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VALUE OF INTERNET PRESENCE SITES FROM A CONSUMER PERSPECTIVE AND ITS IMPLICATIONS FOR THE FIRM

by

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CHAPTER I
INTRODUCTION

The Internet, a world wide system of interconnected computers, carries multiple applications. One of the more popular applications is the World Wide Web. The World Wide Web (hereafter referred to as the Web) is emerging as an important medium for electronic commerce. It appears that the number of sites on the Web doubles every twelve to fifteen months (Kantor and Neubarth 1996). These new sites come at development expenditures of more than $100 million (Welz 1996). Commensurate with the rapid growth of the Web, and the associated expenditures, a new stream of related literature is emerging. This research has addressed the medium and navigation through it (Berthon, Pitt and Watson 1996; Hoffman and Novak 1996; Hoffman, Novak and Chatterjee 1995), the future of electronic commerce (Ainscough and Luckett 1996; Alba, Lynch, Weitz, Janiszewski, Lutz, Sawyer, and Wood 1997; Burke 1997; Peterson, Balasubramanian, and Bronnenberg 1997; Quelch and Klein 1996), advertising on the Web (Briggs and Hollis 1997; Dreze and Zufryden 1997; McDonald 1997), and value of Web advertising (Ducoffe 1996).

This dissertation will examine the value of *internet presence sites* from a consumer perspective. Recently, value has been gaining the attention of academic researchers (Ducoffe 1995, 1996; Park, MacInnis, and Silverman 1996; Zeithaml 1988). Value refers to a perception of the benefits and

costs associated with an offering compared to an alternate offering. Previous research has proposed value as the basis of all exchange- tangible or intangible (Holbrook 1994; Park, MacInnis, and Silverman 1996). A form of intangible exchange takes place when individuals attend to a firm's marketing communication (Ducoffe 1995; Kotler 1972).

Internet presence sites, the focus of this dissertation, represent the firm's marketing communication on the Web (Hoffman, Novak, and Chatterjee 1995). These sites have been considered as advertising on the Web (Hoffman, Novak, and Chatterjee 1995). Consequently, this dissertation will borrow from research in advertising to support its arguments. Ducoffe (1995, 1996) examined the value of advertising, and argued that, in keeping with marketing's focus on consumer orientation, value of advertising must be studied from a consumer perspective. Therefore, this dissertation will examine value from the consumer's perspective.

This dissertation contributes to literature by building on prior research on advertising value. Before this the construct of value had not been applied to individual web sites. This dissertation is the first to examine the consumer's perspective of the benefits and costs associated with, and consequently value of, an *internet presence site*. The benefits include informativeness, entertainment, interactivity, and control, while irritation is a cost associated with an *internet presence site*. This dissertation also expands the existing model of value in three ways. First, it examines two

unique benefits offered by *internet presence sites*- interactivity and control. These will be examined in conjunction with value for the first time. Second, this dissertation examines the impact of individual differences (involvement, computer anxiety, user familiarity with the Web, and prior brand attitude) in influencing perceptions of benefits received from the site. Third, this dissertation will also examine the relative impact of the benefits on value of the site based on consumer motivation for the visit (as reflected in involvement).

This dissertation contributes to marketing practice by linking value to attitudinal outcomes that are important to the manager. These attitudinal outcomes include attitudes toward the brand and site, willingness on part of the consumer to return to the web site and provide information to the firm. While the first two can predispose the consumer toward the brand, the third can aid in building a long-term relationship with the consumer, and the final may enable the firm to better meet consumer needs. Value is rooted in the site characteristics and influenced by individual differences. While it may not be possible for the manager to influence the latter, the former can be improved. Managers can enhance the value of the site by increasing the benefits and decreasing the costs associated with the site (informativeness, entertainment, interactivity, control, and irritation).

The next section reviews the history of the Web. This is followed by an examination of value. Subsequently, the relationship of site

characteristics and individual differences with value is discussed. Finally, the attitudinal consequences of value of the web site to the consumer are explained.

CHAPTER II
CONCEPTUAL MODEL

II. A. OVERVIEW OF THE WEB AS A NEW MEDIUM

The Internet is a world wide network of computers interconnected through telephone lines, satellites etc. (Ellsworth and Ellsworth 1996). The Internet has its origins in a wide area network (ARPAnet) created by the Advanced Research Projects Agency on behalf of the Department of Defense (Ellsworth and Ellsworth 1996). The National Science Foundation built on the ARPAnet and aimed to connect research oriented institutions. Over time and with privatization this network has crossed national boundaries (196 countries are connected) and evolved into what is now known as the Internet (Ellsworth and Ellsworth 1996).

The World Wide Web, an application developed on the Internet, was developed at the European Laboratory for Particle Physics (CERN). Physicists there aimed to create "a distributed hypermedia environment" (Hoffman, Novak, and Chatterjee 1995, p.2). Distributed hypermedia describes a medium as a system of nodes and links (Jonassen 1991). Nodes are defined as "information fragments" (Jonassen 1991, p.84) and may be presented in the form of text, video, and/or graphics, etc. A node may contain multiple pages or just brief pieces of information. A web site may be considered as a node on the Web.

II. A. 1. BENEFITS TO FIRMS AND CONSUMERS

There are some unique benefits that the Web provides for firms and consumers. From a firm's perspective the Web fosters interactivity. Among other facilities, the Web supports discussion groups (e.g. USENET news), email, and many bulletin boards. Each of these serve to facilitate feedback for the firm and consumers. As a result, the potential exists for the design of more effective communication strategies by firms to achieve their objectives.

The Web encourages firms to provide consumers with information. The costs associated with the size (i.e. number of pages) of the web site are negligible in comparison to setup costs (Strangelove 1995). Unlike other media (e.g.. television, radio, magazines etc.) where the firm is limited by constraints of the costs of time or space, the Web is primarily constrained by the time that the consumer is willing to allocate to the web site. If a firm can generate consumer interest in a site, it may be able to differentiate its products from the competition by providing comprehensive information to persuade the consumer (Hoffman, Novak and Chatterjee 1995).

From a consumer perspective the Web caters to each person's distinctive knowledge structure. The system of nodes and links allows people to visit nodes (or web sites) in a manner that builds upon existing knowledge. Unlike a book, it does not force users to follow the flow of text

as organized by the author. Consumers decide what they want to visit on the web site.

The Web also offers convenience to the user. A web site is available 24 hours a day. As a result, the user is not constrained by the firm's operating hours and may browse the web site at his/her convenience. In addition, it also empowers the consumer. The Internet's ability to empower consumers may be illustrated by the problem Intel had with the Pentium processor. A problem that affected a small percentage of people was blown out of proportion through publicity on the Web (Strangelove 1996). This suggests that in the future firms will have to be more sensitive and responsive to consumer feedback.

The usefulness of the Web to the consumer is borne out by the growth of firms and consumers on the Web. Network Wizards discovered that the number of hosts on the Internet doubled from 6.6 million in mid-1995 to 12.8 million in mid-1996 (Kantor and Neubarth 1996). At the same time, the number of domains (i.e. Web addresses) has grown four fold from 120,000 to 488,000 (Kantor and Neubarth 1996). Further, this trend shows no sign of slowing down (Kantor and Neubarth 1996). The number of individuals on the Internet has also grown commensurately. While the figures available from different sources vary significantly (anywhere from 9 million quoted by Morgan Stanley to 42 million suggested by Wirthlin Worldwide), all agree it is growing at a rapid pace (Kantor and Neubarth

1996). Future projections have the number of individuals on the Web increasing to 100 million by 1998 (Vinton Cerf in Ellsworth and Ellsworth 1996) and half a billion by the turn of the century (Strangelove 1995).

II. A. 2. CATEGORIES OF COMMERCIAL WEB SITES

Researchers have attempted to understand and classify different web sites (Ainscough and Luckett 1996; Hoffman, Novak, and Chatterjee 1995). Hoffman, Novak, and Chatterjee (1995) present six categories of commercial web sites. These include 1) Internet Presence sites, 2) Online Storefronts, 3) Content sites, 4) Mall sites, 5) Incentive sites, and 6) Search Agents. While this paper focuses on the *internet presence* site, a brief description of each of the sites is presented below.

The *internet presence* site serves to provide the firm with a "virtual presence" (Hoffman, Novak, and Chatterjee 1995, p.12). These web sites may be considered as advertising on the Web (Ducoffe 1996, Hoffman, Novak, and Chatterjee 1995). These sites may be further classified into three groups- flat ad, image, and information sites (Hoffman, Novak, and Chatterjee 1995). The flat ad has been described as a newspaper or magazine ad transplanted on to the Web. It is a single page ad with no links built into it and could well have run in a newspaper or magazine. While Hoffman, Novak, and Chatterjee (1995) give examples of such sites, none of those sites exist today. It seems logical to expect that as the Web evolves

so do web sites, and flat sites, among the first to be developed, have subsequently been replaced with more sophisticated models (image or information sites).

Image sites, as the name suggests, aim to build an image for the product or service (Hoffman, Novak and Chatterjee 1995). These sites are usually observed in situations where the product has a low "hard" information content (e.g. sodas, beer, etc.). Some examples of such sites are the sites for Miller Lite (www.millerlite.com), Nike (www.Nike.com), Kelloggs (www.kelloggs.com), and Reebok (planetreebok.com).

Information sites aim to provide consumers with as much information as they need to make a well informed decision (Hoffman, Novak, and Chatterjee 1995). As a result, these sites are fairly comprehensive and may even include aspects of virtual reality (e.g. at the Lexus web site one can examine the car from different perspectives). The objective behind such sites may be to build customer relationships (Hoffman, Novak, and Chatterjee 1995; Rechtin 1995). Some example of such sites are Andersen Consulting (www.ac.com), Audi (www.audi.com), and Prudential Insurance (www.prudential.com).

Online storefronts attempt to sell the consumer their products (Hoffman, Novak, and Chatterjee 1995). The number of products being sold by a single storefront can range from one to many (Hoffman, Novak, and Chatterjee 1995). Consumers can view the products and their specifications

at the site and may place an order online or through 800 numbers etc.. Some examples include web sites for Dell computers (www.dell.com), Arrow bookstore (www.arrow.com), and CDNow (cdnow.com).

Content sites include fee-based sites, sponsored sites, and searchable databases (Hoffman, Novak, and Chatterjee 1995). In fee-based sites the consumer pays for access (Hoffman, Novak, and Chatterjee 1995). The ESPN web site (www.espnet.sportszone.com) is a prime example. In sponsored sites, the firm sells advertising space to avoid charging the consumer fees for access to the web site. Examples of such sites include Business Week (www.businessweek.com) and Hotwired (www.hotwired.com). In a searchable database firms pay to be listed in a database (Hoffman, Novak, and Chatterjee 1995). They may be considered the opposite of fee-based sites (Hoffman, Novak, and Chatterjee 1995). Examples of such sites include Catalog Mart Home Page (catalog.savvy.com) and Tables-of-Contents Inc, (www.mag-browse.com).

A *mall* site is a collection of storefronts (Hoffman, Novak, and Chatterjee 1995). The idea is to create a 'virtual mall'. Putting a selection of storefronts together aims to generate traffic for the *mall* as a whole. The provider charges rent for the stores (Hoffman, Novak, and Chatterjee 1995). Examples include the Internet Mall (www.mecklerweb.com/imall) and Cybermart (cybermart.com). Notice *online storefronts, content sites*, and *mall* sites involve direct selling of products to customers.

An *incentive site* aims to attract customers by means of an inducement to the commercial site that lies behind it (Hoffman, Novak, and Chatterjee 1995). Many times this is done through online games, sweepstakes, free gifts etc.. The objective behind these sites is to generate traffic for the commercial site (Hoffman, Novak, and Chatterjee 1995). Examples include As the Web Turns (usa.net/metzger.soap) and Open Market (www.directory.net).

Finally *search agents* are like a directory of the web (Hoffman, Novak, and Chatterjee 1995). They attempt to aid consumers in finding desired sites through the use of keywords (Hoffman, Novak, and Chatterjee 1995). Examples include Yahoo (www.yahoo.com) and Infoseek (www.infoseek.com).

This paper will focus on the *internet presence* site only. However, the model proposed in this paper may be valid for non fee-based *content sites* and to a limited extent for *search agents*.

Note, the starting point for this dissertation is a consumer visit at an *internet presence* site. While this paper will not address the question how the consumer got to the site, it will address consumer motives behind the visit. The consumer could have arrived at the site through accident (clicked the wrong link), exploring the web (e.g. curiosity) or through directed search behavior (e.g. searching for information and/or entertainment). These

motives will be conceptualized in terms of involvement and examined in that section.

II. B. VALUE

For the purposes of this dissertation the definition of value is adapted from a definition of value of an exchange developed by Park, MacInnis and Silverman (1996, p.11). The definition differs only in that it is applied to a web site (rather than a generic exchange situation) and restated below as

> An individual's preference for one web site over another given his or her perception at any stage of the exchange that the benefits derived from the web site are worth their costs, and are better than the benefits received for the costs incurred in alternative web sites.

The above definition seems consistent with a generic definition, of value of an exchange, formulated by Zeithaml (1988) which states that

> "Value is the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given." (p.14)

Note, both the definitions of value (Park, MacInnis and Silverman 1996; Zeithaml 1988) are taken in the context of an exchange situation. Individuals establish an exchange relationship under the expectation that they will gain value from it (Holbrook 1994; Park, MacInnis, and Silverman 1996). It has been suggested that exchange takes place whenever individuals attend a firm's advertising (Ducoffe 1995; Kotler 1972). One form of advertising is

the *internet presence site* (Hoffman, Novak, and Chatterjee 1995). A study of value of an internet presence site may provide insight into whether an individual will establish an exchange relationship with the site.

Before moving further it would be appropriate to take a closer look at value. Value has four properties (Park, MacInnis and Silverman 1996)- 1) value is a perception; 2) it is meaningful in exchange; 3) it is a comparative judgement; and, 4) it is context dependent and may change over time. Each of these is examined in turn.

First, value is a perception (Lamont 1955; Park, MacInnis and Silverman 1996; Zeithaml 1988). This implies that value of the web site is specific to the visitor. A site that is highly valued by one visitor may be perceived as having little value to another. For instance, the need for specific product information varies across individuals. Thus, a consumer who finds his or her needs met in this regard may judge the site to be of high value, while another consumer whose needs are not met may judge the same site to be of low value.

Second, value is meaningful in an exchange situation (Park, MacInnis and Silverman 1996). An exchange transaction involves "a transfer of something tangible or intangible, actual or symbolic, between two or more social actors" (Bagozzi 1979, p. 434). In the case of web sites intangibles are being exchanged. The site provides information, entertainment,

interactivity, control, while individuals give their time, attention, and participation (e.g. clicking on links) in return.

Third, value is a comparative judgement (Kahneman and Tversky 1979; Lamont 1955; Maynes 1976; Naumann 1995; Park, MacInnis and Silverman 1996). In the words of Lamont (1955)

> "Value is always relative or comparative and never absolute; for 'value' means degree of goodness which one thing has in comparison with others." (p. 182)

This would imply that web sites are judged not in isolation but with respect to something else. To illustrate the point, consider a person who has considerable experience with the Web. He/she may value the web site with respect to other sites he/she has visited in the past. These may be considered to be that person's reference points (Kahneman and Tversky 1979; Naumann 1995) or comparison level for alternatives (Thibaut and Kelley 1959) or referent alternatives (Park, MacInnis and Silverman 1996). On the other hand, for a person who has little or no experience on the Web these referent alternatives need not be other web sites, they may be other sources satisfying the same need (eg. one could look up arrival schedules for Delta Airlines on the Web or one could telephone the organization).

Finally, it may be noted that value may change over time. Value is context dependent (Park, MacInnis, and Silverman 1996). New information or experiences that an individual undergoes may well influence consumer value perceptions (Deighton 1984; Hoch and Ha 1986; Park, MacInnis and

Silverman 1996). It is suggested that value perceptions may alter over time (Park, MacInnis and Silverman 1996). Since value is a relative judgement, if the comparison level or referent alternatives change, so too will the value of the web site under consideration. Web site sponsors do seem to take this into account as may be seen in their constant attempts to upgrade their sites as evidenced by the "what's new" node on many sites.

In order to arrive at value, one has to identify and distinguish between the costs and benefits associated with the exchange (Park, MacInnis and Silverman 1996). It has been proposed that the nature of the outcome influences the perception of cost or benefit (Park, MacInnis and Silverman 1996). For instance, "if (an) outcome is inherently positive and desirable" (Park, MacInnis and Silverman 1996, p. 12) then it is a benefit. On the other hand, if an "outcome is inherently negative" (Park, MacInnis and Silverman 1996, p. 12) then it is a cost. It may be noted that classification of benefits and costs may not always be clear cut. For instance, increasing the bandwidth and hence decreasing the time taken to download a site could be viewed as a reduction in cost (time wasted) or a benefit (time saved) by the consumer.

Past research in advertising on value (Ducoffe 1995, 1996) has identified the costs and benefits of advertisements as follows: irritation, information, and entertainment. Together these have explained 74% of the variation in value (Ducoffe 1996). Irritation was considered an undesirable

outcome of attending to the advertisement and therefore was considered a cost associated with the advertisement. Information and entertainment were considered desirable outcomes and, therefore, were benefits of the advertisement.

II. C. BENEFITS AND COSTS ASSOCIATED WITH INTERNET PRESENCE SITES

Borrowing on past research in advertising on value (Ducoffe 1995, 1996) we can identify the costs and benefits of an *internet presence site* as follows: irritation, information, and entertainment. In addition, as opposed to advertisements in conventional media, web sites provide interactivity and control as benefits. In the next section these costs and benefits will be examined in detail.

II. C. 1. INFORMATIVENESS

Consumers consider informativeness as a major benefit of advertising (Bartos and Dunn 1974; Bauer and Greyser 1968). Furthermore, consumers view advertising as important because of its ability to present a true picture of products (Andrews 1989; Ducoffe 1995). This is also corroborated by an extension of uses and gratifications theory in mass communications research which considers information as one of the need-satisfying functions derived

from media communications (Ducoffe 1995; McQuail 1983; Wright 1960, 1974).

Some researchers have explored the role of advertising in exchange (i.e. the purchase process). Information of some nature is required for exchange, and it is the role of advertising to present information to facilitate decision making and choice (Carey 1960; Sandage 1973; Sheth 1974). So, advertising that provides little or no information is considered wasteful, while advertising that provides relevant information, is a positive economic contribution (Norris 1983).

To sum up, there exists an abundance of literature that identifies the informational role of advertising as a major benefit (cf. Ducoffe 1995, 1996). Furthermore, in his study on Web advertising, Ducoffe (1996) showed empirically that consumers perceive informativeness as a major benefit contributing to value of Web advertising in general. In his research Web advertising included among others, free sample or trial offers, billboard type logos, branded banners, online catalogs, shopper guides, and corporate web sites.

It is proposed in this section that the more informative a web site is perceived to be, the greater are the perceived benefits, and analogously the greater is the value of the site. Thus, it is proposed that:

H1: Informativeness of an internet presence site is positively related to the perceived value of the site.

Note, informativeness as conceptualized here is different from what may be understood intuitively. Consequently, a brief exploration of informativeness is undertaken. Aaker (1981) defines an informative commercial communication as

> "one that contains information that is truthful, complete, intelligible, relevant, unknown, and substantial enough to warrant processing."

The first element is that the information be truthful. This is a consumer's perception whether s/he believe the claims made. Consider an individual who had a bad experience with a brand. When s/he see a commercial proclaiming the quality of the brand, s/he is likely to be skeptical regarding the claims.

The second element is that the information be complete. This is a judgement that the consumer forms that the information provided is not omitting any relevant facts. Different people need information on different aspects of the product. It may not be practical to cover all aspects of a product in the commercial. As a result, the perception of completeness will be person dependent.

The third element is that it be intelligible. What may be intelligible to one person may not be so for another. This would be specially true for advertising of technologically complex products. For instance, an advertisement for a personal computer may be extremely complex for a

novice to comprehend, while the same advertisement may be very clear to an expert.

In the same vein, relevance is also person dependent. People's information needs differ. The information presented may be relevant to some people and not to others.

Another criterion for an informative advertisement is that the information it supplies be unknown. The extent of knowledge varies across the population. This again points to informativeness of a commercial message being dependent on the receiver. For the purposes of this dissertation, the criterion that it be unknown is relaxed. A commercial message that reminds the consumer of information that s/he already knew may be considered informative.

Finally, there is the characteristic of substantial information. This too is person dependent. Soley and Reid (1983) studied the relationship between the number and type of information cues in a message and the perceived informativeness of that message. They discovered that increasing the amount of information in advertising did not necessarily affect the perceived informativeness of the commercial. Instead, they discovered that perceived informativeness was affected more by the type of information than the quantity of information.

Based on the above discussion, an informative *internet presence site* is defined as:

> One that contains information that is perceived to be truthful, complete, intelligible, relevant, and substantial enough to warrant processing.

Hunt (1976) has argued that the perceived information of a commercial message is individual-specific. Dervin (1981) asserts that information is a construction and thus information is not what the advertiser provides but what the individual concludes from the message provided by the advertiser (Dervin 1981). Based on the above, it is argued that any attempt to measure information in advertising is operationally unsound unless it is from the point of view of the receiver (Hunt 1976).

II. C. 2. ENTERTAINMENT

It has been suggested that in any exchange, the experiences associated with the transaction are a source of value (Ducoffe 1995, 1996). An experience associated with a visit to a web site is entertainment. Entertainment may be thought of as the extent to which an individual enjoyed the web site.

Uses and gratifications research has demonstrated that the merit of entertainment lies in its ability to fulfill audience needs for escapism, diversion, aesthetic enjoyment, or emotional release (Ducoffe 1995; McQuail 1983). As advertising is a significant portion of media content, it is expected that entertainment will be an important source of media advertising value for the consumer (Ducoffe 1995).

Entertainment on web sites can come from a number of sources including playing games (e.g. www.toyota.com), reading a story (e.g.. www.nbc.com which has episodes of their drama 'Homicide' on the Web), characters (e.g.. Mama Cucina at www.eat.com), or just from an interesting execution of the web site (e.g. www.audi.com- has aspects of virtual reality). All of these are potential benefits that the consumer may enjoy and could attract the consumer to the web site. To the extent that the consumer is entertained by the site, the benefits of the site increase and commensurately so does the value of the site to the consumer.

H2: The more entertaining a web site is to a person, the greater *will be the value of the web site to that person.*

II. C. 3. INTERACTIVITY

A unique benefit offered by the Web site is interactivity. Interactivity may be of two kinds- human interactivity (Rafaeli 1988) and man-machine interactivity (Steuer 1992). In this section, it will be argued that human interactivity is a benefit and enhances the value of the web site.

Interactivity is defined as:

> The extent to which a second (or later) message in any series of communication exchanges between an individual and a firm's representative is related to previous messages in the communication exchanges.

The above definition has been adapted from Rafaeli (1988) to suit the Web. An important implication of the above definition is that interactivity is

not limited to face-to-face or interpersonal communication. It allows for the use of "channels and media as surrogate or real 'participants' in the communication process," (Rafaeli 1988 p.111). Interactivity applies to a broad band of communication, ranging from face-to-face communication to relatively anonymous mass media communication (like the Web). As a result, interactivity may be seen as characterizing two-way cable systems, electronic text systems, letters to the editor, talk shows on radio and television etc. (Rafaeli 1988).

On web sites one can provide human interactivity through online chats, bulletin boards, and e-mail where consumers can communicate with each other and with the firm. For instance, Bill Gates has gone online discussing his vision for the future of the computer industry with interested consumers. A number of companies provide bulletin boards and FAQ (Frequently Asked Questions) sheets which represent consumer opinions and concerns (see, for example, the Intel web site). In case consumers cannot find the desired information on the web site, they can e-mail the firm with their queries. The Kodak site (www.kodak.com) receives multiple queries everyday, some of which are not even related to the firm's activities (all of them receive a response).

Communication via the Web or even the prospect of it may increase consumer perceptions of interactivity. It has been suggested that just the presence of an e-mail address in marketing communications may increase the

perception of interactivity with the sponsor (Newhagen, Cordes and Levy 1995). Additionally, some users expect e-mail to be more interactive than traditional mail (Walther, Anderson and Park 1994). An online conversation (or the potential for one) should make the site even more interactive.

Human interactivity is a direct benefit that likely contributes positively to the value of web sites for a number of reasons: First, interactivity may make consumers feel they have contributed to the firm's market offering. As mentioned earlier, when Intel had a problem with the Pentium processors it was first discovered by its consumers and the problem was pointed out on the company sponsored bulletin board on the Web. User input into specifying or designing a product or service is extremely satisfying (Rafaeli 1988). For instance, users of a software may e-mail suggestions for improvement of the product to the manufacturer. An acknowledgment with thanks or a query for more information would increase the sender's sense of participation and satisfaction with the developer.

Second, the consumer could receive help in using the product if any problems occur. Communication via e-mail may aid the consumer in solving any problems that s/he may have.

Third, interactivity via the Web may provide easier access to the firm. The web site is accessible 24 hours a day. Consumers can visit the site at their own convenience. Consumers can send and receive messages any time they desire. It may be noted that actual interactivity is not necessary to

provide value to a consumer. As suggested earlier, just the presence of e-mail facilities may increase the perception of interactivity (Newhagen, Cordes and Levy 1995). For example, publication of an e-mail address on a firm's commercials may be beneficial to the consumer, making it easier for him/her to communicate with the firm.

Fourth, communicating with a firm's representative online may be a benefit itself. For example, the NBA web site provides weekly schedules for fans to log on and interact with various NBA players.

Finally, interactivity gives commercial speech some of the character of conversation. A firm can go back to a customer to respond to what the customer said. Interaction can lead to richer relationships than one way advertising (Blattberg and Deighton 1991) by enhancing cooperation between customers and firms (Rafaeli 1987).

To sum up, human interactivity may (1) lead to the perception that the consumer is important to the firm; (2) help make the offering more suited to the requirements of the consumer; (3) help the consumer to use the product; (4) provide easier access to the firm; and, (4) enhance cooperation between the firm and consumers. All of these are benefits to the consumer. Insofar as the site is successful in providing human interaction it will enhance the value of the site. Thus, it is proposed that

H3: The level of human interactivity of the web site will be positively related to the value of the web site.

II. C. 4. CONTROL

A second dimension of interactivity on the Web is man-machine interactivity. In this section it is argued that man-machine interactivity built into *internet presence sites* provides control to users. Control may be viewed as a benefit while lack of control may be viewed as a cost. To the extent that the user desires control it is a benefit and increases the value of the site. For other users, lack of control may be undesirable (leading to feelings of frustration) increasing the costs associated with the web site and decreasing the value of the web site.

Man-machine interactivity is described by Steuer (1992) as

> "the extent to which users can participate in modifying the form and content of a mediated environment in real time." (p. 84)

Steuer (1992) suggests that there are three dimensions to this form of interactivity- speed, range, and mapping. Speed, or the response time, refers to the time taken by the media to react to the user. This may vary across web sites depending on the time that they take to download. A web site that has a lot of complex graphics built into it will take longer to download than a simple site. So based on Steuer (1992) a simple web site with a fast response time is highly interactive. Steuer primarily examines this dimension in contrasting interaction across different media such as a virtual reality system versus a message left on a telephone answering machine. The former is considered to be more interactive as the response is in real time

(almost immediate) while the response to a message on a telephone answering machine could take days.

The second dimension is range. Range represents the extent to which the environment can be manipulated (Steuer 1992). In web sites this may be represented by the number of links built into the site. To the extent that there are more links in the site, there is greater control passed on to the user to view the site in a manner of his/her own choosing. It has been suggested that for a web site to be interactive advertisers must concentrate on inducing mouse clicks, the greater the number of clicks the better (Brueckner 1994). While a web site may aim to be interactive from the point of view of the designer, man-machine interactivity really provides consumers with control.

The third dimension suggested by Steuer is mapping. Mapping is concerned with the man-machine interface. It represents the way in which individual actions may be connected to actions within the machine. The man-machine interface may be unnatural, for instance, typing out keyboard commands to manipulate the computer screen. On the other hand, mapping could be very natural, for instance, turning a steering wheel to make a car move in an arcade video game. While this may be relevant to the Web it does not currently vary with web sites (all of them are interfaced with a mouse).

Man-machine interactivity may impact the value provided by the web site. From the perspective of the designer, this type of interactivity is

represented by range and speed (Steuer 1992) of the web site i.e. the response time and number of links built into the site. On the other hand, from the perspective of the user man-machine interactivity gives them control.

Research in the area of computer-based instruction has described user control as the extent to which the user can manipulate the pace and sequence of exposure to the learning material as well as the content of the learning material to which the user is exposed (Milheim and Martin 1991). As far as applicability to the World Wide Web is concerned, controlling the pace implies that the user can control the duration of exposure to the subject matter (or web page). Controlling sequence of exposure implies that the user may view the pages of the web site in the order he/she desires, while controlling the content implies that the user can view only those portions of the web site that he/she desires. The links built into the web site attempt to do each of the preceding by passing control into the hands of the visitor.

Control over the pace, sequence, and content of the site likely enhances the value of the site because it limits non productive expenditure of time. The links built into the site imply that the information in a site is organized under certain headings. This makes the site easy to browse through (leading to an increased perception of control over sequence and content of exposure). A brief look at the contents enables the visitor to familiarize himself/herself with the layout of the site and give him/her control

over sequence of exposure and content of the site. As a result, browsing behavior is more efficient. Less time is spent on searching the web site for the content of interest. The time spent on non productive activities is wasted and hence is a cost associated with the web site. Visitors would like to minimize this non productive expenditure of time. Decreasing search time decreases the costs related to the web site and is thus likely to enhance the value of the web site.

Two points need to be noted here. First, it is perceived user control that is being discussed here. For instance, while a firm may design a web site that provides control to the user, the user may not perceive himself/herself to be in control if s/he is a novice Web user (i.e. is unsure of how to navigate across the Web and within web sites). Second, user control (or lack thereof) may be a benefit (cost) associated with the site.

It has been argued that individuals may be divided into two groups-internals and externals (Spector 1982). Internals are those who attribute control of events to themselves. They are said to have an internal locus of control (Rotter 1966). Externals are those who attribute control of events to external factors. They are said to have an external locus of control (Rotter 1966).

Research on control suggests that individuals with an internal locus of control desire it to a greater extent than those with external locus of control. They may actively seek situations over which they have control (Spector

1982). Control itself is satisfying for these individuals (Carver and Scheier 1990; Langer and Saeger 1977; Lazarus 1991; Spector 1986). To the extent that this is true, control can be viewed as a benefit associated with the site.

Loss of control associated with computers is undesirable for both, people exhibiting internal locus of control, as well as people with an external locus of control. Simas and Sirsky (1985) state that

> "Computer controlled conversations often frustrate people who have a strong internal locus of control and reinforce the perception of helplessness for people with a strong external locus of control" (p.53).

As mentioned before, individuals with an internal locus of control desire control. Absence of control serves to frustrate these individuals as they try to establish control over the web site and fail. Those individuals with an external locus of control do not expect to be in control of their navigation behavior. When this expectation is fulfilled (or even exceeded) there emerges a feeling of helplessness, an undesirable outcome. As a result, loss of control may be considered a cost associated with the site and may lower the value of the site to the user. Thus, it may be argued that control impacts both the costs and benefits associated with the site. As a result, it is proposed that

> **H4: The level of perceived user control in navigating the site contributes positively to the value of the site.**

II. C. 5. IRRITATION

An unintended outcome of visiting a web site is that it may irritate the consumer (Ducoffe 1996). Since irritation is inherently undesirable it may be considered a cost associated with the web site and decrease its value.

Aaker and Bruzzone (1985) define an irritating commercial basing their definition on Webster's dictionary.

> "An irritating commercial is one that is provoking, causing displeasure and momentary impatience." (p. 48)

Irritation may originate from two different sources (Aaker and Bruzzone 1985; Barnes and Dotson 1990; Bauer and Greyser 1968)- the product class or the creative execution. It appears typically that advertising of products used in a personal context (e.g. feminine hygiene products, laxatives etc.) are found to be offensive and irritating (Barnes and Dotson 1990). This was also supported empirically by Bauer and Greyser (1968) and Aaker and Bruzzone (1985). A consistent product class effect seems to prevail.

Irritation can also result from the creative approach employed. It is suggested that, among other reasons, an advertisement may irritate if (1) the situation is seen to be contrived, not credible, (2) a person in an ad is put down, (3) important interpersonal relationships are threatened, (4) individual pain is portrayed, and (5) the characters portrayed are negative (Aaker and Bruzzone 1985). Overall it seems that commercial messages which are seen

to be manipulative, deceptive and/or attempt to trivialize the issue at hand are irritating to the consumer (Aaker and Bruzzone 1985; Aaker and Stayman 1990; Bauer and Greyser 1968; Fromm 1955; Pollay 1986; Schlinger 1979). As a result, one could expect informativeness and irritation to be negatively correlated. While all of the above may also be relevant to a web site, another factor that may contribute to irritation is excessive time taken to download the site. In many cases web sites have complex graphics which increase the time taken for accessing the site. In many such cases respondents simply stop the process and quit the site (Raman 1996).

Irritation is ultimately an undesirable experience that the consumer wants to avoid, it is a cost and will contribute negatively to the value of a web site. Therefore, it is proposed that

H5: The higher the level of irritation a web site triggers, the lower the perceived value of the web site.

II. D. INDIVIDUAL DIFFERENCES

It is proposed that the individual also contributes (albeit indirectly) to the value received from a web site. Consequently, this section examines the impact of individual differences like computer anxiety, familiarity with the Web, involvement, and prior attitude toward the brand in influencing value of the web site.

II. D. 1. COMPUTER ANXIETY

Computer anxiety is defined as

> "the tendency of an individual to be uneasy, apprehensive, or fearful about the current or future use of computers in general." (Igbaria and Parasuraman 1989)

The literature suggests that computer anxiety plays a considerable role in the adoption and efficacy of use of computers (Roszkowski, Devlin, Aiken, and Jacobsohn 1988). Considering that the most common way of accessing web sites is through computers, we can suggest that computer anxiety plays an important role in determining the value of the web site.

Computer anxiety makes the medium less transparent. Transparency of a medium is defined as

> "the degree to which the user or interactant is (un)aware of the presence of a mediating entity" (Rafaeli 1988, p.116).

One can argue that individuals that exhibit computer anxiety are more aware of the medium of communication itself and hence it exhibits a low level of transparency. To the extent that a medium lacks transparency, noise is inserted into the communication (Rafaeli 1988). Noise serves to distract the user from the communication experience. Consequently, a user exhibiting computer anxiety will be distracted by the medium and will divide his/her attention between the medium and the content. A lower level of attention paid to the application (in this case the web site) should lower the benefits received (informativeness, entertainment, control). For example, if

the benefit sought is entertainment, the user is likely to be conscious of, and distracted by, the medium and hence may not enjoy the site to the same extent as a person who was completely oblivious of the medium and totally absorbed by the site. Similarly, due to distraction the consumer may not be able to take full advantage of the informativeness of the web site. Further, perceptions of control may be diminished as the consumer is unsure of his/her navigation behavior (e.g. may not be comfortable enough to sequence the exposure to the web site in the desired manner). To sum up, computer anxiety exhibited by a user decreases the transparency of the medium which in turn lowers the benefits (informativeness, entertainment, and control) received. Thus, it is proposed that

> **H6: The level of computer anxiety will be negatively associated with the informativeness, entertainment, and control associated with the web site.**

In the next section the indirect role of user familiarity with the Web in influencing value of the web site will be examined. However, before that the relationship between computer anxiety and user familiarity (i.e. the extent of Web related experiences accumulated by the consumer) must be considered. A number of studies suggest that familiarity or experience with computers would serve to alleviate anxiety toward computers (Todman and Monaghan 1994). However, there has only been limited support for these assertions (Todman and Monaghan 1994). While some studies have reported an inverse

relationship between computer anxiety and experience (Cohen and Waugh 1989; Dambrot, Watkins-Malek, Silling, Marshall, and Graver 1985; Gressard and Loyd 1985, 1987; Harrison and Rainer 1992; Heinssen, Glass and Knight, 1987; Howard and Smith 1986; Igbaria and Chakrabarti 1990; Kernan and Howard 1990; Loyd and Gressard 1984; Marcoulides 1988; Raub 1981), others find that there is no support for the relationship between the two variables (Lindbeck and Dambrot 1986; Szajna and Mackay 1995; Todman and Lawrenson 1992). Still other studies have suggested that in some cases experience actually increases anxiety levels in users (Rosen, Sears and Weil 1987; Weil, Rosen and Wugalter 1990).

In an attempt to reconcile the contradictory findings relating experience and computer anxiety, Todman and Monaghan (1994) suggest that it is the nature of an individual's introduction to computers that determines their response to it (i.e. quality and not quantity of exposure). In some cases individuals may have been introduced to computers in informal and relaxed settings, while in other cases individuals may have been introduced to computers in stressful, more formal, work oriented situations. They (Todman and Monaghan 1994) suggest that it is the introduction to computers that determines the extent to which consumers exhibit anxiety toward computers.

To sum up, computer anxiety and user familiarity are distinct constructs and influence value through different mechanisms. Computer

anxiety inhibits transparency and thereby distracts consumers from taking full advantage of the benefits offered by the web site. User familiarity, on the other hand, deals with the consumer's ability to take advantage of the benefits offered by the web site.

II. D. 2. USER FAMILIARITY

Diaz, Hammond, and McWilliam (1996) suggest that user familiarity with the Web determines navigation behavior. Borrowing extensively from research in retailing (e.g. Titus and Everett 1995), they suggest that user experience will be related to the extraction of benefits from a Web browsing experience. This section suggests that the degree of user familiarity with the Web will determine if consumers have the ability to take advantage of the benefits provided by the web site. As a result, a positive relationship between familiarity and web site benefits is proposed.

User familiarity is defined as the extent of Web related experiences accumulated by the consumer. This definition borrows from Alba and Hutchinson's (1987) work on consumer expertise and Diaz, Hammond, and McWilliam (1996) regarding consumer Web navigation expertise.

Literature in consumer decision making (e.g. Alba and Hutchinson 1987) and computer instruction (e.g. Carroll 1990) suggest that familiarity should increase consumer expertise. Carroll (1990) suggests that individuals learn most about computer applications by practice (Note: as mentioned in

the section on computer anxiety, experience may not alleviate anxiety). Individuals that have no prior experience with the Web have to spend time trying to understand the rules of navigation through it. Diaz, Hammond, and McWilliam (1996) suggest that user experience is related to ease with which user can understand and organize their thoughts about the Web. This understanding implies that such users will be able to find their way around a web site and information retrieval will be facilitated (Diaz, Hammond and McWilliam 1996). Thus, one would expect user experience to be related to the informativeness of a web site.

Kirschenbaum (1992), in her study of the differences in information gathering strategies of novices and experts, suggests that novices may have only limited knowledge of the rules and no real experience with the problem. As a result, they find it more effortful to solve the problem and may examine a greater number of paths before arriving at a solution (Kirschenbaum 1992). Applied to the Web this suggests that users with little prior experience may find it difficult to control their navigation behavior. They may not be able to sequence navigation through the web site as they would like and may not be able to view only those areas of the web site that they desire. Thus, it may be proposed that user experience is related to control (over sequence and content) of navigation through the web site.

Finally, lack of user experience may also inhibit the consumer from enjoying the web site to the fullest extent. For example, the Gap site

(www.gap.com) permits visitors to interactively dress figures on their web site. To use this feature, one must have animation software (Shockwave). An individual with extensive experience would download the software from the Web and take advantage of this feature. An individual with little or no experience on the Web may find it difficult to take download, unzip, and install the required software. As a result, entertainment provided by the site may suffer.

To sum up, it is suggested that user familiarity with the Web enables them to take full advantage of the benefits (informativeness, entertainment, and control) offered by web sites. Hence, it is proposed that:

> **H7: User familiarity with the web will be positively related to the informativeness, entertainment and control offered by the web site.**

II. D. 3. INVOLVEMENT

Hoffman and Novak (1996) suggest that the nature of the process (goal directed or experiential) will impact consumer navigation behavior. A consumer may arrive at a web site with a specific goal in mind (e.g. looking to fulfill his/her need for information, entertainment, and/or interactivity). Such goal directed behavior is characterized by situational involvement (Hoffman and Novak 1996). Alternately, the consumer could have landed on the web site while browsing through the Web. Browsing (or experiential) behavior at a web site is characterized by enduring involvement with the

product (Hoffman and Novak 1996). This section will examine the role of involvement (situational and enduring) in determining the differential impact of site benefits on value of the web site.

Involvement is defined as

> "the level of perceived personal importance and/or interest evoked by a stimulus within a specific situation" (Antil 1984).

This definition distinguishes between a stimulus that is intrinsically important and one that is important because of the situation. Thus, there are two dimensions of involvement: enduring involvement (Bloch and Richins 1983; Kapferer and Laurent 1985) and situational involvement (Houston and Rothschild 1978; Laurent and Kapferer 1985; Rothschild 1979).

II. D. 3. a. Situational Involvement

Situational involvement reflects site involvement that occurs only in certain situations (based on consumer need for information, entertainment, and/or interactivity) . For instance, a consumer's need for information about life insurance may take him/her to a relevant web site (e.g. www.prudential.com). Alternately, a consumer's need for entertainment may drive his/her visit to a site that features multiple games (e.g. www.candystand.com). Finally, a consumer's need for interactivity may drive his/her visit to the site (e.g. interacting with your favorite basketball

player at www.nba.com). It will be argued that depending on the type of involvement the basis of valuation of the web site will be affected.

It has been argued that consumers function in an environment consisting of a wide variety of stimuli and contingencies. These stimuli and contingencies may be sources of personal relevance if (1) they activate a person's self interest in terms of expectations of outcomes, goals, and values and (2) the representations of these stimuli are perceived to be closely related to important consequences, goals, and values (Celsi and Olson 1988).

One such contingency may be a purchase situation. Purchase is expected to lead to involvement insofar as the consumer perceives a high level of risk to be associated with the decision (Zaichkowsky 1986). Involvement is likely to be greater during the purchase process rather than months after the purchase (Houston and Rothschild 1978). This is the essence of product related situational involvement (Houston and Rothschild 1978). Once the purchase decision has been made and the consumer becomes familiar with the product whereby he/she takes the presence or usage of the product for granted, it no longer remains a high involvement situation (Richins and Bloch 1986). Other contingencies may include situations where an individual (e.g. a student working on a project) is seeking information about the product.

It has also been suggested that such involvement will vary according to situational variables such as the cost and complexity of the product,

interpurchase time, etc. (Houston and Rothschild 1978). For instance, when the price is high, the possibility that the consumer could obtain a better price may justify the investment of time and effort into information search and decision making (Dommermuth and Cundiff 1967, Kiel and Layton 1981; Newman and Staelin 1972). Under product related situational involvement the consumer may become more willing to receive the information that s/he is being exposed to (e.g. paying attention to commercials as opposed to ignoring them). Alternatively, the consumer could initiate an extensive search to uncover relevant information and hence attempt to make the best possible decision (Zaichkowsky 1986). Under these circumstances the consumer may visit a relevant firm's web site expecting it to be informative. While, s/he may enjoy the entertainment and interactivity provided by the site, it is the perceived informativeness of the web site that will satisfy the consumer's driving need for information. As a result, a web site that is perceived to be informative will also be perceived to be valuable, as opposed to a web site that is considered to be uninformative.

As mentioned earlier, a consumer may also visit a web site to satisfy his/her needs for entertainment and/or interactivity. It is proposed here that consumer need determines the impact of the site benefits on value. For instance, a consumer that is looking for entertainment in a site will perceive the site to be valuable to the extent that it satisfies this need. The same

logic will hold for a consumer driven by the need for interactivity. Thus it is proposed that

> **H8: Under conditions of situational involvement consumer needs will determine the relative influence of site benefits on the value of the site.**
>
> **a. If the consumer visit is motivated by product related situational involvement, then informativeness will have greater influence on value than entertainment and interactivity.**
>
> **b. If the consumer visit is motivated by entertainment related situational involvement, then entertainment will have greater influence on value than informativeness and interactivity.**
>
> **c. If the consumer visit is motivated by interactivity related situational involvement, then interactivity will have greater influence on value than informativeness and entertainment.**

II. D. 3. b. Enduring Involvement

Enduring involvement represents an ongoing concern with a product. It is independent of the situation facing the consumer (Houston and Rothschild 1978; Laurent and Kapferer 1985; Rothschild 1979). It describes intrinsic product involvement and represents the degree to which the product relates to the self (Bloch and Richins 1983; Kapferer and Laurent 1985) i.e. it represents the consumer's degree of interest in the product on a everyday basis. This section will examine the impact of enduring involvement on value when the consumer is browsing through the Web. First, the construct enduring involvement will be examined in detail.

Enduring involvement, as the name suggests, is stable over time. Enduring involvement with an object suggests the presence of structures of knowledge regarding the object that may be based in past experience and stored in long term memory (Bloch and Richins 1983). This knowledge may represent beliefs about the product and its importance for the individual's goals and values (Bloch and Richins 1983). The emphasis is on the product itself and is not dependent on the situation (as opposed to situational involvement).

Under conditions of enduring involvement, consumers tend to keep themselves informed regarding the product category. They expend time and effort in reading and viewing material about the product. The likelihood of exposure to advertising depends on the intrinsic enjoyment the consumer associates with the product class (Laurent and Kapferer 1985). In a high enduring involvement situation, the product is important and interesting. Consumers may find themselves thinking about the product without the expectation of a purchase occasion (Richins and Bloch 1986).

For instance, for some people clothes have been considered to exhibit enduring involvement due to their symbolic meaning with respect to relevant others, and/or their ability to depict one's lifestyle or personality (Levy 1959) or their hedonic character (Hirschman and Holbrook 1982). It is likely that these individuals have built up knowledge on fashion and have distinct preferences on the kinds of clothes that they prefer.

A consumer may land on a web site while browsing through the Web. This may be considered a 'hit' (Berthon, Pitt, and Watson 1996). One factor that will influence a consumer's decision to visit (or browse) the web site is enduring involvement. Enduring involvement with the product will play a motivating role. Interest in an important product will arouse a consumers' interest in the product's web site.

A consumer will be more likely to extensively explore a web site for a product that is important and interesting (i.e. high enduring involvement), than for a product that is unimportant and boring. As a result, the consumer is likely to uncover more information and possibly be more entertained by a site representing a product with which s/he is highly involved. Thus, it is proposed that

H9: The greater a consumers' enduring involvement the greater will be the perceived informativeness and entertainment provided by the site.

Under low enduring involvement conditions, the product itself is neither important nor interesting to the consumer. Thus, information provided by the site would not be a major benefit perceived by the consumer. Entertainment, however, may be relevant for the individual and thus, should be more influential in determining the value of the site. Therefore, it is proposed that

H10: Under conditions of low enduring involvement entertainment, rather than informativeness, will have more influence on value of the site.

II. D. 4. PRIOR BRAND ATTITUDE

This section examines the relationship between prior brand[1] attitudes and value of the web site. Brand attitudes represent an overall evaluation of the brand. It is argued here that brand attitudes prior to visiting the sites will impact the individual's valuation of the web sites. To the extent that prior brand attitudes are positive, value of the web site will be enhanced through increased informativeness. Negative attitudes, on the other hand, may detract from informativeness and decrease the value of the site to the consumer.

Based on Lutz (1985, p.46) attitude toward the brand is defined as a "predisposition to respond in a favorable or unfavorable manner to a particular" brand. In order to hypothesize a relationship between prior brand attitude and value of the web site, two aspects of brand attitudes have to be addressed, (1) the direction of brand attitude- positive or negative, and (2) the confidence in those attitudes.

Attitude confidence "refers to the conviction with which the attitude is held" (Smith and Swinyard 1983 p.259). This would be determined by the amount of information available to an individual (Koriat, Lichtenstein, and Fischoff 1980; Peterson and Pitz 1988) and the expectation that the

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A brand may be defined as
"a name, term, sign, symboi, or design, or a combination of these intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors," (Bennett, Dictionary of Marketing Terms).

information available is accurate. Direct experience with a product provides a consumer knowledge that he/she can rely on (Fazio and Zanna 1981). Thus, direct product experience leads to a high level of attitude confidence. Note, a consumer may have confidence in knowledge that may not be an accurate reflection of reality. Attitude confidence may be derived from what the consumer thinks he/she knows about the brand.

Attitude confidence is considered an important predictor of attitude changeability (Fazio, Powell, and Herr 1983; Fazio and Zanna 1981). Individuals who have (lack) confidence in their evaluations are less (more) likely to change their evaluations when contrary information is presented (Fazio, Powell, and Herr 1983; Fazio and Zanna 1981).

The relationship between prior brand attitude and informativeness will be based on Heider's (1946) balance theory. Heider (1946) suggested that there was a tendency for individuals to have a balanced view of an attitudinal object. A balanced view implies that attitudes towards the component parts of the object are similar in nature e.g. one likes and admires another person. So when all parts of the object are positive or negative a balanced state exists. It is suggested that if a balanced state does not exist, modifications will be made to achieve such a state.

The *internet presence site* is developed by the firm. As a result, the information presented in it will be positively oriented toward the brand. When prior brand attitudes are positive the positive arguments for the brand

presented at the site will serve to reinforce brand attitudes. As a result, the information presented will be believable and the site will be perceived to be informative, because believability is a dimension of informativeness of a site. As both prior attitude and information presented are positive a balanced state will exist. On the other hand, when prior brand attitudes are negative, an imbalance will exist. To achieve a state of balance either the prior attitude must change or the individual must dismiss the arguments presented at the web site. The change will depend on the confidence in the attitude. To the extent that the consumer has confidence in the prior attitude it is less likely to change. From a consumers' perspective the information presented comes from a biased source (the firm). Hence, the believability of the information presented in the web site may suffer. As a result, it may be expected that when attitude confidence is high, prior negative brand attitudes will lower the believability and commensurately lower the informativeness of the web site. On the other hand, if the consumer lacks confidence in the attitude it may be discarded in favor of the information presented in the site. Thus, the positive relationship of prior brand attitude and informativeness of a web site will only hold under conditions of attitude confidence.

H11: Prior attitude toward the brand will be positively related to informativeness of the web site under conditions of high attitude confidence.

II. E. ATTITUDINAL CONSEQUENCES OF VALUE

This section explores the impact of a valuable site on the consumer's attitude toward the site, attitude toward the brand, repeat visits, and willingness to provide information. These attitudinal consequences are of importance to the firm. The marketing concept suggests that the firm attempts to meet the needs of consumers. By providing value the firm does just that. As a result, one might expect that when consumers visit sites that are valuable to them, their attitudes toward the brand, site, repeat visits, providing information should improve also. The relationship between value and these variables are discussed in this section.

II. E. 1. ATTITUDE TOWARD THE SITE

This section borrows on attitude toward the ad literature. Attitude toward the site is posited to be similar to Attitude toward the ad. An ad is a commercial message presented by a firm. Likewise, the *internet presence site* is a commercial message presented through the World Wide Web (Ducoffe 1996, found that 57% of respondents surveyed consider these to be advertising).

Attitude toward the ad (Aad) has been defined as

> "a predisposition to respond in a favorable or unfavorable manner to a particular advertising stimulus during a particular exposure occasion." (Lutz 1985, p.46)

Attitude toward the site may similarly be defined as an affective response to a particular web site. It has been demonstrated that attitude toward the advertising stimulus may influence the consumer's brand attitude (e.g. Laczniak and Carlson 1989; MacKenzie and Lutz 1989; MacKenzie, Lutz, and Belch 1986; Muehling, Laczniak, and Stoltman 1991; Rose, Miniard, and Bhatia 1990), and choice (Shimp 1981; Mitchell and Olson 1981). MacKenzie, Lutz and Belch (1986) suggest that consumers' affective reactions to an ad influence their propensity to accept the claims made in the ad on behalf of the brand. In addition, Aad has been related to brand interest (Macleit and Kent 1989; Macleit, Madden, and Allen 1990), brand recall, brand recognition, and fact recognition (Zinkhan, Locander, and Leigh 1984). Some support has also been received for the impact of Aad on brand consideration (Moore and Hutchinson 1983), time spent on viewing the ad (Olney, Holbrook, and Batra 1991), and even repeat purchase (Shimp and Yokum 1981). As a result, attitude toward the ad is considered an important variable for marketers.

It is argued here that the value of the web site will be related to the attitude toward the site. A web site that is high in value is likely to be appreciated by the consumer due the benefits received at a relatively low cost. It is intuitively sensible that consumers will have more favorable general attitudinal reactions to advertising that they find more valuable i.e. that provides greater net benefits (Ducoffe 1995).

H12: Value of a web site is positively related to attitude toward the site.

II. E. 2. ATTITUDE TOWARD THE BRAND

In this section brand attitudes will be suggested to be one of the consequences of value of the web site. Brand attitudes are of concern to firms because they have been related to consumer purchase behavior (Ajzen and Fishbein 1980; Fazio 1986).

Firms attempt to influence consumers' brand attitudes through the information they present. Firms present arguments to convince consumers about the merits of their brand and make the brand attractive to the consumer. In addition, to ensure that the consumer pays attention to the information, they try to present it in as entertaining a manner as possible. In some *internet presence sites*, specially those aimed at building brand image (e.g. www.millerlite.com) the entire site may be oriented toward entertaining the consumer and thereby effecting positive brand attitudes. Value of the *internet presence site* to a user encompasses both informativeness and entertainment provided by the site. As a result, it may be postulated that

H13: Value of a web site is positively related to attitudes toward the brand.

II. E. 3. REPEAT VISITS

Recently, increased amount of attention has been paid to building relationships with customers. The objective is to take a long term perspective and maintain a loyal band of customers (Aaker 1995). Studies in brand equity suggest that the benefits associated with retaining customers exceed those associated with gaining new ones (Aaker 1995). One way of doing this is through regular communication with consumers (Aaker 1995). Further, it is considered important that the consumer be exposed to the firm's message repeatedly for it to have an impact on the consumer (Krugman 1972). Recent research suggests that rather than the number of exposures it is the timing of exposure that is important (Jones 1997). Exposure when the consumer is planning a purchase influences consumer choice. In most cases firms do not know when the consumer is planning to buy, therefore they repeat the message in the hope that each time it will catch the attention of prospective buyers. So it is in the firm's interest to make consumers return to the web site. Before the link between value and repeat visits is explored, the literature on repetition in advertising is reviewed and applied to web sites.

A unique characteristic of the Web is that consumers are in control of what they view. As opposed to advertising in other media, like television, radio, magazines etc., an *internet presence site* is not embedded in programming that may attract the viewer's attention. Hence, it is not likely

that a consumer would be exposed to a web site repeatedly unless he/she desires it. In traditional media (e.g. television) the program provides value to the consumer and leads them to view the program. Consequently, consumers may also be exposed to embedded advertisements. As far as the Web is concerned there is no external incentive (like the program in television) to attract the viewer. As a result, it has to be the web site itself that must provide value to the consumer. It is proposed here that value provided by the web site will determine the probability of repeat visits. The greater the value provided the more likely it will be that the consumer is likely to come back.

First, we examine the construct of repeat visits more closely. For this study, repeat visits are defined as the consumer's intention to return to the site. It is important to note that it is distinct from repetition which is a similar construct in the advertising literature. There are two main differences. First, repetition deals with the number of times an individual is exposed to an advertisement. On the other hand, repeat visits is the probability that the consumer may seek out the firm's marketing communication in the future. The second point stems from the first, on the Web consumers are in control. They actively seek out web sites that they want to visit (as opposed to other media e.g. television where repetition may occur while an individual is viewing a program). As a result, they have to be motivated to seek out the web site. It is argued here that value provided by

the site is the motivating factor for a consumer continuing the relationship with the web site.

Repeated exposure is also related to advertising effectiveness (Berlyne 1970; Cacioppo and Petty 1979; McCullough and Ostrom 1974; Sawyer 1981). Repetition has a positive relationship with cognitive response activity. Repeat exposures lead to the generation of more positive thoughts and fewer negative ones (McCullough and Ostrom 1974). However, as the number of repetitions cross a threshold level tedium may set in. This leads to an attack against the message by the receiver (Cacioppo and Petty 1979, 1980). Notice, since the consumer controls exposures on the World Wide Web the threshold level is not likely to be crossed. The consumer will stop visiting the site as soon as the threshold level is reached.

Repetition has also been considered with respect to the competition. D'Souza and Rao (1995) discovered that repeating an advertisement more frequently than the competition had a positive impact on brand preference. They suggest that repetition per se is not important. What is important is the extent to which consumers are exposed to your message as opposed to the competition's messages. Repetition was found to have a positive impact on top-of-mind-awareness, purchase probability, brand preference, and choice (D'Souza and Rao 1995).

It is proposed here that repeat visits will be positively related to the value of the web site. The higher the value provided by a web site the more

likely it will be that the user will return to it. A site that provides little or no value to the user supplies no incentive for the consumer to continue the relationship with the site. Value, i.e. the balance of benefits and costs associated with the site provides the motivation for consumers to return to the site. The likelihood of return may be high when a consumer perceives the benefits to outweigh the costs substantially. However, when costs match or exceed the benefits associated with the site it is not likely that the consumer will return to the site. Thus, it is proposed that

H14: Value of a web site contributes positively to repeat visits.

II. E. 4. WILLINGNESS TO PROVIDE INFORMATION

While the web site provides information to the consumer, it is difficult for the firm to gain information about the consumer. A number of web sites ask consumers to register and fill out a short questionnaire (e.g. CNet @ www.cnet.com, Madison Square Garden Network @ www.msgnetwork.com, etc.). It is proposed here that value provided by the site will be positively related to consumers' willingness to provide information to firms. Willingness to provide information is defined as the likelihood that a consumer will respond to a pre-formatted questionnaire on the web site.

When a firm provides value to the consumer it creates a state of indebtedness. This may invoke a moral norm which suggests that one

should give benefits to those that give them benefits (Gouldner 1960). This is the norm of reciprocity. It states that

> "(1) people should help those who have helped them, and (2) people should not injure those who have helped them." (Gouldner 1960, p.171).

The above implies that when a firm through its web site provides value to consumers they should reciprocate by providing desired information to the firm. Obviously, this does not happen at all times. This suggests that the norm is not an absolute and varies based on the benefits provided.

Gouldner (1960) contends that, first, the debt incurred is a function of the extent to which the benefits were desired by the recipient. The more needy the recipient or web site user, the greater the indebtedness and need to repay. Consumer need and its fulfillment will influence the level of indebtedness.

Second, debt incurred depends on the resources of the giver. This may not be relevant in the case of a web site as the giver may be perceived as a firm with abundant financial resources to set up the site. This is more suited to a financial exchange between individuals.

Third addresses the motives of the giver. In today's environment business is viewed with a great deal of suspicion. Hence, it is likely that noble motives will not be imputed to the firm. As mentioned earlier, Ducoffe (1996) discovered that close to 57% of respondents considered Internet Presence sites as advertising. This may even relieve some of the feelings of

indebtedness as a consumer may believe that they are giving the firm their time in exchange for the benefits provided.

Finally, indebtedness is dependent on the constraints faced by the giver (if the giver acts of his/her own free will indebtedness will be greater). Firms develop their web sites of their own free will. However, the perception that they do so out of self interest may temper the level of indebtedness.

Value of the site to the user will enhance the indebtedness felt by the consumer and will increase the consumers' willingness to provide information to the firm. Thus, it is proposed that

> **H15: *The greater the value of a web site perceived by the consumer the greater is the willingness to provide information to the firm.***

CHAPTER III
RESEARCH METHODOLOGY

III. A. INTRODUCTION

A two step methodology was used to test the hypotheses developed in this dissertation. Step one was a pretest which aimed to develop and refine a comprehensive instrument for hypotheses testing. Step two employed this instrument to test the hypotheses.

III.B. PRETEST

The pretest had four specific objectives: 1) adapt and purify relevant scales from advertising literature to *internet presence sites*, 2) generate and refine scales for constructs for which no relevant scales existed, 3) select *internet presence sites* for subjects to visit, and 4) uncover any administrative problems. The details of the pretest are described in the following sections.

III. B. 1. SUBJECTS

Three undergraduate classes (a total of 108 students) in marketing were employed as subjects for the pretest.

III. B. 2. STUDY

The study was executed in two phases. Phase I was held in the classroom. During this phase respondents filled out a questionnaire reflecting individual differences i.e. computer anxiety, product involvement, attitude toward the brand, attitude confidence, and user familiarity with the Web. The second phase was executed, three weeks later, in the computer lab. Each questionnaire presented the respondent with three *internet presence* site addresses. At the end of each visit the subjects were asked a series of questions (regarding informativeness, entertainment, control, irritation, value, attitude toward the brand, attitude toward the site, repeat visits, and willingness to provide information).

The three sites were drawn from a list of 11 *internet presence sites* (see appendix 1). Each respondent was randomly assigned different combinations of sites from the list. This procedure provided between 20 and 30 observations for each site (with the exception of the Prudential site which was visited by 60 respondents). The eleven sites tested here were selected after informal interviews with four undergraduate students. The students were asked for their opinions regarding the product (involvement), the brand (attitude), and the site (informativeness, entertainment, control, and irritation). In each case student opinions demonstrated variation. With the exception of the NBA site which met with approval from all four students all other sites had at least one student with a negative impression of the site.

Consequently, these web sites were expected to provide data with adequate variation to test the hypotheses.

III. B. 3. MEASURE DEVELOPMENT AND ASSESSMENT

This dissertation followed the procedure outlined by Churchill (1979) for developing measures. The suggested procedure is divided into 8 steps: (1) specify domain of construct, (2) generate sample of items, (3) collect data, (4) purify measures, (5) collect data, (6) assess reliability, and (7) assess validity.

In steps one and two operational definitions were generated and items reflecting the operationalizations were developed and/or adapted (from existing scales in advertising literature). Subsequently, in step three these items were run by six experts. Each of these experts was a doctoral candidate in the marketing department and had taken a scale development class. These experts were asked to examine the items and match them to the constructs to which they belonged, based on the operational definitions. In step four, data gathered was used to purify the measures. A couple of items proved to be confusing and were dropped. In addition, the wording of a couple of other items was amended.

In step five, data was gathered from subjects. Subsequently, in steps six and seven the data was analyzed and reliability and validity examined.

The next section describes in detail the definitions of constructs and items employed in the pretest. Additionally, the reliability, dimensionality, and validity of the scales are presented. Based on Peter (1979) reliability is examined through a measure of internal consistency- Cronbach's (1951) coefficient alpha. Validity is established by examining three facets of a valid measure- convergence, discrimination, and predictive power (Peter and Churchill 1984).

Some of the measures were adapted from existing scales (e.g. informativeness, entertainment, irritation, attitude toward the brand, attitude toward the site, attitude confidence, value, and involvement) while others were developed specifically for this dissertation (control, continuity, computer anxiety and willingness to provide information). The raw scales employed in the pretest are presented in the appendices (appendices 2 through 14). All items included in the questionnaire were on 7 point likert or semantic differential scales.

III. B. 3. a. Informativeness

An informative web site was defined as one that was perceived by the user to contain information that was truthful, complete, intelligible, relevant, and substantial. The scale for this construct was adapted (to the world wide web) from one developed by Puto and Wells (1984) which was, in turn, based on earlier work of Aaker and Norris (1982). The definition of

informativeness differed only on semantics. The statements that were employed in the pretest are presented in appendix 2.

Reliability was measured through coefficient alpha which was 0.75 (see appendix 2a). This was well above the minimum recommended level of 0.70 suggested by Nunnally (1967). Three items (number 2, 3 and 7) were discarded as they appeared redundant and their exclusion did not have significant impact on coefficient alpha. Dropping the items also made the scale more parsimonious. Dimensionality of the scale was measured through factor analysis. The scale was unidimensional in nature with only the first factor exhibiting an eigenvalue greater than one (details in appendix 2a).

Convergent validity was measured through another measure of the same construct. A single item ("the web site was very informative") measuring informativeness of the web site was correlated with the summated scale. The correlation coefficient between the two measures was 0.77.

Predictive validity was measured through correlation with a related construct. If a web site is informative, the consumer should be able to make a purchase decision after visiting it. Thus, predictive validity was measured by correlating the measure of informativeness with a self report of utility of the web site in making a purchase decision ("I can make better purchase decisions after seeing this site"). The correlation coefficient was 0.65.

The order of magnitude of reliability, convergent validity, and predictive validity violated the order recommended by Peter and Churchill (1984). The expected order was reliability followed by convergent and predictive validity. This study found convergent validity to be greater than reliability. Consequently, two changes were made to the scale. First, a review of the scale items led to a change in item 1. It was made more general so as to capture the informativeness construct more accurately. It was amended to reflect the general informativeness and reminder role of the web site. It was restated as- "I learned something from this web site". Second, a new item was introduced into the scale to reflect the intelligibility of the information presented in the site. This item was stated as- "The information presented in the web site was easily understood".

Discriminant validity was examined by factor analysis of the scales for informativeness with those of attitude confidence. As may be seen in appendix 2a, a two factor solution was obtained (only first two factors had eigenvalues greater than 1). Varimax rotation was employed to get a clear factor pattern. Results showed the items for informativeness loaded on a single factor (factor 2).

III. B. 3. b. Entertainment

The definition of entertainment was adapted from Schlinger (1979). A site was entertaining to the extent that it was pleasurable, enjoyable, and fun

to visit. The used scale was based on one employed by Schlinger (1979) for conventional advertisements. It was adapted to *internet presence sites*. The statements employed in the scale are presented in appendix 3.

Items 4 and 5 were dropped from the scale due to low squared multiple correlations (0.25 each). Additionally, on debriefing some subjects suggested that they were not sure about the intent behind item 4. Dropping the items also increased alpha by a marginal amount (0.81 to 0.87). Factor analysis was performed on the scale to examine dimensionality. The scale was unidimensional (only the first factor had an eigenvalue > 1). Details of measure assessment are provided in appendix 3a.

Convergent validity was established via correlation (0.79) with a self report of the extent to which the user enjoyed browsing through the site ("the web site was enjoyable"). Predictive validity was established by correlation with a behavioral outcome of entertainment. A consumer who was entertained by a site was more likely to recommend it as a source of entertainment to a friend. The correlation coefficient was 0.67 ("I would recommend this site as a source of entertainment to my friends"). The order of the correlations was in accordance with expectations (i.e. reliability, convergent validity, and predictive validity) set by Peter and Churchill (1984).

As mentioned above for informativeness, discriminant validity was established by a factor analysis of the items related to entertainment with those related to attitude confidence. A two factor solution was noted

(eigenvalues > 1). Varimax rotation was employed to get a clear factor pattern. Subsequently, all items for entertainment loaded on the second factor (see appendix 3a).

III. B. 3. c. Control

A consumer was considered in control of navigation through the web site if: a) s/he could self regulate the time spent browsing through the web site, and b) s/he could sequence exposure through the web site as desired, and c) s/he could view only those segments of the web site s/he desired. There were no existing measures that could be employed to measure control. The items developed for this purpose are placed in appendix 4.

The above items did not perform as expected. Item 1 ("I could sequence the visit through this web site as I wanted") was dropped as it was a restatement of item 2 which was more user friendly. Reliability as measured through coefficient alpha was 0.69, a figure lower than the minimum recommended by Nunnally (1967). Consequently, to improve the scale item 5 was reworded and one new statement introduced (item 6). Item 5 was rewritten as- "In order to see what I wanted to, I had to see portions of the web site I was not interested in". Reliability and validity of the scale was reassessed in the final study (as it was for all scales used in the study).

III. B. 3. d. Irritation

An irritating site was one that caused displeasure to the viewer. The scale for this construct was based on that employed by Ducoffe (1995) and Duncan and Nelson (1985). The items employed are placed in appendix 5.

Reliability analysis was conducted by calculating coefficient alpha. Items 4 and 6 were eliminated due to low squared multiple correlations (0.27 each). After this elimination coefficient alpha was 0.83. Factor analysis of the scale items reflected unidimensionality, with only one factor having an eigenvalue greater than one (see appendix 5a).

Convergent validity was measured via correlation with a single statement ("I felt very impatient visiting this web site") reflecting user irritation with the site. The correlation was 0.66. Predictive validity was examined by studying the consumer's response to an irritating site. It was expected that consumers would respond negatively to an irritating site and want to tell off the firm. Consequently, an item ("the site made me want to tell off the firm") reflecting this response was included in the questionnaire. The correlation between the irritation scale and this item was 0.44.

As mentioned above for entertainment and informativeness, discriminant validity was examined via factor analysis of items comprising the irritation scale with those comprising the attitude confidence scale. Based on eigenvalues (>1) a two factor solution was observed. Varimax

rotation was employed to get a clear factor pattern. All the irritation items loaded on the second factor (see appendix 5a).

III. B. 3. e. Computer Anxiety

Computer anxiety was defined as the extent to which the respondent was uneasy, apprehensive, or fearful about the use of computers. Most scales on computer anxiety were based on Raub (1981). An examination of these scales demonstrated them to be context dependent and hence a new scale was generated for the purposes of this dissertation. The items selected are placed in appendix 6.

The scale included items that reflected computer anxiety and computer enjoyment. The items reflecting the latter were to be reverse coded. However, in a discussion with the subjects after the study one subject suggested (and others concurred) that anxiety was not necessarily the opposite of enjoyment. Consequently, the reverse coded items (1-6) were dropped from the scale. Coefficient alpha was 0.87 for the reduced scale (see appendix 6a). Factor analysis of the scale suggested the construct to be unidimensional (only the first factor had an eigenvalue greater than 1).

Convergent validity was measured through correlation with a statement directly reflecting computer anxiety ("I feel anxious working with computers"- correlation coefficient was 0.61). Computer anxiety has been negatively related to computer adoption (Roszkowski, Devlin, Aiken, and

Jacobsohn 1988). This relationship was used to examine predictive validity ("I prefer not to work with computers"). The correlation coefficient between the constructs was 0.27.

Discriminant validity was examined through factor analysis of the items reflecting computer anxiety, enduring involvement, attitude toward the brand, attitude confidence and value. A six factor solution was observed. Varimax rotation was conducted to get a clear view of the factor patterns. The items for computer anxiety loaded on factor 4, thereby differentiating computer anxiety from the other constructs (see appendix 7).

III. B. 3. f. Enduring Involvement

Involvement was defined as the intrinsic importance of a product to a respondent and the interest evoked by that product within the respondent. There have been a number of scales developed to measure involvement. This dissertation employed a scale developed by McQuarrie and Munson (1991). This was a parsimonious scale and employed the same definition of involvement as this dissertation (see appendix 8 for scale items). The authors tested this scale for multiple products. The reliability ranged from mid 0.80s to well into the 0.90s and the scale was concluded to be unidimensional.

In accordance with prior findings coefficient alpha was 0.95 (appendix 8a). However, as opposed to past research (McQuarrie and Munson 1991)

two dimensions were noted (based on factor patterns that emerged after varimax rotation). These dimensions were interpreted as follows- the first dimension reflected importance of the product while the second reflected interest in the product. Consequently, reliability analysis was performed for the sub-scales. The importance sub-scale had a coefficient alpha of 0.96, while the interest sub-scale had a coefficient alpha of 0.92. For this dissertation enduring involvement will be examined at an aggregate level, as well as a dimensional level (for the purposes of hypotheses testing).

Convergent validity, of the overall scale, was examined via correlation with an item ("I am interested in (product)") reflecting consumer interest in the product. The correlation coefficient was 0.55. Consumers that exhibited enduring involvement with a product were expected to be knowledgeable about it. Consequently, a self report of consumer's product related knowledge ("I know a lot about (product)") was correlated with the involvement scale. The correlation coefficient was 0.51.

Discriminant validity was examined through factor analysis of involvement, computer anxiety, attitude toward the brand, attitude confidence, and value. The items reflecting involvement loaded on two separate factors (factors 1 and 2) in line with the above mentioned sub scales (see appendix 7).

III. B. 3. g. Attitude toward the Brand

Attitude toward the brand was defined as an affective response to the brand. This response could be positive or negative. The scale employed by Ajzen and Fishbein (1980) has been widely used in literature; see for example Gardner, Mitchell, and Russo (1985); Mackenzie, Lutz, and Belch 1986; Muehling, Laczniak, and Stoltman (1991), Laczniak and Muehling (1990), Muehling, Stoltman and Mishra (1990), Park and Young (1986). This scale was employed at two different points in time. It was administered in the classroom to measure prior attitude toward the brand, and three weeks later it was administered in the computer lab to measure brand attitudes after the respondents had visited the web site. The results (reliability and validity) reflect a combination of the prior as well as the subsequent attitude toward the brand measurements. The scale items are placed in appendix 9.

In accordance with prior research coefficient alpha was 0.96 (see appendix 9a for details). Factor analysis demonstrated that the scale was *unidimensional (only one factor with an eigenvalue greater than one)*. Convergent validity was examined through correlation (0.69) of the scale scores with a single item ("I like (brand name)") reflecting attitude toward the brand. Favorable brand attitudes were expected to result in intention to use the brand (Ajzen and Fishbein 1980; Fazio 1986). This relationship formed the basis of predictive validity (item- "I want to use (brand name)"). The correlation coefficient between the two scales was 0.59.

Discriminant validity was examined through factor analysis of scales representing attitude toward the brand, involvement, computer anxiety, attitude confidence, and value. The items for attitude toward the brand loaded as expected on a distinct factor (factor 6 in appendix 7).

III. B. 3. h. Attitude Confidence

Attitude confidence was defined as a consumer's strength of belief in what s/he knows about the brand. Prior research has primarily measured attitude confidence in terms of the consumer's knowledge of the brand (e.g. Fazio, Powell, and Herr 1983; Koriat, Lichtenstein, and Fischoff 1980; Smith and Swinyard 1983). The scale employed was adapted from one developed by Oliver and Bearden (1985) and by Bloch, Ridgeway, and Sherrell (1989). The items employed in the test are placed in appendix 10.

Items 3 and 4 were dropped from the scale due to low squared multiple correlations (0.36 and 0.19 respectively). These two items had very little impact on coefficient alpha. Coefficient alpha was 0.85 (see appendix 10a). Factor analysis showed that the scale was unidimensional. Factor 1 was the only factor with an eigenvalue greater than one.

Convergent validity was measured through correlation with a single item measure of attitude confidence ("(Brand name) is very familiar to me"). The correlation coefficient was 0.52. Predictive validity was measured by relating attitude confidence with need for further information about the

brand. When a consumer is very confident about what s/he knows about a brand, s/he should not need more information to make a purchase decision regarding the brand. Consequently, attitude confidence was correlated to an item measuring need for more information (item- "I do not need to search for more information about (brand name) to make a purchase decision"). The correlation coefficient was 0.14. This was low, but still indicated a significant relationship.

Discriminant validity was established via factor analysis of attitude confidence, attitude toward the brand, involvement, computer anxiety, and value. The items pertaining to attitude confidence loaded on factor 3 (see appendix 7).

III. B. 3. i. Value

Value of an internet presence site to respondents was the estimate of the benefits and costs related to the web site in light of other sites they may have visited. There was no scale that was suitable for the purposes of this dissertation. As a result, items were generated for this study and are placed in appendix 11.

Items 2, 6, 7, and 8 were dropped from the final scale. There was some doubt as to the face validity of items 6 and 7 which could reflect attitude toward the site. Item 2 was dropped as it had no significant impact on coefficient alpha (it increased by 0.01) and the removal made the scale

more parsimonious. Item 8 was dropped due to low squared multiple correlations (0.25) with the overall scale. Coefficient alpha for the final scale was 0.84 (see appendix 11a). The scale was unidimensional in nature. Only the first factor had an eigenvalue greater than one.

Convergent validity was examined via correlation with a single item ("it was worthwhile visiting this site") reflecting value of the site . The correlation coefficient was 0.81. Predictive validity was established via correlation with an item reflecting satisfaction with the visit to the web site. A valuable web site should result in a sense of satisfaction with the visit (item- "I am very satisfied with this web site"). The correlation coefficient between value and satisfaction was 0.77.

Discriminant validity was examined through factor analysis of scales representing value, attitude toward the brand, involvement, attitude confidence, and computer anxiety. The items for value loaded as expected on a distinct factor (factor 5 in appendix 7).

III. B. 3. j. Attitude toward the Site

Attitude toward the site was the respondent's affective response to the web site. It could be positive or negative in nature. A number of studies had employed scales to measure attitude toward the ad. This paper adapted, to the web, a scale employed by Muehling, Laczniak, and Stoltman (1991) and Laczniak and Muehling (1990) based on Wells, Leavitt and McConville

(1971). The authors employed this scale as a 7 item semantic differential and the items are placed in appendix 12. In their study, reliability, measured through coefficient alpha, was 0.93. The scale was unidimensional. Validity was established through factor analysis with items for attitude toward the brand.

In line with previous studies coefficient alpha was 0.96 (see appendix 12a). Factor analysis suggested that the scale was unidimensional. Only the first factor had an eigenvalue greater than one. Convergent validity was established by correlating the scale scores with a single item ("I like the (name) web site") reflecting attitude toward the site. The correlation coefficient between the two measures was 0.77. Positive attitude toward the site was likely to lead to a positive attitude toward the firm that developed the web site (item- "I like the firm that presented this web site"). The correlation between these two constructs was 0.57. This was used to establish predictive validity of the scale.

Discriminant validity of the scale was established by factor analysis of the scales for attitude toward the site and attitude confidence. Varimax rotation was employed to get a clear factor pattern. The items for attitude toward the site loaded on factor 1 (see appendix 12a).

III. B. 3. k. Repeat Visits

Repeat visits were defined as the respondent's expectation that s/he would return to the web site. There were no scales that existed in the context of the World Wide Web. As a result, a new scale was developed and the items are presented In appendix 13.

Item 2 was dropped from the scale as it had no significant impact on coefficient alpha (it increased by 0.02) and made the scale more parsimonious. Coefficient alpha was measured at 0.92 (see appendix 13a). The scale was unidimensional. Only the first factor had an eigenvalue greater than one.

Convergent validity was established through correlation with a single item measure of intention to return to the web site (item- "I want to come back to this web site"). The correlation between the two measures was 0.90. Predictive validity was established by examining a behavioral outcome of the intention to revisit the site i.e. bookmarking the site (item-"This is one of the sites that I will bookmark"). The correlation coefficient was calculated to be 0.79.

Discriminant validity of the scale was established by factor analysis of the scales for repeat visits and attitude confidence. Varimax rotation was employed to get a clear loading pattern. The items loaded as expected (see appendix 13a).

III. B. 3. I. Willingness to Provide Information

Willingness to provide information was the respondent's estimate of whether s/he would respond to a questionnaire at the web site. Once again there were no existing scales that reflected this construct. As a result, a new scale was developed and the items are presented in appendix 14.

Items 1,3, and 6 were deleted from the final scale. They were dropped as they were redundant and had a marginal impact on coefficient alpha. Coefficient alpha of the final scale was 0.86 (see appendix 14a). Dimensionality of the scale was examined via factor analysis. The scale was found to be unidimensional with all items loading on the first factor. Convergent validity was examined through correlation with a single item ("if this site asked for information I would provide it") measuring willingness to provide information. The correlation coefficient was calculated to be 0.76. It was expected that the consumer would provide personal information only to those firms that s/he liked. Consequently, a single item ("I like the firm that presented this web site") representing attitude toward the firm was employed to determine predictive validity (the correlation coefficient was 0.55).

The refined scale met requirements for discriminant validity which was established by factor analysis of the scales for willingness to provide information, and attitude confidence. The items representing willingness to provide information loaded on a distinct factor (see appendix 14a).

III. B. 4. STIMULI SELECTION

Three web sites (from the original 11) were selected for step two (hypotheses testing). These were the web sites for the NBA, Levi, and Prudential insurance. The sites were selected to ensure adequate variation in the measures of the constructs employed in hypotheses testing. The NBA site reflected the highest value to the subjects (mean 5.08), while the Levi site had the lowest value (mean 3.38). In addition, adequate variability was observed on the other constructs of interest.

The third site selected was the Prudential site. This site was used to introduce situational involvement. Situational involvement was introduced via setting the respondents either of two tasks, 1) make a choice between Permanent and Term insurance policies, or 2) find prices for these policies. The mean level of situational involvement (measured via a two item scale see appendix 15) was 4.32. Additionally, the site also displayed adequate dispersion with responses at both ends of the scale.

III. B. 5. ADMINISTRATIVE PROBLEMS

One problem uncovered was limitation of space at the computer lab. Only 24 terminals were available for subject use. Since the class size was approximately 40 students, it was decided that the lab study of phase II would be conducted in two separate sessions (dividing the class in two

halves). This did not pose major problems and only served to lengthen time taken to collect the data.

Another problem uncovered related to the scales employed. As mentioned before, 7 point likert and semantic differential scales were employed to measure the constructs of interest. During the debriefing, respondents suggested that it was difficult to make distinctions between the weights (e.g. 5 and 6 on the likert scale). Consequently, the scales were modified to 5 points (likert and semantic differential scales) for the final study.

III. C. FINAL STUDY

The final study employed the scales and procedures developed and/or refined in the pretest. As mentioned before the study was conducted in two phases- phase one in the classroom and phase two in the computer lab where the subjects visited the web sites for the NBA, Levi, and Prudential insurance. There were three advantages of the two phase approach. First, measuring brand attitude in advance permitted us to see the change in brand attitude that resulted from the web site visit (3 weeks later). Second, it ensured that each questionnaire was of manageable length. If the two phases were combined then the instrument used would be too long and respondent fatigue would set in. Third, students without any prior

experience (total of 9 students) on the web were identified during phase I and provided with basic navigation skills before phase II. These skills included, a brief explanation and demonstration of the uses of the location bar, and the "back" and "forward" options in Netscape Navigator. Additionally, the roles and uses of links in a web site were explained and demonstrated. These were believed to enable the respondents to navigate across the web and within web sites.

In phase two each respondent was provided access to a computer terminal with links to the Internet. To ensure that all respondents possessed basic navigation skills, they were asked to visit the Goodyear web site (@www.goodyear.com) and find the retailer closest to Baruch College. All subjects successfully completed this task. Subsequently, the subjects were provided the instrument to be tested. To ensure an impartial response respondents were told that there were no right or wrong answers. They could view web sites as they liked. All that was expected was that they provided honest answers to the items in the questionnaire. There was no minimum time to be spent at each web site. However, there was a maximum amount of time for the entire task (1 hour). The average time spent on each site was 11.4 minutes.

III. C. 1. SUBJECTS

Two classes of Marketing students (a total of 88 subjects) were employed in the final study. Students are one segment of the population that are using the Web. Research shows that the student population on the web has been growing at a rapid pace over the last two years (Kantor and Neubarth 1996). Consequently, using students was appropriate for testing the hypotheses. At the same time, one drawback of using this group was the resulting lack of generalizability of results. Students have specific characteristics that distinguish them from other segments (such as company employees, senior citizens, and regular consumers). Their behavior may not be representative of other segments of the population. To ensure generalizability of results this study must be replicated using other segments of the population.

Participation in the study was voluntary. However, students were provided with an incentive to participate (an extra five points were added on to their score in the class to determine their final grade). All students received the credit irrespective of participation. Eighty six students (2 non respondents) chose to take part in the study.

III. C. 2. MEASURE ASSESSMENT

The steps taken in measure assessment, during the pretest, were repeated- reliability, dimensionality, and validity were examined again before

the hypotheses were tested. Further, a test of normality (Wilkes-Shapiro) was conducted for each scale. All scales employed in the study followed a normal distribution. The results for measure reassessment are presented below.

III. C. 2. a. Informativeness

The informativeness scale developed during the pretest was refined during this stage. Table 1 summarizes the results of the measure assessment procedures followed for the informativeness scale. A univariate analysis of the scale found the mean to be 3.47 (on a 5 point scale) with a standard deviation of 0.79. The scale was unidimensional with all items loading on one factor which explained 56% of the variation in the data.

Reliability as measured via coefficient alpha was 0.78. This was above the minimum recommended level of 0.70 suggested by Nunnally (1967). Convergent validity was measured through correlation with a single item ("The web site was very informative") measuring the informativeness of the web site. The correlation coefficient between the two was 0.77. It was expected that an informative web site would enable the consumer to make better purchase decisions. Consequently, predictive validity was measured through correlation with a single item scale reflecting this outcome ("I can make better purchase decisions after seeing this site"). This correlation was measured at 0.68. The order of magnitude of reliability,

convergent validity, and predictive validity was as recommended by Peter and Churchill (1984). Reliability was the largest, followed by convergent validity, and predictive validity.

Discriminant validity was examined via factor analysis of two scales that are expected to have no relation to each other- informativeness and attitude confidence. A two factor solution was observed. Varimax rotation was employed to obtain unambiguous factor loadings. The items for informativeness loaded on a single factor.

Table 1: Measure Assessment- Informativeness

Mean **Std. Dev.**	3.47 0.79
Reliability	Alpha = 0.78
Dimensionality (Factor Analysis)	1 2 3 4 5 Eigenvalue 2.7837 0.7357 0.6100 0.5110 0.3596 Proportion 0.5567 0.1471 0.1220 0.1022 0.0719 Cumulative 0.5567 0.7039 0.8259 0.9281 1.0000
Factor1 INF3 0.80593 INF1 0.77219 INF4 0.75336 RINF5 0.70770 INF2 0.68523	Item The web site presented important facts. I learned something from this web site that I didn't know before about (brand name). Information presented in the web site was easily understood. The information provided in the web site was not adequate for my needs. I believe the claims made at this web site.
Validity	**Convergent**: The correlation between this scale and a single item scale for informativeness was 0.77. **Predictive**: The correlation between this scale and a single item scale for ability to make better purchase decisions was 0.68. **Discriminant**: Factor analysis of the items for informativeness with items for attitude confidence found that the items for informativeness loaded on a unique factor. The factor loadings and eigenvalues are placed below.

Discriminant Analysis		1	2	3	4
	Eigenvalue	3.1134	2.4749	0.7443	0.7167
	Proportion	0.3459	0.2750	0.0827	0.0796
	Cumulative	0.3459	0.6209	0.7036	0.7833
Factor Loadings (Varimax Rotation)		Factor1	Factor2		
	INF3	0.82161	-0.09656		
	INF1	0.77086	0.02610		
	INF4	0.74936	0.04119		
	RINF5	0.70370	0.17193		
	INF2	0.68312	0.06074		
	FAM4	0.07357	0.91357		
	FAM1	0.08674	0.86101		
	FAM2	0.08575	0.82992		
	FAM3	-0.04201	0.68117		

III. C. 2. b. Entertainment

A summary of the results of assessment of the entertainment scale is presented in table 2. Univariate analysis of the scale included measuring mean, standard deviation, and normality of data. The mean of the scale was 3.16 with a standard deviation of 0.98. The scale was unidimensional in nature (only the first factor has a minimum eigenvalue of one). The first factor accounted for 75% of the observed variation. Reliability of the scale measured through coefficient alpha was 0.89.

Convergent validity was measured by correlation with a single item reflecting consumer perceptions of the entertainment offered by the scale. The item used was- "the web site was enjoyable". The correlation coefficient was 0.80. It was expected that if a consumer perceived a web site to be entertaining, s/he would be willing to recommend the site as a

source of entertainment to her/his friends. As expected, the correlation between the entertainment scale and a single item that measured willingness to recommend the site was high (0.61) and significant ("I would recommend this site as a source of entertainment to my friends"). The order of correlations was in accordance with expectations (i.e. reliability, convergent validity, and predictive validity) set by Peter and Churchill (1984).

Discriminant validity was examined using factor analysis with an unrelated construct (attitude confidence). A two factor solution was observed. Varimax rotation was employed to get a clear factor pattern. The items for entertainment loaded on a separate factor thereby establishing discriminant validity.

Table 2: Measure Assessment- Entertainment

Mean **Std. Dev.**	3.16 0.98			
Reliability	Alpha = 0.89			
Dimensionality (Factor Analysis)		1	2	3	4
	Eigenvalue	3.0056	0.4738	0.2742	0.2464
	Proportion	0.7514	0.1185	0.0685	0.0616
	Cumulative	0.7514	0.8699	0.9384	1.0000
	Factor1	Item			
Ent1	0.89945	The web site was lots of fun to visit.			
Ent4	0.88750	The web site was extremely entertaining.			
Ent3	0.87996	The site wasn't just selling the product- it was entertaining me and I appreciate that.			
Ent2	0.79664	I thought the site was clever.			

Validity	**Convergent**: The correlation between this scale and a single item scale for entertainment was 0.80. **Predictive**: The correlation between this scale and a single item scale for recommendation to a friend as a source of entertainment was 0.61. **Discriminant**: Factor analysis of the items for entertainment with the items for attitude confidence found that the items for entertainment loaded on a unique factor.

Discriminant Validity	1	2	3	4
Eigenvalue	3.9437	1.8450	0.6963	0.4503
Proportion	0.4930	0.2306	0.0870	0.0563
Cumulative	0.4930	0.7236	0.8106	0.8669

Factor Loadings (Varimax Rotation)	FACTOR1	FACTOR2
ENT1	0.86732	0.24394
ENT4	0.86219	0.20489
ENT3	0.84483	0.23760
ENT2	0.82778	-0.01109
FAM4	0.15726	0.90523
FAM1	0.10787	0.85705
FAM2	0.15255	0.82211
FAM3	0.16324	0.64804

III. C. 2. c. Control

As mentioned in the pretest section, the control scale was modified for the final test. One problem of the scale during the pretest was the low coefficient alpha observed (0.69). However, the addition of one new item (ctl2) and the modification of another (ctl5) improved coefficient alpha to 0.75 (see table 3 for a summary of the results). The mean of the scale was 3.41 and standard deviation 0.75. The scale was unidimensional with all items loading on one factor that explained 54% of the variation in the scale.

Convergent validity was studied using a single item reflecting the level of perceived user control over navigation through the web site. The

correlation with the item ("I felt in control of my movements through the web site") was 0.71. It was expected that a scale that provided control to the user would be perceived as being user friendly. Correlation with a single item ("the web site was user friendly") was 0.46.

Discriminant validity was analyzed by factor analysis of the control scale with the attitude confidence scale. A two factor solution was observed. Varimax rotation was used to get clear factor loadings. The items for the two scales loaded on distinct factors, thereby establishing discriminant validity.

Table 3: Measure Assessment- Control

Mean **Std. Dev.**	3.41 0.75
Reliability	Alpha = 0.75
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 2.7037 0.8370 0.7423 0.4160 Proportion 0.5407 0.1674 0.1485 0.0832 Cumulative 0.5407 0.7081 0.8566 0.9398
Factor1 Ctl4 0.86484 Ctl1 0.83677 Ctl3 0.82096 Ctl2 0.54207 Ctl5 0.53638	Item The web site allowed me to work my way through it as I wanted to. I could view the contents of this site in the sequence that I desired. It was easy to navigate through the web site. I could regulate the time spent I spent at each segment of the web site. In order to see what I wanted to, I had to see portions of the site that were of no interest to me.(R)
Validity	**Convergent:** The correlation between this scale and a single item scale for control was 0.71. **Predictive:** The correlation between this scale and a single item scale for ease of usage was 0.46. **Discriminant:** Factor analysis of the items for control with the items for attitude confidence found that the items for control loaded on a single factor.

Discriminant Validity		1	2	3	4
	Eigenvalue	3.2257	2.3497	0.8583	0.7741
	Proportion	0.3584	0.2611	0.0954	0.0860
	Cumulative	0.3584	0.6195	0.7149	0.8009
Factor Loadings (Varimax Rotation)		FACTOR1	FACTOR2		
	FAM4	0.91618	0.09003		
	FAM1	0.87157	0.07140		
	FAM2	0.83369	0.10715		
	FAM3	0.68564	-0.02792		
	CTL4	0.12018	0.85466		
	CTL1	0.08423	0.83047		
	CTL3	0.11776	0.80956		
	CTL2	-0.17701	0.58001		
	RCTL5	0.10000	0.54507		

III. C. 2. d. Irritation

The irritation scale had a mean of 2.39 and a standard deviation of 0.85. Coefficient alpha was employed to test reliability and was observed to be 0.80. The scale was observed to be unidimensional with all items loading on one factor. This factor accounted for 60% of the variation in the scale. The results of the measure assessment are presented in table 4.

Convergent validity was measured using a single statement reflecting irritation evoked by the site (item used- "I felt very impatient visiting this web site"). The correlation of the irritation scale with this item was 0.59. It was expected that an irritating site would evoke a negative response in the consumer. The consumer may want to tell off the firm. Consequently, correlation with this item ("The site made me want to tell off the firm") was employed to test predictive validity. The correlation coefficient was 0.33.

The size of the correlation followed that suggested by Peter and Churchill (1984) with reliability being the largest, followed by convergent and predictive validity figures.

Discriminant validity was established by factor analysis of the irritation items with the attitude confidence scale. Varimax rotation provided a clear factor pattern and the items for the two scales landed on distinct factors.

Table 4: Measure Assessment- Irritation

Mean **Std. Dev.**	2.39 0.85
Reliability	Alpha = 0.80
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 2.4007 0.6968 0.4904 0.4121 Proportion 0.6002 0.1742 0.1226 0.1030 Cumulative 0.6002 0.7744 0.8970 1.0000
Factor1 Irr3 0.83521 Irr2 0.80645 Irr1 0.78609 Irr4 0.65940	Item I found myself getting angry with the web site. The web site was annoying. The web site was somewhat irritating. The contents of the web site made me feel restless.
Validity	**Convergent**: The correlation between this scale and a single item scale for irritation was 0.59. **Predictive**: The correlation between this scale and a single item for wanting to tell off the firm was 0.33. **Discriminant**: Factor analysis of the items for irritation and attitude confidence found that the items for irritation loaded on a single factor.
Discriminant Validity	1 2 3 4 Eigenvalue 3.3947 1.7623 0.7653 0.6420 Proportion 0.4243 0.2203 0.0957 0.0802 Cumulative 0.4243 0.6446 0.7403 0.8205

Factor Loadings (Varimax Rotation)		FACTOR1	FACTOR2
	FAM4	0.90102	-0.18034
	FAM1	0.85700	-0.12808
	FAM2	0.82072	-0.14709
	FAM3	0.67904	-0.07590
	IRR3	-0.08868	0.83819
	IRR2	-0.05406	0.81349
	IRR1	-0.17263	0.76268
	IRR4	-0.16691	0.62073

III. C. 2. e. Computer Anxiety

A low level of computer anxiety was observed in the sample used in this study. The mean was 1.70 and standard deviation was 0.70. Reliability was measured through coefficient alpha and was 0.73. The scale was unidimensional in nature. The first factor explained 55% of variation in data. The summarized results for the computer anxiety scale are placed in table 5.

Convergent validity was measured using a single statement reflecting the user's computer anxiety. The statement employed was - "I feel anxious working with computers". The correlation between the scale and this item was 0.48. Computer anxiety has been negatively related to computer adoption (Roszkowski, Devlin, Aiken, and Jacobsohn 1988). Consequently, a single item reflecting computer adoption ("I prefer not to work with computers") was used to examine predictive validity. The correlation between the two was 0.47.

Discriminant validity was established via factor analysis of all the items related to individual differences and value of the web site. Varimax rotation

was employed to obtain clear factor loadings. As can be seen in table 6, a 6 factor solution was observed. The sixth factor reflected the items for computer anxiety.

Table 5: Measure Assessment- Computer Anxiety

Mean **Std. Dev.**	1.70 0.70
Reliability	Alpha = 0.73
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 2.1905 0.9281 0.5696 0.3118 Proportion 0.5476 0.2320 0.1424 0.0780 Cumulative 0.5476 0.7796 0.9220 1.0000
Factor1 CA4 0.86061 CA3 0.84897 CA2 0.65954 CA1 0.54234	Item Computers make me nervous Working with computers is an unpleasant experience for me. I feel awkward around computers. I feel uncomfortable working with computers.
Validity	**Convergent**: The correlation between this scale and a single item scale for computer anxiety was 0.48. **Predictive**: The correlation between this scale and a single item scale computer usage was 0.47. **Discriminant**: Factor analysis of the individual differences and value found that the items for computer anxiety loaded on a single factor (see table 6).

Table 6: Discriminant Validity- Individual Differences and Value

Discriminant Validity		1	2	3	4	5	6
	Eigenvalue	8.4534	2.7067	2.2986	2.0801	1.5464	1.3310
	Proportion	0.3522	0.1128	0.0958	0.0867	0.0644	0.0555
	Cumulative	0.3522	0.4650	0.5608	0.6474	0.7119	0.7673
Factor Loadings (Varimax Rotation)		Factor1	Factor2	Factor3	Factor4	Factor5	Factor6
	RI1	0.87411	0.19072	0.12205	0.12377	0.10537	-0.06064
	RI3	0.85214	0.23575	0.13562	0.15033	0.14218	-0.04144
	RI6	0.83284	0.18223	0.10393	0.14730	0.08621	-0.02229
	I10	0.82999	0.21852	0.07064	0.14431	0.14518	-0.00307
	I2	0.79699	0.14208	0.15520	0.11348	0.05128	-0.06809
	RI7	0.10285	0.86608	0.03972	0.25369	0.10753	0.00882
	I4	0.19836	0.85740	0.10975	0.14020	0.17590	-0.05922
	I5	0.24555	0.81284	0.06509	0.08914	0.14915	-0.05160
	I9	0.22976	0.80849	0.04865	0.22929	0.17721	-0.00841
	RI8	0.43685	0.70132	0.00987	0.24812	0.12559	-0.08778
	VAL4	0.15531	-0.02087	0.85698	0.13479	0.12234	-0.02663
	VAL2	0.16398	0.11473	0.85587	0.13171	0.10747	-0.04080
	VAL1	0.02271	0.03303	0.84953	0.14443	0.06362	-0.07955
	VAL3	0.16197	0.10264	0.82992	-0.08257	0.12770	0.11232
	RAB2	0.19495	0.25588	0.10183	0.87017	0.12338	-0.02235
	RAB3	0.18551	0.27335	0.15064	0.85620	0.14560	0.00559
	AB1	0.27034	0.26885	0.11072	0.79043	0.11395	-0.04829
	FAM4	0.09206	0.27583	0.11959	0.09114	0.85481	-0.03869
	FAM2	0.14839	0.07526	0.18328	0.09227	0.85108	-0.09647
	FAM1	0.19834	0.25099	0.11556	0.17497	0.80428	-0.03194
	CA4	-0.05991	-0.07459	-0.06019	-0.05220	-0.04267	0.86111
	CA3	0.02690	-0.04498	-0.10760	-0.08782	-0.08643	0.83388
	CA2	-0.02009	-0.07017	-0.01987	0.03163	-0.00530	0.74447
	CA1	-0.06995	0.05180	0.10642	0.02882	-0.01347	0.54232

III. C. 2. f. Enduring Involvement

The three products employed in this study reflected a mean involvement level of 3.28 with a standard deviation of 1.00. As may be seen in table 7 the enduring involvement scale had two factors with minimum eigenvalues greater than one, suggesting the construct had two dimensions. These two dimensions represented the two facets of enduring

involvement- importance of the product (factor 1) and interest in the product (factor 2). Factor 1 accounted for 59% of variation, while factor 2 accounted for 20% of variation, in the scale. The reliability of all 10 items of the scale was 0.92. Coefficient alpha was also measured for the two dimensions. Importance had a coefficient alpha of 0.93, while interest had a coefficient alpha of 0.92. Based on these results, this dissertation examined involvement on an aggregate and on a dimensional basis. The results of the analysis are presented in table 7.

The overall scale had a correlation of 0.71 with a single item ("I am interested in (product name)") measuring product involvement. This was used to establish convergent validity. Predictive validity was established using a measure reflecting the consumer's product knowledge. A consumer that was highly involved with the product was also likely to be knowledgeable about it (item- "I know a lot about (product name)"). The correlation coefficient between the two scales was 0.53.

As with the computer anxiety scale, discriminant validity was established via factor analysis of all individual differences and value related items. Table 6 presents the results of the discriminant analysis. The items reflecting enduring involvement loaded on two separate factors (factor 1 and 2). These factors were the same as those presented above (importance and interest). In this manner discriminant validity of the scale was established.

Table 7: Measure Assessment- Enduring Involvement

Mean **Std. Dev.**	3.28 1.00				
Reliability	Alpha = 0.92				
Dimensionality (Factor Analysis)		1	2	3	4
	Eigenvalue	5.8511	2.0038	0.4150	0.3633
	Proportion	0.5851	0.2004	0.0415	0.0363
	Cumulative	0.5851	0.7855	0.8270	0.8633
	Factor1 Factor2	Item			
	RI1 0.88808 0.22450	important	__ : __ : __ : __ : __		unimportant (R)
	RI3 0.88392 0.25946	means a lot to me	__ : __ : __ : __ : __		means nothing to me (R)
	RI6 0.85527 0.20736	matters to me	__ : __ : __ : __ : __		doesn't matter to me (R)
	I10 0.84916 0.24812	of no concern to me	__ : __ : __ : __ : __		of concern to me
	I2 0.81089 0.14903	irrelevant	__ : __ : __ : __ : __		relevant
	RI7 0.11228 0.90084	fun	__ : __ : __ : __ : __		not fun (R)
	I4 0.21063 0.87224	unexciting	__ : __ : __ : __ : __		exciting
	I9 0.22587 0.86160	boring	__ : __ : __ : __ : __		interesting
	I5 0.21441 0.83406	dull	__ : __ : __ : __ : __		neat
	RI8 0.42598 0.76459	appealing	__ : __ : __ : __ : __		unappealing (R)
Validity	**Convergent**: The correlation between this scale and a single item scale for enduring involvement was 0.71. **Predictive**: The correlation between this scale and a single item scale for product knowledge was 0.53. **Discriminant**: Factor analysis of the items for individual differences and value found that the items for enduring involvement loaded on two factors representing the two dimensions of the scale (see table 6).				

III. C. 2. g. Attitude toward the Brand

The subjects are favorably oriented toward the three brands (NBA, Levi, and Prudential) employed in this study. The mean score was 3.74 (on a 5 point scale) with a standard deviation of 1.02. The scale was unidimensional in nature with all items falling on one factor. This factor accounted for 85%

of the variation in the data (see table 8 for summary results). Reliability as measured through coefficient alpha was 0.88 for this scale.

Convergent validity of the scale was measured using a single item that reflected the consumer's attitude toward the brand ("I like (brand name)"). The correlation coefficient between the scale and the single item measure was 0.73. Positive brand attitudes have been related to intention to use the brand (Ajzen and Fishbein 1980; Fazio 1986). Consequently, predictive validity was examined via correlation of the attitude toward the brand scale with a single item reflecting the consumer's intention to use the brand (i.e. "I want to use (brand name)"). The correlation coefficient between the two scales was 0.67. In line with Peter and Churchill (1984) the order of magnitude of the correlations was coefficient alpha followed by convergent validity, which in turn was followed by predictive validity.

Discriminant validity was examined via a factor analysis of the items representing the individual differences and value of the web site. Table 6 presents the results of the factor analysis. A six factor solution was observed. All the items for attitude toward the brand loaded on factor 4, thereby demonstrating discriminant validity.

Table 8: Measure Assessment- Attitude toward the Brand

Mean **Std. Dev.**	3.74 1.02
Reliability	Alpha = 0.88

Dimensionality (Factor Analysis)		1	2	3
	Eigenvalue	2.5473	0.2446	0.2081
	Proportion	0.8491	0.0815	0.0694
	Cumulative	0.8491	0.9306	1.0000
Factor1	Item			
Ab1 0.92837	negative	__ : __ : __ : __ : __		positive
RAb2 0.91976	good	__ : __ : __ : __ : __		bad(R)
RAb3 0.91625	favorable	__ : __ : __ : __ : __		unfavorable(R)
Validity	**Convergent**: The correlation between this scale and a single item scale for attitude toward the brand was 0.73. **Predictive**: The correlation between this scale and a single item scale for intention to use the brand was 0.67. **Discriminant**: Factor analysis of the items for individual differences and value found that the items for attitude toward the brand loaded on a single factor (see table 6).			

III. C. 2. h. Attitude Confidence

The subjects reflected a low level of confidence regarding the three brands. Mean score on the scale was 2.23 with a standard deviation of 0.96. The scale was unidimensional with all the items falling on one factor, which explained close to 80% of the variation in the data. Reliability, reflected in coefficient alpha was 0.87. One item (fam3) was deleted from the scale as the respondents found it to be confusing. It did not have a significant impact on coefficient alpha (it increased by 0.03).

Convergent validity was measured via correlation with a single item reflecting attitude confidence (item- "(Brand name) is very familiar to me"). The correlation coefficient between them was 0.50. It was expected that when a consumer is confident about his/her brand attitude, s/he should not

need further information to make a purchase decision regarding the brand. As a result, the attitude confidence scale was related to an item measuring the consumer's need for information (item- "I do not need to search for more information about (brand name) to make a purchase decision"). The correlation coefficient was 0.29 and reflected predictive validity (summary results are presented in table 9).

Discriminant validity (see table 6) was studied by a factor analysis of the items for individual differences and value. A six factor solution was discovered. All the items for attitude confidence loaded on one factor (factor 5), thereby indicating discriminant validity.

Table 9: Measure Assessment- Attitude Confidence

Mean **Std. Dev.**	2.23 0.96
Reliability	Alpha = 0.87
Dimensionality (Factor Analysis)	1 2 3 Eigenvalue 2.3922 0.3596 0.2482 Proportion 0.7974 0.1199 0.0827 Cumulative 0.7974 0.9173 1.0000
Factor1 Fam4 0.91553 Fam1 0.88545 Fam2 0.87747	Item I consider myself to be an expert on (brand name). I know a great deal about this brand. I know more about (brand name) than most other people.
Validity	**Convergent**: The correlation between this scale and a single item scale for attitude confidence was 0.50. **Predictive**: The correlation between this scale and a single item scale reflecting consumer need for more information to make a purchase decision was 0.29. **Discriminant**: Factor analysis of the individual differences and value found that the items for attitude confidence loaded on a single factor (see table 6).

III. C. 2. I. Value

The three sites held moderate value for the respondents. The mean score was 3.14 with a standard deviation of 0.96. The scale was unidimensional with all the items loading on just one factor which explained 76% of the variation in value (see table 10 for summary results).

Reliability, measured through coefficient alpha, was 0.89. A single item reflecting value of the scale to the consumer ("It was worthwhile visiting this site") was employed to measure convergent validity. The correlation coefficient was 0.87. A valuable web site should also be satisfying to the consumer. This relationship was used to investigate predictive validity (item- "I am very satisfied with this web site"). The correlation coefficient was 0.80.

Discriminant validity was established by factor analysis with the items reflecting the individual differences. A six factor solution was indicated (see table 6) with all the items for value loading on one factor (factor 3).

Table 10: Measure Assessment- Value

Mean **Std. Dev.**	3.14 0.96				
Reliability	Alpha = 0.89				
Dimensionality (Factor Analysis)		1	2	3	4
	Eigenvalue	3.0211	0.4000	0.3109	0.2680
	Proportion	0.7553	0.1000	0.0777	0.0670
	Cumulative	0.7553	0.8553	0.9330	1.0000

	Factor1	Item
Val2	0.89232	It was worth all the effort to visit this web site.
Val4	0.88690	Compared to other web sites this one provided exceptional value.
Val1	0.85030	The web site for (brand name) was valuable.
Val3	0.84570	The benefits received from the web site were worth the costs incurred in visiting it.
Validity		**Convergent**: The correlation between this scale and a single item scale for value was 0.87. **Predictive**: The correlation between this scale and a single item scale for satisfaction with the site was 0.80. **Discriminant**: Factor analysis of the items for individual differences and value found that the items for value loaded on a single factor (see table 6).

III. C. 2. j. Attitude toward the Site

The respondents were positively inclined toward the sites they viewed in this study. The mean was 3.52 with a standard deviation of 0.94. The scale was unidimensional (factor 1 explained 76% of variation) and had a coefficient alpha of 0.93 (see table 11 for a summary of the results).

Convergent validity was inspected by correlating the scale with a single item reflecting attitude toward the site (item- "I like the (brand name) web site"). The correlation coefficient was 0.87. A site that evokes a favorable attitude should also evoke a favorable attitude toward the firm that it represents (item- "I like the firm that presented this web site"). This relationship was employed to test predictive validity. A correlation coefficient of 0.59 was observed.

Discriminant validity was investigated by factor analysis of the items representing attitude toward the site with those related to attitude

confidence. In line with expectations a two factor solution was observed. To obtain a clear factor loading pattern varimax rotation was employed. Items for attitude toward the site loaded on one factor thereby establishing discriminant validity.

Table 11: Measure Assessment- Attitude toward the Site

Mean **Std. Dev.**	3.52 0.94
Reliability	Alpha = 0.93
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 5.2888 0.4214 0.3249 0.3049 Proportion 0.7555 0.0602 0.0464 0.0436 Cumulative 0.7555 0.8157 0.8622 0.9057
Factor1 Asite4 0.88923 Asite1 0.88456 Asite7 0.87393 Asite2 0.87129 Asite3 0.86186 Asite5 0.85274 Asite6 0.85017	Item unappealing __ : __ : __ : __ : __ appealing not attractive __ : __ : __ : __ : __ attractive enjoyable __ : __ : __ : __ : __ unenjoyable(R) bad __ : __ : __ : __ : __ good pleasant __ : __ : __ : __ : __ unpleasant(R) dynamic __ : __ : __ : __ : __ dull(R) depressing __ : __ : __ : __ : __ refreshing
Validity	**Convergent**: The correlation between this scale and a single item scale for attitude toward the site was 0.87. **Predictive**: The correlation between this scale and a single item scale for attitude toward the firm was 0.59. **Discriminant**: Factor analysis of the items for attitude toward the site and attitude confidence found that the items for attitude toward the site loaded on a single factor.
Discriminant Validity	1 2 3 4 Eigenvalue 5.8303 2.2483 0.6966 0.4103 Proportion 0.5300 0.2044 0.0633 0.0373 Cumulative 0.5300 0.7344 0.7977 0.8350

Factor Loadings (Varimax Rotation)		FACTOR1	FACTOR2
	ASITE2	0.87765	0.06364
	ASITE1	0.87513	0.13299
	ASITE4	0.87471	0.15782
	RASITE3	0.86022	0.10371
	RASITE7	0.85482	0.19703
	RASITE5	0.83223	0.17533
	ASITE6	0.82580	0.22109
	FAM4	0.15478	0.90611
	FAM1	0.15188	0.85241
	FAM2	0.08931	0.83872
	FAM3	0.15454	0.65292

III. C. 2. k. Repeat Visits

The scale demonstrated an average score of 3.08 with a standard deviation of 1.12 The scale was unidimensional with all items loading on one factor that explained 75% of the variation in probability of repeat visits. Reliability was measured through coefficient alpha which was 0.88 (see table 12 for results).

Convergent validity was examined via correlation with a single item scale reflecting consumer's intention to return to the web site (item- "I want to come back to this web site"). The correlation coefficient was 0.61. A person planning to revisit a web site is likely to bookmark that web site. Bookmarking enables the consumer to store a web address of a site that s/he plans to visit repeatedly. In future visits the consumer would not need to recall, or key in, the web site address. S/he can click on the relevant bookmark which will take him/her to the desired web site. An item ("this is

one of the sites that I would bookmark") reflecting this behavior was employed to test predictive validity. The correlation coefficient was 0.36.

Discriminant validity was inspected using factor analysis. The items for repeat visits and attitude confidence were factor analyzed. To obtain distinct factor loadings, varimax rotation was employed. Results showed a two factor solution with all the items for repeat visits loading on a single factor.

Table 12: Measure Assessment- Repeat Visits

Mean **Std. Dev.**	3.08 1.12
Reliability	Alpha = 0.88
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 3.0115 0.4560 0.3451 0.1875 Proportion 0.7529 0.1140 0.0863 0.0469 Cumulative 0.7529 0.8669 0.9531 1.0000
Factor1 Rpt2 0.91351 Rpt3 0.89867 Rpt1 0.85266 Rpt4 0.80145	Item The next time I am on the web I will come back to this site. The likelihood of my coming back to this web site is high. There are some features of the web site that I want to experience again. I cannot see myself returning to this web site.(R)
Validity	**Convergent**: The correlation between this scale and a single item scale for repeat visits was 0.61. **Predictive**: The correlation between this scale and a single item scale for intention to bookmark the site was 0.36. **Discriminant**: Factor analysis of the items for attitudinal outcomes found that the items for repeat visits loaded on a single factor.
Discriminant Validity	1 2 3 4 Eigenvalue 3.9189 1.8660 0.6817 0.4496 Proportion 0.4899 0.2332 0.0852 0.0562 Cumulative 0.4899 0.7231 0.8083 0.8645

Factor Loadings (Varimax Rotation)		FACTOR1	FACTOR2
	RPT2	0.89261	0.16242
	RPT3	0.87075	0.22708
	RPT1	0.83901	0.11930
	RRPT4	0.80452	0.07324
	FAM4	0.19055	0.89798
	FAM1	0.22395	0.83333
	FAM2	0.22506	0.79573
	FAM3	-0.03280	0.71342

III. C. 2. I. Willingness to Provide Information

The subjects that participated in the study were reluctant to provide personal information to firms via their web sites. The mean score on the scale was 2.67 with a standard deviation of 0.95. The scale was unidimensional with all the items loading on one factor which explained 68% of the variation in the data. Reliability as measured by coefficient alpha was 0.84 (see table 13 for results).

Convergent validity was measured by correlation with a single item scale for willingness to provide information. The item used was stated as- "If the site asked for personal information I would provide it". The correlation coefficient was 0.73. A respondent that was willing to provide information to the firm was likely to have a positive orientation toward that firm (the item used was- "I like the firm that presented this web site"). This was used to test predictive validity. The correlation coefficient was 0.62.

Discriminant validity was investigated using factor analysis. The items for willingness to provide information and attitude confidence were

factor analyzed. A two factor solution was observed. Varimax rotation provided distinct factor loadings. The items for willingness to provide information all loaded on one factor.

Table 13: Measure Assessment- Willingness to Provide Information

Mean **Std. Dev.**	2.67 0.95
Reliability	Alpha = 0.84
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 2.7247 0.6125 0.3731 0.2897 Proportion 0.6812 0.1531 0.0933 0.0724 Cumulative 0.6812 0.8343 0.9276 1.0000
Factor1 Wpi2 0.86505 Wpi3 0.82214 Wpi1 0.81304 Wpi4 0.79964	Item I would fill out a questionnaire at this web site. I cannot see myself providing any personal information to this firm at its web site.(R) After seeing this web site I feel obligated to help the firm by filling out an online questionnaire for them. I see no reason to register myself at this web site.(R)
Validity	**Convergent**: The correlation between this scale and a single item scale for willingness to provide information was 0.73. **Predictive**: The correlation between this scale and a single item scale for attitude toward the firm was 0.62. **Discriminant**: Factor analysis of the items for attitude confidence and willingness to provide information found that the items for willingness to provide information loaded on a single factor.
Discriminant Validity	1 2 3 4 Eigenvalue 3.2931 2.2216 0.6887 0.5975 Proportion 0.4116 0.2777 0.0861 0.0747 Cumulative 0.4116 0.6893 0.7754 0.8501
Factor Loadings (Varimax Rotation)	FACTOR1 FACTOR2 WPI2 0.86264 0.05785 RWPI3 0.81489 0.08492 WPI1 0.81243 0.03919 RWPI4 0.79362 0.10479 FAM4 0.13116 0.91325 FAM1 0.17671 0.85207 FAM2 0.09844 0.82771 FAM3 -0.07206 0.69645

III. C. 2. m. Situational Involvement

Situational involvement reflected involvement that emerged from the context in which the respondent visited the site. As a result, this dimension of involvement was introduced by assigning the respondents a task to perform. In this study the respondents were asked to visit the web site for Prudential insurance and either (1) make a choice between Permanent and Term insurance policies or (2) find prices for these policies. In the first case the information was available in the web site, while in the second case it was not. The objective behind this was to ensure adequate variation in the data. It was observed that in the former case results were less positive (means for informativeness and value were 3.30 and 2.93 respectively) than they were in the latter case (means for informativeness and value were 3.63 and 3.34 respectively). Additionally, a scale was employed to examine whether the task was successful in inducing situational involvement. The mean score on this scale was 3.80 (see table 14) which suggested that the respondents took the task seriously and were involved in it.

Table 14: Situational Involvement- Mean Score

Mean Std. Dev.	3.80 0.87
S.No.	Item
1.	I really did not care if I obtained the price information for the insurance policies (R).
2.	I tried everything I could to get the prices for the insurance policies.

III. C. 2. n. User Familiarity

User familiarity has been operationalized as the cumulative number of hours that a person had spent on the Web (Diaz, Hammond, and McWilliam 1997). This has been measured as a self report. Diaz, Hammond, and McWilliam (1997) divided respondents into three categories: (1) low familiarity (0 hours on the Web), (2) moderate familiarity (1-49 hours on the Web), and (3) high familiarity (50 or more hours on the Web). This classification was adopted for this dissertation.

III. C. 2. o. Interactivity

It was not possible to simulate human interactivity in this dissertation. However, it has been suggested that the perception of interactivity may be enhanced simply by the presence of an email address in a firm's communication with consumers (Newhagen, Cordes, and Levy 1996). Consequently, interactivity was measured using a dummy variable for the NBA web site which prominently featured upcoming interactive chats with its stars. It was expected that the possibility of human interaction via the NBA site would enhance perceptions of interactivity offered by this site compared to the other sites (which did not present any possibility of human interaction).

CHAPTER IV
RESULTS

IV. A. INTRODUCTION

The hypotheses developed in this dissertation were divided into four groups for the purposes of testing. The first group of hypotheses dealt with the relationship between the benefits and costs associated with the site (informativeness, entertainment, control, interactivity and irritation) and value of the site. The second group of hypotheses related individual differences (prior attitude toward the brand, enduring involvement, computer anxiety, and user familiarity) to the benefits and costs associated with the site. The third group of hypotheses examined the relative impact on value of the benefits associated with the site. The last group of hypotheses dealt with value and its attitudinal outcomes.

The first three groups of hypotheses were tested using multiple regression, while the last group of hypotheses were tested via correlation analysis. Multiple regression provided a strong test of the hypotheses (first three groups) as it examined individual relations between the dependent (e.g. value) and independent variables (e.g. informativeness) while taking into account other independent variables (e.g. entertainment).

To ensure that multiple regression was appropriate to test the hypotheses mentioned above, the assumptions of linear multiple regression

were examined for all regression models run in the study. The assumptions included, 1) linearity, 2) homoscedasticity, and 3) independence. Linearity was tested for each of the regression models via a plot of all the independent variables with the dependent variables. In all cases (except those involving computer anxiety) a linear trend was noticed. The plot of informativeness, entertainment, and control with computer anxiety displayed no discernable pattern (suggesting the absence of a relationship between them). Overall, the plots suggested that the assumption of linearity was not violated.

Homoscedasticity was examined via plots of the residuals with the independent and dependent variables in each of the regression models. A fanning out effect would have indicated a violation of this assumption. However, in no case was such an effect noticed. As a result, it was concluded that the assumption of homoscedasticity was valid for the data employed in the regression models.

The third assumption of independence was examined via the Durbin-Watson test for auto correlation. In each case the test was insignificant. Consequently, it was concluded that the assumption of independence was valid for the data employed in the regression models.

Finally, a potential problem in multiple regression is multicollinearity. Multicollinearity suggests highly interrelated independent variables. It has been suggested that when the independent variables are strongly interrelated the results of the regression may be highly unstable. The addition or deletion

of a variable may see major fluctuations in the results obtained. Consequently, the results may not be interpretable. The problem of multicollinearity was studied via the variance inflation factor. A score greater than 10 would have indicated multicollinearity. In all cases the variance inflation factor was computed to be less than 10. This suggested that multicollinearity was not a problem with the data.

IV. B. BENEFITS AND COSTS OF THE SITE AND VALUE

The hypotheses and the outcomes are placed below in table 15.

Table 15: Summary Results- Hypotheses for Benefits and Costs of the Site and Value

No.	Hypothesis	Outcome
H1	Informativeness of an internet presence site is positively related to the perceived value of the site.	Supported
H2	The more entertaining a web site is to a person, the greater will be the value of the web site to that person.	Supported
H3	The level of human interactivity of the web site will be positively related to the value of the web site.	Not Supported
H4	The level of perceived user control in navigating the site contributes positively to the value of the site.	Supported
H5	The higher the level of irritation a web site triggers, the lower the perceived value of the web site.	Supported

The summary results of the multiple regression model testing the above hypotheses is presented below in table 16 (for greater detail see appendix 15).

Table 16: Results- Value as a Function of Informativeness, Entertainment, Control, Interactivity, and Irritation

R-square	0.7603		
Parameter Estimates	Variable	Parameter Estimate	Prob > |T|
	INTERCEP	0.264612	0.4013
	INFORM	0.512228	0.0001
	ENTER	0.337623	0.0001
	IRRITATE	-0.146715	0.0061
	CONTROL	0.136138	0.0220
	INTER	-0.237910	0.0006

H1 suggested a positive relationship between informativeness and value of the web site. The regression coefficient had a value of 0.51 and was significant at the .05 level. Therefore, H1 was supported.

H2 suggested a positive relationship between entertainment and value of the web site. The regression coefficient had a value 0.34 and was significant at the .05 level. Consequently, it was concluded that H2 was supported.

H3 suggested a positive relationship between interactivity and value. The regression coefficient was -0.24 and was significant at the .05 level. However, as opposed to the positive relation postulated, the results indicated a negative relationship between interactivity and value. H3, therefore, was not supported.

H4 suggested a positive relationship between control and value. The regression coefficient was 0.14 and was significant at the .05 level. H4 was supported.

H5 suggested a negative relationship between irritation and value. The regression coefficient was -0.15 and was significant at the .05 level. This indicated support for a negative relation between irritation and value.

IV. C. INDIVIDUAL DIFFERENCES AND BENEFITS AND COSTS OF THE SITE

This group of hypotheses (see table 17) were tested using three separate multiple regression models.

Table 17: Summary Results- Hypotheses for Individual Differences and Benefits of the Site

No.	Hypothesis	Outcome
H6	The level of computer anxiety will be negatively associated with the informativeness, entertainment, and control associated with the web site.	Not Supported
H7	User familiarity with the Web will be positively related to the informativeness, entertainment, and control offered by the web site.	Partially Supported
H9	The greater a consumer's enduring involvement the greater will be the perceived informativeness and entertainment provided by the site.	Partially Supported
H11	Attitude towards the brand will be positively related to informativeness of the web site under conditions of high attitude confidence.	Partially Supported

The above stated hypotheses were examined from a different perspective. The hypotheses related the individual differences to some of the site benefits. As can be seen above there are common dependent variables across these hypotheses. Consequently, three models using the site benefits as dependent variables and the relevant individual differences as independent

variables were employed to test these hypotheses. First, informativeness was postulated as a function of computer anxiety (H6), user familiarity (H7), enduring involvement (H9), and prior attitude toward the brand (H11).

Second, entertainment was postulated to be a function of computer anxiety (H6), user familiarity (H7), and enduring involvement (H9). Third, control was postulated a function of computer anxiety (H6) and user familiarity (H7).

The three sets of relationships mentioned above were run as regression models. Tables 18, 20, and 22 display the results of these regression analyses. A note of caution must be introduced here. As will be illustrated in the following paragraphs, these models explained very little of the variation in the three dependent variables (13% of variation in entertainment, 9% of variation in informativeness, and only 3% of variation in control). Even though some of the hypotheses were supported, the data suggested that additional research was required to explain the remaining variation in the benefits related to the site.

IV. C. 1. INFORMATIVENESS AS A FUNCTION OF INDIVIDUAL DIFFERENCES

Two different regression models were employed to test the relationships of the individual differences with informativeness. The only difference in the two models was with respect to enduring involvement. As

mentioned in the methodology section enduring involvement was considered on an aggregate basis, as well as a dimensional basis. Consequently, the first regression model (table 18, for greater detail see appendix 16)) examined the impact of enduring involvement (on aggregate basis), prior attitude toward the brand, computer anxiety and user familiarity on informativeness. The second regression model (table 19, for greater detail see appendix 17) was identical except that enduring involvement was examined in terms of its component dimensions- importance of and interest in the product. It may be noted, the impact of splitting enduring involvement into its dimensions and running the regression had very little impact on the relationships of other constructs with informativeness.

Table 18: Results- Informativeness as a Function of Enduring Involvement, Prior Attitude toward the Brand, Computer Anxiety, User Familiarity

R-square	0.09	
Parameter Estimates	Variable	Parameter Estimate	Pr > |T|
	INTERCEPT	2.467320033	0.0001
	COMPANX	-0.024866188	0.7491
	ENDINV	-0.014406322	0.8256
	PABRAND	0.228103975	0.0023
	(PABRAND* ATTCONF)	-0.007057572	0.6527
	MODUF	0.308854178	0.1300
	HIUF	0.493236184	0.0181

Computer anxiety (COMPANX) had a regression coefficient of -0.02 (table 18) which was not significant at the 0.05 level. Consequently, H6 was not supported for informativeness.

Three levels of user familiarity were examined with informativeness (high or >50 hours on the Web, moderate i.e. between 1-49 hours on the Web, and low i.e. 0 hours on the Web). Dummy variables were created to examine the relationship of these levels with informativeness. The reference level was the low familiarity condition. The results (table 18) suggested that while there was no difference between the impact of low and moderate familiarity on informativeness (regression coefficient MODUF 0.31), high familiarity did have a positive impact on informativeness compared to low familiarity (regression coefficient HIUF 0.49). This indicated mixed support for the relationship between user familiarity and informativeness postulated in H7.

Table 19: Results- Informativeness as a Function of Importance of Product, Interest in Product, Prior Attitude toward the Brand, Computer Anxiety, User Familiarity

R-square	0.09		
Parameter Estimates	Variable	Parameter Estimate	Pr > |T|
	INTERCEPT	2.449952799	0.0001
	COMPANX	-0.027475866	0.7240
	IMPORT	0.030977534	0.5490
	INTEREST	-0.054560150	0.3591
	PABRAND	0.233109724	0.0019
	(PABRAND* ATTCONF)	-0.005422857	0.7311
	MODUF	0.327276009	0.1104
	HIUF	0.506123282	0.0156

The relationship of enduring involvement with informativeness was examined both in aggregate terms, as well as, terms of the sub-dimensions

(importance and interest). In each case, an insignificant relationship was suggested. First, on an aggregate level enduring involvement had a regression coefficient of -0.01 (table 18) which was not significant at the 0.05 level. Second, the regression coefficient for importance (IMPORT 0.03) was also insignificant at the 0.05 level (table 19). Last, the regression coefficient for interest in the product (INTEREST -0.05) was not significant at the 0.05 level (table 19). Consequently, it was concluded that H9 was not supported for informativeness.

H11 postulated a positive relationship between prior attitude toward the brand and informativeness under conditions of high attitude confidence. This relationship was also examined in the regression model. The results demonstrated that prior attitude toward the brand was directly related to informativeness irrespective of attitude confidence. The regression coefficient for the main effect (PABRAND) was 0.23 (table 18) and was significant at 0.05 level. However, the interaction term representing H11 (PABRAND*ATTCONF) had an insignificant regression coefficient (-0.005). Consequently, it appeared that, while a conditional relationship between prior attitude toward the brand and informativeness (H11) was not supported, an unconditional relationship between them was observed.

IV. C. 2. ENTERTAINMENT AS A FUNCTION OF INDIVIDUAL DIFFERENCES

As with informativeness, two separate regression models were employed to test the impact of individual differences on the perception of entertainment. The first model (table 20, for greater detail see appendix 18) examined entertainment as a function of enduring involvement, computer anxiety and user familiarity. The second model (table 21, for greater detail see appendix 19) took a closer look at the impact of enduring involvement by breaking it up into its component dimensions of importance of and interest in the product. It may be noted, that the results of the two models for the relationship of computer anxiety and user familiarity with entertainment were similar i.e. breaking up enduring involvement into its component dimensions did not impact the relationships of other variables with entertainment.

Table 20: Results- Entertainment as a Function of Enduring Involvement, Computer Anxiety, User Familiarity

R-square	0.13		
Parameter Estimates	Variable	Parameter Estimate	Prob > |T|
	INTERCEP	1.350221	0.0003
	COMPANX	0.023513	0.7881
	ENDINV	0.332501	0.0001
	MODUF	0.690188	0.0064
	HIUF	0.752147	0.0035

Computer anxiety had a regression coefficient of 0.02 (table 20) which was not significant at the 0.05 level. Consequently, H6 was not supported for entertainment.

The relationship between user familiarity and entertainment was supported (table 20). Moderate user familiarity with the Web (regression coefficient 0.69) contributed positively to entertainment over low user familiarity (significant at 0.05 level). The impact of high user familiarity compared to low user familiarity was similar to that of moderate familiarity. The regression coefficient of 0.75 was also significant at the 0.05 level. H7 is supported for entertainment.

Table 21: Results- Entertainment as a Function of Importance of Product, Interest in Product, Computer Anxiety, User Familiarity

R-square	0.14		
Parameter Estimates	Variable	Parameter Estimate	Prob > |T|
	INTERCEP	1.392454	0.0002
	COMPANX	0.023890	0.7835
	IMPORT	0.069211	0.2329
	INTEREST	0.268258	0.0001
	MODUF	0.636367	0.0119
	HIUF	0.702448	0.0063

The relationship between entertainment and enduring involvement was examined at two levels. First, enduring involvement was examined at the aggregate level. The regression coefficient obtained was 0.33 (table 20) and was significant at the 0.05 level. Second, enduring involvement was broken into its dimensions and the impact of each dimension on entertainment was examined. The results were mixed (table 21). While importance of the product was not significantly related to entertainment (regression coefficient IMPORT 0.07), interest in the product did contribute significantly to the

perception of entertainment (regression coefficient INTEREST 0.27). These results indicated partial support for H9 for entertainment.

IV. C. 3. CONTROL AS A FUNCTION OF COMPUTER ANXIETY AND USER FAMILIARITY

The hypotheses relating computer anxiety and user familiarity with control were also tested via multiple regression. The results are presented in table 22 (for greater detail see appendix 20).

Table 22: Results- Control as a Function of Computer Anxiety, User Familiarity

R-square	0.03		
Parameter Estimates	Variable	Parameter Estimate	Prob > |T|
	INTERCEP	3.064306	0.0001
	COMPANX	-0.032443	0.6474
	MODUF	0.319358	0.1285
	HIUF	0.522878	0.0147

Computer anxiety had a regression coefficient of -0.03 which was not significant at the 0.05 level. Consequently, H6 was not supported for control.

The relationship between user familiarity and control was partially supported. Moderate user familiarity (regression coefficient 0.32) with the Web did not have a significant impact as compared with low user familiarity. However, high user familiarity (regression coefficient 0.52, significant at 0.05 level) did have an incremental impact on the perception of control as

compared to low user familiarity. Therefore, H7 is partially supported for control.

IV. C. 4. SUMMARY

The results of the hypotheses tests for the relationship between individual differences and benefits of the site are summarized in table 17. To reiterate, computer anxiety did not have a significant relationship with either informativeness, or entertainment, or control (i.e. H6 was not supported).

The relationship between user familiarity and informativeness, entertainment, and control was partially supported. High user familiarity with the Web contributed significantly to informativeness, entertainment, and control when compared with low familiarity. Moderate familiarity displayed mixed results. It was significantly related to entertainment but not with informativeness and control. Consequently, H7 was partially supported.

H9 suggested a positive relationship between enduring involvement and informativeness and entertainment. This hypothesis was partially supported. There was an insignificant relationship between enduring involvement and informativeness. This finding was true when enduring involvement was measured at the aggregate level, as well as when it was measured using the dimensions (of importance and interest). At the same time there was a significant relationship between enduring involvement and entertainment. The relationship was significant when enduring involvement

was measured at the aggregate level. However, when the dimensions of enduring involvement were considered, only interest in the product contributed towards perceptions of entertainment. Importance of the product was not related to perceptions of entertainment. Consequently, H9 was partially supported.

H11 postulated a conditional relationship (under high attitude confidence) between prior attitude toward the brand and informativeness. The conditional relationship was not significant. However, a stronger result was obtained. Prior attitude toward the brand was significantly related to informativeness irrespective of the level of attitude confidence.

IV. D. RELATIVE IMPACT OF BENEFITS ON VALUE

Hypotheses 8 and 10 suggested that the relative impact of the benefits associated with the site depends on the nature and level of involvement (see table 23).

Table 23: Summary Results- Hypotheses for the Relative Impact of Benefits on Value

No.	Hypothesis	Outcome
H8	Under conditions of situational involvement consumer needs will determine the relative influence of site benefits on the value of the site. a. If the consumer visit is motivated by product related situational involvement, then informativeness will have greater influence on value than entertainment and interactivity. b. If the consumer visit is motivated by entertainment related situational involvement, then entertainment will have greater influence on value than informativeness and interactivity. c. If the consumer visit is motivated by interactivity related situational involvement, then interactivity will have greater influence on value than informativeness and entertainment.	Partially Supported
H10	Under conditions of low enduring involvement entertainment, rather than informativeness, will have more influence on value of the site.	Not supported

It was not possible to control the need for entertainment or interactivity in this study. Consequently, only hypothesis 8a was tested. Recall that the need for information was introduced by asking the respondents to either, select a term or a permanent policy, or find the prices for these policies. The mean score of 3.80 (on the scale measuring situational involvement) suggested that the respondents were involved in the tasks assigned.

To examine the relative impact of informativeness versus entertainment on value under conditions of situational involvement, a test of equivalency of the regression coefficients was performed (table 24, for

greater detail see appendix 21). The test of hypothesis 8a had a F statistic of 2.90 which was not significant at the 0.05 level, though it was significant at the 0.05 level. This suggested that there was a significant difference between the impact of informativeness and entertainment on value under situational involvement.

Table 24: Results- Relative Impact of Benefits on Value under Situational Involvement

R-square	0.79
Parameter Estimates	Variable / Parameter Estimate / Prob > |T| INTERCEP 0.494379 0.3631 INFORM 0.624874 0.0001 ENTER 0.309379 0.0020 IRRITATE -0.216737 0.0175 CONTROL 0.071171 0.5231
Test of Equivalency of Regression Coefficients	*Informativeness vs Entertainment* Test: Numerator: 0.5919 DF: 1 F value: 2.9025 Denominator: 0.203937 DF: 67 Prob>F: 0.0466

This dissertation did not examine the impact of informativeness vis-a-vis interactivity. To do this, the design of the study would have become extremely complicated (nested design would be required) and the length of the instrument would have exceeded acceptable limits (respondent fatigue was a concern). Therefore, the last part of hypothesis 8a was not tested in this study.

H10 examines the relative impact of informativeness and entertainment under low enduring involvement. All responses on the enduring involvement scale that averaged a score less than 3 (on the aggregate 5 point scale) were categorized as exhibiting low enduring involvement (total of 79 responses). A test of significance was conducted for the difference in magnitude of the regression coefficients for informativeness and entertainment: the test generated an F statistic of 1.39 which was not significant at the .05 level (see table 25, and appendix 22 for greater detail). This suggested that the level of enduring involvement had no influence on the relative impact of informativeness and entertainment on value.

Table 25: Results- Relative Impact of Benefits on Value under Low Enduring Involvement

R-square	0.69
Parameter Estimates	Variable / Parameter Estimate / Prob > |T| INTERCEP 0.579909 0.3678 INFORM 0.210151 0.1851 ENTER 0.482515 0.0001 IRRITATE -0.317440 0.0103 CONTROL 0.236734 0.0548
Test of Equivalency of Regression Coefficients	Informativeness vs Entertainment Test: Numerator: 0.3739 DF: 1 F value: 1.3896 Denominator: 0.269072 DF: 44 Prob>F: 0.1224

IV. E. VALUE AND ATTITUDINAL OUTCOMES

Correlation analysis was employed to test the relationship between value and its attitudinal outcomes (attitude toward the brand, attitude toward the site, repeat visits, and willingness to provide information).

Table 26: Summary Results- Hypotheses for Value and Attitudinal Outcomes

No.	Hypothesis	Outcome
H12	Value of a web site is positively related to attitude toward the site.	Supported
H13	Value of a web site is positively related to attitude toward the brand.	Supported
H14	Value of a web site contributes positively to relationship continuity.	Supported
H15	The greater the value of a web site perceived by the consumer the greater is the willingness to provide information to the firm.	Supported

The correlation coefficients for all four hypotheses (H12-15) were significant (see appendix 16 for correlation of all multi-item scales). However, to ensure that the correlation coefficient was not an artifact of the large sample, standard error of the sample correlation coefficient was calculated. In case 0 fell within the interval, correlation coefficient +/- 2 Standard Error, it could be concluded that the null hypothesis could not be rejected.

The correlation between value and attitude toward the site was 0.74 (significant at .05). The standard error for the correlation coefficient between value and attitude toward the site was 0.043. Consequently, the confidence interval was found to be 0.65 to 0.83. Since, 0 did not lie within

the confidence interval the null hypothesis was rejected. H12 was supported, i.e. value was positively related to attitude toward the site.

The correlation coefficient between value and attitude toward the brand was also 0.74 (significant at .05). The standard error for the correlation coefficient was 0.045. Consequently, the confidence interval for the correlation coefficient was 0.65 to 0.83. Again, as 0 did not fall within the interval the null hypothesis was rejected. It was concluded that value demonstrated a positive relationship with attitude toward the brand, i.e. H13 was supported.

The correlation coefficient between value and repeat visits was 0.82 (significant at .05). The stand error was 0.037. The confidence interval for +/- 2 times the standard error was 0.75 to 0.89. Therefore, the null hypothesis was rejected and it was concluded that value was positively related to repeat visits, i.e. H14 was supported.

The correlation coefficient between value and willingness to provide information was 0.67 (significant at .05). The standard error of the correlation coefficient was 0.045. This led to a confidence interval ranging from 0.58 to 0.76. As 0 did not lie within this range the null hypothesis was rejected. H15 was supported, i.e. value of the site was positively related to respondent willingness to provide personal information to the firm.

CHAPTER V
DISCUSSION

The results support the core model presented in this dissertation. The relationship of benefits and costs (with the exception of interactivity) with value, as well as the relationship of value with attitudinal outcomes was supported. However, the results relating individual differences with the benefits of the site, as well as the relative impact of the individual differences on value, were more ambiguous. This section probes the observed results.

V. A. BENEFITS AND COSTS OF THE SITE AND VALUE

Informativeness, entertainment, and control were supported as benefits of the *internet presence site* and contributed positively to value. Breaking down the results by site provided further insight into the relationship of the benefits with value (see tables 27,28 and 29). In addition, it provided insight into the generalizability of results to all *internet presence sites*.

Table 27: Results- Value as a Function of Benefits and Costs for the Levi site

R-square	0.82

Parameter Estimates	Variable	Parameter Estimate	Prob > |T|
	INTERCEP	0.204701	0.7171
	INFORM	0.214069	0.1061
	ENTER	0.495420	0.0001
	IRRITATE	-0.097265	0.3112
	CONTROL	0.211841	0.0283

Table 28: Results- Value as a Function of Benefits and Costs for the NBA site

R-square	0.71		
Parameter Estimates	Variable	Parameter Estimate	Prob > |T|
	INTERCEP	0.433706	0.3860
	INFORM	0.344660	0.0043
	ENTER	0.479445	0.0001
	IRRITATE	-0.186743	0.0350
	CONTROL	0.086366	0.4019

Table 29: Results- Value as a Function of Benefits and Costs for the Prudential site

R-square	0.79		
Parameter Estimates	Variable	Parameter Estimate	Prob > |T|
	INTERCEP	0.494379	0.3631
	INFORM	0.624874	0.0001
	ENTER	0.309379	0.0020
	IRRITATE	-0.216737	0.0175
	CONTROL	0.071171	0.5231

The impact of informativeness on value was only significant for the NBA and Prudential web sites (see tables 28 and 29). Both these sites could be characterized as information sites. As mentioned in chapter 2 (section A.2) *internet presence sites* could be divided into three groups- flat, image and information sites. Information sites provide information about the product, in terms of features, benefits etc.. Image sites, on the other hand,

aim to build brand image. When the obtained results are examined in light of the nature of the site, it appeared that informativeness was a significant contributor to value only for information oriented *internet presence sites*. The Levi site was an image site and provided information primarily about the Levi's product line and advertising (the "who else wore them" campaign). There was no other information that the site provided about the product. In comparison, the Prudential site provided information about the different types of policies, the benefits they offered, and advise as to the basis on which consumers could choose between different types of policies. The NBA site provided annual statistics of the players on different teams, previews to the NBA playoffs, and scouting reports for the NBA draft. This difference in informativeness was also reflected in respondent perceptions (means on informativeness were 3.45 for Levi, and 3.65 and 3.70 for NBA and Prudential respectively). When the results were viewed in light of the different types of *internet presence sites*, they suggested that informativeness as a benefit was a contributor to value only for the information-oriented *internet presence sites*.

Future research needs to examine this role of informativeness in greater detail. This dissertation only examined value for three sites. Further, it did not control for the type of *internet presence site*. Replication of this study with *internet presence sites* that are image-oriented, and others that are information-oriented, is required to confirm results. Additionally, as

mentioned before, the nature of information presented in image and information sites differs. This suggests more issues for future research. For instance, what impact does the nature of information presented in the site have on value? Does information about the product only contribute to value or does information about other aspects, like its advertising, also contribute toward value?

As opposed to informativeness, entertainment was significantly related to value for all three sites. Even under product related situational involvement (i.e. when consumer was driven by need for information) entertainment had a positive impact on the value of the *internet presence site*. This confirmed the findings of Ducoffe (1996) who suggested that the experiences associated with the exchange contribute to value.

Overall control was a positive contributor to value of the site. However, when the results were examined on a site by site basis, control was significantly related to value, only for the Levi site. Coincidentally, the Levi site was the only one that required the consumer to have intimate knowledge of the Web. To take full advantage of the Levi site, the consumer needed to install shockwave (an animation software available on the Web) on their systems. Not all respondents were able to do this. Consequently, it appears that control is an important predictor of value when the site requires special knowledge about the Web on the part of the respondent. More research is needed to substantiate this.

It was interesting to note that irritation was only significantly related to value for the NBA and Prudential web sites. The Levi web site, where the consumer needed special knowledge, did not show a significant relationship between irritation and value. One reason for this could be the relationship between control and irritation. The two variables were highly correlated (correlation coefficient -0.69), and control was a significant contributor to value for the Levi site. Control may have accounted for the same variation as irritation, and therefore the relationship between irritation and value was not significant.

Interactivity did not relate to value in the desired manner. The results suggested a negative relation between them. One reason behind this could be the operationalization of interactivity employed in this study. The interactivity measure was based on Newhagen, Cordes, and Levy (1996) who suggested that just the presence of an email address would enhance the perception of interactivity. Consequently, interactivity was measured using a dummy variable for the NBA web site which prominently featured upcoming interactive chats with its stars. However, as per the definition of interactivity employed in this study, the perception of interactivity was predicated on the response a message evoked from the firm's representatives. The measure employed here was a weak representation of interactivity. An ideal manipulation would engage the respondents in online (or off line via email) interaction with the firm's representatives. Therefore,

the relationship observed between value and interactivity may be an artifact of the data gathered.

An alternate reason behind the observed relationship between interactivity and value could be related to the site itself. While the NBA site provided future interactivity prospects (schedules for chats with their stars), there was no possibility of online interaction when the respondents logged on. This lack of opportunity may have created feelings of frustration in the respondent and thereby decreased the value of the site.

V. B. INDIVIDUAL DIFFERENCES AND BENEFITS OF THE SITE

A weakness of this dissertation was the inability to adequately explain variation in the benefits associated with the *internet presence site*. The individual differences (enduring involvement, prior attitude toward the brand, computer anxiety, and user familiarity) explained 9% of the variation in informativeness, 13% of the variation in entertainment, and just 3% of the variation in control. While, each of the models was significant, a major proportion of the variation was unaccounted for. Consequently, the hypotheses regarding the relationship between individual differences and benefits of the site, even when supported must be viewed as weak in nature.

V. B. 1. COMPUTER ANXIETY AND BENEFITS OF THE SITE

The relationship between computer anxiety and the benefits of the site was not supported. One reason for this may be, that while the data was normally distributed with a mean of 1.70, most of the respondents did not exhibit computer anxiety. There were only 9 respondents who had a mean score greater than 3 on a 5 point scale. Consequently, it was not possible to get an accurate estimate of the impact of computer anxiety on individual differences. A sample that contained more respondents exhibiting computer anxiety was needed to accurately estimate its impact. This was a weakness of the study and needs to be addressed in future research.

V. B. 2. USER FAMILIARITY AND BENEFITS OF THE SITE

The relationship between user familiarity and the benefits of the site was partially supported. In each case respondents with high familiarity with the Web exhibited a positive relationship with informativeness, entertainment, and control. However, respondents with moderate familiarity demonstrated a significant relationship with entertainment only. One reason for this could be the categories employed in measurement. For instance, there may be little difference between someone who has one hour on the Web and someone who has never been on the Web. However, based on the categories used in the study, those two individuals would be in different familiarity categories. A better measure would be on a ratio scale (i.e. ask

respondents to estimate the amount of time they have spent on the Web). The question could be asked in two parts. First, the respondents could be asked for the average amount of time they spend each week on the Web. Second, they could be asked the number of weeks they have been browsing the Web. The product of these two figures may provide a better estimate of user familiarity.

An alternate explanation of the observed results may be based on individual learning. While there exist no statistics on the subject, one can speculate that a number of individuals browsing the Web are self taught. It takes a certain amount of familiarity, which can only be accumulated over time, for the consumer to take advantage of the benefits offered by the sites. This may explain why there seems to be a limited difference between individuals with low and moderate familiarity with the Web. High familiarity, on the other hand, could indicate that individuals have accumulated enough experience on the Web and have moved to the next level whereby they can browse through the Web with minimal effort and take full advantage of the benefits offered by a site.

To gain a greater understanding of the way in which user familiarity impacts the site benefits, as well as examine the generalizability of results, a site level analysis was performed. The results were weaker for each site. Only for Levi was the relationship between high user familiarity and informativeness supported. In all other sites the relationship was not

significant. The relationship between moderate user familiarity and informativeness was not significantly different from the impact of the reference level (i.e. respondents who had never browsed the Web), for any site.

The relationship between user familiarity (both high and moderate) and entertainment was supported for the Levi site. However, the results were negative for the other two sites.

The relationship with control was even weaker. Only high user familiarity was supported (at 0.10 level of significance) for the Levi site. Familiarity did not have a significant impact on control for the other two sites.

To understand these results a close examination of the sites is necessary. As far as the NBA and Prudential sites were concerned the respondents could simply browse through the sites by clicking on various links. The Levi site was somewhat more complicated. There were a number of animation features that required the respondents to make use of their familiarity with the Web (e.g. load shockwave to view some segments of the site). Additionally, the search feature (for products and stores) was not easy to use. Some respondents were unsure as to how the feature could be used. On at least three separate occasions respondents requested help in finding desired information and/or in using a specific feature of the Levi site. Consequently, it could be argued that only when the site demanded special

knowledge on the part of the respondents did user familiarity have an impact on informativeness, entertainment, and control.

Future research is needed to examine alternate explanations that may explain the formation of consumer perceptions of informativeness, entertainment, and control. Past research has viewed informativeness and entertainment as perceptions (e.g. Aaker 1981, Dervin 1981, Hunt 1976). This study attempted to identify individual differences that may influence those perceptions. However, based on the low level of variation explained by the individual differences, it may be appropriate to re-examine the assumption that informativeness is a perception. It may be possible to develop semi-objective measures of informativeness and/or entertainment offered by a site. The operational definitions of what constitutes information and entertainment could be developed via qualitative research. One could attempt to measure informativeness by counting the pieces of information that the site provided (objective measure) and weight that figure by an estimate of the quality of that information (consumer perception). Similarly, one could count the number of sources of entertainment (objective measure) the site provided (e.g. games, animation) and weight that by an estimate of the quality of those sources (consumer perception). Future research aimed at developing a mix of objective and qualitative indices of informativeness and entertainment is desirable. However, it must be noted that consumers browse sites in differing sequences and may not view the entire content of

the site. Consequently, even though a site may offer information and entertainment, an individual who lands on the home page and exits the site may view it as being low on informativeness and entertainment.

Unexpectedly, while the inability to explain substantial variation in control was a weakness of the study, it also had important implications for managers. It suggested that consumer control over navigation through a site could be built into the design of the site. A simple design that does not require any special knowledge on the part of the consumer could enhance the perception of control. For instance, this could mean deleting the animation features on the Levi site. However, this would deprive consumers with high familiarity from enjoying the animation feature. Consequently, they may perceive lower level of entertainment offered by the site. This would suggest that firms need to anticipate the level of familiarity with the Web, of the typical consumer that browses through their site, so as to maximize consumer perceptions of control and resultant perceptions of value to their target market. Alternately, instead of asking consumers to download special software, the firm could modify the existing system. At present special software at the site scans the remote system and identifies missing software on the consumers' machine. Based on this knowledge, they could provide the consumer an option for automatic download and installation of the required software (in place of having the consumer go to a different site download the software and then exit the browser to install it), thereby

making the process easier for the consumer.

Once again, as with informativeness and entertainment, further research is needed to study elements of a site that influence consumer perceptions of control. For instance, firms attempt to build multiple links in a site and try to induce the consumer to click as many times as possible. It would be interesting to study the relationship between the number of links in the site and perceptions of control. It may well be that there exists an ideal number of links that a firm should build into the site. Building too few may not provide adequate choice or control over content and sequence, while building too many links may confuse the user and lead to lack of control over time spent and content viewed.

V. B. 3. ENDURING INVOLVEMENT AND BENEFITS OF THE SITE

The relationship between enduring involvement and informativeness and entertainment was partially supported. This relationship was examined at two levels. It was examined at the aggregate level and by splitting enduring involvement into its component dimensions- importance and interest. On an aggregate level, enduring involvement was not significantly related to informativeness.

Similar results were observed when enduring involvement was examined in terms of its component dimensions of importance of and interest in the product. Neither importance nor interest were significantly related to

informativeness.

To see if the results held for all sites, these relationships were also examined at the brand level. For each site, the impact of enduring involvement and the component dimensions on the perceptions of informativeness was examined. However, there was no difference in the observed results. There was an insignificant relationship between enduring involvement and informativeness (at both the aggregate and component levels).

These results were somewhat unexpected. It was expected that enduring involvement would motivate the consumer to browse the web site, thereby increasing perceptions of informativeness. This was not supported. One explanation for this outcome may lie in the nature of the hypothesis. Enduring involvement was not expected to create perceptions of informativeness, it was expected to motivate the consumer to browse the site. In case the site did not have elements of informativeness built into it, consumers could not possibly perceive informativeness to exist within the site. Consequently, there was an insignificant relationship observed, between enduring involvement and informativeness. Alternately, involved consumers may already be knowledgeable about the brand. Consequently, they may not view the site as presenting information that is unknown and/or substantial (two dimensions of an informative site). Consequently, a consumer exhibiting high enduring involvement may not perceive the site to

be informative.

The relationship between enduring involvement and entertainment was partially supported. At an aggregate level enduring involvement was positively related to entertainment. However, importance and interest showed varying impact on perception of entertainment. Importance was not significantly related to entertainment, while interest was.

In the conceptual model, the differential impact of the dimensions of enduring involvement was not considered (past measures employing the scale found it to be unidimensional). When the two dimensions were related to entertainment, it was under the expectation that importance of, and interest in, the product would motivate the consumer to browse the web site, thereby uncovering sources for entertainment (same mechanism as for enduring involvement as a whole). However, this would only happen if there was entertainment built into the site. If elements of entertainment were not built into the site, importance could not possibly lead to perceptions of entertainment. Interest in the product, on the other hand, in addition to motivating the consumer to browse the site, could also make the site seem interesting. The respondent could evaluate this to mean that the site was entertaining. This could explain the observed relationship between interest and entertainment.

To examine generalizability of results, the study also examined these relationships at the site level. The results were unexpected. Enduring

involvement was not related to entertainment for the Levi site. At the dimensional level, neither importance nor interest were related to entertainment for the Levi site. On the surface these results seem surprising. However, as mentioned in the section on user familiarity, the site required high user familiarity with the Web to take advantage of the entertainment built into it. Therefore, the observed lack of relationship could be due to the varying familiarity of the respondents.

As far as the NBA and Prudential sites were concerned, enduring involvement was positively related to entertainment. However, at the dimensional level, interest was positively related to entertainment for the NBA site, while importance was not significantly related to it. The opposite was true for the Prudential site- importance was significantly related to entertainment while interest was not.

These results may be explained by an examination of the mean values of importance and interest for the two sites (table 30). The mean score on importance of the NBA to a respondent is 2.66 (low) while interest in the NBA is 3.48 (high). The opposite is observed for the Prudential site. There importance was 3.71 (high) while interest was 2.54 (low). These scores suggested the presence of a dual mechanism. Both, the importance of and interest in the product, provide motivation for the consumer to browse the site. This would suggest that consumers browsed the NBA site because they were interested in the NBA. Their interest could also have contributed

to the sense of entertainment. On the other hand, consumers browsed the Prudential site because they thought the site to be personally important. While browsing the site they may have found elements that were entertaining.

Table 30: Means for Importance and Interest for NBA and Prudential Sites

Site	Variable	N	Mean	Std Dev
NBA	IMPORTANCE	86	2.66	1.19
	INTEREST	85	3.48	1.24
Prudential	IMPORTANCE	86	3.71	1.10
	INTEREST	84	2.54	0.99

V. B. 4. PRIOR ATTITUDE TOWARD THE BRAND AND INFORMATIVENESS

An important outcome of the impact of individual differences on benefits was the positive relationship between prior attitude toward the brand and informativeness. While, it was postulated that the relationship would only be valid under high attitude confidence, this was not supported. The relationship held irrespective of the level of attitude confidence. This was an important result for managers. The finding makes the firm's task either more difficult (if prior attitude is negative) or easier (if prior attitude is positive). However, it must be remembered that the overall model (including prior attitude toward the brand) only explained 9% of the variation in informativeness. Consequently, it is possible for managers to build informativeness into the site and change the prior brand attitudes by

providing value to visitors. One way to effect such change would be by acknowledging consumer concerns (if prior attitude is negative). In such cases two sided messages may be better received by the consumer and more effective in improving the resultant perception of informativeness of the site (Belch 1983). Informativeness of the site would enhance value of the site, which in turn would improve consumer attitude toward the brand.

V. C. RELATIVE IMPACT OF BENEFITS ON VALUE

The relative impact of the benefits on value found only partial support in the results. There was significant support for the relative impact of informativeness and entertainment in determining value under product related situational involvement. It appears that consumers that browse sites consider informativeness a benefit (as indicated in the overall relationship between informativeness and value). The relative importance of informativeness in determining value increases when consumers are seeking specific information. However, it must be noted that entertainment is also a significant contributor to value and could compensate for non availability of the desired information.

The relative impact of informativeness versus entertainment may also be contrasted under low situational involvement (the Levi and NBA sites where there was no situational involvement). The test of equivalency of

regression coefficients (for informativeness and entertainment) was not significant for the NBA and Levi sites. In fact in each of these cases the regression coefficient for entertainment was larger than for informativeness. Only for the Prudential site did the impact of informativeness outweigh that of entertainment on value. This suggests that informativeness grows in importance under conditions of situational involvement.

Low enduring involvement did not appear to have any impact on the relative importance of entertainment and informativeness on value. The test of equivalency of regression coefficients was not significant. Entertainment was not more important than informativeness in determining value of the site. However, it is observed that under low involvement, entertainment was a significant contributor to value. Informativeness, on the other hand, was not related to value under low enduring involvement. Thus, even though the results were not statistically significant, the data suggests that entertainment has a greater impact (as compared to informativeness) on value under low enduring involvement.

V. D. VALUE AND ATTITUDINAL OUTCOMES

Value was significantly related to all the postulated attitudinal outcomes (attitude toward the brand, attitude toward the site, repeat visits, and continuity). The results showed that a site that was valued by the

consumer generated positive attitudes toward the brand and the site itself. This has an important implication for managers. One exposure to the web site can have a major impact on consumer attitude (though the duration of this impact is unknown). This highlights the effectiveness of *internet presence sites* in changing consumer attitudes.

The above mentioned findings raise some interesting questions about the mechanics of attitude formation. This dissertation did not examine how attitude toward the brand is developed. There is an entire stream of advertising literature that deals with attitude toward the brand and attitude toward the ad. It would be appropriate to examine if the existing models are applicable to the Web. The role of value of the site in the relationship between attitude toward the brand and attitude toward the site also merits further investigation.

Value also increased the probability of repeat visits, as well as consumer willingness to provide personal information to the firm. This has important implications for managers who want to attract customers and build long-term relationships with them. However, the above constructs are only intentions. It would be useful to examine the translation of these intentions into action (using longitudinal data).

V. E. MANAGERIAL IMPLICATIONS

This dissertation suggests that managers may fulfill important goals by providing value to consumers via its *internet presence site*. Providing value facilitates achievement of attitudinal outcomes (attitude toward the brand, attitude toward the site, repeat visits, and willingness to provide information) important to the firm.

Managing favorable attitudes is an important contributor to brand equity (Aaker 1996). Additionally, managers desire to build long term relationships with their customers. One way to achieve such relationships would be by encouraging consumers to visit their sites repeatedly. Further, to truly understand the consumer managers need personal information about them. This dissertation demonstrated that managers may achieve these objectives by providing value to the consumer.

This dissertation also enables managers to understand the contributors to value. Consumer perceptions of value are positively influenced by informativeness, entertainment, and control offered by the site. They are negatively influenced by irritation evoked by the site. Based on these findings, the firm can develop its site so as to maximize consumer perceptions of value.

Finally, research on value of *internet presence sites* can enable the firm to compare its site with that of its competitors. Firms can conduct research

regarding the value of *internet presence sites* in their industry. Gathering data on benefits and costs can help the firm study the strengths and weaknesses of their site with respect to competitor sites. Firms update their sites frequently. Longitudinal data would enable firms to track the impact of changes on consumer perceptions. It would provide signals for the firm to modify its own site as necessary.

V. F. LIMITATIONS AND FUTURE RESEARCH

A weakness of this dissertation was the inability of the proposed model to explain adequately variation in the benefits offered by the site. Future research is needed to attend to this issue. It is important for a firm to understand the elements of the site that contribute to perceptions of informativeness, entertainment, and control (because they contribute to value). This would enable the firm to design a site that better meets the consumer's needs.

A second weakness of this dissertation was the lack of generalizability of results. As mentioned before, using students to test the model restricts its generalizability. Replication with a more representative sample is desirable. Additionally, future studies can also examine generalizability by studying a greater number of sites. Specifically, future research needs to employ multiple *internet presence sites* (of both the information and image

type) to ensure generalizability of results to all *internet presence sites*.

Park, MacInnis, and Silverman (1996) argue that value is always viewed with respect to a reference point. In this dissertation, the reference point has been assumed as other sites. However, this may not always be true. For instance, when searching for information about a product relevant magazines may be referent alternatives to the site. When value of the site is examined in light to this alternative a more accurate picture of value may be obtained. Future research should attempt to understand the concept of referent alternatives and how they are developed by a consumer. This must then be incorporated into future studies of value of *internet presence sites*.

The role of interactivity in determining value needs greater attention. Future research needs to examine this relationship in greater detail. Specifically, future research needs to involve respondents in interaction with the firm's representatives. This would provide a stronger test of the relationship of interactivity with value.

Finally, in many cases the lines of distinction between an internet presence site and an online storefront are fading. For example, when the pretest was conducted the Tide web site was considered an internet presence site. However, by the time the final study was conducted the Tide site was selling related products and was considered an online storefront. In keeping with the pace of change, it must be reccommended that value also be examined for other kinds of sites. As mentioned in chapter II, web sites

may be classified into six different categories (internet presence sites, online storefronts, content sites, mall sites, incentive sites, and search agents). Future research needs to address the determinants of value for the other five categories of sites.

Appendix 1
Sites Employed as Stimuli in the Pretest

List of Sites	Web Address
1. Covergirl	http://www.covergirl.com
2. Levi	http://www.levi.com
3. Nike	http://www.nike.com
4. Kelloggs	http://www.kelloggs.com
5. Lee jeans	http://www.leejeans.com
6. Prudential	http://www.prudential.com
7. Imodium A.D.	http://www.imodium.com
8. NBA	http://www.nba.com
9. NBC	http://www.nbc.com
10.Tide	http://www.tide.com
11. Gap	http://www.gap.com

Appendix 2
Pretest Scale Items: Informativeness

No.	Item
1.	I learned something from this web site that I didn't know before about (brand name).
2.	The web site shows that there is nothing special about (brand name) that makes it different from the others. (R)
3.	The web site did not educate me about (product class). (R)
4.	I believe the claims made at this web site.
5.	The web site presented important facts about (brand name).
6.	The information provided in the web site was not adequate for my needs.(R)
7.	The information presented in the web site enables me to compare (brand name) with other brands.

Appendix 2a
Pretest Measure Assessment- Informativeness

Mean **Std. Dev.**	4.94 1.17
Reliability	Alpha = 0.75
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 2.2711 0.7274 0.6287 0.3727 Proportion 0.5678 0.1819 0.1572 0.0932 Cumulative 0.5678 0.7496 0.9068 1.0000
Factor1 Item S22 0.86523 The web site presented important facts about (brand name). SR44 0.74558 The information provided in the web site was not adequate for my needs.(R) S1 0.72312 I learned something from this web site that I didn't know before about (brand name). S13 0.66612 I believe the claims made at this web site.	
Validity	**Convergent:** The correlation between this scale and a single item scale for informativeness was 0.77. **Predictive:** The correlation between this scale and a single item scale for ability to make a purchase decision after visiting the site was 0.65. **Discriminant:** Factor analysis of the items for informativeness with the items for attitude confidence found that the items for informativeness loaded on a single factor.
Discriminant Validity	1 2 3 4 Eigenvalue 3.0508 2.2742 0.7307 0.5983 Proportion 0.3813 0.2843 0.0913 0.0748 Cumulative 0.3813 0.6656 0.7570 0.8318
Factor Loadings (Varimax Rotation)	FACTOR1 FACTOR2 F5 0.87025 -0.04374 F2 0.86902 0.05067 F1 0.86522 -0.01831 F6 0.85794 -0.08402 S22 -0.00449 0.86416 SR44 -0.03780 0.75841 S1 -0.12117 0.72510 S13 0.07000 0.66867

Appendix 3
Pretest Scale Items: Entertainment

No.	Item
1.	The web site was lots of fun to visit.
2.	I thought the site was clever.
3.	The site wasn't just selling the product- it was entertaining me and I appreciate that.
4.	It's the kind of web site that keeps running through your mind after you've seen it.
5.	I just laughed at it - I thought it very funny and good.
6.	The web site for (brand name) was extremely entertaining.

Appendix 3a
Pretest Measure Assessment: Entertainment

Mean **Std. Dev.**	4.21 1.35
Reliability	Alpha = 0.87
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 2.8878 0.5016 0.3292 0.2815 Proportion 0.7219 0.1254 0.0823 0.0704 Cumulative 0.7219 0.8473 0.9296 1.0000
Factor1 S11 0.88374 S2 0.86718 S26 0.85658 S9 0.78805	Item The site wasn't just selling the product- it was entertaining me and I appreciate that. The web site was lots of fun to visit. The web site was extremely entertaining. I thought the site was clever.
Validity	**Convergent**: The correlation between this scale and a single item scale for entertainment was 0.79. **Predictive**: The correlation between this scale and a single item scale for recommendation to a friend as a source of entertainment was 0.67. ***Discriminant***: *Factor analysis of the items for entertainment with the items for attitude confidence found that the items for entertainment loaded on a unique factor.*
Discriminant Validity	1 2 3 4 Eigenvalue 3.1106 2.8274 0.5459 0.4363 Proportion 0.3888 0.3534 0.0682 0.0545 Cumulative 0.3888 0.7423 0.8105 0.8650
Factor Loadings (Varimax Rotation)	FACTOR1 FACTOR2 F5 0.87458 0.01953 F1 0.87263 0.01448 F2 0.87008 0.05328 F6 0.86238 -0.02256 S11 0.09113 0.88250 S2 -0.00058 0.86635 S26 0.02682 0.86219 S9 -0.04577 0.78940

Appendix 4
Pretest Scale Items: Control

No.	Item
1.	I could sequence the visit through this web site as I wanted.
2.	I could view the contents of this site in the sequence that I desired.
3.	It was easy to navigate through the web site.
4.	The web site allowed me to work my way through it as I wanted to.
5.	Before I could see what I wanted to on this web site, I had to see pages that I was not interested in.
6.	I could regulate the time I spent at each segment of the web site.

Appendix 5
Pretest Scale Items: Irritation

No.	Item
1.	The web site was somewhat irritating.
2.	The web site was annoying.
3.	I found myself getting angry with the web site.
4.	This web site insults my intelligence.
5.	The contents of the web site made me feel restless.
6.	Some of the components of the web site were distasteful.

Appendix 5a
Pretest Measure Assessment: Irritation

Mean **Std. Dev.**	3.06 1.22
Reliability	Alpha = 0.83
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 2.6085 0.6248 0.4624 0.3044 Proportion 0.6521 0.1562 0.1156 0.0761 Cumulative 0.6521 0.8083 0.9239 1.0000
Factor1 Item S20 0.87847 The web site was annoying. S3 0.82408 The web site was somewhat irritating. S27 0.80916 I found myself getting angry with the web site. S35 0.70917 The contents of the web site made me feel restless.	
Validity	**Convergent**: The correlation between this scale and a single item scale for irritation was 0.66. **Predictive**: The correlation between this scale and a single item for wanting to tell off the firm was 0.44. **Discriminant**: Factor analysis of the items for irritation and attitude confidence found that the items for irritation loaded on a single factor.
Discriminant Validity	1 2 3 4 Eigenvalue 3.1433 2.4854 0.6336 0.4846 Proportion 0.3929 0.3107 0.0792 0.0606 Cumulative 0.3929 0.7036 0.7828 0.8434
Factor Loadings (Varimax Rotation)	FACTOR1 FACTOR2 F2 0.87954 -0.00146 F1 0.86950 0.03358 F5 0.86058 0.05759 F6 0.85409 0.06826 S20 0.00422 0.88519 S3 0.05189 0.82275 S27 0.10831 0.79982 S35 -0.01065 0.71073

Appendix 6
Pretest Scale Items: Computer Anxiety

No.	Item
1.	Computers do not worry me.(R)
2.	I enjoy working with computers.(R)
3.	I like to use computers.(R)
4.	Working with computers is fun for me.(R)
5.	I look forward to working with computers.(R)
6.	I prefer to work with computers as opposed to any other tool.(R)
7.	I feel uncomfortable working with computers.
8.	I feel awkward around computers.
9.	Working with computers is an unpleasant experience for me.
10.	Computers make me nervous.

Appendix 6a
Pretest Measure Assessment: Computer Anxiety

Mean	2.19				
Std. Dev.	1.22				
Reliability	Alpha = 0.87				
Dimensionality (Factor Analysis)		1	2	3	4
	Eigenvalue	2.8667	0.5424	0.3541	0.2368
	Proportion	0.7167	0.1356	0.0885	0.0592
	Cumulative	0.7167	0.8523	0.9408	1.0000
	Factor1	Item			
CA2	0.90444	I feel awkward around computers.			
CA4	0.86006	Computers make me nervous			
CA3	0.84791	Working with computers is an unpleasant experience for me.			
CA1	0.76816	I feel uncomfortable working with computers.			
Validity		**Convergent**: The correlation between this scale and a single item scale for computer anxiety was 0.61. **Predictive**: The correlation between this scale and a single item scale for computer usage was 0.27. **Discriminant**: Factor analysis of the individual differences and value found that the items for computer anxiety loaded on a single factor (see appendix 7).			

Appendix 7

Pretest Discriminant Validity: Involvement, Attitude toward the brand, *Attitude Confidence, Computer Anxiety, and Value*

Discriminant Validity		1	2	3	4	5	6
	Eigenvalue	7.8466	3.1781	2.8431	2.5421	1.7884	1.3209
	Proportion	0.3139	0.1271	0.1137	0.1017	0.0715	0.0528
	Cumulative	0.3139	0.4410	0.5547	0.6564	0.7279	0.7808
Factor Loadings (Varimax Rotation)		Factor1	Factor2	Factor3	Factor4	Factor5	Factor6
	I3	0.87092	0.30010	0.13818	-0.02615	0.05533	0.08700
	I1	0.86422	0.28528	0.10843	0.00455	0.05058	0.14250
	I6	0.86316	0.27284	0.13095	0.01588	0.06902	0.13466
	IN2	0.83726	0.26790	0.07865	0.03387	0.11636	0.07152
	IN10	0.79616	0.34226	0.08210	0.01972	0.12187	0.14992
	IN9	0.23324	0.83335	0.10707	-0.00675	0.06467	0.08700
	IN5	0.26458	0.82635	0.08760	-0.01307	0.09764	0.09698
	I7	0.27119	0.78841	0.16668	-0.02584	-0.06019	0.05510
	IN4	0.40654	0.75434	0.15093	0.02563	0.11206	0.08007
	I8	0.34152	0.73735	0.14756	-0.07463	-0.07165	0.07148
	F6	0.12792	0.05829	0.86277	0.02085	-0.01546	0.04860
	F5	0.13160	0.12479	0.84596	0.04424	-0.05023	0.10519
	F2	0.05733	0.14390	0.82283	-0.02287	0.04487	0.24658
	F1	0.11750	0.22604	0.79550	0.01470	-0.02463	0.23074
	CA2	-0.01442	-0.03549	0.02824	0.89988	-0.01626	0.04440
	CA4	-0.00831	0.03466	0.06035	0.87554	-0.01904	-0.06838
	CA3	-0.03627	-0.12246	0.06312	0.85278	-0.04235	-0.00753
	CA1	0.08032	0.04441	-0.08666	0.74304	-0.02565	-0.00890
	V33	0.07691	0.03350	-0.04780	-0.03046	0.86975	0.04672
	V37	0.02005	-0.02591	0.04987	-0.02165	0.83097	0.00803
	V28	0.09890	0.17317	-0.02379	-0.01010	0.81786	-0.04623
	V15	0.09137	-0.05809	-0.02358	-0.04033	0.79277	0.03501
	AB2	0.15643	0.09275	0.17865	-0.01257	-0.01120	0.93491
	AB3	0.17073	0.09270	0.20570	-0.01479	0.00171	0.92318
	RAB1	0.12479	0.12123	0.20155	-0.01975	0.05996	0.91923

Appendix 8
Pretest Scale Items: Enduring Involvement

important	__ : __ : __ : __ : __ : __ : __	unimportant
irrelevant	__ : __ : __ : __ : __ : __ : __	relevant
means a lot to me	__ : __ : __ : __ : __ : __ : __	means nothing to me
unexciting	__ : __ : __ : __ : __ : __ : __	exciting
dull	__ : __ : __ : __ : __ : __ : __	neat
matters to me	__ : __ : __ : __ : __ : __ : __	doesn't matter to me
fun	__ : __ : __ : __ : __ : __ : __	not fun
appealing	__ : __ : __ : __ : __ : __ : __	unappealing
boring	__ : __ : __ : __ : __ : __ : __	interesting
of no concern to me	__ : __ : __ : __ : __ : __ : __	of concern to me

Appendix 8a
Pretest Measure Assessment: Enduring Involvement

Mean **Std. Dev.**	4.70 (4.97 for Importance and 4.43 for interest) 1.54 (1.77 for Importance and 1.57 for interest)
Reliability	Alpha = 0.92 (0.96 for imp and 0.92 for int)
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 6.7447 1.2833 0.4457 0.3532 Proportion 0.6745 0.1283 0.0446 0.0353 Cumulative 0.6745 0.8028 0.8474 0.8827
Factor1 Factor2 I1 0.87919 0.30256 I6 0.86735 0.33583 I3 0.86091 0.36816 IN2 0.85564 0.31140 IN10 0.83205 0.35595 IN9 0.26907 0.84558 I7 0.26829 0.82592 IN5 0.32674 0.81730 IN4 0.36413 0.80068 I8 0.37890 0.73492	Item important __ : __ : __ : __ : __ : __ : __ unimportant (R) matters to me __ : __ : __ : __ : __ : __ : __ doesn't matter to me means a lot to me __ : __ : __ : __ : __ : __ : __ means nothing to me (R) irrelevant __ : __ : __ : __ : __ : __ : __ relevant of no concern to me __ : __ : __ : __ : __ : __ : __ of concern to me unexciting __ : __ : __ : __ : __ : __ : __ exciting boring __ : __ : __ : __ : __ : __ : __ interesting dull __ : __ : __ : __ : __ : __ : __ neat fun __ : __ : __ : __ : __ : __ : __ not fun (R) appealing __ : __ : __ : __ : __ : __ : __ unappealing (R)
Validity	**Convergent**: The correlation between this scale and a single item scale for enduring involvement was 0.55. **Predictive**: The correlation between this scale and a single item scale for product knowledge was 0.51. **Discriminant**: Factor analysis of the items for individual differences and value found that the items for enduring involvement loaded on two factors (for results see appendix 7)

Appendix 9
Pretest Scale Items: Attitude toward the brand

negative	__ : __ : __ : __ : __ : __ : __	positive
good	__ : __ : __ : __ : __ : __ : __	bad
favorable	__ : __ : __ : __ : __ : __ : __	unfavorable

Appendix 9a
Pretest Measure Assessment: Attitude toward the Brand

Mean **Std. Dev.**	5.12 1.56
Reliability	Alpha = 0.96
Dimensionality (Factor Analysis)	1 2 3 Eigenvalue 2.7579 0.1408 0.1013 Proportion 0.9193 0.0469 0.0338 Cumulative 0.9193 0.9662 1.0000
Factor1 AB3 0.96451 AB2 0.95974 RAB1 0.95213	Item favorable __ : __ : __ : __ : __ : __ : __ unfavorable(R) good __ : __ : __ : __ : __ : __ : __ bad(R) negative __ : __ : __ : __ : __ : __ : __ positive
Validity	**Convergent:** The correlation between this scale and a single item scale for attitude toward the brand was 0.69. **Predictive:** The correlation between this scale and a single item scale for purchase intention was 0.59. **Discriminant:** Factor analysis of the items for individual differences and value found that the items for attitude toward the brand loaded on a single factor (see appendix 7).

Appendix 10
Pretest Scale Items: Attitude Confidence

No.	Item
1.	I know a great deal about this brand.
2.	I have used this brand in the past.
3.	I know more about _____ than my friends.
4.	I am not very informed about this brand (R).
5.	I consider myself to be an expert on this brand.
6.	I know more about (brand name) than most other people.

Appendix 10a
Measure Assessment: Attitude Confidence

Mean **Std. Dev.**	2.99 1.55
Reliability	Alpha = 0.85
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 3.0600 0.4136 0.3272 0.1992 Proportion 0.7650 0.1034 0.0818 0.0498 Cumulative 0.7650 0.8684 0.9502 1.0000
Factor1 F6 0.87969 F2 0.87835 F5 0.87818 F1 0.86223	Item I know more about (brand name) than most other people. I have used this brand in the past. I consider myself to be an expert on (brand name). I know a great deal about this brand.
Validity	**Convergent**: The correlation between this scale and a single item scale for attitude confidence was 0.52. **Predictive**: The correlation between this scale and a single item scale for need for more information to make a purchase decision was 0.14. **Discriminant**: Factor analysis of the individual differences and value found that the items for attitude confidence loaded on a single factor (see appendix 7).

Appendix 11
Pretest Scale Items: Value

No.	Item
1.	The web site for _____ was valuable.
2.	The web site was useful.
3.	It was worth all the effort to visit this web site.
4.	The benefits received from the web site were worth the costs incurred in visiting it.
5.	Compared to other web sites this one provided exceptional value.
6.	This is one of the best web sites that I have visited.
7.	I cannot think of a web site that was good as this one.
8.	The costs that I incurred exceeded the benefits I received from this web site.

Appendix 11a
Pretest Measure Assessment: Value

Mean **Std. Dev.**	4.24 1.30
Reliability	Alpha = 0.84
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 2.7298 0.4815 0.4356 0.3531 Proportion 0.6824 0.1204 0.1089 0.0883 Cumulative 0.6824 0.8028 0.9117 1.0000
Factor1 V33 0.85483 V28 0.82818 V37 0.82537 V15 0.79495	Item The benefits received from the web site were worth the costs incurred in visiting it. It was worth all the effort to visit this web site. Compared to other web sites this one provided exceptional value. The web site for (brand name) was valuable.
Validity	**Convergent**: The correlation between this scale and a single item scale for value was 0.81. **Predictive**: The correlation between this scale and a single item scale for satisfaction with the site was 0.77. **Discriminant**: Factor analysis of the items for individual differences and value found that the items for value loaded on a single factor (see appendix 7).

Appendix 12
Pretest Scale Items: Attitude toward the site

attractive	__ : __ : __ : __ : __ : __ : __	not attractive
bad	__ : __ : __ : __ : __ : __ : __	good
unpleasant	__ : __ : __ : __ : __ : __ : __	pleasant
appealing	__ : __ : __ : __ : __ : __ : __	unappealing
dull	__ : __ : __ : __ : __ : __ : __	dynamic
depressing	__ : __ : __ : __ : __ : __ : __	refreshing
enjoyable	__ : __ : __ : __ : __ : __ : __	unenjoyable

Appendix 12a
Pretest Measure Assessment: Attitude toward the Site

Mean
Std. Dev.

4.91
1.38

Reliability

Alpha = 0.96

Dimensionality (Factor Analysis)

	1	2	3	4
Eigenvalue	5.6045	0.4775	0.2508	0.2142
Proportion	0.8006	0.0682	0.0358	0.0306
Cumulative	0.8006	0.8689	0.9047	0.9353

	Factor1	Item		
AS3	0.92109	pleasant	__ : __ : __ : __ : __ : __ : __	unpleasant(R)
AS2	0.91885	bad	__ : __ : __ : __ : __ : __ : __	good
AS1	0.90332	not attractive	__ : __ : __ : __ : __ : __ : __	attractive
AS7	0.90301	enjoyable	__ : __ : __ : __ : __ : __ : __	unenjoyable(R)
AS4	0.89411	unappealing	__ : __ : __ : __ : __ : __ : __	appealing
AS5	0.87804	dynamic	__ : __ : __ : __ : __ : __ : __	dull(R)
AS6	0.84264	depressing	__ : __ : __ : __ : __ : __ : __	refreshing

Validity

Convergent: The correlation between this scale and a single item scale for attitude toward the site was 0.77.
Predictive: The correlation between this scale and a single item scale for attitude toward the firm was 0.57.
Discriminant: Factor analysis of the items for attitude toward the site and attitude confidence found that the items for attitude toward the site loaded on a single factor.

Discriminant Validity

	1	2	3	4
Eigenvalue	5.6139	3.0145	0.4973	0.4442
Proportion	0.5104	0.2740	0.0452	0.0404
Cumulative	0.5104	0.7844	0.8296	0.8700

Factor Loadings (Varimax Rotation)

	FACTOR1	FACTOR2
AS3	0.92071	0.00729
AS2	0.91927	0.03722
AS7	0.90530	-0.07258
AS1	0.90435	0.05482
AS4	0.89360	0.01753
AS5	0.87699	-0.00838
AS6	0.84218	-0.02202
F1	-0.01705	0.87003
F5	0.02294	0.86902
F6	0.04197	0.86369
F2	-0.06475	0.86361

Appendix 13
Pretest Scale Items: Repeat Visits

No.	Item
1.	I cannot see myself returning to this web site.(R)
2.	The only way I will visit this web site again is if I am forced to.(R)
3.	There are some features of the web site that I want to experience again.
4.	The likelihood of my coming back to this web site is high
5.	The next time I am on the web I will come back to this site.

Appendix 13a
Pretest Measure Assessment: Repeat Visits

Mean **Std. Dev.**	3.96 1.62
Reliability	Alpha = 0.92
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 3.1909 0.3621 0.3018 0.1451 Proportion 0.7977 0.0905 0.0755 0.0363 Cumulative 0.7977 0.8883 0.9637 1.0000
Factor1 S17 0.92868 S12 0.91572 S5 0.87664 SR34 0.84939	Item The likelihood of my coming back to this web site is high. The next time I am on the web I will come back to this site. There are some features of the web site that I want to experience again. I cannot see myself returning to this web site.(R)
Validity	**Convergent**: The correlation between this scale and a single item scale for repeat visits was 0.90. **Predictive**: The correlation between this scale and a single item scale for intention to bookmark the site was 0.79. **Discriminant**: Factor analysis of the items for repeat visits and attitude confidence found that the items for repeat visits loaded on a single factor.
Discriminant Validity	1 2 3 4 Eigenvalue 3.4527 2.7675 0.4643 0.3710 Proportion 0.4316 0.3459 0.0580 0.0464 Cumulative 0.4316 0.7775 0.8356 0.8820
Factor Loadings (Varimax Rotation)	FACTOR1 FACTOR2 S17 0.92879 0.05599 S12 0.91124 0.08438 S5 0.87632 0.01866 SR34 0.86353 0.02700 F5 0.01080 0.86601 F1 0.04853 0.86600 F6 0.00821 0.86365 F2 0.11250 0.86099

Appendix 14
Pretest Scale Items: Willingness to provide information

No.	Item
1.	There is no way I would fill out a questionnaire for this firm online.(R)
2.	I would fill out a questionnaire at this web site.
3.	I would register myself at this web site.
4.	I cannot see myself providing any personal information to this firm at its web site.(R)
5.	I see no reason to register myself at this web site.
6.	The quality of the web site makes me want to register at this web site.
7.	After seeing this web site I feel obligated to help the firm by filling out an online questionnaire for them.

Appendix 14a
Pretest Measure Assessment: Willingness to Provide Information

Mean **Std. Dev.**	4.25 1.13
Reliability	Alpha = 0.86
Dimensionality (Factor Analysis)	1 2 3 4 Eigenvalue 2.8178 0.5776 0.3462 0.2584 Proportion 0.7045 0.1444 0.0865 0.0646 Cumulative 0.7045 0.8489 0.9354 1.0000
Factor1 S29 0.87360 SR40 0.84166 SR39 0.82119 S23 0.81971	Item I would fill out a questionnaire at this web site. I see no reason to register myself at this web site.(R) I cannot see myself providing any personal information to this firm at its web site.(R) After seeing this web site I feel obligated to help the firm by filling out an online questionnaire for them.
Validity	**Convergent**: The correlation between this scale and a single item scale for willingness to provide information was 0.76. **Predictive**: The correlation between this scale and a single item scale for attitude toward the firm was 0.55. **Discriminant**: Factor analysis of the items for willingness to provide information and attitude confidence found that the items for willingness to provide information loaded on a single factor (factor 2 below).
Discriminant Validity	1 2 3 4 Eigenvalue 3.1688 2.6945 0.5552 0.4701 Proportion 0.3961 0.3368 0.0694 0.0588 Cumulative 0.3961 0.7329 0.8023 0.8611
Factor Loadings (Varimax Rotation)	Factor 1 Factor2 F5 0.87380 0.03850 F2 0.86619 0.06646 F1 0.86524 0.02805 F6 0.85997 0.00144 S29 -0.01001 0.87489 SR40 0.04504 0.84331 S23 0.01899 0.82764 SR39 0.07511 0.82755

Appendix 15

Results- Value as a Function of Informativeness, Entertainment, Control, Interactivity, and Irritation

R-square: 0.7603

Overall Model

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	5	156.37777	31.27555	139.959	0.0001
Error	214	47.82109	0.22346		
C Total	219	204.19886			

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > |T|
INTERCEP	1	0.264612	0.31467405	0.841	0.4013
INFORM	1	0.512228	0.06776694	7.559	0.0001
ENTER	1	0.337623	0.04892631	6.901	0.0001
IRRITATE	1	-0.146715	0.05295939	-2.770	0.0061
CONTROL	1	0.136138	0.05898337	2.308	0.0220
INTER	1	-0.237910	0.06801301	-3.498	0.0006

Appendix 16

Results- Informativeness as a Function of Enduring Involvement, Prior Attitude toward the Brand, Computer Anxiety, User Familiarity

R-square: 0.09

Overall Model

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	13.34276937	2.22379490	3.74	0.0014
Error	227	134.93500841	0.59442735		
C Total	233	148.27777778			

Parameter Estimates

Parameter	Estimate	T for H0: Parameter = 0	Pr > |T|	Std Error of Estimate
INTERCEPT	2.467320033	7.07	0.0001	0.34886463
COMPANX	-0.024866188	-0.32	0.7491	0.07764697
ENDINV	-0.014406322	-0.22	0.8256	0.06529971
PABRAND	0.228103975	3.09	0.0023	0.07384346
(PABRAND * ATTCONF)	-0.007057572	-0.45	0.6527	0.01566087
MODUF	0.308854178	1.52	0.1300	0.20325286
HIUF	0.493236184	2.38	0.0181	0.20718986

Appendix 17

Results- Informativeness as a Function of Importance of Product, Interest in Product, Prior Attitude toward the Brand, Computer Anxiety, User Familiarity

R-square: 0.09

Overall Model

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	13.88524703	1.98360672	3.34	0.0021
Error	226	134.39253075	0.59465722		
Ctotal	233	148.27777778			

Parameter Estimates

Parameter	Estimate	T for H0: Parameter=0	Pr > |T|	Std Error of Estimate
INTERCEPT	2.449952799	7.01	0.0001	0.34940554
COMPANX	-0.027475866	-0.35	0.7240	0.07771003
IMPORT	0.030977534	0.60	0.5490	0.05161792
INTEREST	-0.054560150	-0.92	0.3591	0.05937026
PABRAND	0.233109724	3.15	0.0019	0.07404345
(PABRAND* ATTCONF)	-0.005422857	-0.34	0.7311	0.01575713
MODUF	0.327276009	1.60	0.1104	0.20420506
HIUF	0.506123282	2.44	0.0156	0.20766870

Appendix 18

Results- Entertainment as a Function of Enduring Involvement, Computer Anxiety, User Familiarity

R-square	0.13					
Overall Model	Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
	Model	4	33.37959	8.34490	10.005	0.0001
	Error	238	198.51290	0.83409		
	C Total	242	231.89249			
Parameter Estimates	Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > |T|
	INTERCEP	1	1.350221	0.36578536	3.691	0.0003
	COMPANX	1	0.023513	0.08736429	0.269	0.7881
	ENDINV	1	0.332501	0.05875460	5.659	0.0001
	MODUF	1	0.690188	0.25107998	2.749	0.0064
	HIUF	1	0.752147	0.25493532	2.950	0.0035

Appendix 19

Results- Entertainment as a Function of Importance of Product, Interest in Product, Computer Anxiety, User Familiarity

R-square	0.14					
Overall Model	Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
	Model	5	36.49039	7.29808	8.852	0.0001
	Error	237	195.40210	0.82448		
	C Total	242	231.89249			
Parameter Estimates	Variable	DF |T|	Parameter Estimate	Standard Error	T for HO: Parameter=0	Prob >
	INTERCEP	1	1.392454	0.36432220	3.822	0.0002
	COMPANX	1	0.023890	0.08685995	0.275	0.7835
	IMPORT	1	0.069211	0.05786943	1.196	0.2329
	INTEREST	1	0.268258	0.06009152	4.464	0.0001
	MODUF	1	0.636367	0.25116294	2.534	0.0119
	HIUF	1	0.702448	0.25475111	2.757	0.0063

Appendix 20

Results- Control as a Function of Computer Anxiety, User Familiarity

R-square	0.03					
Overall Model	Source	DF	Sum of Squares	Mean Square	F Value	Prob > F
	Model	3	5.18103	1.72701	3.156	0.0255
	Error	238	130.25633	0.54730		
	C Total	241	135.43736			
Parameter Estimates	Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter = 0	Prob > |T|
	INTERCEP	1	3.064306	0.24250465	12.636	0.0001
	COMPANX	1	-0.032443	0.07083927	-0.458	0.6474
	MODUF	1	0.319358	0.20937097	1.525	0.1285
	HIUF	1	0.522878	0.21265604	2.459	0.0147

Appendix 21

Results- Relative Impact of Benefits on Value under Situational Involvement

R-square

0.79

Overall Model

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	4	55.99942	13.99986	68.648	0.0001
Error	67	13.66377	0.20394		
C Total	71	69.66319			

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for HO: Parameter=0	Prob > |T|
INTERCEP	1	0.494379	0.53986713	0.916	0.3631
INFORM	1	0.624874	0.12066219	5.179	0.0001
ENTER	1	0.309379	0.09632055	3.212	0.0020
IRRITATE	1	-0.216737	0.08893514	-2.437	0.0175
CONTROL	1	0.071171	0.11086812	0.642	0.5231

Test of Equivalency of Regression Coefficients

Informativeness vs Entertainment

Test:	Numerator:	0.5919	DF: 1	F value:	2.9025
	Denominator:	0.203937	DF: 67	Prob>F:	0.0466

Appendix 22

Results- Relative Impact of Benefits on Value under Low Enduring Involvement

R-square: 0.69

Overall Model

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	4	30.00775	7.50194	27.881	0.0001
Error	44	11.83919	0.26907		
C Total	48	41.84694			

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for HO: Parameter=0	Prob > |T|
INTERCEP	1	0.579909	0.63730669	0.910	0.3678
INFORM	1	0.210151	0.15610257	1.346	0.1851
ENTER	1	0.482515	0.10418352	4.631	0.0001
IRRITATE	1	-0.317440	0.11847232	-2.679	0.0103
CONTROL	1	0.236734	0.12000082	1.973	0.0548

Test of Equivalency of Regression Coefficients

Informativeness vs Entertainment

Test: Numerator: 0.3739 DF: 1 F value: 1.3896
Denominator: 0.269072 DF: 44 Prob>F: 0.1224

Appendix 23
Correlation Matrix

	Companx	Attconf	Endinv	Pabrand	Inform
Companx	1.00000	-0.16720	-0.12745	-0.11570	-0.06999
	0.0000	0.0079	0.0432	0.0640	0.2742
	258	251	252	257	246
Attconf	-0.16720	1.00000	0.47347	0.46561	0.10156
	0.0079	0.0000	0.0001	0.0001	0.1166
	251	251	245	250	240
Endinv	-0.12745	0.47347	1.00000	0.58208	0.16794
	0.0432	0.0001	0.0000	0.0001	0.0089
	252	245	252	251	242
Pabrand	-0.11570	0.46561	0.58208	1.00000	0.23509
	0.0640	0.0001	0.0001	0.0000	0.0002
	257	250	251	257	245
Inform	-0.06999	0.10156	0.16794	0.23509	1.00000
	0.2742	0.1166	0.0089	0.0002	0.0000
	246	240	242	245	246
Enter	-0.10214	0.36661	0.34240	0.34485	0.65845
	0.1065	0.0001	0.0001	0.0001	0.0001
	251	244	246	250	239
Irritate	0.16373	-0.30449	-0.27499	-0.32056	-0.60046
	0.0091	0.0001	0.0001	0.0001	0.0001
	253	246	247	252	244
Repeat	-0.09229	0.32681	0.40359	0.33646	0.71911
	0.1448	0.0001	0.0001	0.0001	0.0001
	251	245	245	250	242
Value	-0.08284	0.24879	0.30471	0.28334	0.81055
	0.1926	0.0001	0.0001	0.0001	0.0001
	249	243	243	248	239

	Companx	Attconf	Endinv	Pabrand	Inform
Wpinfo	0.05310 0.4003 253	0.17279 0.0065 247	0.30788 0.0001 247	0.27938 0.0001 252	0.55532 0.0001 243
Control	-0.10244 0.1097 245	0.13028 0.0447 238	0.10373 0.1090 240	0.11818 0.0653 244	0.64175 0.0001 237
Sabrand	-0.16216 0.0147 226	0.26063 0.0001 220	0.37413 0.0001 221	0.40498 0.0001 225	0.69381 0.0001 219
Attsite	-0.12348 0.0493 254	0.33466 0.0001 247	0.33055 0.0001 248	0.37523 0.0001 253	0.65798 0.0001 244

	Enter	Irritate	Repeat	Value	Wpinfo
Companx	-0.10214 0.1065 251	0.16373 0.0091 253	-0.09229 0.1448 251	-0.08284 0.1926 249	0.0531 0.4003 253
Attconf	0.36661 0.0001 244	-0.30449 0.0001 246	0.32681 0.0001 245	0.24879 0.0001 243	0.17279 0.0065 247
Endinv	0.34240 0.0001 246	-0.27499 0.0001 247	0.40359 0.0001 245	0.30471 0.0001 243	0.30788 0.0001 247
Pabrand	0.34485 0.0001 250	-0.32056 0.0001 252	0.33646 0.0001 250	0.28334 0.0001 248	0.27938 0.0001 252
Inform	0.65845 0.0001 239	-0.60046 0.0001 244	0.71911 0.0001 242	0.81055 0.0001 239	0.55532 0.0001 243

	Enter	Irritate	Repeat	Value	Wpinfo
Enter	1.00000 0.0000 251	-0.67228 0.0001 246	0.76217 0.0001 245	0.76965 0.0001 243	0.60412 0.0001 246
Irritate	-0.67228 0.0001 246	1.00000 0.0000 253	-0.66622 0.0001 248	-0.66238 0.0001 246	-0.48556 0.0001 250
Repeat	0.76217 0.0001 245	-0.66622 0.0001 248	1.00000 0.0000 251	0.82401 0.0001 244	0.66989 0.0001 248
Value	0.76965 0.0001 243	-0.66238 0.0001 246	0.82401 0.0001 244	1.00000 0.0000 249	0.66663 0.0001 247
Wpinfo	0.60412 0.0001 246	-0.48556 0.0001 250	0.66989 0.0001 248	0.66663 0.0001 247	1.00000 0.0000 253
Control	0.53634 0.0001 238	-0.52599 0.0001 242	0.52859 0.0001 240	0.6473 0.0001 238	0.40564 0.0001 242
Sabrand	0.67787 0.0001 219	-0.60514 0.0001 224	0.66201 0.0001 221	0.73624 0.0001 221	0.54776 0.0001 225
Attsite	0.79088 0.0001 247	-0.69251 0.0001 251	0.71553 0.0001 249	0.73779 0.0001 247	0.56412 0.0001 251

	Control	Sabrand	Attsite
Companx	-0.10244 0.1097 245	-0.16216 0.0147 226	-0.12348 0.0493 254

	Control	Sabrand	Attsite
Attconf	0.13028	0.26063	0.33466
	0.0447	0.0001	0.0001
	238	220	247
Endinv	0.10373	0.37413	0.33055
	0.109	0.0001	0.0001
	240	221	248
Pabrand	0.11818	0.40498	0.37523
	0.0653	0.0001	0.0001
	244	225	253
Inform	0.64175	0.69381	0.65798
	0.0001	0.0001	0.0001
	237	219	244
Enter	0.53634	0.67787	0.79088
	0.0001	0.0001	0.0001
	238	219	247
Irritate	-0.52599	-0.60514	-0.69251
	0.0001	0.0001	0.0001
	242	224	251
Repeat	0.52859	0.66201	0.71553
	0.0001	0.0001	0.0001
	240	221	249
Value	0.6473	0.73624	0.73779
	0.0001	0.0001	0.0001
	238	221	247
Wpinfo	0.40564	0.54776	0.56412
	0.0001	0.0001	0.0001
	242	225	251
Control	1.00000	0.55834	0.58272
	0.0000	0.0001	0.0001
	245	217	243

	Control	Sabrand	Attsite
Sabrand	0.55834	1.00000	0.77127
	0.0001	0.0000	0.0001
	217	226	224
Attsite	0.58272	0.77127	1.00000
	0.0001	0.0001	0.0000
	243	224	254

Key of Terms

Attconf = Attitude Confidence
Attsite = Attitude Toward the Site
Companx = Computer Anxiety
Control = Control
Endinv = Enduring Involvement
Enter = Entertainment
Inform = Informativeness
Irritate = Irritation
Pabrand = Prior Attitude Toward the Brand
Repeat = Repeat Visits
Sabrand = Attitude Toward the Brand (after visiting the web sites)
Value = Value
Wpinfo = Willingness to Provide Information

Appendix 24
Questionnaire (In Class)

Survey Research

This questionnaire deals with your interest in the world wide web and brands that are presented on it. The research being conducted here will have important implications for firms developing sites on the world wide web.

Please take a few minutes and fill out the attached questionnaire. It is very important that you take this exercise seriously.

Please note that this exercise is purely optional. This questionnaire represents the first step of the exercise. This will be followed by a session in the computer lab where you will be asked to view some web sites.

All responses will be kept confidential.

Thank you, in advance, for your cooperation.

Respondent code: _____

Survey

Important:
1. Be sure that you respond to each question.
2. Never circle or check more than one option on a single item.

I. The following statements refer to your impressions about computers and different brands. Please indicate your degree of agreement/disagreement to the following statements. For instance, circling 5 would indicate that you strongly agree with the statement, while 1 would indicate strong disagreement with the statement.

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5

1.	I feel uncomfortable working with computers.	1	2	3	4	5
2.	I know a great deal about Prudential life insurance.	1	2	3	4	5
3.	I have used Levi's jeans in the past.	1	2	3	4	5
4.	I consider myself to be an expert on NBA basketball.	1	2	3	4	5
5.	I know more about Prudential life insurance than most other people.	1	2	3	4	5
6.	I feel awkward around computers.	1	2	3	4	5
7.	I know a great deal about NBA basketball.	1	2	3	4	5
8.	I have used Prudential insurance in the past.	1	2	3	4	5
9.	I consider myself to be an expert on Levi's jeans.	1	2	3	4	5
10.	I know more about NBA basketball than most other people.	1	2	3	4	5
11.	Working with computers is an unpleasant experience for me.	1	2	3	4	5
12.	I know a great deal about Levi's jeans.	1	2	3	4	5
13.	I have viewed NBA basketball in the past.	1	2	3	4	5
14.	Computers make me nervous.	1	2	3	4	5
15.	I consider myself to be an expert on Prudential life insurance.	1	2	3	4	5
16.	I know more about Levi's jeans than most other people.	1	2	3	4	5

II. **Involvement:** Please indicate your *personal involvement* with the products listed below by responding to the following questions. If you feel that, for you, the product is very closely related to one end of the scale you should place your check marks as follows:

important _____ : _____ : _____ : _____ : _____ unimportant

or

important _____ : _____ : _____ : _____ : _____ unimportant

If you feel that, for you, the product is quite closely related to one end of the scale (but not extremely) you should place your check marks as follows:

important _____ : _____ : _____ : _____ : _____ unimportant

or

important _____ : _____ : _____ : _____ : _____ unimportant

Product: **Jeans**

important	____ : ____ : ____ : ____ : ____	unimportant
irrelevant	____ : ____ : ____ : ____ : ____	relevant
means a lot to me	____ : ____ : ____ : ____ : ____	means nothing to me
unexciting	____ : ____ : ____ : ____ : ____	exciting
dull	____ : ____ : ____ : ____ : ____	neat
matters to me	____ : ____ : ____ : ____ : ____	doesn't matter to me
fun	____ : ____ : ____ : ____ : ____	not fun
appealing	____ : ____ : ____ : ____ : ____	unappealing
boring	____ : ____ : ____ : ____ : ____	interesting
of no concern to me	____ : ____ : ____ : ____ : ____	of concern to me

Product: **NBA Basketball**

important	____ : ____ : ____ : ____ : ____	unimportant
irrelevant	____ : ____ : ____ : ____ : ____	relevant
means a lot to me	____ : ____ : ____ : ____ : ____	means nothing to me
unexciting	____ : ____ : ____ : ____ : ____	exciting
dull	____ : ____ : ____ : ____ : ____	neat
matters to me	____ : ____ : ____ : ____ : ____	doesn't matter to me
fun	____ : ____ : ____ : ____ : ____	not fun
appealing	____ : ____ : ____ : ____ : ____	unappealing
boring	____ : ____ : ____ : ____ : ____	interesting
of no concern to me	____ : ____ : ____ : ____ : ____	of concern to me

Product: **Life Insurance**

important	____ : ____ : ____ : ____ : ____	unimportant
irrelevant	____ : ____ : ____ : ____ : ____	relevant
means a lot to me	____ : ____ : ____ : ____ : ____	means nothing to me
unexciting	____ : ____ : ____ : ____ : ____	exciting
dull	____ : ____ : ____ : ____ : ____	neat
matters to me	____ : ____ : ____ : ____ : ____	doesn't matter to me
fun	____ : ____ : ____ : ____ : ____	not fun
appealing	____ : ____ : ____ : ____ : ____	unappealing
boring	____ : ____ : ____ : ____ : ____	interesting
of no concern to me	____ : ____ : ____ : ____ : ____	of concern to me

III. In the same manner as the previous scale please indicate *your impressions* of the following brands.

Brand: **Levi's jeans**

negative	____ : ____ : ____ : ____ : ____	positive
good	____ : ____ : ____ : ____ : ____	bad
favorable	____ : ____ : ____ : ____ : ____	unfavorable

Brand: **NBA basketball**

negative	____ : ____ : ____ : ____ : ____	positive
good	____ : ____ : ____ : ____ : ____	bad
favorable	____ : ____ : ____ : ____ : ____	unfavorable

Brand: **Prudential Life Insurance**

negative	____ : ____ : ____ : ____ : ____	positive
good	____ : ____ : ____ : ____ : ____	bad
favorable	____ : ____ : ____ : ____ : ____	unfavorable

IV. This question deals with your experience on the World Wide web. Some of you may have a lot of experience on it, while others may have limited or no experience on the Web.

In total how many hours have you spent on the World Wide Web? Please check the appropriate option.

a. 0 hours (never been on the web) ____
b. Between 1 and 49 hours ____
c. More than 50 hours ____

V. Please respond to the following statements by circling the appropriate option.

		SD	D	N	A	SA
1.	I know a lot about jeans.	1	2	3	4	5
2.	I feel a little anxious about working with computers.	1	2	3	4	5
3.	I do not need to search for more information about Levi's jeans to make a purchase decision.	1	2	3	4	5
4.	I like Levi's jeans.	1	2	3	4	5
5.	I am very knowledgeable about Levi's jeans.	1	2	3	4	5
6.	I prefer not to work with computers.	1	2	3	4	5
7.	I would buy levi's jeans.	1	2	3	4	5
8.	I am interested in jeans.	1	2	3	4	5
9.	Nothing can convince me to change my mind about Levi's jeans.	1	2	3	4	5

VI. Demographic information

a. Age _____ years b. Gender: Male ___ Female ___

Thank you for your cooperation.

Questionnaire (in the Computer Lab)

Survey Research

This questionnaire deals with your interest in the world wide web and brands that are being advertised on it. The research being conducted here will have important implications for firms developing sites on the world wide web.

Please take a few minutes and visit the three web sites mentioned in this questionnaire. Following each visit you will be asked some questions about that web site. For instance, after visiting the first web site you will be asked to respond to some questions regarding that site. Following that you will be asked to visit the second web site and respond to questions about it, and so on.

It is very important that you take this exercise seriously.

All responses will be kept confidential.

Thank you, in advance, for your cooperation.

Respondent Code: _____

Survey

Important:
1.Please try to respond to each question.
2. Never circle more than one option on a single item.

I. Please visit the web site for the **NBA (at http://www.nba.com)**. This is the first of three sites that you will be asked to visit.

View the site in the manner that you normally would. There is **no lower limit** as to the amount of time that you should spend on the web site. For instance, if the site does not interest you may decide to spend very little time on it. On the other hand, should you find the site interesting, you may choose to spend more time at the site.

Please note that you have a **maximum of one hour** to visit the three sites.

Please keep track of the amount of time you spend at the web site and report it below.

Starting time: _____
Ending time: _____

Now that you have finished visiting the NBA web site please indicate your degree of agreement/disagreement to the following statements about the site.

For instance, circling 1 would indicate that you strongly disagree with the statement, while 5 would indicate you strongly agree with the statement.

Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1	**2**	**3**	**4**	**5**

1.	I learned something from this web site about NBA basketball.	1	2	3	4	5
2.	The web site was lots of fun to visit.	1	2	3	4	5
3.	The web site was somewhat irritating.	1	2	3	4	5
4.	There are some features of the web site that I want to experience again.	1	2	3	4	5
5.	I thought the web site was clever.	1	2	3	4	5
6.	The site wasn't just selling the NBA- it was entertaining me and I appreciate that.	1	2	3	4	5

7.	The next time I am on the web I will come back to this site.	1	2	3	4	5
8.	I believe the claims made at this web site.	1	2	3	4	5
9.	The web site for the NBA was valuable.	1	2	3	4	5
10.	The likelihood of my coming back to this web site is high.	1	2	3	4	5
11.	The web site was annoying.	1	2	3	4	5
12.	The web site presented important facts.	1	2	3	4	5
13.	After seeing this web site I feel obliged to help the firm by filling out an online questionnaire for them.	1	2	3	4	5
14.	I could view the contents of this site in the sequence that I desired.	1	2	3	4	5
15.	The web site was extremely entertaining.	1	2	3	4	5
16.	I found myself getting angry with the web site.	1	2	3	4	5
17.	It was worth all the effort to visit this web site.	1	2	3	4	5
18.	I would fill out a questionnaire at this web site.	1	2	3	4	5
19.	I could regulate the time I spent at each segment of the web site.	1	2	3	4	5
20.	The benefits received from the web site were worth the costs incurred in visiting it.	1	2	3	4	5
21.	I cannot see myself returning to this web site.	1	2	3	4	5
22.	The contents of the web site made me feel restless.	1	2	3	4	5
23.	It was easy to navigate through this site.	1	2	3	4	5
24.	Compared to other web sites I have seen so far this one provided exceptional value.	1	2	3	4	5
25.	The information presented in the web site was easily understood.	1	2	3	4	5
26.	I cannot see myself providing any personal information to this firm at its web site.	1	2	3	4	5
27.	I see no reason to register myself at this web site.	1	2	3	4	5
28.	The web site allowed me to work my way through it as I wanted to.	1	2	3	4	5
29.	In order to see what I wanted to, I had to see portions of the site that were of no interest to me.	1	2	3	4	5
30.	The information provided in the web site was not adequate for my needs.	1	2	3	4	5

II. Please indicate your impressions of **the NBA** by responding to the following questions. If your opinion is closely related to one end of the scale, mark a space close to that end. If your opinion is neutral, mark a space in the middle of the scale.

negative	____	____	____	____	____	positive
good	____	____	____	____	____	bad
favorable	____	____	____	____	____	unfavorable

III. In the same manner as the previous scale, please give us your impressions regarding the **web site** for the **NBA (at http://www.nba.com)**.

not attractive	____	____	____	____	____	attractive
bad	____	____	____	____	____	good
pleasant	____	____	____	____	____	unpleasant
unappealing	____	____	____	____	____	appealing
dynamic	____	____	____	____	____	dull
depressing	____	____	____	____	____	refreshing
enjoyable	____	____	____	____	____	unenjoyable

Please turn the page over.

Important:
1. Please try to respond to each question.
2. Never circle more than one option on a single item.

I. Please visit the web site for **Levi's (at http://www.levi.com).**

This is the second of three sites that you will be asked to visit. Please view the site in the manner that you normally would. There is **no lower limit** as to the amount of time that you should spend on the web site. For instance, if the site does not interest you may decide to spend very little time on it. On the other hand, should you find the site interesting, you may choose to spend more time at the site.

Please note that you have a **maximum of one hour** to visit the three sites. Please keep track of the amount of time you spend at the web site and report it below.

Starting time: _____
Ending time: _____

Now that you have finished visiting the Levi's web site please indicate your degree of agreement/disagreement to the following statements about the site.

For instance, circling 1 would indicate that you strongly disagree with the statement, while 5 would indicate you strongly agree with the statement.

Strongly Disagree 1	**Disagree** 2	**Neutral** 3	**Agree** 4	**Strongly Agree** 5

1.	I learned something from this web site about Levi's jeans.	1	2	3	4	5
2.	The web site was lots of fun to visit.	1	2	3	4	5
3.	The web site was somewhat irritating.	1	2	3	4	5
4.	There are some features of the web site that I want to experience again.	1	2	3	4	5
5.	I thought the web site was clever.	1	2	3	4	5
6.	The site wasn't just selling Levi's jeans- it was entertaining me and I appreciate that.	1	2	3	4	5
7.	The next time I am on the web I will come back to this site.	1	2	3	4	5
8.	I believe the claims made at this web site.	1	2	3	4	5

9.	The web site for Levi's was valuable.	1	2	3	4	5
10.	The likelihood of my coming back to this web site is high.	1	2	3	4	5
11.	The web site was annoying.	1	2	3	4	5
12.	The web site presented important facts.	1	2	3	4	5
13.	After seeing this web site I feel obliged to help the firm by filling out an online questionnaire for them.	1	2	3	4	5
14.	I could view the contents of this site in the sequence that I desired.	1	2	3	4	5
15.	The web site was extremely entertaining.	1	2	3	4	5
16.	I found myself getting angry with the web site.	1	2	3	4	5
17.	It was worth all the effort to visit this web site.	1	2	3	4	5
18.	I would fill out a questionnaire at this web site.	1	2	3	4	5
19.	I could regulate the time I spent at each segment of the web site.	1	2	3	4	5
20.	The benefits received from the web site were worth the costs incurred in visiting it.	1	2	3	4	5
21.	I cannot see myself returning to this web site.	1	2	3	4	5
22.	The contents of the web site made me feel restless.	1	2	3	4	5
23.	It was easy to navigate through this site.	1	2	3	4	5
24.	Compared to other web sites I have seen so far this one provided exceptional value.	1	2	3	4	5
25.	The information presented in the web site was easily understood.	1	2	3	4	5
26.	I cannot see myself providing any personal information to this firm at its web site.	1	2	3	4	5
27.	I see no reason to register myself at this web site.	1	2	3	4	5
28.	The web site allowed me to work my way through it as I wanted to.	1	2	3	4	5
29.	In order to see what I wanted to, I had to see portions of the site that were of no interest to me.	1	2	3	4	5
30.	The information provided in the web site was not adequate for my needs.	1	2	3	4	5

II. Please indicate your impressions of **Levi's jeans** by responding to the following questions. If your opinion is closely related to one end of the scale, mark a space close to that end. If your opinion is neutral, mark a space in the middle of the scale.

negative	____ : ____ : ____ : ____ : ____	positive
good	____ : ____ : ____ : ____ : ____	bad
favorable	____ : ____ : ____ : ____ : ____	unfavorable

III. In the same manner as the previous scale, please give us your impressions regarding the **web site** for **Levi's (at http://www.levi.com)**.

not attractive	____ : ____ : ____ : ____ : ____	attractive
bad	____ : ____ : ____ : ____ : ____	good
pleasant	____ : ____ : ____ : ____ : ____	unpleasant
unappealing	____ : ____ : ____ : ____ : ____	appealing
dynamic	____ : ____ : ____ : ____ : ____	dull
depressing	____ : ____ : ____ : ____ : ____	refreshing
enjoyable	____ : ____ : ____ : ____ : ____	unenjoyable

IV. Please respond to the following statements about the **Levi's web site** by circling the appropriate option.

Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1	**2**	**3**	**4**	**5**

1.	This web site was very informative.	1	2	3	4	5
2.	The site was highly interactive.	1	2	3	4	5
3.	The site was enjoyable.	1	2	3	4	5
4.	I would wear Levi's jeans.	1	2	3	4	5
5.	It was worthwhile visiting this site.	1	2	3	4	5
6.	I felt very impatient visiting this web site.	1	2	3	4	5
7.	I am very satisfied with this web site.	1	2	3	4	5
8.	I like the Levi's web site.	1	2	3	4	5
9.	I can make better purchase decisions after seeing this site.	1	2	3	4	5
10.	I felt in control of my navigation through the web site.	1	2	3	4	5
11.	This is one of the sites that I would bookmark.	1	2	3	4	5

12. I would recommend this site as a source of entertainment to my friends.	1	2	3	4	5
13. I like Levi's jeans.	1	2	3	4	5
14. The site made me want to tell off the firm.	1	2	3	4	5
15. I want to come back to this web site.	1	2	3	4	5
16. The web site was very user friendly.	1	2	3	4	5
17. If the Levi's site asked for personal information I would provide it.	1	2	3	4	5
18. I like the firm that presented this web site.	1	2	3	4	5

Please turn the page over.

I. Please complete the following exercise. I am interested in buying life insurance for myself. There are two kinds of life insurance policies. One is a Permanent policy and the other is a Term policy. I have obtained prices for these two options from the web sites of some insurance companies. I would greatly appreciate it if you would visit the web site for Prudential at **http://www.prudential.com** and attempt to find prices for these policies.

Also, please keep track of the amount of time you spend at the web site and report it below.

Starting time: _____
Ending time: _____

The prices are

Permanent policy $_____ Term policy $_____

Now that you have visited the Prudential web site please indicate your degree of agreement/disagreement to the following statements about the site.

For instance, circling 1 would indicate that you strongly disagree with the statement, while 5 would indicate you strongly agree with the statement.

Strongly Disagree 1	**Disagree** 2	**Neutral** 3	**Agree** 4	**Strongly Agree** 5

1.	I learned something from this web site about Prudential insurance.	1	2	3	4	5
2.	The web site was lots of fun to visit.	1	2	3	4	5
3.	The web site was somewhat irritating.	1	2	3	4	5
4.	There are some features of the web site that I want to experience again.	1	2	3	4	5
5.	I thought the web site was clever.	1	2	3	4	5
6.	The site wasn't just selling Prudential insurance- it was entertaining me and I appreciate that.	1	2	3	4	5
7.	The next time I am on the web I will come back to this site.	1	2	3	4	5
8.	I believe the claims made at this web site.	1	2	3	4	5
9.	The web site for Prudential was valuable.	1	2	3	4	5
10.	The likelihood of my coming back to this web site is high.	1	2	3	4	5

11. The web site was annoying.	1	2	3	4	5
12. The web site presented important facts.	1	2	3	4	5
13. After seeing this web site I feel obliged to help the firm by filling out an online questionnaire for them.	1	2	3	4	5
14. I could view the contents of this site in the sequence that I desired.	1	2	3	4	5
15. The web site was extremely entertaining.	1	2	3	4	5
16. I found myself getting angry with the web site.	1	2	3	4	5
17. It was worth all the effort to visit this web site.	1	2	3	4	5
18. I would fill out a questionnaire at this web site.	1	2	3	4	5
19. I could regulate the time I spent at each segment of the web site.	1	2	3	4	5
20. The benefits received from the web site were worth the costs incurred in visiting it.	1	2	3	4	5
21. I cannot see myself returning to this web site.	1	2	3	4	5
22. The contents of the web site made me feel restless.	1	2	3	4	5
23. It was easy to navigate through this site.	1	2	3	4	5
24. Compared to other web sites I have seen so far this one provided exceptional value.	1	2	3	4	5
25. The information presented in the web site was easily understood.	1	2	3	4	5
26. I cannot see myself providing any personal information to this firm at its web site.	1	2	3	4	5
27. I see no reason to register myself at this web site.	1	2	3	4	5
28. The web site allowed me to work my way through it as I wanted to.	1	2	3	4	5
29. In order to see what I wanted to, I had to see portions of the site that were of no interest to me.	1	2	3	4	5
30. The information provided in the web site was not adequate for my needs.	1	2	3	4	5

II. Please indicate your impressions of **Prudential life insurance** by responding to the following questions. If your opinion is closely related to one end of the scale, mark a space close to that end. If your opinion is neutral, mark a space in the middle of the scale.

negative	____ : ____ : ____ : ____ : ____	positive
good	____ : ____ : ____ : ____ : ____	bad
favorable	____ : ____ : ____ : ____ : ____	unfavorable

III. In the same manner as the previous scale, please give us your impressions regarding the **web site** for Prudential **(at http://www.prudential.com)**.

not attractive	____ : ____ : ____ : ____ : ____	attractive
bad	____ : ____ : ____ : ____ : ____	good
pleasant	____ : ____ : ____ : ____ : ____	unpleasant
unappealing	____ : ____ : ____ : ____ : ____	appealing
dynamic	____ : ____ : ____ : ____ : ____	dull
depressing	____ : ____ : ____ : ____ : ____	refreshing
enjoyable	____ : ____ : ____ : ____ : ____	unenjoyable

IV. Please indicate your attitude toward the above exercise.

	SD	D	N	A	SA
1. It was very important for me to determine the prices of the insurance policy.	1	2	3	4	5
2. I tried everything I could to get the prices for the insurance policy.	1	2	3	4	5

Thank you for your cooperation.

Alternate Section For Prudential Life Insurance
(For Situational Involvement)

I. Please complete the following exercise. I am interested in buying life insurance for myself. There are two kinds of life insurance policies. One is a Permanent policy and the other is a Term policy. I am unsure as to which of the two I should get. I would greatly appreciate it if you would visit the web site for Prudential Insurance at **http://www.prudential.com** and study the two options.

Which option would you recommend? You may make any assumptions that you need to make a decision. Please give reasons for your choice.

Also, please keep track of the amount of time you spend at the web site and report it below.

Starting time: _____
Ending time: _____

I recommend (please check one)

Permanent policy _____ Term policy _____

My reasons for this choice are:

Now that you have visited the Prudential web site please indicate your degree of agreement/disagreement to the following statements about the site.

For instance, circling 1 would indicate that you strongly disagree with the statement, while 5 would indicate you strongly agree with the statement.

Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1	**2**	**3**	**4**	**5**

1.	I learned something from this web site about Prudential insurance.	1	2	3	4	5
2.	The web site was lots of fun to visit.	1	2	3	4	5
3.	The web site was somewhat irritating.	1	2	3	4	5

4.	There are some features of the web site that I want to experience again.	1	2	3	4	5
5.	I thought the web site was clever.	1	2	3	4	5
6.	The site wasn't just selling Prudential insurance- it was entertaining me and I appreciate that.	1	2	3	4	5
7.	The next time I am on the web I will come back to this site.	1	2	3	4	5
8.	I believe the claims made at this web site.	1	2	3	4	5
9.	The web site for Prudential was valuable.	1	2	3	4	5
10.	The likelihood of my coming back to this web site is high.	1	2	3	4	5
11.	The web site was annoying.	1	2	3	4	5
12.	The web site presented important facts.	1	2	3	4	5
13.	After seeing this web site I feel obliged to help the firm by filling out an online questionnaire for them.	1	2	3	4	5
14.	I could view the contents of this site in the sequence that I desired.	1	2	3	4	5
15.	The web site was extremely entertaining.	1	2	3	4	5
16.	I found myself getting angry with the web site.	1	2	3	4	5
17.	It was worth all the effort to visit this web site.	1	2	3	4	5
18.	I would fill out a questionnaire at this web site.	1	2	3	4	5
19.	I could regulate the time I spent at each segment of the web site.	1	2	3	4	5
20.	The benefits received from the web site were worth the costs incurred in visiting it.	1	2	3	4	5
21.	I cannot see myself returning to this web site.	1	2	3	4	5
22.	The contents of the web site made me feel restless.	1	2	3	4	5
23.	It was easy to navigate through this site.	1	2	3	4	5
24.	Compared to other web sites I have seen so far this one provided exceptional value.	1	2	3	4	5
25.	The information presented in the web site was easily understood.	1	2	3	4	5
26.	I cannot see myself providing any personal information to this firm at its web site.	1	2	3	4	5
27.	I see no reason to register myself at this web site.	1	2	3	4	5

28.	The web site allowed me to work my way through it as I wanted to.	1	2	3	4	5
29.	In order to see what I wanted to, I had to see portions of the site that were of no interest to me.	1	2	3	4	5
30.	The information provided in the web site was not adequate for my needs.	1	2	3	4	5

IX. Please indicate your impressions of **Prudential life insurance** by responding to the following questions. If your opinion is closely related to one end of the scale, mark a space close to that end. If your opinion is neutral, mark a space in the middle of the scale.

negative	____ : ____ : ____ : ____ : ____	positive
good	____ : ____ : ____ : ____ : ____	bad
favorable	____ : ____ : ____ : ____ : ____	unfavorable

X. In the same manner as the previous scale, please give us your impressions regarding the **web site** for Prudential **(at http://www.prudential.com)**.

not attractive	____ : ____ : ____ : ____ : ____	attractive
bad	____ : ____ : ____ : ____ : ____	good
pleasant	____ : ____ : ____ : ____ : ____	unpleasant
unappealing	____ : ____ : ____ : ____ : ____	appealing
dynamic	____ : ____ : ____ : ____ : ____	dull
depressing	____ : ____ : ____ : ____ : ____	refreshing
enjoyable	____ : ____ : ____ : ____ : ____	unenjoyable

XI. Please indicate your attitude toward the above exercise.

		SD	D	N	A	SA
1.	It was very important for me to choose the best policy.	1	2	3	4	5
2.	I tried everything I could to recommend the best policy.	1	2	3	4	5

Thank you for your cooperation.

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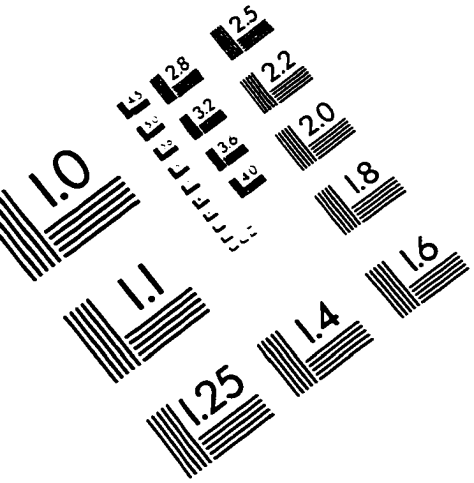
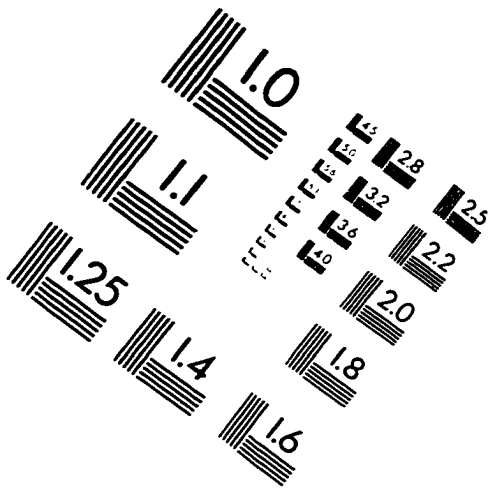
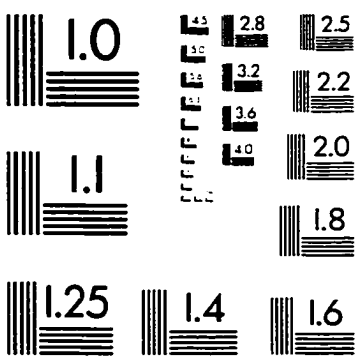
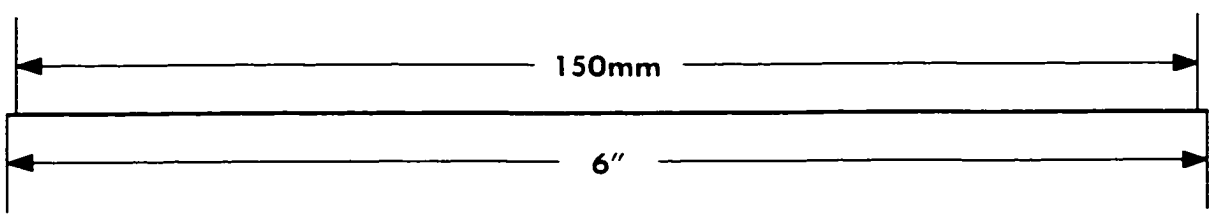
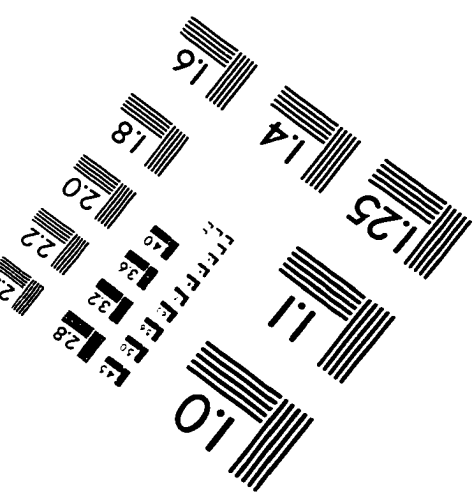
IMAGE EVALUATION TEST TARGET (QA-3)

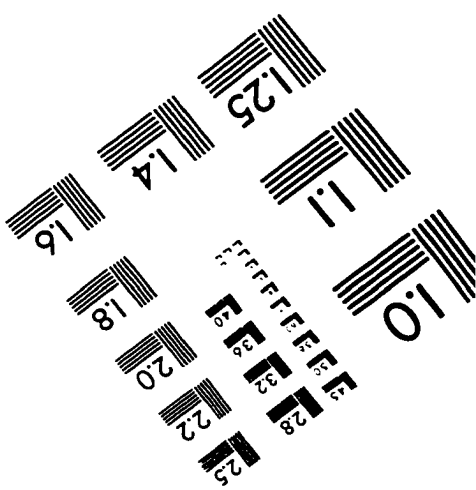












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