalleled accuracy for predicting behavior by measuring beliefs, attitudes, and intention (Sheppard, Hartwick, & Warshaw, 1988). The theory was developed by Ajzen and Fishbein

(1975; 1977) while examining the relationship between knowledge and attitudes regarding smoking and non-smoking behavior. The watershed discovery of the Theory of Reasoned Action is the re-conceptualization of the causal relationship between attitudes and behavior. While other theories attempt to predict behavior through an attitude-behavior causal framework, Ajzen and Fishbein (1975) proposed a beliefs-attitude-intention-behavior causal framework. Behavioral intention is estimated using the formula:

$$B \approx BI = W_1(A) + W_2(SN)$$

where:

B = behavior

BI = behavioral intention

A = attitude toward performing the behavior

SN = subjective norm

W_1 and W_2 = empirically determined weights (represents the components relative influence)

The Theory of Reasoned Action has been applied to predict a broad range of behaviors; graduate school registration; majoring in Information Systems; smoking and quitting smoking; participating in unethical conduct in the workplace; executive adoption of information systems strategy; purchasing insurance; staying in a particular hotel; and the rapid acceptance of olive oil in the United

Kingdom (Buttle & Bok, 1996; Langford & Capella, 1994; Mykytyn & Harrison, 1993; Randall, 1989; Thompson, Haziris, & Alekos, 1994; Trower & Dorsett, 1994). It has demonstrated a richness that appears to contradict its' structural and theoretical simplicity relative to other attitude-behavioral models and has been effectively applied cross-culturally with success (Buttle & Bok, 1996; Koslowsky, 1993; Lee & Green, 1991; Oliver & Bearden, 1985; Thompson, et al, 1994).

"The ultimate goal of the theory is to predict and understand individuals' behavior (Fishbein, p. 66, 1980). " The first step in applying the theory is identifying the behavioral criterion in terms of action, target, context, and timing. The fundamental assumption of the theory is that a person's intention to perform or not perform a given behavior is predictive of the likelihood of that person performing or not performing the behavior defined by the behavioral criterion (Fishbein, 1980). In fact, prior research has reported a significant correlation ($r=.18$ to $.84$) between the intention and behavior (Ajzen, 1991; Sheppard, Hartwick, & Warshaw, 1988). If the theory were only concerned with prediction, this relationship would be sufficient but it is also interested in understanding behavior and therefore a thorough examination of intention's relationship with other factors have been incorporated into the model. The theory proposes that the determinants of intention are attitudes and subjective norms (see Figure 1).

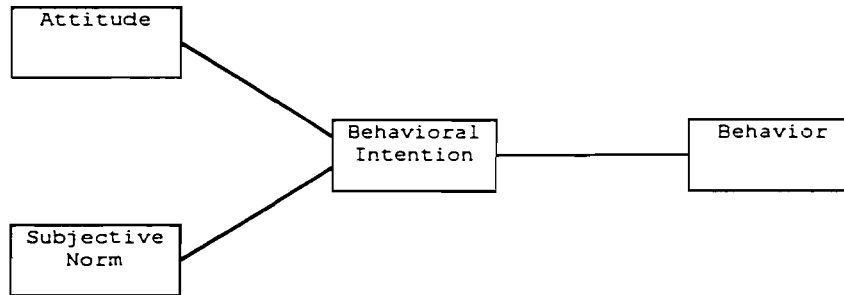


Figure 1. Attitudes, Subjective Norms, Behavioral Intention, and Behavior

Behavioral Attitudes

Attitudes toward the behavior are a function of the person's beliefs that performing the given behavior will result in certain outcomes and an evaluation of those outcomes (Fishbein, 1980). For example, a doctoral candidate's belief that writing tonight will result in a finished dissertation proposal and her evaluation of a finished dissertation proposal as positive and an unfinished proposal as negative is predictive of her intention to write tonight, and consequently performance (see Figure 2). The assumption of the theory is that her beliefs about the outcomes of writing or not writing underlie her attitudes about writing this evening. In Theory of Reasoned Action terminology these are referred to as behavioral beliefs (Fishbein, 1980).

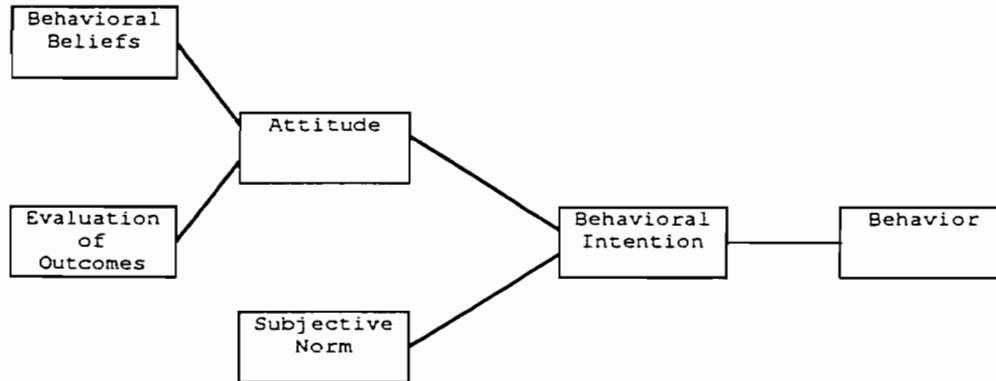


Figure 2. Behavioral Beliefs, Evaluation of Outcomes, Attitudes, Subjective Norms, Behavioral Intention, and Behavior

Subjective Norm

In Ajzen and Fishbein's (1975) original model behavioral beliefs and evaluation of alternative outcomes were sufficient to predict behavioral intention. Later models, however, suggested that another set of beliefs, labeled subjective norms, were also predictive of intention (Ajzen and Fishbein, 1977; Fishbein, 1980). These "subjective norms" are a function of: a) an individual's beliefs regarding what important referents will think about that individual performing a specific behavior; and b) that person's motivation to comply with those important referents (Fishbein, 1980). So in the case of our doctoral candidate who is considering writing tonight, her beliefs about what her family, colleagues, or advisor (important referents) think about her behavior (writing her dissertation proposal tonight) are considered normative beliefs according to the

theory (Fishbein, 1980). Normative beliefs coupled with her motivation to comply with those referents comprise her subjective norm regarding the behavior (see Figure 3).

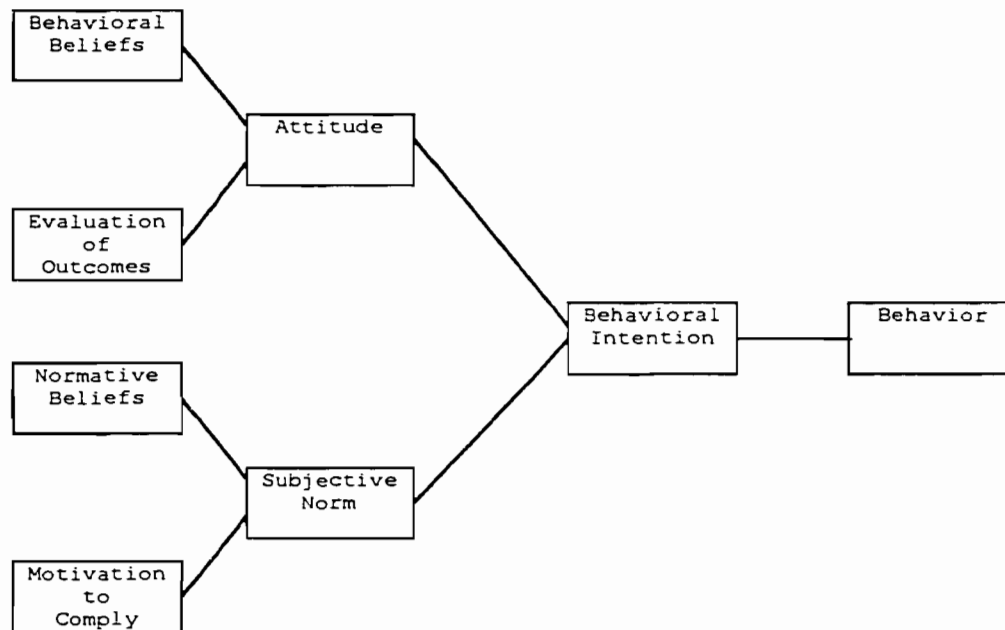


Figure 3. The Theory of Reasoned Action

Other Issues and the Theory of Reasoned Action

In Fishbein's (1980) seminal work of the Theory of Reasoned Action, issues regarding the behavior-intention relationship were discussed thoroughly. These issues include: (a) behaviors versus outcomes, (b) single actions versus behavioral categories, (c) intention behavior correspondence, and (d) the relationship between beliefs, attitudes and intentions.

Behaviors versus outcomes

In behavioral research it is important to distinguish the behavior from the behavioral outcomes. For example, completing a research paper is a potential outcome of a set of behaviors that include: searching for articles, reading the articles and taking notes, organizing the paper, and writing the paper. Participating in these behaviors, of course, does not ensure the outcome. If research is targeting specific outcomes for study, the sometimes tenuous relationship between behaviors and specific outcomes dictates careful identification of appropriate behaviors. Also, it is important to note that many different actions can result in the same outcome and those actions often fall outside the scope of research. For example, if researchers are interested in studying the effect of new sales training it is important to not only study the set of newly trained behaviors but also consider extraneous and sometimes more powerful impacts on actual sales. There are many other variables that could contribute to the outcome of increased sales that are unrelated to the actions by the salespeople. These might include a better economy or access to better referrals.

Single Actions Versus Behavioral Categories

A common error when describing behaviors in everyday conversation is that we often “. . . treat inferences of behaviors as if they were behavior themselves” (Fishbein,

1980, p.73). This is the case when we refer to behavioral categories, such as helping our neighbor, exercising, and working. For example, the statement "I am going to help my neighbor," does not sufficiently describe a behavior that is observable. It is obvious that helping my neighbor could be any number of specific behaviors such as "mowing his lawn" or "getting his mail". While both of these could be accurately described as "helping my neighbor," they are merely "mowing his lawn" and "getting his mail." These behaviors could be described as a set of behaviors that belong to the "neighbor helping" category or set. In order to effectively apply TRA, the focus of investigation must be a behavior. At the same time, if a researcher is interested in a dimension that is comprised of a behavioral category, it is appropriate to conceptualize that dimension in terms of two or more specific behaviors that reflect that dimension. The important aspect of the behavioral category-single action relationship is that if the research is interested in understanding a behavioral category a single action is rarely sufficient at offering an understanding of the behavioral category. Therefore a research study must examine a representative set of behaviors for a given behavioral category for an adequate understanding.

Intention-Behavior Correspondence

In order to effectively apply TRA it is essential to define the behavior in terms of action, target, context, and

timing deliberately with regard to the research interests (Fishbein, 1980). The strength of the intention-behavior relationship is determined by the operationalization of the behavior in terms of these four criteria.

Action. A behavior must be observable at a behavioral granularity to be measured effectively. It is important when applying Fishbein's theory that the behavior is described at the right level of granularity. That is the "action" of the behavior must be well defined. For example, behaviors such as "attending school" or "going to church" are ambiguously defined. Both of these behaviors could either be a behavioral category or a single action. As written it is impossible to determine if the intent of the description is the specific action of "sitting in class" and quite literally "going to church in your car" or if they describe a behavioral categories that consist of many different actions.

Target. A behavior must be defined in terms of the action and the target and not in terms of the expected outcome. For example, I am going to lose weight this month. Losing weight is a potential outcome of any number of behaviors but isn't a behavior itself. It is an outcome of eating less and exercising. Although losing weight is measurable it is not observable in a behavioral sense. The target of eating less is food. The hopeful results of the behavior cannot be the target of the action.

Context. The context of the action must be defined to appropriately measure behavioral intention. For example, shopping can be defined in the context of a particular store and using a particular technology (Sherman, Mathur, & Smith, 1997; Shim & Drake, 1990). It is important to elaborate the situation sufficiently so that the user can construct a scenario of behavioral participation.

Timing. The last criterion of a predicted behavior is that it must be time sensitive. Obviously, the predictive efficacy of any behavioral theory is useless without a time dependency. The necessity of detail with regards to timing accuracy is a function of the interest of the research. The researchers must define the time limits of the targeted behavior. At the same time, participants will have difficulty answering any items regarding their future behavior without a timeframe to reference the likelihood of that behavior. For example, a person is more likely to be able to predict behaviors he or she is going to participate in tomorrow than two months from now. Of course when that behavior is associated with some future special event such as a birthday or holiday, prediction of intention of the behavioral set is more likely. The important factor regarding behavioral intention is that the target behavior must be time sensitive. That is, in order to effectively measure the predictiveness of behavioral intention, the timing of that behavior should be declared. I intend to

"mow my neighbor's lawn this week" is time sensitive while "I intend to mow my neighbor's lawn" is not.

Beliefs, Attitudes, and Intentions

The relationship between beliefs, attitudes, and intentions is not always clear when both direct and indirect measures of attitude are considered. In TRA, attitudes are a function of beliefs. Therefore accurately measuring one's beliefs and an evaluation of outcomes regarding a behavior is sufficient in accounting for attitude. There are situations in research where direct measures of attitude (affect) are much less related to intention than indirect measures (beliefs). In a thorough review of attitude research Fishbein (1980) found that these situations are a function of the direct measures' disconnectedness from the behavior. For example, in product research, an individual can have positive affect regarding a given product but have no intention of buying the product at any time in the near future. If the researcher is interested in the impact of a given advertisement on sales, she will be much more likely to determine likelihood of future purchase behavior by determining the population's beliefs regarding that behavior and not regarding the product.

Theory of Reasoned Action Research and E-Commerce

Although the Theory of Reasoned Action has been applied extensively to consumer behavior, little of that research has addressed consumer behavior and e-commerce. Considering

the recent emergence of e-commerce it is not surprising that little theoretical research is available.

One study that has applied Fishbein's theory to virtual consumer environments is Shim and Drake's (1990) study regarding consumers' intention to use an electronic mall to purchase clothing. It was found that those individuals who had positive experiences with mail-order companies had higher rates of behavioral intention to use electronic malls than those who did not have remote shopping experiences (Shim & Drake, 1990). This finding was confirmed by Crisp, Jarvenpaa, and Todd (1997) in a laboratory study examining the relationship between Internet shopping and individual differences. Direct shopping experience was found to be a significant predictor of shopping intention however the relationship was quite weak ($r=.13$). While the authors' conclusion that early adopters of electronic shopping would be those consumers who had previous positive experiences with direct shopping was reasonable under the circumstances, it is necessary to re-examine that interpretation in light of the online purchasing demographics recently reported (Bellman, et al, 1999; Jupiter Communications, 1998; 1999; Kehoe, et al, 1999). Although the current population of Internet shoppers needs to be examined relative to their previous direct shopping experiences, the recent demographics suggest that it is that population's previous and continuing positive experience with the Internet, e-

mail, and associated technology that is the differentiator regarding online purchasing behavior (Bellman, et al, 1999; Jupiter Communications, 1998; 1999; Kehoe, et al, 1999). This was also supported by Crisp, Jarvenpaa, and Todd (1997), which found that both web experience and attitudes toward computers were highly predictive of Internet shopping intention.

The research to date has measured direct shopping experience or Internet experiences as predictors of future Internet purchases. However, user experiences with a broad range of consumer behaviors have not been measured relative to their impact on attitude toward participation in purchase behavior on the web. Additionally, attitudes relative to the processes associated with consumer behavior and their impact on attitudes regarding subsequent processes have not been characterized in the literature to date.

When applying the Theory of Reasoned Action to electronic shopping, Shim and Drake (1990) found that the attitudinal (A_b) component and the subjective norm component (SN) of the model were predictive of behavioral intention. When the relationship between subjective norm (SN) and behavioral intention was examined closer it was found that normative belief (NB) was predictive of behavioral intention while motivation to comply (MC) was not. This is consistent with previous research regarding the application of the Theory of Reasoned Action to retail environments (Bagozzi,

1981; Bentler & Speckart, 1979). Although Shim and Drake's (1990) conclusions regarding consumers' previous experiences with remote shopping may be suspect it is important to note that theoretical findings relative to the Theory of Reasoned Action are likely applicable to Internet consumers today.

Theory of Reasoned Action and Internet Consumer Behavior
Motivation and Need Recognition

Internet consumer behaviors identified in this research that are classified as Motivation and Need Recognition related behaviors include clicking (positioning the mouse pointer over a target and clicking the left mouse button or equivalent) on banner ads and reading advertising e-mails. It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to click on banner ads (H1). It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to read advertising e-mail (H2) (see Table 2).

Table 2
Hypotheses

H1	The attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to click on banner ads.
H2	The attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to read advertising e-mail.
H3	The attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) search for product information on online stores.
H4	The attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to use search engines to find product information.
H5	The attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to use comparison engines to evaluate alternatives.
H6	The normative component (SN) would be predictive of behavioral intention (BI) to use user reviews to evaluate product alternatives.
H7	The attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to use the Internet for purchasing products.
H8	The attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to use e-mail support for a product.
H9	The attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) access online customer support sites.
H10	Satisfaction with participation in pre-purchase consumer behaviors will be predictive of consumers' intention to purchase products and services on the Internet.
H11	Previous direct purchasing experience would be predictive of behavioral (BI) intention to purchase products on the Internet.

Information Search

Internet consumer behaviors classified in this research as Information Search behaviors, include searching for product information in online stores and using search engines to find product information. It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to search for product information on online stores (H3). It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to use search engines to find product information (H4) (see Table 2).

Alternatives Evaluation

Internet consumer behaviors classified in this research as Alternatives Evaluation behaviors, include using comparison engines and reading online reviews of products. It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to use comparison engines to evaluate alternatives (H5). It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to use online reviews to evaluate product alternatives (H6) (see Table 2).

Purchase

The Internet consumer behavior classified in this research as Purchase behavior is the purchasing a product via a web site. It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to use the Internet for purchasing products (H7) (see Table 2).

Purchase Outcomes

Internet consumer behaviors classified in this research as Purchase Outcomes behaviors, include using online customer support methods such as e-mail support and accessing customer support web sites. It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to use e-mail support for a product (H8). It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) access online customer support sites (H9) (see Table 2).

Experience and Internet Consumer Behavior

Consumer Behavior Experience

It has been found that positive experiences with similar consumer behaviors and web technology is predictive of behavioral intention to purchase products or services in electronic environments (Crisp et al, 1997; Kehoe et al, 1999; Shim & Drake, 1990). It was hypothesized that

satisfaction with participation in pre-purchase Internet consumer behaviors would be predictive of consumers' intention to purchase products and services online (H10) (see Table 2).

Direct Shopping Experience

Direct shopping experience is predictive of intention to purchase products on the Internet. Consistent with previous research, it was hypothesized that previous direct purchasing experience would be predictive of behavioral (*BI*) intention to purchase products on the Internet (H11) (see Table 2).

METHOD

Participants

Two hundred and ninety-two participants were recruited from Wichita State University and (N=71), Newman University psychology courses (N=36), Newman University faculty and staff (N=25), and randomly selected Internet mailing lists (N=160) (see Appendix A). Students were given extra credit towards a course grade for their participation and for encouraging others to contact the web site and answer the survey. All of the participants were given a chance to win \$50 cashiers check for participation in the survey (see Appendix B). Over 64% were female (N=186) while just under 36% were male. While women's Internet usage is on the rise, the gender distribution of this sample appears to be clearly skewed. That is, that there are a disproportionate number of women in the sample. Over 50% of the participants reported a household income of over \$50,000/year. While the sampling procedure for the participants cannot be deemed as random, it appears from the data reported in Table 3 that in terms of ethnicity, affluence, and area type it accurately reflects the Internet population.

Table 3
Comparison of the Internet Population with the Study Sample

	<u>Internet Population</u>	<u>Study Sample</u>
<u>Ethnic Group</u>		
White (non-Hispanic)	88.1%	80.5%
African American	2.3%	4.1%
Hispanic	1.8%	2.5%
Asian/Pacific Islander	7.1%	7.2%
<u>Location Type</u>		
Central City	37.0%	44.9%
Suburban	49.0%	31.8%
Rural	14.0%	23.3%
<u>Internet Experience</u>		
less than 6 months	5.4%	2.7%
greater than 6 months & less than a year	7.6%	4.8%
1 to 3 years	34.6%	28.1%
more than 3 & less than 7 years	37.1%	47.9%
7 years or more	15.4%	16.1%

Instrument

A survey was constructed to determine the general demographics, assess direct shopping and Internet

experience, and assess behavioral attitude, subjective norm, and behavioral intention for each of nine Internet consumer behaviors identified for the purposes of this study (see Appendix C). Additionally, a single item was used to assess satisfaction with each of the Internet consumer behaviors of interest.

Demographics, Internet and Direct Shopping Experience, and
Internet Usage

Internet experience and demographic items were consistent with Kehoe, Pitkow, and Rogers (1999) annual Internet survey. The Internet experience items included items regarding the number of years using the Internet and browser use. The demographics included level of education, gender, age, ethnic origin, area of the world, type of community (e.g., rural), and income. Response items to these survey questions were identical to those used in Kehoe, Pitkow, and Rogers' (1999) research except when those response items were not mutually exclusive. For that purpose, response items for level of education and Internet experience were changed slightly. Participants were asked to estimate the number of hours that they used the Internet for work, leisure, and school activities. Direct shopping experience was measured with two items from the literature (Crisp, Jarvenpaa, & Todd, 1997; Shim & Drake, 1990) that assessed catalog mail-order and shopping channel purchasing experiences.

Theory of Reasoned Action

The Theory of Reasoned Action items were constructed to assess the same beliefs across each of the nine behaviors included in the research when those items were consistently valid. Normative Belief items included a generalized assessment of the behavior, behavior and participant style fit, and time management, variety, quality, and price outcomes. The variety (A_b), quality (A_b), and price (A_b) items were excluded from the Purchase Outcome behavioral assessments. Subjective Norm items included referent items for friends or family (SN) and a motivation to comply (MC) item for friends or family. Respondents were also asked to indicate the extent that they intended to participate in each behavior during the 2000 end-of-year holidays (BI). Each of these items was measured using a seven-point Likert scale (see Appendix C).

Consumer Behavior

Motivation and Need Recognition

Motivation and Need Recognition behaviors included clicking on banner ads and reading subscriber-list e-mail advertisements. In addition to the items described above, each of the behaviors included behavioral history ($B-Exp$), social influence regarding friends and family (SI), and behavior satisfaction (Sat) items (see Appendix C).

Information Search

Information Search behaviors included searching for product information in online stores and searching for product information using search engines. In addition to the items described above, a behavioral history (*B-Exp*), a social influence item regarding friends and family (*SI*), and a behavior satisfaction (*Sat*) item was included in the survey (see Appendix C).

Alternatives Evaluation

Alternatives Evaluation behavior included using comparison engines to compare two or more alternatives and using online reviews to compare two or more alternatives. In addition to the items described above, behavioral history (*B-Exp*), participation of friends and family in the behavior (*SI*) and behavior satisfaction items (*Sat*) were included (see Appendix C).

Purchase

Purchase behavior included the purchasing a product or service online. In addition to the items described above, each of the behaviors included, behavioral history (*B-Exp*), social influence regarding friends and family (*SI*), and behavior satisfaction (*Sat*) items (see Appendix C).

Purchase Outcome

Purchase Outcome behaviors included using e-mail customer support and accessing customer support web sites. In addition to the items described above, each of the

behaviors included, behavioral history (*B-Exp*), social influence regarding friends and family (*SI*), and behavior satisfaction (*Sat*) items (see Appendix C).

Procedure

An invitation to participate in the study was sent via email to owners of 100 randomly selected Internet mailing lists. The mailing list owners were asked to forward an invitation to participate in the survey to their mailing lists. In addition, the survey was also distributed to the Newman University faculty and staff mailing list. The invitation included a web address that the participants could access via web browser.

Participants received an e-mail indicating that their participation in a survey regarding electronic commerce would be appreciated and that the purpose of the survey was to understand users' attitudes about their behavior, the Internet, and electronic commerce. It was indicated that participation was voluntary, the results would not be used for commercial purposes, all of their responses would be confidential, and that during the course of the survey they would have the opportunity to contact the researcher for a copy of the results.

University students were recruited from Psychology courses and were given extra credit for their participation. Only those individuals with access to the Internet were permitted to participate in the study. The survey took

approximately 25 minutes to complete with test participants. At the completion of the survey, the user clicked the "Submit" button that resulted in the generation of an email that contained the users' survey responses. The e-mail was automatically sent to the researcher. The survey was accessible to participants between June 20th and October 15th. Duplicate survey submissions were eliminated from the sample by examining survey submission times, contact e-mail, and total survey responses. All surveys received on same day were reviewed on the above criteria. Duplicate surveys were removed from the sample. Lastly, any surveys received with less than half of the responses answered were removed from the sample. Three surveys were removed from the sample due to incomplete responses.

Sampling

The sample was collected from three sources: university students, university faculty and staff, and Internet mailing lists. University students were recruited from Psychology courses and received course credit for their participation.

Participants were recruited from 100 randomly selected Internet mailing lists. The mailing lists were selected from L-Soft International's mailing lists. All lists with over 1,000 members were included in the randomization procedure. Participant contact information was not included on the mailing list surveys to maximize participation.

RESULTS

Each of the Theory of Reasoned Action items used to test Hypotheses I through Hypotheses IX (H1 - H9) were recoded in a manner consistent with previous research (Ajzen & Fishbein, 1980). Attitude was computed by summing the attitude items for each hypothesis. Subjective Norm was computed by multiplying the referent values for friends and family and by a participant's motivation to comply with friends and family regarding the behavior in question. Stepwise multiple regressions were used to test each of the eleven hypotheses. Users' behavioral frequency for each of the behaviors can be found Table 4 and satisfaction descriptives of the behaviors can be found in Table 5.

Table 4
Behavioral Frequency of E-Commerce Behaviors

Behavior (N=292)	Daily	Weekly	Monthly	Every Three Months	Every Six Months	Never
Clicking on Banner Ads	3.1% N=9	15.8% N=46	18.2% N=53	11.6% N=34	21.2% N=62	30.1% N=88
Reading E-mail Advertisements	8.9% N=26	24.3% N=71	16.4% N=48	8.2% N=24	16.8% N=49	25.3% N=74
Using Online Stores for Product Information	6.2% N=18	24.3% N=71	28.1% N=82	13.7% N=40	11.3% N=33	16.4% N=48
Using Search Engines for Product Information	12.3% N=36	27.4% N=80	23.3% N=68	13.4% N=39	9.9% N=29	13.7% N=40
Using Comparison Engines	0.3% N=1	7.9% N=23	20.9% N=61	10.6% N=31	13.4% N=39	46.9% N=137
Reading Online Reviews	1.0% N=3	7.9% N=23	19.5% N=57	14.0% N=41	21.6% N=63	36.0% N=105
Purchasing Online	0.3% N=1	6.8% N=20	25.7% N=75	16.8% N=49	19.2% N=56	31.2% N=91
Accessing E- mail Support	3.1% N=9	4.5% N=13	15.1% N=44	15.1% N=44	27.4% N=80	34.9% N=91
Customer Support Web Sites	1.0% N=3	6.2% N=18	18.5% N=54	17.8% N=52	24.0% N=70	32.5% N=95

Table 5
Descriptives for Non-Theory of Reasoned Action Items

Behavior	Variable	Mean	Standard Deviation	N
Clicking on Banner Ads	Clever	0.79	1.41	291
	Nuisance	-1.22	1.53	291
	SI	-0.35	1.27	289
	Sat	3.86	1.69	205
Reading E-mail Advertisements	Good	0.36	1.39	285
	SI	-0.10	1.34	285
	Sat	4.57	2.00	217
Using Online Stores for Product Information	Good	5.55	1.10	281
	SI	0.64	1.52	281
	Sat	6.12	2.00	243
Using Search Engines for Product Information	Good	1.77	1.13	281
	SI	0.89	1.41	281
	Sat	6.07	1.95	249
Using Comparison Engines	Good	1.59	1.15	276
	SI	0.24	1.26	275
	Sat	5.72	1.70	153
Reading Online Reviews	Good	1.29	1.24	273
	SI	0.20	1.30	274
	Sat	5.53	1.67	186
Purchasing Online	Good	1.17	1.48	277
	SI	0.60	1.59	278
	Sat	7.08	1.98	198
Accessing E-mail Support	Good	1.61	1.21	275
	SI	0.34	1.28	278
	Sat	6.00	2.09	188
Customer Support Web Sites	Good	1.73	1.05	278
	SI	0.32	1.29	276
	Sat	5.77	1.86	196

Note. Sat was measured on a 10-point scale (1 to 10). All other items were measured on a 7-point scale (-3 to +3).

Hypothesis I - Clicking on Banner Ads

Clicking (positioning the mouse pointer over a target and clicking the left mouse button or equivalent) on banner

ads was identified in this research as a Motivation and Need Recognition behavior. It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to click on banner ads (H1). The attitude and the normative components were entered into a regression on behavioral intention. The hypothesis that attitudes and subjective norms regarding clicking on banner ads would be predictive of a person's intention to click on banner ads was partially supported (see Table 6). While attitude entered into the regression equation significantly, subjective norm did not (see Table 6; see Figure 4). The model yielded an R of .399 and accounted for only 16% of the variance (see Table 7).

Table 6
Stepwise Regression with Banner Ad Behavioral Intention as the Dependent Variable

Variable	B	β	t	Sig.
A_b	.149	.399	7.379	<.001
SN	.072	.078	1.332	n.s.

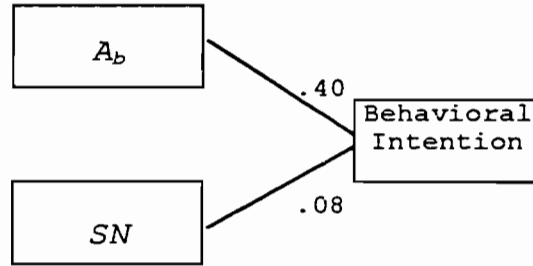


Figure 4. Theory of Reasoned Action Model for Banner Ad Behavioral Intention

Table 7
Stepwise Regression with Banner Ad Behavioral Intention as the Dependent Variable Model Summary

Variable	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
<i>A_b</i>	.399	.159	.156	.159	1.46

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.05 level or smaller.

As a result of the vast unexplained portion of variance associated with clicking on banner ads intention, an exploratory correlation procedure was conducted that included the normative, attitude, and intention components of the Theory of Reasoned Action with behavioral experience (*B-Exp*), behavioral satisfaction (*Sat*), and social influence (*SI*) items. The correlation procedure yielded several significant relationships and indicated a need for a more detailed analysis (see Table 8).

Table 8
Correlations for Clicking on Banner Ads

		<i>BI</i>	<i>SN</i>	<i>A_b</i>	<i>B-Exp</i>	<i>Sat</i>	<i>SI</i>
<i>BI</i>	Pearson's r	1.000					
	Sig.	.					
	N	290					
<i>SN</i>	Pearson's r	.040	1.000				
	Sig.	n.s.	.				
	N	290	291				
<i>A_b</i>	Pearson's r	.399	-.079	1.000			
	Sig.	<.001	n.s.	.			
	N	288	291	291			
<i>B-Exp</i>	Pearson's r	.228	-.020	.324	1.000		
	Sig.	.001	n.s.	<.001	.		
	N	204	204	204	204		
<i>Sat</i>	Pearson's r	.403	-.019	.516	.502	1.000	
	Sig.	<.001	n.s.	<.001	<.001	.	
	N	204	204	204	204	205	
<i>SI</i>	Pearson's r	.390	-.066	.385	.343	.329	1.000
	Sig.	<.001	n.s.	<.001	<.001	<.001	.
	N	291	289	289	203	203	289

Note: *BI* = Behavioral Intention, *SN* = Subjective Norm, *A_b* = Attitude, *B-Exp* = Behavioral Experience, *Sat* = Satisfaction, *SI* = Social Influence

The attitude and normative components and behavioral experience, behavioral satisfaction, and social influence were entered into a regression on behavioral intention. Behavioral satisfaction loaded into the regression equation significantly achieving a multiple R of .401 and accounting for just over 16% of the variance (see Table 9). Similar to the Theory of Reasoned Action regression analysis the equation only accounted for 16% of the variance associated with clicking on banner ads intention, leaving the vast amount of variance still unexplained.

Table 9
Stepwise Regression Model Summary with Attitude,
Subjective Norm, Behavioral Experience, and
Satisfaction as Independent Variables and Banner Ad
Behavioral Intention as the Dependent Variable

Model	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
1 (Sat)	.401	.161	.157	.161	1.44

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.001 level or smaller.

Hypothesis II - Reading Advertising E-mail

Reading advertising e-mails (subscriber list e-mail) has been categorized in this research as a Motivation and Need Recognition behavior. *It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to read advertising e-mail (H2).* Again, the attitude and the normative components were entered into a regression on behavioral intention. The hypothesis that attitudes and subjective norms regarding reading advertising e-mails would be predictive of a person's intention to read advertising e-mails was partially supported (see Table 10). While attitude entered into the regression equation significantly, subjective norm did not (see Table 11; see Figure 5). The model yielded an R of .568 and accounted for just over 32% of the variance (see Table 11).

Table 10
Stepwise Regression with Subscriber-List E-mail Behavioral Intention as the Dependent Variable

Variable	B	β	T	Sig.
A_b	.173	.568	11.672	<.001
SN	.085	.103	1.743	n.s.

Table 11
Stepwise Regression with Subscriber-List E-Mail Behavioral Intention as the Dependent Variable Model Summary

Variable	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
A_b	.568	.323	.320	.323	1.44

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.001 level or greater.

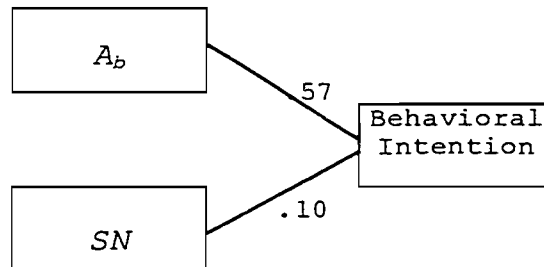


Figure 5. Theory of Reasoned Action Model for Subscriber-List E-Mail Behavioral Intention

With nearly 70% of the variance associated with reading advertising e-mails intention unexplained, an exploratory correlation procedure was conducted that included the

normative, attitude, and intention components of the Theory of Reasoned Action with behavioral experience (*B-Exp*), behavioral satisfaction (*Sat*), and social influence (*SI*) items. The correlation procedure yielded several significant relationships and indicated a need for a more detailed analysis (see Table 12).

Table 12
Correlations for Subscriber-List E-mail

		<i>BI</i>	<i>SN</i>	<i>A_b</i>	<i>B-Exp</i>	<i>Sat</i>	<i>SI</i>
<i>BI</i>	Pearson's r	1.000					
	Sig.	.					
	N	285					
<i>SN</i>	Pearson's r	.118	1.000				
	Sig.	.045	.				
	N	288	288				
<i>A_b</i>	Pearson's r	.568	.060	1.000			
	Sig.	<.001	n.s.	.			
	N	288	288	288			
<i>B-Exp</i>	Pearson's r	.458	.107	.366	1.000		
	Sig.	<.001	n.s.	<.001	.		
	N	218	218	218	218		
<i>Sat</i>	Pearson's r	.587	.005	.513	.471	1.000	
	Sig.	<.001	n.s.	<.001	<.001	.	
	N	217	217	217	216	217	
<i>SI</i>	Pearson's r	.280	.137	.396	.374	.308	1.000
	Sig.	<.001	.021	<.001	<.001	<.001	.
	N	285	285	285	216	215	289

The attitude and normative components and behavioral experience, behavioral satisfaction, and social influence were entered into a regression on behavioral intention. Behavioral satisfaction, social influence, attitude, and

behavioral experience loaded into the regression equations significantly achieving a multiple R of .655 and accounting for more than 42% of the variance (see Table 13). The exploratory analysis accounted for an additional 10% of the variance associated with intention to read advertising e-mail.

Table 13
Stepwise Regression Model Summary with Attitude, Subjective Norm, Behavioral Experience, and Satisfaction as Independent Variables and Subscriber-List E-mail Behavioral Intention as the Dependent Variable

Model	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
1 (Sat)	.598	.346	.343	.346	1.38
2 (Sat & A _b)	.636	.405	.399	.059	1.27
3 (Sat, A _b , & B-Exp)	.655	.429	.421	.024	1.23

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.001 level or smaller.

Hypothesis III - Using Online Stores for Finding Product Information

Using online stores to find product information has been categorized in this research as an Information Search behavior. *It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of*

behavioral intention (BI) to search for product information in online stores. As with previous hypotheses, the attitude and the normative components were entered into a regression on behavioral intention. The hypothesis regarding participants' intention to use online stores to find product information was partially supported (see Table 14). While attitude entered into the regression equation significantly, subjective norm did not (see Table 15; see Figure 6). The model yielded an R of .549 and accounted for just over 30% of the variance (see Table 15).

Table 14
Stepwise Regression with Search for Product Information in Online Stores Behavioral Intention as the Dependent Variable

Variable	B	β	t	Sig.
<i>A_b</i>	.193	.549	11.006	<.001
<i>SN</i>	.021	.025	.422	n.s.

Table 15
Stepwise Regression with Search for Product Information
in Online Stores Behavioral Intention as the Dependent
Variable Model Summary

Variable	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
A_b	.549	.301	.299	.301	1.48

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.001 level or smaller.

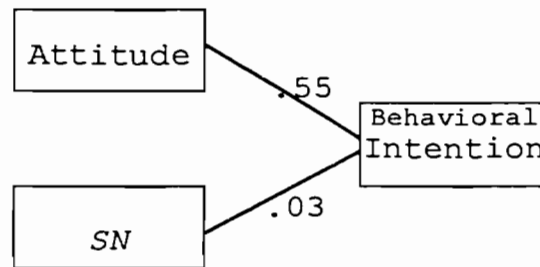


Figure 6. Theory of Reasoned Action Model for Search for Product Information in Online Stores Behavioral Intention

With nearly 70% of the variance associated with using online stores to find product information left unexplained, an exploratory correlation analysis was conducted consistent with previous hypotheses. The correlation procedure yielded several significant relationships and indicated a need for a more detailed analysis (see Table 16).

Table 16
Correlations for Searching for Product Information in
 Online Stores

		<i>BI</i>	<i>SN</i>	<i>A_b</i>	<i>B-Exp</i>	<i>Sat</i>	<i>SI</i>
<i>BI</i>	Pearson's r	1.000					
	Sig.	.					
	N	283					
<i>SN</i>	Pearson's r	.082	1.000				
	Sig.	n.s.	.				
	N	283	284				
<i>A_b</i>	Pearson's r	.549	.111	1.000			
	Sig.	<.001	n.s.	.			
	N	283	284	284			
<i>B-Exp</i>	Pearson's r	.519	.084	.374	1.000		
	Sig.	<.001	n.s.	<.001	.		
	N	244	244	244	244		
<i>Sat</i>	Pearson's r	.463	-.030	.558	.364	1.000	
	Sig.	<.001	n.s.	<.001	<.001	.	
	N	243	243	243	242	243	
<i>SI</i>	Pearson's r	.581	.162	.475	.356	.276	1.000
	Sig.	<.001	.006	<.001	<.001	<.001	.
	N	281	281	281	243	242	281

The attitude and normative components and behavioral experience, behavioral satisfaction, and social influence were entered into a regression on behavioral intention. Attitude, behavioral experience, social influence, and behavioral satisfaction loaded into the regression equations significantly achieving a multiple R of .694 and accounting for more than 48% of the variance (see Table 17). The exploratory analysis yielded meaningful results, by

increasing the predictive power of the regression equation by 18%.

Table 17
Stepwise Regression Model Summary with Attitude, Subjective Norm, Behavioral Experience, and Satisfaction as Independent Variables and Searching for product Information in Online Stores Behavioral Intention as the Dependent Variable

Model	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
1 (<i>A_b</i>)	.533	.284	.281	.284	1.35
2 (<i>A_b</i> , & <i>B-Exp</i>)	.639	.408	.403	.124	1.23
3 (<i>A_b</i> , <i>B-Exp</i> , & <i>SI</i>)	.681	.464	.457	.056	1.18
4 (<i>A_b</i> , <i>B-Exp</i> , <i>SI</i> , & <i>Sat</i>)	.694	.482	.473	.018	1.16

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.05 level or smaller.

Hypothesis IV - Using Search Engines to Find Product Information

Using search engines to find product information has been categorized in this research as an Information Search behavior. *It was hypothesized that the attitudinal component (*A_b*) and the normative component (*SN*) would be predictive of*

behavioral intention (BI) to use search engines to find product information. Similar to other Theory of Reasoned Action hypotheses, the attitude and the normative components were entered into a regression on behavioral intention. The hypothesis regarding participants' intention to use search engines to find product information was partially supported (see Table 18). While attitude entered into the regression equation significantly, subjective norm did not (see Table 19; see Figure 7). The model yielded an R of .597 and accounted for about 35% of the variance (see Table 19).

Table 18
Stepwise Regression with Search for Product Information with Search Engines Behavioral Intention as the Dependent Variable

Variable	B	β	t	Sig.
A_b	.212	.597	12.408	<.001
SN	.050	.061	1.011	n.s.

Table 19
Stepwise Regression with Search for Product Information
with Search Engines Behavioral Intention as the Dependent
Variable Model Summary

Variable	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
A_b	.597	.356	.354	.356	1.41

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.05 level or smaller.

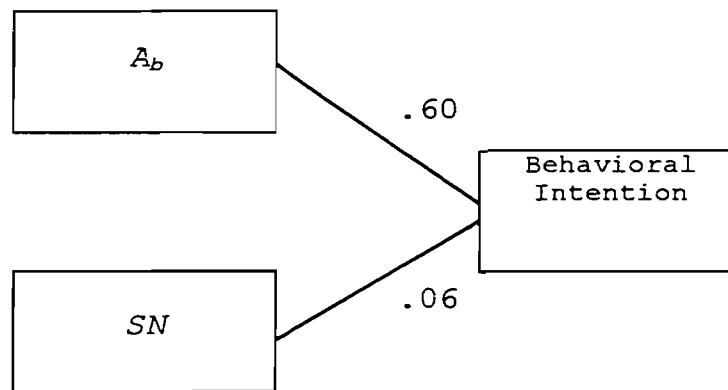


Figure 7. Theory of Reasoned Action Model for Search for Product Information with Search Engines Behavioral Intention

Consistent with previous hypotheses an exploratory analysis was conducted. The correlation procedure yielded several significant relationships (see Table 20). The attitude and normative components and behavioral experience, behavioral satisfaction, and social influence were entered into a regression on behavioral intention. Attitude and social influence entered into the regression equation

significantly achieving a multiple R of .600 accounting for 36% of the variance (see Table 20). The exploratory analysis regarding participants' intention to use search engines to search for product information yielded significant results but did not add to the explanatory power of the regression equation with the same power as some of the other hypotheses.

Table 20
Correlations for Searching for Product Information with Search Engines

		<i>BI</i>	<i>SN</i>	<i>A_b</i>	<i>B-Exp</i>	<i>Sat</i>	<i>SI</i>
<i>BI</i>	Pearson's r	1.000					
	Sig.	.					
	N	280					
<i>SN</i>	Pearson's r	.163	1.000				
	Sig.	.006	.				
	N	280	281				
<i>A_b</i>	Pearson's r	.597	.194	1.000			
	Sig.	<.001	.001	.			
	N	280	281	281			
<i>B-Exp</i>	Pearson's r	.469	.105	.338	1.000		
	Sig.	<.001	n.s.	<.001	.		
	N	252	252	252	252		
<i>Sat</i>	Pearson's r	.381	.224	.445	.455	1.000	
	Sig.	<.001	<.001	<.001	<.001	.	
	N	249	249	249	248	249	
<i>SI</i>	Pearson's r	.535	.283	.482	.267	.398	1.000
	Sig.	<.001	.006	<.001	<.001	<.001	.
	N	280	281	281	252	249	281

Table 21
Stepwise Regression Model Summary with Attitude, Subjective Norm, Behavioral Experience, and Satisfaction as Independent Variables and Searching for Product Information Using Search Engine Behavioral Intention as the Dependent Variable

Model	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
1 (A_b)	.529	.280	.277	.280	1.39
2 (A_b & SI)	.600	.360	.355	.076	1.31

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.001.

Hypothesis V - Using Comparison Engines to Compare Alternatives

Using comparison engines has been categorized in this research as an Alternatives Evaluation behavior. *It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to use comparison engines to evaluate alternatives ($H5$).* The attitude and the normative components were entered into a regression on behavioral intention. The hypothesis regarding participants' intention to use comparison engines to evaluate alternatives was partially supported (see Table 22). While attitude entered into the regression equation significantly, subjective norm did not (see Table 22; see Figure 8).

The model yielded an R of .614 and accounted for about 38% of the variance (see Table 23).

Table 22
Stepwise Regression with Comparison Engine Behavioral Intention as the Dependent Variable

Variable	B	β	t	Sig.
A_b	.189	.614	12.879	<.001
SN	.046	.057	.947	n.s.

Table 23
Stepwise Regression with Comparison Engine Behavioral Intention as the Dependent Variable Model Summary

Variable	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
A_b	.614	.377	.375	.377	1.23

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.001.

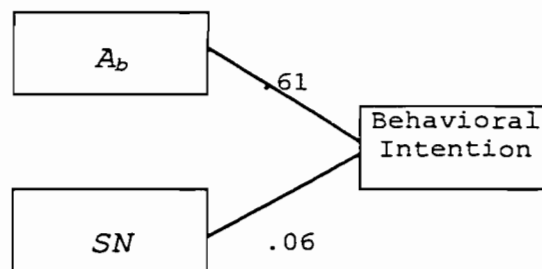


Figure 8. Theory of Reasoned Action Model for Comparison Engine Behavioral Intention

Consistent with previous hypotheses an exploratory analysis was conducted. The correlation procedure yielded several significant relationships (see Table 24). The attitude and normative components and behavioral experience, behavioral satisfaction, and social influence were entered into a regression on behavioral intention. Attitude, behavioral experience, and social influence entered into the regression equation significantly achieving a multiple R of .715 and accounting for 51% of the variance (see Table 25). The exploratory analysis increased the explanatory power of the regression equation by accounting for an additional 14% of the variance associated with participants' intention to evaluate products using comparison engines.

Table 24
Correlations for Comparing Alternatives with Comparison Engines Intention

		<i>BI</i>	<i>SN</i>	<i>A_b</i>	<i>B-Exp</i>	<i>Sat</i>	<i>SI</i>
<i>BI</i>	Pearson's r	1.000					
	Sig.	.					
	N	276					
<i>SN</i>	Pearson's r	.165	1.000				
	Sig.	.006	.				
	N	276	276				
<i>A_b</i>	Pearson's r	.614	.196	1.000			
	Sig.	<.001	.001	.			
	N	276	276	276			
<i>B-Exp</i>	Pearson's r	.499	.078	.323	1.000		
	Sig.	<.001	n.s.	<.001	.		
	N	155	155	155	155		
<i>Sat</i>	Pearson's r	.314	-.068	.240	.205	1.000	
	Sig.	<.001	n.s.	.003	.011	.	
	N	153	153	153	153	153	
<i>SI</i>	Pearson's r	.614	.248	.477	.392	.233	1.000
	Sig.	<.001	<.001	<.001	<.001	.004	.
	N	275	275	275	154	152	275

Table 25
Stepwise Regression Model Summary with Attitude, Subjective Norm, Behavioral Experience, and Satisfaction as Independent Variables and Comparing Product Using Comparison Engines Behavioral Intention as the Dependent Variable

Model	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
1 (A_b)	.613	.376	.372	.376	1.11
2 (A_b & $B-Exp$)	.684	.468	.461	.092	1.03
3 (A_b , $B-Exp$, & SI)	.715	.511	.501	.043	.99

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.01 level or smaller.

Hypothesis VI - Reading Online Reviews to Compare Alternatives

Reading online reviews of products has been identified in this research as an Alternatives Evaluation behavior. It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to use online reviews to evaluate product alternatives ($H6$). The attitude and the normative components were entered into a regression on behavioral intention. The hypothesis regarding participants' intention to use online

reviews to evaluate alternatives was partially supported (see Table 26). While attitude entered into the regression equation significantly, subjective norm did not (see Table 27; see Figure 9). The model yielded an R of .626 and accounted for about 39% of the variance (see Table 27).

Table 26
Stepwise Regression with Online Review Behavioral Intention as the Dependent Variable

Variable	B	β	t	Sig.
A_b	.181	.626	13.231	<.001
SN	.056	.071	1.164	n.s.

Table 27
Stepwise Regression with Online Review Behavioral Intention as the Dependent Variable Model Summary

Variable	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
A_b	.626	.392	.389	.392	1.25

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.001 level or smaller.

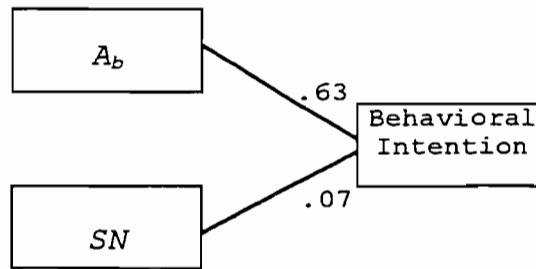


Figure 9. Theory of Reasoned Action Model for Online Review Behavioral Intention

Consistent with previous hypotheses an exploratory analysis was conducted. The correlation procedure yielded several significant relationships (see Table 28). The attitude and normative components and behavioral experience, behavioral satisfaction, and social influence were entered into a regression on behavioral intention. Attitude, behavioral experience, social influence and behavioral satisfaction entered into the regression equation significantly achieving a multiple R of .665 and accounting for 54% of the variance (see Table 29). The exploratory analysis increased the power of the regression equation by accounting for an additional 4% of the variance associated with participants' intention to evaluate product alternatives with online reviews.

Table 28
Correlations for Comparing Alternatives with Reading
Online Reviews

		<i>BI</i>	<i>SN</i>	<i>A_b</i>	<i>B-Exp</i>	<i>Sat</i>	<i>SI</i>
<i>BI</i>	Pearson's r	1.000					
	Sig.	.					
	N	274					
<i>SN</i>	Pearson's r	.172	1.000				
	Sig.	.004	.				
	N	274	276				
<i>A_b</i>	Pearson's r	.626	.187	1.000			
	Sig.	<.001	.002	.			
	N	274	276	276			
<i>B-Exp</i>	Pearson's r	.489	.224	.427	1.000		
	Sig.	<.001	.002	<.001	.		
	N	186	187	187	187		
<i>Sat</i>	Pearson's r	.387	-.052	.418	.329	1.000	
	Sig.	<.001	n.s.	<.001	<.001	.	
	N	185	186	186	186	186	
<i>SI</i>	Pearson's r	.551	.327	.529	.436	.188	1.000
	Sig.	<.001	<.001	<.001	<.001	.011	.
	N	272	274	274	185	184	274

Table 29
Stepwise Regression Model Summary with Attitude, Subjective Norm, Behavioral Experience, and Satisfaction as Independent Variables and Comparing Products Using Online Reviews Behavioral Intention as the Dependent Variable

Model	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
1 (A_b)	.579	.335	.331	.335	1.19
2 (A_b & $B-Exp$)	.636	.404	.397	.069	1.13
3 (A_b , $B-Exp$, & SI)	.655	.429	.419	.025	1.11
4 (A_b , $B-Exp$, SI , & Sat)	.665	.442	.419	.013	1.10

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.001 level or smaller.

Hypothesis VII - Purchasing Products Online

Purchasing a product via website has been identified in this research as a Purchase behavior. *It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to use the Internet for purchasing products ($H7$).* Once again, the attitude and the normative components were entered into a regression on behavioral intention and,

similarly, the hypothesis regarding participants' intention to purchase products online was partially supported (see Table 30). While attitude entered into the regression equation significantly, subjective norm did not (see Table 30; see Figure 11). The model yielded an R of .713 and accounted for about 51% of the variance (see Table 31).

Table 30
Stepwise Regression with Online Purchase Behavioral Intention as the Dependent Variable

Variable	B	β	t	Sig.
A_b	.243	.713	16.818	<.001
SN	.044	.061	1.015	n.s.

Table 31
Stepwise Regression with Online Purchase Behavioral Intention as the Dependent Variable Model Summary

Variable	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
A_b	.713	.508	.506	.508	1.37

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.001.

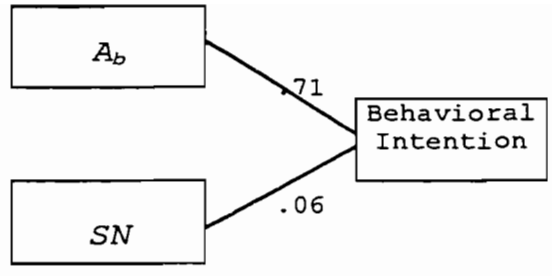


Figure 10. Theory of Reasoned Action Model for Online Purchase Behavioral Intention

Consistent with previous hypotheses an exploratory analysis was conducted. The correlation procedure yielded several significant relationships (see Table 32). The attitude and normative components and behavioral experience, behavioral satisfaction, and social influence were entered into a regression on behavioral intention. Attitude entered into the regression equation significantly achieving a multiple R of .685 and accounting for 47% of the variance (see Table 33). The additional analysis did not increase the explanatory power of the regression equation.

Table 32
Correlations for Purchasing Products Online

		<i>BI</i>	<i>SN</i>	<i>A_b</i>	<i>B-Exp</i>	<i>Sat</i>	<i>SI</i>
<i>BI</i>	Pearson's r	1.000					
	Sig.	.					
	N	276					
<i>SN</i>	Pearson's r	.210	1.000				
	Sig.	<.001	.				
	N	276	277				
<i>A_b</i>	Pearson's r	.713	.196	1.000			
	Sig.	<.001	.001	.			
	N	276	277	278			
<i>B-Exp</i>	Pearson's r	.120	.071	.119	1.000		
	Sig.	n.s.	n.s.	n.s.	.		
	N	194	194	194	201		
<i>Sat</i>	Pearson's r	.083	.110	.117	.304	1.000	
	Sig.	n.s.	n.s.	n.s.	<.001	.	
	N	191	191	191	197	198	
<i>SI</i>	Pearson's r	.581	.163	.560	.092	.064	1.000
	Sig.	<.001	.007	<.001	n.s.	n.s.	.
	N	276	277	278	194	191	278

Table 33
Stepwise Regression Model Summary with Attitude,
Subjective Norm, Behavioral Experience, and Satisfaction
as Independent Variables and Online Purchase Behavioral
Intention as the Dependent Variable

Model	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
1 (<i>A_b</i>)	.685	.470	.467	.470	1.36

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.001 level.

Hypothesis VIII - Using E-mail Support

E-mail customer support was classified as a Purchase Outcomes behavior in this research. *It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) to use e-mail support for a product (H8).* The attitude and the normative components were entered into a regression on behavioral intention. Unlike previous Theory of Reasoned Action hypotheses, the hypothesis regarding participants' intention to use e-mail customer support was supported (see Table 34). Both attitude and subjective norm entered into the regression equation significantly (see Table 34; see Figure 11). The model yielded an R of .486 and accounted for nearly 24% of the variance (see Table 35).

Table 34
Stepwise Regression with E-mail Support Behavioral Intention as the Dependent Variable

Variable	B	β	t	Sig.
A_b	.196	.463	8.717	<.001
SN	.132	.105	1.985	.048

Table 35
Stepwise Regression with E-mail Support Behavioral Intention as the Dependent Variable Model Summary

Variable	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
A_b	.410	.225	.223	.225	1.36
A_b & SN	.486	.236	.231	.011	1.36

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.05 level or smaller.

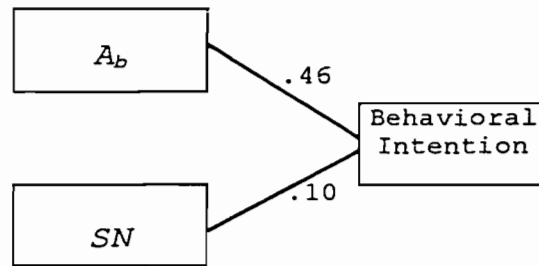


Figure 11. Theory of Reasoned Action Model for E-Mail Support Behavioral Intention

Consistent with previous hypotheses an exploratory analysis was conducted. The correlation procedure yielded several significant relationships (see Table 36). The attitude and normative components and behavioral experience, behavioral satisfaction, and social influence were entered into a regression on behavioral intention. Attitude and behavioral experience entered into the regression equation significantly achieving a multiple R of .478 and accounted

for 23% of the variance (see Table 37). The exploratory analysis did not add to the explanatory power of the regression equation.

Table 36
Correlations for E-mail Support

		<i>BI</i>	<i>SN</i>	<i>A_b</i>	<i>B-Exp</i>	<i>Sat</i>	<i>SI</i>
<i>BI</i>	Pearson's r	1.000					
	Sig.	.					
	N	277					
<i>SN</i>	Pearson's r	.139	1.000				
	Sig.	.021	.				
	N	277	277				
<i>A_b</i>	Pearson's r	.435	.139	1.000			
	Sig.	<.001	.021	.			
	N	277	278	278			
<i>B-Exp</i>	Pearson's r	.307	.257	.225	1.000		
	Sig.	<.001	.001	.002	.		
	N	190	190	190	190		
<i>Sat</i>	Pearson's r	.323	.121	.525	.301	1.000	
	Sig.	<.001	n.s.	<.001	<.001	.	
	N	188	188	188	187	188	
<i>SI</i>	Pearson's r	.375	.234	.321	.277	.368	1.000
	Sig.	<.001	<.001	<.001	<.001	<.001	.
	N	277	278	278	190	188	278

Table 37
Stepwise Regression Model Summary with Attitude,
Subjective Norm, Behavioral Experience, and Satisfaction
as Independent Variables and E-Mail Support Behavioral
Intention as the Dependent Variable

Model	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
1 (A_b)	.432	.186	.182	.186	1.33
2 (A_b & $B-Exp$)	.478	.229	.220	.036	1.30

Note. All models are significant to the $<.001$. All R Square Change values are significant to the $<.01$ level or smaller.

Hypothesis IX - Using Customer Support Websites

Accessing customer support web sites was classified as a Purchase Outcomes behavior in this research. *It was hypothesized that the attitudinal component (A_b) and the normative component (SN) would be predictive of behavioral intention (BI) access online customer support sites (H9).* The attitude and the normative components were entered into a regression on behavioral intention. The hypothesis regarding participants' intention to use online reviews to evaluate alternatives was partially supported (see Table 38). While attitude entered into the regression equation significantly, subjective norm did not (see Table 39; see Figure 13). The model yielded an R of .41 and accounted for about 17% of the variance (see Table 39).

Table 38
Stepwise Regression with Customer Support Web Sites Behavioral Intention as the Dependent Variable

Variable	B	β	T	Sig.
A_b	.173	.410	7.442	<.001
SN	.084	.091	1.510	n.s.

Table 39
Stepwise Regression with Customer Support Web Sites Behavioral Intention as the Dependent Variable Model Summary

Variable	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
A_b	.410	.168	.165	.168	1.42

Note. All models are significant to the <.001 level. All R Square Change values are significant to the <.001 level.

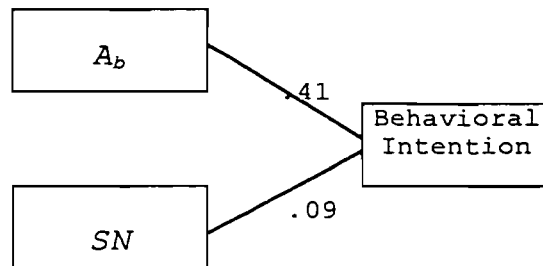


Figure 13. Theory of Reasoned Action Model for Customer Support Web Sites Behavioral Intention

Consistent with previous hypotheses an exploratory analysis was conducted. The correlation procedure yielded several significant relationships (see Table 40). The

attitude and normative components and behavioral experience, behavioral satisfaction, and social influence were entered into a regression on behavioral intention. Social influence, behavioral experience, and attitude entered into the regression equation significantly achieving a multiple R of .538 accounting for over 28% of the variance (see Table 41). The exploratory analysis accounted for an additional 11% of variance.

Table 40
Correlations for Accessing Customer Support Web Sites

		<i>BI</i>	<i>SN</i>	<i>A_b</i>	<i>B-Exp</i>	<i>Sat</i>	<i>SI</i>
<i>BI</i>	Pearson's r	1.000					
	Sig.	.					
	N	276					
<i>SN</i>	Pearson's r	.143	1.000				
	Sig.	.017	.				
	N	277	276				
<i>A_b</i>	Pearson's r	.424	.162	1.000			
	Sig.	<.001	.007	.			
	N	275	277	277			
<i>B-Exp</i>	Pearson's r	.366	.082	.292	1.000		
	Sig.	<.001	n.s.	<.001	.		
	N	196	197	197	197		
<i>Sat</i>	Pearson's r	.310	.101	.450	.216	1.000	
	Sig.	<.001	n.s.	<.001	.002	.	
	N	195	196	196	196	196	
<i>SI</i>	Pearson's r	.502	.199	.333	.277	.289	1.000
	Sig.	<.001	.001	<.001	<.001	<.001	.
	N	274	276	275	195	194	276

Table 41
Stepwise Regression Model Summary with Attitude, Subjective Norm, Behavioral Experience, and Satisfaction as Independent Variables and Accessing Customer Support Web Sites Behavioral Intention as the Dependent Variable

Model	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
1 (SI)	.433	.188	.184	.188	1.31
2 (SI & B-Exp)	.503	.253	.245	.065	1.26
3 (SI, B-Exp, & A _b)	.538	.289	.278	.036	1.23

Note. All models are significant to the <.001. All R Square Change values are significant to the <.001 level.

Hypothesis X

It was hypothesized that satisfaction with participation in pre-purchase Internet consumer behaviors would be predictive of consumers' intention to purchase products and services online (H10). The clicking on banner ads, reading advertising e-mail, searching for product information on e-commerce web sites, searching for product information using search engines, evaluating alternatives using comparison engines, and evaluating alternatives using online reviews satisfaction items were entered into a regression on participants intention to purchase products online. Searching for product information on e-commerce web sites and online stores entered into the regression equation

significantly achieving a multiple R of .264 and accounted for only over 7% of the variance (see Table 42).

Table 42
Stepwise Regression Pre-purchase Behavioral Satisfaction with Online Purchase Behavioral Intention as the Dependent Variable Model Summary

Model	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
E-Commerce Web Sites	.264	.070	.060	.070	1.57

Note. All models are significant to the <.001. All R Square Change values are significant to the <.001 level.

While the hypothesis was partially supported, a vast portion of the variance associated with intention to purchase online in the future remains unexplained. This, combined with the earlier regression analysis on online purchase behavioral intention, indicates the attitudinal component of the Theory of Reasoned Action as the most meaningful predictor of the variance in regard to online purchase intention. See Table 5 for descriptive statistics of behavior satisfaction.

Hypothesis XI

It was hypothesized that previous direct purchasing experience would be predictive of behavioral (BI) intention to purchase products on the Internet (H11). Previous catalog shopping experience and television shopping

experience were entered into a regression on participants' intention to purchase products online. The hypothesis was not supported as the regression yielded no significant results.

DISCUSSION

Demographics

The sample for this study had a higher percentage of female participants than other Internet based research (Bellman et al., 1999; Kehoe et al., 1999). Two issues that may shed light on this difference are: 1) the increasing population of women participating in online behaviors (M2 Communications, 2000) and 2) the sampling procedure.

Early on, the Internet population was made up of almost exclusively men. Over time, however, the Internet has become accessible in environments that are neither dominated by women or men. At the same time, the content of the Internet has evolved from a few scientists exchanging ideas to innumerable sites focused on issues important to the growing population of women users. There is also some indication that as the functional utility of the Internet has increased for more activities, women have become more likely to use it (M2 Communications, 2000). With the population of the Internet expanding in all demographic categories, it is not surprising that the Internet population is more closely resembling the general population.

While the sampling procedure in this study was not random, efforts were made to obtain a sample that was representative of the Internet population. In soliciting mailing list owners to post the survey invitation to their distribution list (rather than posting it directly to

specifically representative lists), it is feasible that the distribution lists were dominated (in terms of numbers) by women subscribers. That is, the topic of the mailing list was such that an inordinate number of women received an invitation to participate as opposed to men. A random sample that was exactly representative of the general Internet population could have been obtained through Internet research firms but that was cost prohibitive for this research project. There is also a possibility that women are more likely to answer Internet surveys than men. Of course, this is a research question. With the burgeoning use of the Internet for more and more research, a line of research exploring the differences between traditional survey research and Internet research could yield some very interesting results. Does technology change the way people respond to survey items? Dillman's (1999) most recent edition of his seminal work on the "Total Design Method" for survey research highlights some modal differences between mail, e-mail, telephone, and interactive voice response (IVR) surveys. Intuitively, it seems that there is at least a possibility of some differences between how individuals respond to this new medium in survey situations.

Theory of Reasoned Action

Hypotheses I through IX were related to the Theory of Reasoned Action. Prior to interpreting the results of the Theory of Reasoned Action hypotheses, it is important to

note that the breadth (nine different behaviors) and medium (online survey) used in this research made strict adherence to Ajzen & Fishbein 's (1980) recommended methodology untenable. Strict adherence to their (Ajzen & Fishbein, 1980) methodology would have required a significant variation in the scales for the Theory of Reasoned action items. This would have resulted in the increasing the complexity of an already cumbersome survey. Test participants reported taking between 20 and 45 minutes to complete the instrument used in the study. Considering the exploratory nature of this study and the broad range of behaviors examined, this compromise was made for the sake of response rate. Further, there is clearly an understanding that none of these behaviors was examined sufficiently enough to suggest the behavioral phenomena are completely understood. A more detailed research program for each of these behaviors relative to the theoretical constructs of the consumer decision process is needed. A goal of this research was to help provide some of the clues that dictate the direction of that future research.

Hypothesis I - Clicking on Banner Ads

Only 17.4% of the participants indicated any future intention (through the 2000 holiday season) to click on banner ads while 58.9% indicated that they somewhat disagree, disagree, or strongly disagree with the statement that they intended to click on banner ads in the subsequent

12 months. Banner ad intention was very low among the sample ($M = -1.14$, $SD = 1.59$) (as measured on a seven-point scale from -3 to +3). Further, 30% ($n=87$) of the sample indicated that they had never clicked on a banner ad. This suggests that banner ads that require the user to click to receive the key information will be ineffective. Participant's attitude toward clicking on banner ads was predictive of behavioral intention while subjective norm was not.

Attitude

While a relative small proportion of the participants intend to click on banner ads in the near future, nearly two thirds (66.1%) find that they are cleverly designed. At the same time, an overwhelming number of participants (72.9%) agreed with the survey item that described banner ads as a nuisance. This certainly suggests that banner ads and their role in Internet behavior is more complex than merely measuring "click-through" behavior. Both the "clever design" and "nuisance" items do not meet the requirements for inclusion into the attitude regarding clicking on banner ads but they do give us some clues regarding the nature of banner ads during browsing behavior. For example, there appears to be some indication that users are attending to banner ads but do not tend to click on them. That is, for a user to agree that banner ads are cleverly designed, they must be attending to the stimulus of banner ads. This certainly suggests that the relationship between attending

and clicking on banner ads is important. Ultimately what value do each of these behaviors provide the user and what benefits are yielded by the advertiser (e.g., brand recognition) of each of these behaviors.

The exploratory analysis found that past satisfaction with clicking on banner ads was predictive of banner ad intention. Theoretically, Fishbein (1980) would argue that the non-Theory of Reasoned Action predictors of behavioral intention are expressed through Theory of Reasoned Action items. That is, more attitude items could be developed that would adequately describe any additional variance accounted for in the exploratory analysis. At the same time, the exploratory analysis did not shed light on the rationale that users may have for clicking on banner ads. This suggests that attitudes beyond the "Do you or don't you click on banner ads?" are complex and require further study to understand how the banner ad fits into our entire web experience.

Subjective Norm

There are three fundamental reasons which may explain why subjective norms regarding clicking on banner ads was not found to be predictive of participants' intention to click on banner ads in the future: (1) the key referents were not included in the instrument, (2) there are no referents regarding this behavior, and (3) the behaviors are not sensitive to referents at the time of the research.

In the case of clicking on banner ads it is difficult to imagine the behavior as a whole being sensitive to referents. The referents used in this research include the participants' friends, family and Internet service provider (ISP). Apparently, when considering clicking on banner ads as a whole, these referents were not relevant. Further research is required to determine appropriate referents, if any, for clicking on banner ads. Ajzen and Fishbein (1980) recommend a methodology for determining referents for a given behavior.

If the focus of our research were on certain types of banner ads, it seems plausible that the referents used in this research would be salient to the participants. For example, if participants' were asked about clicking on banner ads that would lead them to sites focused on adult-only material it seems reasonable that research findings regarding pornographic material and social referents would apply in this new medium as much as more traditional pornographic material distribution channels. A situation where important referents might be more likely to view clicking on banner ads positively are those banner ads that when so many users access it the sponsor provides a socially redeeming service (e.g., "click here and someone without insurance will receive a mammogram"). While the users' ISP may not be a salient referent with regard to positively and negatively valenced banner ads, it is likely that friends

and family would be salient dependent on the topic of the banner ad.

Lastly, it is possible that regardless of the topic of the banner ad, participants' just don't care what important referents think about their participation in the behavior. That is, the behavior is not sensitive to social referents.

Future Research

Three areas that need to be explored more thoroughly in future research are: 1) Why do people click on banner ads?; 2) For those of us who don't click on banner ads, do we attend to them?, Is that attention intentional?, and Why do we not click on banner ads?; and 3) What tangible benefit do users perceive, and realize from attending to and/or clicking on banner ads.

Hypothesis II - Reading E-mail Advertisements

Over 53% (n=155) of the participants agreed with the statement that subscriber-list e-mail was good for consumers while only 20.6% disagreed. The difference in negative responses between banner ads (72.9%) and subscriber-list e-mail (20.6% suggests that there may be something inherently different about subscriber-list e-mail.

Attitude

It was found that reading subscriber-list e-mail advertisement intention was associated with the attitude component but not the normative component of the Theory of Reasoned Action. The regression equation accounted for

only 32% of the variance associated with reading subscriber-list e-mail advertisements. The exploratory regression analysis accounted for just over 42% of the variance however. Similar to clicking on banner ads, satisfaction with reading e-mail advertisements loaded first on behavioral intention. The attitude component loaded second, and behavioral experience also loaded significantly. This suggests that the attitude regarding e-mail advertisements is more complex than indicated by the research. That is, it is not just a matter of saving time, increased variety and quality, and saving money.

While banner ad attitude complexity could be explained because of their entertainment value ("cleverly designed"), subscriber-list e-mail advertisements do not intuitively possess the same quality. The attitudes that are being expressed through satisfaction and behavioral experience are likely different.

Subjective Norm

The same three reasons that may explain why clicking banner ads intention is not associated with the normative component of the Theory of Reasoned Action may also apply to subscriber-list advertising email intention as well (appropriate referents not measured, no referents exist, and referents are temporal). While these may be consistent across these two behaviors, there are some subscriber list e-mail lists that could certainly be influenced by the

normative component. It is reasonable to suggest that those e-mail lists that are topical according to profession (e.g. UTEST) or medical condition could have a normative component. I certainly can imagine a normative component among my colleagues' discussion regarding the latest design discussion on UTEST. At the same time, I can posit a situation in a self-help group where parents of children with a rare disease learn of the latest treatments and have strong opinions about the results of those treatments. Of course neither of these examples involve advertisements. So, the questions regarding the normative component and subscriber list e-mail are: 1) Is there a normative component in some subscriber list email scenarios; and 2) does that normative component apply to the advertisements on the mailing list?

Future Research

The issues that are of interest regarding subscriber-list e-mail include: 1) the socio-cultural phenomena of opt-in e-mail lists; 2) what benefit do these opt-in e-mail lists yield participants and how does that influence their motivation and need recognition activity; and 3) how do the aforementioned topics contribute to the complexity of participants reading subscriber-list e-mail advertisements?

Hypothesis III - Searching for Product Information in Online Stores

An over-whelming percentage of participants (82.3%) agreed, somewhat agreed, or strongly agreed that searching for product information in e-commerce web sites, such as online stores, was good for consumers. This would seem to suggest that the participants believe the product information they could obtain from these web sites is reliable. The positive response, as compared to motivation and need recognition behaviors (clicking on banner ads and reading e-mail advertisements), suggests that users perceive that participating in this behavior is much more desirable from the online consumers' perspective.

Intuitively, behaviors that are driven by the user will be more positively valenced by the participants. That is, users feel more positively towards behaviors that they originate themselves. This contrasts strongly with the nuisance factor associated with obtrusive banner ads causing slower page downloads and irritating e-mail that must be deleted from the user's inbox.

Attitude

The attitude component accounted for approximately 30% of the variance associated intention to use online stores to search for product information. The exploratory analysis indicated that behavioral experience, whether the users' friends and family searched for product information in

online stores, and satisfaction with their past experience, were also predictive of users' intention to use online stores to search for product information through the holiday season. The exploratory regression analysis accounted for over 48% of the variance associated with intention to use online stores to search for product information.

As with the motivation and need recognition behaviors, the exploratory analysis accounted for considerably more variance regarding behavioral intention than the attitude component on its' own. That indicates that searching for product information online in e-commerce sites and in online stores is expressed by other attitude items that were not considered in this study.

One potential issue with this item is that the user could certainly extrapolate all of their attitudes regarding the complete set of behaviors addressed in this research. That is, when a user accesses a site to find product information, they will also be subject to banner ads, possibly comparison engines, online reviews (only positive ones of course), support information, and a shopping cart and purchase opportunity. It is certainly feasible that when entering a particular e-commerce site or online store, a user will be exposed to or participate in a broad range of consumer behavior processes in a single session. Can a user differentiate this particular behavior from the other behaviors that naturally occur with the shopping experience?

Although it certainly is possible, in the case of searching for product information, because of its' association with other behaviors, it seems less likely.

Subjective Norm

Similar to Hypotheses I and II, the normative component was not predictive of behavioral intention. It is simply difficult to imagine that important referents would play a role in an individual's intention to search for product information in online stores or e-commerce web sites.

Future Research

Because the online store and e-commerce site user experiences are potentially very different, future research should look at these separately. Is there a difference between online stores that sell their own products as opposed to those that are a reseller of others' products? Is the user experience at those sites that offer products different than at those e-commerce sites that offer other services such as reviews, articles, or serve as a clearinghouse for others' products and services? What are the attitude items that are important to users as they access and use each of these different types of sites?

While the above research can be accomplished with methods typically employed in standard Theory of Reasoned Action research, an alternative research paradigm could be employed in addressing the complex combination of consumer behaviors that users engage in when they access an online

store or e-commerce web site. A series of applied and analog studies would have to be accomplished to fully understand how these behaviors might fit together in the online store experience.

Hypothesis IV - Using Search Engines to Find Product Information

Over 85% of the sample indicated that using a search engine to search for product information was good for the consumer. This is not surprising since search engines are the most common tool used in the Internet experience (Jupiter Communications, 1999). Just over 50% of the participants indicated that they somewhat agreed, agreed, or strongly agreed that they intended to use search engines to search for product information during the 2000 holiday season. This is similar to the behavioral-intention percentage found with searching for product information in online stores (55.4%), but is considerably different than the percentages found in clicking on banner ad intention (17.4%) and reading subscriber list e-mail advertisements (29.8%). Users were also more satisfied with search-for-product-information behaviors (online store: M=5.83 & search engine: M=5.80) than with need recognition and motivation behaviors (banner ads: M=3.20 & subscriber-list e-mail advertisements: M=4.09). These findings seem to suggest that there is some component of the motivation and need

recognition behavioral experience that is decidedly more negative than the search for product information experience.

The Theory of Reasoned Action

Consistent with previous hypotheses, the normative component did not load significantly on behavioral intention in the regression equation. The attitudinal component accounted for just over 35% of the variance. The exploratory regression analysis accounted for 36% of the variance associated with the participants' intention to use search engines to search for product information. Both the attitudinal component and the friends and family using search engines to search for product information loaded into the exploratory regression equation. Notably absent from the regression equation was recent behavioral experience and satisfaction with previous experiences. Because the exploratory analysis did not yield considerably more variance than the Theory of Reasoned Action regression analysis, it is simply more parsimonious to describe the variance within the theoretical constructs of the Theory of Reasoned Action.

As with searching for product information in online stores, it may also be difficult for participants to differentiate their overall experience with search engines from those search engine instances in which they are searching for product information. It is certainly possible that the reliability, quality of information, and speed of

the search query responses in a typical search could dominate a users' attitude regarding those small percentage of searches that they conduct that they are searching for product information.

Future Research

With 65% of the variance associated with intention to use search engines to search for product information unaccounted for, there is potential for the development of attitudinal items focused more specifically on the product information search using search engines. Further, differentiating the attitudes regarding a variety of uses for search engines could indicate the need for the development of new Internet tools.

Hypothesis V - Using Comparison Engines to Compare Alternatives

Comparison engines have not been the focus of any Internet research to date. This might imply that comparison engines are unimportant to the web consumer experience. Over 50% of the sample had some experience using comparison engines. Considering the evidence of comparison engine usage in this sample, more research understanding the attitudes and motivation of users of comparison engines is warranted.

Attitude

The attitude component of the Theory of Reasoned Action loaded in to the regression equation on comparison engine intention while the normative component did not. The

regression equation accounted for 37.7% of the variance associated with comparison-engine behavioral intention. In the exploratory regression analysis, the attitudinal component loaded first into the regression equation. Past usage of comparison engines, and participants' friends and family usage also loaded into the regression equation, accounting for 51% of the variance. This indicates that the attitudinal component was insufficient to explain the variance associated with behavioral intention. The comparison engine is unique to the web consumer experience; however, comparing alternatives is fundamental to the consumer purchase process.

Future Research

The attitude items in this research focus on the results of the complete purchase experience and are insufficient for an accurate assessment of the participants' attitudes about the results of the comparison-engine experience. Items that address the quality, reliability and trustworthiness of the information that comparison engines provide would be more useful in determining user attitudes regarding their comparison engine user experience. Also, determining the evaluation criteria that are important to users across a range of products could provide some insight into the common criteria that should be included in all comparison engines. One of those features that may improve the user experience of comparison engines is the ability to

choose the evaluation criteria as opposed to using common evaluation criteria regardless of the products and product groups.

Hypothesis VI - Reading Online Reviews to Compare
Alternatives

Only 47.7% (n=139) of the users somewhat agreed, agreed, or strongly agreed with the reading online reviews intention statement. Over 28% (n=83) of the participants indicated that they consult online reviews on at least a monthly basis.

Subjective Norm

Of all of the behaviors studied, online review behavioral intention could be the most dependent upon the normative referents if, in fact, salient referents were the source of the review. Provided that the reviewer is an important referent, the normative component should load significantly into the regression equation. Unfortunately, the normative component did not load on behavioral intention to read online reviews in the future. This strongly suggests that the normative referents in this research were not those that would be important to the user. There is the possibility that the referents that would be meaningful are highly dependent on the topics of the online review. That is, an evaluation of current movies in the theater versus a review of the top five DVD players are likely going to involve different normative referents for a single user. At

the same time, the behavior (reading online reviews) may not be differentiated enough from reviews in other media to be meaningful for the participants of the study. This behavior may not be specific enough to be sensitive to measurement of the normative component.

Attitude

The attitude component loaded significantly into the regression equation on reading-online-reviews-behavioral-intention. It accounted for nearly 40% of the variance associated with behavioral intention. The exploratory analysis accounted for 51% of the variance with the attitude component, behavioral frequency, and friends and family participation in reading online reviews loaded into the regression.

The additional explanatory power suggests an expansion of items in the attitude component items is in order. At the same time, considering the absence of the loading of the normative component, it is reasonable to suggest that the behavioral specificity issue previously discussed is equally applicable to the attitudinal component. Also, reading reviews (either online or in other media) could certainly contribute to the user finding quality products at the best price in the least amount of time. Rather than the attitude items being non-applicable, they are merely insufficient to explain the majority of the variance associated with behavioral intention.

Future Research

In the case of online reviews, there are several lines of research that could yield important results. The first of these lines of research would focus on the differences between online reviews and reviews in more traditional media. Perhaps, research focusing on the reviews of other customers (very common on purchasing web sites and quite uncommon in traditional print media) rather than online reviews in general, would be a fruitful area for researchers. Another line of research could focus on the expansion of attitude items regarding online reviews and users' expected benefits from reading online reviews. Lastly, examining the specificity of the product under consideration would be a worthwhile line of research: for example, examining the differences between those products used to accomplish all aspects of the consumer decision process versus those products used specifically to search for information and compare alternatives. It is reasonable that the important referents regarding reading online reviews would differ contingent on the product under evaluation.

Hypothesis VII - Purchase Products Online

Nearly one third (n=91) of the participants indicated that they somewhat disagreed, disagreed, or strongly disagreed with the purchase intention statement. Twenty-six percent (n=76) of the sample indicated that they have never

purchased products online. Over 32% of the users indicated that they purchase products monthly or more frequently, 39.7% indicated that they purchase products for special occasions, 34.9% purchase products online for holidays, and 33.6% purchase products for routine purchases. These numbers are higher than Glantz and Glasheen's (1999) projections for Internet purchasing trends by 2003.

Subjective Norm

The normative component did not load into the regression equation on purchase behavioral intention. The reasons for the normative component's absence from the regression equations could be for similar reasons cited above. Obviously the salient referents were not included in the research. The blanket "friends and family" referent was most likely too broad. Internet users that live the "wired" lifestyle indicate that access to increased variety and that saving time are principle motivators for purchasing products online (Bellman, et al., 1999). Referents that value saving time would be more likely to load on behavioral intention. For example, it may be important to a spouse that his or her partner saves time by purchasing groceries over the Internet. It also possible that the supervisor of the purchasing spouse (using work time to purchase groceries) and the supervisor of the non-purchasing spouse (enables spouse to stay late at work) could be important referents in the specific sample cited above.

Attitude

The attitude component accounted for over 50% of the variance associated with purchase behavioral intention. When the non-Theory of Reasoned Action items were entered into the exploratory regression analysis, the attitude component was the only item to load. This suggests that the factors under study are expressed through the items included in the attitude component. This is consistent with previous research (Bellman et al., 1999; Tracy, 1998). At the same time, with nearly half of the variance unaccounted for, there is the opportunity to develop additional attitude items in addition to examining normative referents.

Future Research

Specificity is the key issue for future research regarding purchasing products online. Exploring the attitude and normative components of purchasing different products online is a rich area for research. The attitudes and normative referents for users are likely different when they are shopping for a mortgage versus a novel. Only by examining many different types of products and purchasing situations can we begin to develop more attitude items and salient referents that are meaningful across classes of scenarios. The other area involving specificity and future research is related to the examination of different groups of Internet users and their attitudes towards purchasing products on the web. A comparison of traditional shopper

attitudes versus web shopper attitudes is also interesting fare for further research. What are the outcomes that are important to each of these populations, how are they different, how are they the same?

Hypothesis VIII - E-mail Customer Support

Nearly 60% (n=168) of the participants use e-mail customer support infrequently (every six months) or have never used it. Just over 25.6% of the participants indicated that they agreed with intention statement while nearly 35% disagreed. There is a question whether, prior to the need of customer support, a user can intend to use e-mail customer support. It is possible that users who answered the intention statement affirmatively responded in two different ways: 1) I always need customer support so I will need it in the future and if e-mail customer support is available I intend to use it, or 2) I don't know if I will need customer support but if e-mail customer support is available and I need e-mail customer support, I will use it. Either option requires participants to accomplish a mental exercise to meet the requirement of "within the person's volitional control" dictated by the Theory of Reasoned Action (Ajzen & Fishbein, 1980).

Subjective Norm

Of the nine Theory of Reasoned Action hypotheses, e-mail support is the only regression in which the normative component loaded significantly. The hypothesis that the

normative component would load into the regression on behavioral intention was supported. This does not mean to imply that a more powerful effect would not have been yielded had the behavior of accessing e-mail support been tied to more specific referents. It is possible that accessing e-mail customer support could be considered a more independent or savvy problem solving technique than waiting on the phone. In that case friends, family, or coworkers that admire the more independent problem solver would have provided a more powerful referent than the generic friends or family item used in this research.

Attitude

The regression analysis yielded a multiple R of .486 and accounted for 23.6% of the variance associated with intention. Both the attitude and normative components loaded significantly into the regression equation. The exploratory analysis accounted for less variance with behavioral experience and the attitude component loading significantly into the regression equation. The considerable amount of unexplained variance is due to the lack of focus on customer support and specific items focused on issues surrounding users' and non-users' attitudes regarding various forms of customer support mechanisms. The items were developed from research regarding general Internet attitudes and attitudes to purchasing products online.

Future Research

There are several questions to be considered in regard to customer support and the Internet. Just a few are: 1) what are the factors and or attitudes that implore users to consider alternative methods of access to customer support than the traditional phone support? 2) What are the users' outcome beliefs regarding various forms of customer support? 3) What types of customer support are acceptable for different classes of products or questions? Future research should also focus on a more thorough exploration of referents and their role in users' future intention to use e-mail customer support.

Hypothesis IX - Using Customer Support Websites

Just over 50% of the participants studied have either never (27.7%, n=81) or infrequently (once every six months (24%, n=70)) used a web site to get customer support. Further, only 27.1% indicated that they intended to get customer support from a web site over the next few months. The same issues discussed regarding e-mail customer support apply when considering web site customer support. To some degree, getting customer support is not under the volitional control of the participant because the need to get it is instigated by the actions or inactions of others (not providing correct materials with purchase causes the need for customer support in the first place). Once the condition for needing customer support exists, however, it

is then under the volitional control of the user to obtain that support through the available options (e-mail, web-site, or telephone). In order for the users to answer the intention item effectively they must first imagine the purchase, the likely need, and assume the availability of a customer support web site providing sufficient help for the users product support issue to be solved.

Subjective Norm

The normative component did not load into the regression equation on intention to use customer support web sites. These results are similar to most of the other Theory of Reasoned Action hypotheses and the discussions regarding specificity of referents applies to accessing customer support web sites as well. The notable exception to the loading of the normative component is e-mail support intention. This lends support to the notion that the normative component that loaded significantly for e-mail support was, albeit statistically significant, not theoretically meaningful. It is the researcher's contention that there should be little or no differences regarding the normative referents between e-mail support and customer support web sites.

Attitude

The attitude component loaded significantly into the Theory of Reasoned Action regression accounting for just under 17% of the variance. The exploratory regression

analysis yielded a multiple R of .538 and accounted for an additional 12% of the variance associated with participants' intention to use customer support web sites. In addition to attitude, participants' knowledge of friends and family using customer support web sites, and behavioral experience loaded in to the exploratory regression analysis. This suggests the possibility of the development of future attitude items that account for more of the variance associated with users' intention to use customer support web sites.

Future Research

Much of the future research possibilities discussed previously also apply to customer support web sites. These include the development of specificity of normative referents, attitudes regarding accessing customer support for different classes of products, the development of other attitude items that specifically address customer support web sites, and the consideration of customer support within the context of the complete online store experience.

Hypothesis X

The hypothesis that the satisfaction with pre-purchase consumer behaviors would be predictive of users intention to purchase products in the future was partially supported in that participants satisfaction with finding product information at online stores was predictive of users intention to purchase products online through the upcoming

holiday season. While this highlights the importance of well designed online stores and e-commerce web sites, the small amount of variance (7%) that the regression equation accounted for suggests many other more powerful factors that would be predictive of users future intention.

Obviously, this research supported the notion that users who expected that purchasing products online would lead to more variety, higher quality, the best price, and would save time would have more intention to purchase products online in the future. Of more interest theoretically is the contention that positive pre-purchase consumer behaviors by those who have never purchased products online would be predictive of those individuals making future purchases online. Unfortunately, the sample in this study only had 26 participants that had not purchased products online and had participated in each of the pre-purchase consumer behaviors. At this point we can only describe this hypothesis as inadequately tested.

Future Research

Future research should focus on obtaining a sample of participants that have participated in pre-purchase consumer behaviors but have not purchased products online. Understanding the development of satisfaction and trust as a person gains experience with both the technology and online merchants would be valuable to business in terms of understanding how they can increase their sales. Also,

future study in this area could help us understand the development of the adoption of new behavioral patterns in this rapidly developing area.

Hypothesis XI

The hypothesis that users who participated in other indirect purchasing would be more likely to purchase products online was not supported. While older studies such as Shim and Drake (1999) found that these experiences could be predictive of online purchase intention, more recent studies have not (Bellman et al., 1999; Crisp et al., 1997). It can be said with confidence that other factors are much more powerful in regard to predicting online purchasing behavior and that for the time being this area is not one that could be considered fruitful.

Summary

This study demonstrated that Internet user attitudes and intention to participate in e-commerce related behaviors can be studied within the theoretical constructs of the Theory of Reasoned Action effectively. It was found that that attitudinal component of the Theory of Reasoned Action was consistently predictive of users' intention to participate in all nine of the consumer behaviors during the 2000 holiday shopping season. Additionally, several areas emerged as worthy of further study. These include: (1) methodological questions around obtaining samples of Internet populations from Internet mailing lists, (2) the

applicability of applying traditional Social Psychological theories to internet behaviors, and (3) the clear identification of knowledge gaps in the Consumer Decision Process with regard to online consumer behavior.

Internet Mailing List Samples

Although the technology of the Internet offers an opportunity for researchers to collect data very quickly through any number of experimental paradigms, it has proven very difficult to obtain a representative sample of Internet users. As a result, studies that require a representative sample will find it difficult to generalize their findings to the Internet population as a whole. This was certainly true for this research, as evidenced by the gender distribution of the sample. The sampling technique in this study has, however, introduced us to the possibility of obtaining samples of Internet users from a new source. This study demonstrated that it is possible to get one or more list owners to post an invitation to participate in a survey on their mailing list. The questions regarding this methodology are regarding two separate response rates: the list owners' rate of posting a survey invitation to their lists and once posted the rate of the list subscribers to respond to the survey.

A line of research that focuses on the methodology of obtaining cost-effective representative samples from the Internet is very important to the academic community for

several reasons. First, access to accurate representations of the Internet populations is very expensive for the academic community. Market reports cost thousands of dollars at issue and only decrease in price when they cease to be relevant. The cost of obtaining a representative sample through e-mail list clearing-houses is cost prohibitive for the academic community. Finally, the development of a methodology that makes representative samples more attainable facilitates the ability of the academic community to produce more and more accurate research regarding the Internet and its population at a faster rate. This could increase both the quality and the relevancy of academic research in this area.

Is Internet Behavior Social?

One of the main thrusts of this research was to apply Fishbein's (1980) Theory of Reasoned Action to a set of e-commerce behaviors. As discussed earlier, for the most part, the normative component did not load on behavioral intention. Most aspects of the Consumer Decision Process had been considered social behaviors based on the constructs of the Theory of Reasoned Action. This certainly suggests that when we begin to examine social processes and behaviors relative to the Internet we may find differences that are unexpected. As mentioned above, the context, the focus of this research, may be much less relevant regarding the normative component while the target may be very meaningful.

While this study certainly gives us some indication that the generally accepted constructs social theories may emerge differently (either slightly or drastically) when focusing on online behaviors, this research is by no means conclusive enough to alter or suggest an alternate Theory of Reasoned Action for online behaviors. This research does suggest, however, a line of investigation that focuses on the application of the Theory of Reasoned Action to online behaviors in a manner that is 100% methodologically consistent with Fishbein (1980) is necessary to understand the applicability of these theoretical constructs to online consumer behavior.

E-Commerce Behavior: Understanding the Knowledge Gaps in
the Consumer Decision Process

A third area in which this research made a considerable contribution was the identification of knowledge gaps in the Consumer Decision Process for online behaviors. If we begin to examine the variance accounted for across all of the behaviors, the gaps in the body of knowledge regarding these behaviors become obvious (see Table 43).

Table 43
Regression Equation Comparison

Behavior	R	R Square	Adjusted R Square	R Square Change	Std Error of the Estimate
Clicking on Banner Ads	.399	.159	.156	.159	1.46
Reading Advertising Email	.568	.323	.320	.323	1.44
Product Information Search in Online Stores	.549	.301	.299	.301	1.48
Product Information Search Using Search Engines	.597	.356	.354	.356	1.41
Comparing Alternatives with Comparison Engines	.614	.377	.375	.377	1.23
Comparing Alternatives with Online Reviews	.626	.392	.389	.392	1.25
Purchase	.713	.508	.506	.508	1.37
E-mail Support	.486	.236	.231	.011	1.36
Accessing Customer Support Web sites	.410	.168	.165	.168	1.42

There is obviously a gap in our understanding of users' attitudes regarding clicking on banner ads, using e-mail support, and accessing customer support web sites.

Attitude scales that account for less than 30% of the variance associated with behavioral intention is unacceptable. More acceptable R Square values (.301 to .392) were found in searching for product information behaviors, comparing alternative behaviors, and reading advertising e-mail. While these values are better than the aforementioned behaviors, they still indicate that the vast portion of attitude variance associated with behavioral intention is not understood. Not surprisingly, the relationship between purchase and purchase intention is the most understood with 50% of the variance accounted for by the TRA regression equation.

What do these gaps tell us regarding e-commerce and the Consumer Decision Process? Our understanding of the processes and associated behaviors of the Consumer Decision Process regarding online behavior is vastly incomplete. In industry the focus on usability and research has been in simplifying the purchase process rather than the complete user experience. Does it really matter an e-commerce site has the best shopping cart interaction model or "one-click ordering" process? Yes, those things matter, but success of businesses is built on consideration of the complete customer experience. This research suggests that, further study of online consumer behavior across the broad spectrum of the Consumer Decision Process is one of the components that will ultimately contribute to the success of online businesses.

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50, 179-211.
- Ajzen, I. & Fishbein, M. (1975). Belief, attitudes, intention, and behavior: an introduction to theory and research. New York: Addison Wesley Publishing Company, Inc.
- Ajzen, I. & Fishbein, M. (1977). Attitude-behavior relations: atheoretical analysis and review of empirical research. Psychological Bulletin, 84, 888-918.
- Anderson Consulting (1999). Banner Ads Are Not Dead [On-line]. Available:
http://www.Nua.ie/surveys/index.cgi?f=VS&art_id=905355427
- Anderson Consulting (1999b). One-Quarter of Attempted Holiday E-commerce Purchases Fail [On-line]. Available:
http://cyberatlas.Internet.com/markets/retailing/article/0,1323,6061_265191,00.html
- Bagozzi, R. P. (1981). Causal models in marketing. New York: John Wiley & Sons, Inc..
- Bellman, S., Lohse, G., & Johnson, E. (1999). Predictors of online buying behavior. Communications of the ACM, 42(12), 32-38.
- Bentler, P. M. & Speckart, G. (1979). Models of attitude-behavior relations. Psychological Review, 86, 452-464.
- Beyer, H. & Holtzblatt, K. (1998). Contextual design:

- defining customer centered systems. San Francisco, CA:
Morgan Kaufmann Publishers, INC.
- Butler, P. & Peppard, J. (1998). Consumer purchasing on the Internet: processes and prospects. European Management Journal, 16(5), 6000-610.
- Buttle, F. & Bok, B. (1996). Hotel marketing strategy and the theory of reasoned action. International Journal of Contemporary Hospitality Management, 8(3), 5-10.
- Childs, W. (1999). Home Office E-Commerce: Online Purchases by the Home Office Market. Framingham, MA: International Data Corporation.
- Crisp, C. B., Jarvenpaa, S. L., & Todd, P. A. (1997). Individual differences and Internet shopping attitudes and intentions [On-line]. Available:
http://ccwf.cc.utexas.edu/~crisp/Indiv_Shop.htm
- Dillman, D. A. (2000). Mail and Internet surveys: the tailored design method (2nd ed.). New York: John Wiley & Sons.
- Engel, J. F., Blackwell, R.D., & Miniard, P. W. (1993). Consumer behavior (7th ed.). Fort Worth, TX: Harcourt Brace Jovanovich College Publishers.
- Fishbein, M. (1980). A theory of reasoned action: some applications and implications. In H. E. Howe (Ed.), 1979 Nebraska Symposium on Motivation. Lincoln: University of Nebraska Press.
- Gantz, J. & Glasheen, C. (1999). The Global Market Forecast

- for Internet Usage and Commerce: Based On Internet Commerce Market Model, Version 5. International Data Corporation.
- Hagel, J. & Armstrong A. G. (1997). Net gain. Expanding markets through virtual communities. Cambridge, MA: Harvard Business School Press.
- Jupiter Communications (1998). The Jupiter/NFO Consumer Survey, Volume 1: Defining the Internet Shopper: Attitudes, Objectives, and Behavior. New York: Jupiter Communications and NFO Interactive.
- Jupiter Communications (1999). The Jupiter/NFO Consumer Survey, Volume 2: Attitudes, Behaviors and Demographics of the Online User. New York: Jupiter Communications and NFO Interactive.
- Kehoe, C., Pitkow, J., & Rogers, J. (1999). GVU's 10th WWW User Survey Report [On-line]. Available: http://www.gvu.gatech.edu/user_surveys/
- Koslowsky, M. (1993). A comparison of two attitude behavior models for predicting attrition in higher education. Journal of Applied Behavioral Science, 29(3), 359-365.
- Langford, B. E. & Capella, L. M. (1994). A model of personal automobile insurance shopping intentions (PAPSI) [On-line]. Available: <http://www.fgcu.edu/cob/mkt/langford/shopping/html>
- Lee, C. & Green, R. T. (1991). Cross-cultural examination of the Fishbein behavioral intentions model. Journal of

- International Business Studies, 22(2), 289-305.
- M2 Communications (2000). Women overtake men in Internet usage in the US. Telecomworldwire [On-line]. Available: http://www.findarticles.com/m0ECZ/2000_August_14/64160591/pl/article.jhtml
- Maes, P., Guttman, R. & Moukas, A. (1999). Agents that buy and sell: transforming commerce as we know it." Communications of the ACM. March.
- Mayhew, D. J. (1999). The usability engineering lifecycle: A practitioner's handbook for user interface design. San Francisco, CA: Morgan Kaufmann Publishers, INC..
- Mykytyn, P. P. & Harrison, D. A. (1993). The application of the theory of reasoned action to senior management and strategic information systems. Information Resources Management Journal, 6(2), 15-26.
- National Telecommunications and Information Administration, & US Department of Commerce (July 8, 1999). Falling through the net: Defining the digital divide [On-line]. Available: <http://www.ntia.doc.gov/ntiahome/fttn99/fttn.pdf>
- Novak, T. P. & Hoffman, D. L. (1998). Building consumer trust in online environments: the case for information privacy. Communications of the ACM, 41(12), 41-49.
- NUA Internet Surveys (1999). How Many Users Are Online? [On-line]. Available: http://www.Nua.ie/surveys/how_many_online/index.html

- Oliver, R. L. & Bearden, W. O. (1985). Crossover effects in the theory of reasoned action: a moderating influence attempt. Journal of Consumer Research, 12(3), 324-340.
- Parker, P (December 14, 1999). Freei.Net offers flash advertising opportunity [On-line]. Available: http://www.Internetnews.com/IAR/article/0,1087,12_259121,00.html
- Randall, D. (1989). Taking stock: can the theory of reasoned action explain unethical conduct? Journal of Business Ethics, 8(11), 873-882.
- Sheppard, B., Hartwick, J., Warshaw, P. (1988) The Theory of Reasoned Action: A meta-analysis of past research with recommendations for modifications and future research. Journal of Consumer Research (v15, 325-343).
- Sherman, E., Mathur, A., Smith, R. (1997). Store environment and the consumer purchase behavior: mediating role of consumer emotions. Psychology and Marketing, 14(4), 361-378.
- Shim, S. & Drake, M. (1990). Consumer intention to utilize electronic shopping: the Fishbein behavioral intention model. Journal of Direct Marketing, 4(3), 22-33.
- Thompson, K. E., Haziris, N, & Alekos, P. J. (1994). Attitudes and food choice behaviour. British Food Journal, 96(11), 9-13.
- Tracy, B. (1998). Seasoned users lead in e-commerce: study predicts 13 mil new surfers will be pro web shoppers by

2001. Advertising Age, 69(26), 39(1).
- Trower, J. K. & Dorsett, D. (1999). An evaluation of the factors influencing intentions to major in information systems [On-line]. Available:
http://gise.org/JISE/Vol6/64/v64_6.htm
- Weber, K. & Roehl, W. S. (1999). Profiling people searching for and purchasing travel products on the world wide web. Journal of Travel Research, 37(February), 291-298.
- White, G. K. & Manning, B. J. (1998). Commercial WWW site appeal: how does it affect online food and drink consumers' purchasing behavior? Communications Abstracts, 21(4), 801.
- Wilken, E. W. (1999). Tools, strategies and studies now lift e-commerce; conducting business on the Internet is rising in popularity among consumers and manufacturers. Graphic Arts Monthly, 71(4), 85(1).
- Zakon, R. H. (1999). Hobbes' Internet Timeline V4.2 [On-line]. Available:
<http://www.isoc.org/guest/zakon/Internet/History/HIT.html#Growth>

APPENDIX A

CLASSIC-GAMES-OPEN-request@WALLACE.POGO.COM
ALLOYMAILLIST-request@LISTSERV.ALLOYONLINE.COM
POGO-GAMES-NEWS-request@WALLACE.POGO.COM
KEV_TEST-request@KORENETIQ.TEST.COM
SECURITYUPDATE-request@LISTSERV.NTSECURITY.NET
TOC-L-request@SOCIETY.MASSMED.ORG
NEWS-request@BBS.QVC.COM
ABOUTWORKNEWS-request@LISTSERV.AOL.COM
MONEYDAILY-request@LISTSERV.PATHFINDER.COM
COMPUTERWORLD_EDITORIAL_SERVERS-request@LISTSERV.COM
WIN2KSECADVICE-request@LISTSERV.NTSECURITY.NET
ESM_CS_SOFT-request@PRENHALL.COM
MIDAS-request@INPRISE.COM
OS-MIDDAY-request@EMAIL-SERVER.COM
THEWHIPNOTICE-request@MAJORITYWHIP.HOUSE.GOV
SRSCIENG-request@HYPATIA.CS.WISC.EDU
GCSTORIES-request@LISTSERV2.UMC.ORG
IBESTBUSINESS-request@NEWS.IBEST.COM
ESM_CS_AI-request@PRENHALL.COM
ESM_CS_SYS-request@PRENHALL.COM
ALL-ABOUT-COMPUERVE-request@PEACH.EASE.LSOFT.COM
ESM_CS_GRAPHICS-request@PRENHALL.COM
BV-INFO-request@EMAIL-SERVER.COM
WMST-L-request@UMDD.BITNET
CSICOP-ANNOUNCE-request@LISTSERV.AOL.COM
ADV-HTML-request@BAMA.UA.EDU
ESM_ENG_CIRCUITS-request@PRENHALL.COM
INDONEWS-request@LISTSERV.GMD.DE
BRAIN3-request@MX.SOFTWARE.NE.JP
DCS-SCHROCK-request@LISTS.DISCOVERY.COM
IO-REGULATION-WPS-request@PUBLISHER.SSRN.COM
ANTCAN-L-request@WEBBER.OUP.CO.UK
INTL-FINANCE-APS-request@PUBLISHER.SSRN.COM
INSUR-L-request@INDNET.ORG
AUDIENCES-request@BBS.QVC.COM
TROM-L-request@NIC.SURFNET.NL
BIRDCHAT-request@LISTSERV.ARIZONA.EDU
ESM_ENG_MATLAB-request@PRENHALL.COM
COMPUTERWORLD_RESEARCH1-request@LISTSERV.COM
SCI-request@NETSPACE.ORG
HR-HURRICANE-request@EMAIL-SERVER.COM
SAP-R3-L-request@MITVMA.MIT.EDU
LATIN-ECONOMICS-APS-request@PUBLISHER.SSRN.COM
PERSONNEL-APS-request@PUBLISHER.SSRN.COM
H-DIPLO-request@H-NET.MSU.EDU
FLUTE-request@LISTSERV.SYR.EDU
CTWLOCALADVISORYBOARD-L-request@GROVER.CTWONLINE.COM
VB-CODEGURU-request@LISTSERV.EARTHWEB.COM
ENEWS_JAS-OPL-request@LISTSERV.CA-NETHAVEN.COM
ETSI-NEWS-request@LIST.ETSI.FR
JAC-L-request@WEBBER.OUP.CO.UK
CJMOVIES-request@LISTSERV.ALBANY.EDU

AEDNET-request@LIST.ACAST.NOVA.EDU
MUNIRAH-request@MAELSTROM.STJOHNS.EDU
BOSTON-request@LISTSERV.AOL.COM
PSYCHE-L-request@LISTSERV.UH.EDU
GRANTS-request@CHARITYCHANNEL.COM
SCHLRN-L-request@LISTSERV.ACSU.BUFFALO.EDU
H-TEACH-request@H-NET.MSU.EDU
BAYCHI-ANNOUNCEMENTS-request@ACM.ORG
PFI-NEWS-L-request@DTIC.MIL
WASHINGTONDC-request@LISTSERV.AOL.COM
TELECOMMUNICATIONS-LAW-WPS-request@PUBLISHER.SSRN.COM
MPD-NET-request@LISTSERV.ACOR.ORG
CHIBULLS-request@EMAIL-SERVER.COM
TICONZERO-request@UNI-BOCCONI.IT
E-TRUSTSOLUTIONS-request@LISTSERV.CA-NETHAVEN.COM
PED-EM-L-request@LISTSERV.BROWN.EDU
FINANCIAL-ACCOUNTING-WPS-request@PUBLISHER.SSRN.COM
RAP-INFO-request@SIVM.SI.EDU
HLT-NET-request@NIC.SURFNET.NL
CURSORTXT-request@LISTSERV.PLANETINTERNET.BE
EBUSINESS-request@ATHENA.SAC.UNIFY.COM
CRIMINAL-LAW-request@PUBLISHER.SSRN.COM
TAX-LAW-request@PUBLISHER.SSRN.COM
BEHAV-EXPER-FIN-WPS-request@PUBLISHER.SSRN.COM
D-011-request@PRENHALL.COM
UBOWN-L-request@LISTSERV.ACSU.BUFFALO.EDU
STINET-L-request@DTIC.MIL
ENTOMO-L-request@LISTSERV.UOGUELPH.CA
FLATPICK-L-request@LISTSERV.NODAK.EDU
ISCO4-LIST-request@NIC.SURFNET.NL
MV-ANN-request@LISTSERV.CC.EMORY.EDU
JAVA-COM-request@DISCUSS.MICROSOFT.COM
EXCEL-G-request@PEACH.EASE.LSOFT.COM
PLASMACHEM-L-request@LISTSERV.SYR.EDU
PSY-SD-request@MAELSTROM.STJOHNS.EDU
APEVENTS-request@SIVM.SI.EDU
CCC-request@LISTSERV.UIC.EDU
COMPUTER-request@LIST.NEWSHOTLINE.COM
GRUMETES-request@LISTSERV.REDIRIS.ES
SBENVS-L-request@LISTSERV.UCSB.EDU
AUDITING-WPS-request@PUBLISHER.SSRN.COM
PHILOS-L-request@LISTSERV.LIV.AC.UK
ISOC-NL-INFO-request@NIC.SURFNET.NL
SIG-request@LISTSERV.REDIRIS.ES
ALUMNEWS-request@LISTSERV.ADMIN.USF.EDU
IJGT-L-request@POST.TAU.AC.IL
STS-L-request@LISTSERV.UTK.EDU
MIND-L-request@LISTSERV.AOL.COM

APPENDIX B

Note: *BI* = Behavioral Intention, *SN* = Subjective Norm, *A_b* = Attitude, *B-Exp* = Behavioral Experience, *Sat* = Satisfaction, *SI* = Social Influence, *MC* = Motivation to Comply

E-Commerce Attitude Survey

These first few questions are about you and your experiences.

What is your highest level of completed formal education?

Grammar School
High School or equivalent
Vocational/Technical School (2 year)
Two-year college degree
Some College
College Graduate (4 year)
Master's Degree (MS)
Doctoral Degree (PhD)
Professional Degree (MD,JD, etc.)
Other

How long have you been using the Internet (including using email, gopher, ftp, etc.)?

less than 6 months
more than 6 months but less than a year
1 to 3 years
more than 3 years but less than 7 years
more than 7 years

What is your gender?

female
male

How would you classify yourself?

Rather not say
African American
Asian/Pacific Islander
Caucasian/White
Hispanic
Indigenous or Aboriginal Person
Latino

Multiracial
Other

What is your current marital status?

Rather not say
Divorced
Living with another
Married
Separated
Single
Widowed

How many children under 16 years old live in your household including yourself?

none
1
2
3
4
5 or more

Where are you located?

Africa
Antarctica
Asia
Oceania (Australia, New Zealand, etc.)
Europe
USA
Canada
Mexico
Central America
South America
Middle East
West Indies

Which of the following best describes the area you live in?

Urban
Suburban
Rural

Please indicate your current household income in U.S. dollars.

Rather not say
Under \$10,000
\$10,000-\$19,999
\$20,000-\$29,999
\$30,000-\$39,999
\$40,000-\$49,999
\$50,000-\$74,999
\$75,000-\$99,999
Over \$100,000

What is your primary computing platform?

DOS
Macintosh System 8
Macintosh (Other than System 8)
OS2
Unix
PC running Unix
Windows 3.1
Windows NT
Windows 95
Windows 98
Terminal/vt100
WebTV
Don't Know
Other

What is your age?

under 5
5 to 10
11 to 15
16 to 20
21 to 25
26 to 30
31 to 35
36 to 40
41 to 45
46 to 50
51 to 55
56 to 60
61 to 65
66 to 70
71 to 75
76 and over

Please indicate the browser software that you use.

Netscape 2
Netscape 3
Netscape 4 or higher
Internet Explorer 3
Internet Explorer 4
Internet Explorer 5 or higher
Opera 3 or higher
AOL

About how many hours a week do you spend on the Internet for leisure activities (e.g., games, chat rooms, personal e-mail, browsing for fun)?

less than 1 hours
1 to 2 hours
3 to 5
6 to 10
11 to 15
16 to 20
more than 20

About how many hours a week do you spend on the Internet accomplishing work activities?

less than 1 hour
1 to 2 hours
3 to 5 hours
6 to 10 hours
1 to 15 hours
16 to 20 hours
21 to 30 hours
31 to 40 hours
more than 40 hours

About how many hours a week do you spend on the Internet accomplishing activities related to schoolwork?

less than 1 hour
1 to 2 hours
3 to 5 hours
6 to 10 hours
11 to 15 hours
16 to 20 hours
more tan 20 hours

Please indicate how much you agree or disagree with the following statements:

I frequently buy products from printed catalogs.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

I frequently buy products from shopping channels.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

Internet Advertising

Clicking on banner ads and reading subscriber list e-mail are behaviors that consumers accomplish on the Internet. A banner ad is an advertisement for a product, service, or web site on a web page. Internet users can click on those banner ads to investigate the advertisement in more detail. An example of a banner ad for "WSUBooks.com" can be seen below.

Please indicate how much you agree or disagree with the following statements regarding Banner Ads.

Banner ads are cleverly designed.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

Banner ads are a nuisance.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Clicking on banner ads would save me time.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Clicking on banner ads would lead me to a variety of products and services.** (A_b)

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Clicking on banner ads would lead me to quality products.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Banner ads would lead me to the best prices.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

My Internet service provider (ISP) (e.g., AOL) would want me to click on banner ads.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SN) My friends or family would want me to click on banner ads.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SI) My friends and family click on banner ads.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(MC) It is important to me what my friends or family think about me clicking on banner ads.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(BI) I intend to click on banner ads while shopping for the end of year holidays.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree

strongly disagree

(B-Exp) Please estimate how often you click on a banner ad.

daily
weekly
monthly
every three months
every six months
never

(Sat) Please indicate your satisfaction with clicking on banner ads on a scale from 1 to 10 with 1 being the least satisfied you could be and 10 being the most satisfied you could be.

the least satisfied I could be

2
3
4
5
6
7
8
9

the most satisfied I could be

Subscriber List E-mail

A subscriber list e-mail advertisement is an e-mail that a person receives because he or she has signed up to receive e-mail regarding latest specials from a particular vendor (e.g., lowest airline fares to desired destinations).

Please indicate how much you agree or disagree with the following statements regarding subscriber list e-mail advertisements.

Reading subscriber list e-mail advertisements are good for the consumer.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree

strongly disagree

(A_b) **Reading subscriber list e-mail advertisements fits my style for accessing advertising.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Reading subscriber list e-mail advertisements would save me time.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Reading subscriber list e-mail advertisements would lead me to a variety of products and services.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Reading subscriber list e-mail advertisements would lead me to quality products.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) Reading subscriber list e-mail advertisements would lead me to the best prices.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

My Internet service provider (ISP) (e.g., AOL) would want me to read subscriber list e-mail advertisements.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SN) My friends or family would want me to read subscriber list e-mail advertisements.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SI) My friends or family read subscriber list e-mail advertisements.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(MC) It is important to me what my friends or family think about me reading subscriber list e-mail advertisements.

strongly agree
agree

somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(BI) I intend to read subscriber list e-mail advertisements while shopping for the end of year holidays.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(B-Exp) Please indicate how often you read subscriber list e-mail advertisements.

daily
weekly
monthly
every three months
every six months
never

(Sat) Please indicate your satisfaction with the Internet advertising through subscriber list e-mail on a scale from 1 to 10 with 1 being the least satisfied you could be and 10 being the most satisfied you could be

the least satisfied I could be

2
3
4
5
6
7
8
9

the most satisfied I could be

Searching for Product Information

Online stores and Internet search engines are two methods that Internet users can use to obtain product information.

An online store is a web site that you can either find information about that company's products or can find information about other company's products that are being sold at that web site (retailer).

Please indicate how much you agree or disagree with the following statements searching for product information in online stores.

Searching for product information in online stores is good for the consumer.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Searching for product information in online stores would be a fun experience for me.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Searching for product information in online stores would save me time.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Searching for product information in online stores would lead me to a variety of products and services.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) Searching for product information in online stores would lead me to quality products.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) Searching for product information in online stores would lead me to the best prices.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

My Internet service provider (ISP) (e.g., AOL) would want me to search for product information in online stores.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SN) My friends or family would want me to search for product information in online stores.

strongly agree
agree
somewhat agree
neither agree nor disagree

somewhat disagree
disagree
strongly disagree

(SI) My friends or family search for product information in online stores.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(MC) It is important to me what my friends or family think about me searching for product information in online stores.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(BI) I intend to search for product information in online stores while shopping for the end of year holidays.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(B-Exp) Please indicate how often you search for product information in online stores

daily
weekly
monthly
every three months
every six months
never

(Sat) Please indicate your satisfaction with the searching for product information in online stores on a scale from 1 to 10 with 1 being the least satisfied you could be and 10 being the most satisfied you could be.

the least satisfied I could be

2
3
4
5
6
7
8
9

the most satisfied I could be

An Internet search engine is a web site dedicated to indexing Internet web pages, storing the results and returning lists of pages which match particular queries. A user types in a search term or product and the search engine returns all the pages on the Internet that reference that product.

Please indicate how much you agree or disagree with the following statements regarding searching for product information using search engines.

Searching for product information using a search engine is a good idea.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) Searching for product information using a search engine fits my style for finding product information.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree

disagree
strongly disagree

(A_b) **Searching for product information using a search engine would save me time.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Searching for product information using a search engine would lead me to a variety of products and services.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Searching for product information using a search engine would lead me to quality products.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Searching for product information using a search engine would lead me to the best prices.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

My Internet service provider (ISP) (e.g., AOL) would want me to search for product information using a search engine.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SN) My friends or family would want me to search for product information using a search engine.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SI) My friends or family search for product information using a search engine.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(MC) It is important to me what my friends or family think about me searching for product information using a search engine.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(BI) I intend to search for product information using a search engine while shopping for the end of year holidays.

strongly agree

agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(B-Exp) Please indicate how often you search for product information in using a search engine.

daily
weekly
monthly
every three months
every six months
never

(Sat) Please indicate your satisfaction with the searching for product information using search engines on a scale from 1 to 10 with 1 being the least satisfied you could be and 10 being the most satisfied you could be.

the least satisfied I could be

2
3
4
5
6
7
8
9

the most satisfied I could be

Comparison of Alternatives

Comparison engines and online reviews are two methods of comparing purchase alternatives on the Internet.

A comparison engine or comparison web site are web pages that allow the user to compare products on dimensions such as price or features.

A user typically chooses a product or type of product and the comparison engine brings back a list of places the product is available and the prices to obtain it. A comparison engine also may return a comparison between features of similar products in addition to prices.

Please indicate how much you agree or disagree with the following statements regarding comparison engines.

Using comparison engines to evaluate purchase alternatives is a good idea.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Using comparison engines to evaluate purchase alternatives fits my style of comparing products.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Using comparison engines to evaluate purchase alternatives would save me time.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Using comparison engines to evaluate purchase alternatives would lead me to a variety of products and services.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) Using comparison engines to evaluate purchase alternatives would lead me to quality products.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) Using comparison engines to evaluate purchase alternatives would lead me to the best prices.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

My Internet service provider (ISP) (e.g., AOL) would want me to use comparison engines to evaluate purchase alternatives.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SN) My friends or family would want me to use comparison engines to evaluate purchase alternatives.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SI) My friends or family evaluate purchase alternatives using comparison engines.

strongly agree

agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(MC) It is important to me what my friends or family think about me evaluating purchase alternatives using comparison engines.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(BI) I intend to evaluate purchase alternatives using comparison engines while shopping for the end of year holidays.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(B-Exp) Please indicate how often you compare product alternatives using a comparison engine.

daily
weekly
monthly
every three months
every six months
never

(Sat) Please indicate your satisfaction with using

comparison engines to compare purchase alternatives on a scale from 1 to 10 with 1 being the least satisfied you could be and 10 being the most satisfied you could be.

the least satisfied I could be

2

3

4

5

6

7

8

9

the most satisfied I could be

Online reviews can be written by professional evaluators or by other consumers. Online reviews typically have rating systems by which products can be compared.

Please indicate how much you agree or disagree with the following statements regarding online product reviews.

Using online product reviews to evaluate purchase alternatives is a good idea.

strongly agree

agree

somewhat agree

neither agree nor disagree

somewhat disagree

disagree

strongly disagree

(A_b) **Using online product reviews to evaluate purchase alternatives fit my style of comparing products.**

strongly agree

agree

somewhat agree

neither agree nor disagree

somewhat disagree

disagree

strongly disagree

(A_b) **Using online product reviews to evaluate purchase alternatives would save me time.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) Using online product reviews to evaluate purchase alternatives would lead me to a variety of products and services.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) Using online product reviews to evaluate purchase alternatives would lead me to quality products.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) Using online product reviews to evaluate purchase alternatives would lead me to the best prices.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

My Internet service provider (ISP) (e.g., AOL) would want me to use online product reviews to evaluate purchase alternatives.

strongly agree
agree
somewhat agree

neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SN) My friends or family would want me to use online product reviews to evaluate purchase alternatives.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SI) My friends or family evaluate purchase alternatives using online product reviews.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(MC) It is important to me what my friends or family think about me evaluating purchase alternatives using online product reviews.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(BI) I intend to evaluate purchase alternatives using online product reviews while shopping for the end of year holidays.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree

strongly disagree

(B-Exp) Please indicate how often you compare product alternatives using online product reviews.

daily
weekly
monthly
every three months
every six months
never

(Sat) Please indicate your satisfaction with using online reviews to compare purchase alternatives on a scale from 1 to 10 with 1 being the least satisfied you could be and 10 being the most satisfied you could be.

the least satisfied I could be

2
3
4
5
6
7
8
9

the most satisfied I could be

Purchasing Products Online

Purchasing products online refers to buying products over the Internet.

Please indicate how much you agree or disagree with the following statements regarding online purchasing.

Purchasing products online is a good idea.

strongly agree
agree
somewhat agree
neither agree nor disagree

somewhat disagree
disagree
strongly disagree

(A_b) **Purchasing products online fits my style.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Purchasing products online would save me time.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Purchasing products online would lead me to a variety of products and services.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Purchasing products online would lead me to quality products.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Purchasing products online would lead me to the best**

prices.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

My Internet service provider (ISP) (e.g., AOL) would want me purchase products online.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SN) My friends or family would want me to purchase products online.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SI) My friends or family purchase products online.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(MC) It is important to me what my friends or family think about me purchasing products online.

strongly agree
agree
somewhat agree
neither agree nor disagree

somewhat disagree
disagree
strongly disagree

(BI) I intend to purchase products online during the end-of-year holidays.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(B-Exp) Please indicate how often you purchase products online.

daily
weekly
monthly
every three months
every six months
never

Please check all that apply regarding your online purchase behavior during the last year.

I purchase products online for special occasions such as birthdays.

I purchase products online during the end of year holiday season.

I purchase products online for my routine purchases.

(Sat) Please indicate your satisfaction with the your purchasing experiences on the Internet on a scale from 1 to 10 with 1 being the least satisfied you could be and 10 being the most satisfied you could be.

the least satisfied I could be

2

3

4
5
6
7
8
9

the most satisfied I could be

Post Purchase Activities

After consumers purchase a product there are several customer support activities that they can accomplish on the Internet. Some of these include e-mail product support and accessing customer support web sites.

E-mail product support refers to the situation when the user has a question regarding a product that he or she has previously obtained and contacts customer support via e-mail to receive an answer for that question.

Please indicate how much you agree or disagree with the following statements regarding e-mail product support.

E-mail product support is good for the consumer.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **I would rather receive e-mail support than call a customer help line.**

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(A_b) **Using e-mail support would save me time.**

strongly agree
agree

somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

My Internet service provider (ISP) (e.g., AOL) would want me to use e-mail support.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SN) My friends or family would want me to use e-mail support.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SI) My friends or family use e-mail support.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(MC) It is important to me what my friends or family think about me using e-mail support.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(BI) I intend to use e-mail customer support during the end of year holidays.

- strongly agree
- agree
- somewhat agree
- neither agree nor disagree
- somewhat disagree
- disagree
- strongly disagree

(B-Exp) Please indicate how often you use e-mail support

- daily
- weekly
- monthly
- every three months
- every six months
- never

(Sat) Please indicate your satisfaction with e-mail customer support activities on a scale from 1 to 10 with 1 being the least satisfied you could be and 10 being the most satisfied you could be.

the least satisfied I could be

- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

the most satisfied I could be

Customer support web sites are web sites or portions of web sites that offer consumers access to online user guides, frequently asked questions, and contact information.

Please indicate how much you agree or disagree with the following statements regarding accessing customer support web sites.

Customer support web sites are good for consumers.

strongly agree

agree

somewhat agree

neither agree nor disagree

somewhat disagree

disagree

strongly disagree

(A_b) I would rather access a customer support web site than call a customer help line.

strongly agree

agree

somewhat agree

neither agree nor disagree

somewhat disagree

disagree

strongly disagree

(A_b) Using customer support web sites would save me time.

strongly agree

agree

somewhat agree

neither agree nor disagree

somewhat disagree

disagree

strongly disagree

My Internet service provider (ISP) (e.g., AOL) would want me to use customer support web sites.

strongly agree

agree

somewhat agree

neither agree nor disagree

somewhat disagree

disagree

strongly disagree

(SN) My friends or family would want me to use customer support web sites.

strongly agree

agree

somewhat agree

neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(SI) My friends or family use customer support web sites.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(MC) It is important to me what my friends or family think about me using customer support web sites.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(BI) I intend to use customer support web sites during the end of year holidays.

strongly agree
agree
somewhat agree
neither agree nor disagree
somewhat disagree
disagree
strongly disagree

(B-Exp) Please indicate how often you use customer support web sites.

daily
weekly
monthly
every three months
every six months
never

(Sat) Please indicate your satisfaction with customer support web sites on a scale from 1 to 10 with 1 being the least satisfied you could be and 10 being the most satisfied you could be.

the least satisfied I could be

2
3
4
5
6
7
8
9

the most satisfied I could be

Thank you very much for answering the items in the survey. If you would like to be considered eligible for a \$50 cashier's check please fill out the contact information below. You must be 18 years or older to be eligible.

Contact Information

Where did you hear about this survey?:

Contact e-mail:

If you are completing this survey for course credit please answer the following items. Only those universities that have agreements with the researchers are eligible for course credit.

Course Credit Information

Student Name:

Student University or College:

Contact Name (if different from student):

Your e-mail address:

Thank you for taking the time to complete this survey. Select Submit Survey now to send your responses to us.

APPENDIX C

Welcome to the Electronic-Commerce Attitude Survey

You are invited to participate in a survey about electronic commerce. The purpose of this study is to learn more about Internet users' attitudes regarding their behavior and electronic commerce. This research effort is an academic pursuit and is not being conducted as part of a commercial effort. It will take you approximately 25 minutes to complete.

By completing this survey, you will become eligible to win a \$50 cashier's check (chances of winning are 1/200). You must be 18 or older to be eligible for the \$50 cashier's check.

Any information obtained in this survey in which you can be identified will remain confidential and will be disclosed only with your explicit written permission. Participation in this study is completely voluntary. If you would like to contact the researchers regarding this survey an opportunity is provided at the end of the survey.

Go to Survey