A Conceptual Model of Channel Choice: Measuring Online and Offline Shopping Value Perceptions

Thijs L. J. Broekhuizen
University of Groningen, The Netherlands

Wander Jager
University of Groningen, The Netherlands

November 2003

Address Correspondence To: Thijs Broekhuizen
PhD Candidate
Organization and Management
University of Groningen
P.O. Box 800, 9700 AV Groningen, The Netherlands
Phone: +31 363 8284/ + 31 363 3839
E-Mail: t.l.j.broekhuizen@bdk.rug.nl

Abstract

This study tries to understand how consumers evaluate channels for their purchasing. Specifically, it develops a conceptual model that addresses consumer value perceptions of using the Internet versus the traditional (physical) channel. Previous research showed that perceptions of price, product quality, service quality and risk strongly influence perceived value and purchase intentions in the offline and online channel. Perceptions of online and offline buyers can be analyzed to see how value is constructed in both channels. The results should indicate the main determinants of channel choice. Additionally, this model enables comparisons between online and offline shoppers' perceptions. As such, it is possible to determine the factors that encourage or prevent consumers to engage in online shopping.

Introduction

Next from being a source of communication, information and entertainment, the Internet is increasingly seen as a vehicle for commercial transactions (Swaminathan, Lepkowska-White and Rao, 1999). Recent work shows that consumers have increasingly favorable attitudes toward online shopping (Lohse, Bellman and Johnson, 2000). Simultaneously, according to a study performed in 2002 by the national association of German retailers (HDE), 29% of the German retailers now offer their products and services online. Despite these positive signs, online sales still account for less than 2% of total retail spending (Retail Forward, 2003). With the advent of multiple channels (telephone, Internet, catalog, etc.) and a corresponding increase in the competition between channels, the understanding of consumers to purchase from one channel rather than another becomes an increasingly input to channel design and management (Black et al., 2002: p. 162).

Previous work compared the online and offline shopping population; online shoppers appear to be younger, wealthier, better educated, have higher computer literacy, spend more time on their computer and on the Internet, find online shopping to be easier and more entertaining and are less fearful of financial loss from online shopping (cf. Swinyard & Smith, 2003). Additionally, online shoppers possess an internal rather than an external locus of control (Hoffman and Novak, 2000), are more goal-directed rather than experiential (Gilly and Wolfinbarger, 2000), and have a 'wired' lifestyle with scarce leisure time (Lohse, Bellman and Johnson, 2000).

Many authors have studied the online channel from a variety of theoretical perspectives, including Diffusion of Innovations (DOI), Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), Service Quality (SERVQUAL) and Transaction Cost Analysis (TCA) (cf. Devaraj, Fan, and Kohli, 2002). However, most studies do not focus on the subject of channel choice, but rather aim at determinants of e-satisfaction ({Anderson and Srinivasan, 2003; Swaminathan, Lepkowska-White and Rao, 1999; Wolfinbarger & Gilly 2002) or the key dimensions of website's success (e.g., Ranganathan and Ganapathy, 2002). In this way, the Internet is often researched in isolation of the offline channel, although both channels actually perform the same functions (cf. Peterson, Balasubramanian and Bronnenberg, 1997).

To fill this gap, researchers could compare channels' capability of in fulfilling functions (cf. Kotler 1997; Peterson, Balasubramanian and Bronnenberg, 1997), but essentially channel choice comes down to the relative channels' perceived benefits and costs. This paper therefore uses the concept of perceived value, as it represents a trade-off of all salient "give and get components" (Zeithaml, 1988). Consumers are expected to choose that channel that leads to the highest expected value. As such, a side-by-side comparison is possible to elicit perceptual differences of using channels.

The objective of this paper is to gain a better understanding of channel choice by developing a theoretical framework that shows the relationships between the antecedents and mediators of perceived value and purchase intentions in both channels. Results indicate the performance of channels in delivering value to consumers and how value is constructed in both channels. Perceptual differences between online and offline shoppers can explain the (strength of) motivations to adopt a certain channel.

The remainder of this article is as followed. First, we discuss the concept of perceived value. Second, we present our conceptual model with its accompanying hypotheses. The third section discusses the expected differences in importance scores. The final section presents conclusions and suggests a methodology to empirically test the model.

Concept of Perceived Value

Perceived value has recently gained much attention from marketers and researchers because of the important role it plays in predicting purchase behavior and achieving sustainable competitive advantage (e.g., Bolton and Drew 1991; Cronin, Brady and Hult, 2000; Dodds, Monroe, and Grewal, 1991; Holbrook, 1994, 1999; Woodruff 1997; Zeithaml 1988). Zeithaml (1988: p.14) conceptualized perceived value as "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given." In this definition, the concept is measured at the product-level. It incorporates the quality of the (physical) product itself including the additional services delivered, in comparison with its relative price. It particularly refers to the value for money consumers receive, or as (Sirohi, McLaughlin, and Wittink, 1998) call it, "what you get for what you pay." This narrow definition excludes the shopping experience. Some researchers suggest that it is more useful to measure the perceived value experienced from the complete shopping experience; thus, measuring both product value for money and the shopping experience. The reasoning behind this is that consumers optimize the full process of decision making (procedural rationality), not just the outcomes (substantive rationality) (Simon, 1976). A broader definition is particularly useful when the product is not the focal point of interest. For example, service researchers (e.g., Grönroos, 1982; Parasuraman, Zeithaml, Berry, 1985, 1988) indicated that apart from what is delivered, the way the service is delivered is important. In similar vein, Kerin, Jain and Howard (1992) showed the importance of the shopping experience in explaining the value perceptions of a retailer.

Previous work thus demonstrated the importance of providing customers a valuable shopping experience (Eroglu and Machleit, 1993). Consumers evaluate shopping experiences along utilitarian and hedonic dimensions (Babin, Darden and Griffin, 1994; Babin and Darden, 1995, 1996; Batra and Ahtola, 1991; Crowley, Spangenberg and Hughes, 1992; Hirschman and Holbrook, 1982). The utilitarian dimension reflects whether consumers achieve their shopping goals with minimum investments in time and effort; it relates to 'efficiency' (cf. Zeithaml et al., 2000). To improve utilitarian shopping value, consumers must save time and/or reduce effort by engaging in goal-directed behavior that is instrumental, purposive, and task-specific (Hoffman, Novak and Schlosser, 2002). The hedonic dimension relates to the experiential value consumers derive from the shopping process itself, by means of social interaction, personal security and entertainment (Alba et al., 1997). In this respect, consumers are more concerned with entertainment and enjoyment value; they engage in experiential behavior that is likely to be hedonic, ritualized and reflects nonlinear search (Hoffman and Novak, 1996). As Mathwick, Malhotra and Rigdon (2002, p. 53) state, "consumers who approach retail environments to browse (Bloch, Sherrel and Ridgway, 1986), or enjoy the experiential aspects of shopping (Bellenger and Korgaonkar, 1980) are motivated by the process rather than by shopping goals

or outcomes (Hoffman and Novak, 1996)." Thus, hedonic and utilitarian value assessments are useful to define the shopping experience, but these are distinct from outcome quality assessments, i.e. whether the product is good value for money.

This study focuses on the perceived value of buying products and services through different channels, and therefore the shopping process itself is valuable to the decision process. Consequently, we focus on the broader definition of perceived value. We start with Zeithaml's (1988) useful list to ensure that most benefits and costs are incorporated. These refer to the product/service quality, monetary (price) and nonmonetary (temporal, physical and psychological) costs.

Based on the distinction between process and outcome value and utilitarian and hedonic value, the literature indicates three main evaluation criteria; consumers can analyze how capable channels are in (1) making better decisions (improving value for money), (2) saving time and effort, and (3) reducing psychological burdens and/or having a more enjoyable shopping process.

Research has addressed the multidimensional and context-dependent nature of perceived value (Bolton and Drew, 1991; Holbrook, 1994; Zeithaml, 1988). For example, a customer's assessment of value depends on the customer's frame or reference (Bolton and Drew, 1991). Customers can evaluate value in terms of low price, high quality, affordable quality, or a trade-off between all give and get components (Zeithaml, 1988). Second, consumers may have different perceptions on what drives value (and attribute different weights to evaluation criteria) among different settings. When time pressure is high, consumers may attribute more value to time savings.

Black et al. (2001) map four overall factors that influence channel choice for financial services, including channel, organizational, product, and consumer characteristics. They argue that channel choice is more complex than product choice alone. The main reason for this is that there are *interactions* between the four factors, and, as a result, channel choice is not solely based on the (general) merits of the channel itself (e.g., ease of use). Consequently, the utility of using a channel must be seen in context of organizations' offerings, product factors (i.e., type of product), and consumer abilities and motives to use a particular channel. For instance, consumers may decide to adopt a certain channel because it offers superior selections. Amazon.com, for example, may be perceived as having superior selections in comparison to offline booksellers because of lower storage costs and more efficient ordering systems. This may encourage consumers to adopt the online channel. Another strong interaction can be identified between product and channel factors (Schoenbachler and Gordon, 2002); e.g., experience goods are less amenable for the online channel than search goods are because online channels are less well equipped to distribute tactile information (Alba et al., 1997). Finally, consumers' confidence in their ability to use a particular channel is clearly of considerable importance in explaining channel choice (Black et al., 2001; Einwiller, 2003). This paper tries to cover all factors, but focuses on the channel and organizational characteristics. The importance of consumer and product factors are checked as well, albeit in an indirect fashion. Consumers' ability to use a particular channel is measured as a control variable. Besides, we propose to research multiple products to measure the interaction effect between product factors and channel characteristics.

Conceptual Model

This study seeks to compare the performance of both channels by incorporating the major factors that account for the benefits and costs of using channels. Although online and offline shopping experiences are significantly different (Childers et al., 2001; Wolfinbarger and Gilly, 2001), comparison is possible by analyzing the perceived shopping costs and benefits. In developing our model, it is important that the antecedents and mediators not only strongly influence the value perceptions and purchase intentions, but that they also reflect the major differences between the online and offline channel.

The proposed model uses the key precursors from extant perceived customer value research based on physical retail settings (e.g., Agarwal and Teas, 2001; Baker et al., 2002; Chen and Dubinsky, 2003; Sweeney, Soutar and Johnson, 1996; 1999, Teas and Agarwal, 2000). Kerin, Jain and Howard (1992) investigated the effect price, merchandise quality and shopping experience had on value perceptions of a retail store, concluding that the shopping experience had the greatest effect on store value. A study by Sweeney, Soutar and Johnson (1999) showed the role perceived risk has in the quality-value relationship for durable goods. They concluded that consumers do not only consider the immediate benefits and sacrifices, but also contemplate about the longer-term implications of the product's ownership. Perceived risk is considered a sacrifice, or cost, which negatively influences perceived value.

Chen and Dubinsky (2003) developed a model of perceived customer value in an e-commerce context. They stress that consumer value perceptions and purchase intentions are determined by the valence of experience, perceived risk, product price, and product quality. Clearly, they built upon existent perceived customer value models and add new factors that specifically relate to the online context. These specific E-Commerce factors include relevancy of information, ease of use and customer service, which define the valence of online experience. When omitting these determinants of the 'shopping experience,' the original empirically tested model of Sweeney, Soutar and Johnson (1999) shows up. Thus, it seems that the existent perceived value models can be used to determine perceived value and purchase intentions in the online context.

Baker et al. (2002) integrate theories from cognitive and environmental psychology with Zeithaml's (1988) classification to predict store patronage intentions. They also use Baker's (1998) and Bitner's (1992) conceptualizations to incorporate the influence of the store environment on store choice criteria. Their final model includes interpersonal service quality, shopping experience costs (time and effort and psychological cost perceptions), and merchandise value (mediated through perceived quality, price and shopping experience costs). As with many authors (cf. Zeithaml, 1988), these authors merely incorporate consumers' shopping experience *costs*, ignoring the shopping experience *benefits*. Pine and Gilmore (1999) indicate that retailers are capable of providing enjoyable experiences that contribute to shopping value. Especially for products that are experiential in nature, the shopping process is a valuable attribute. Although pleasant and stimulating environments may reduce psychological costs, we believe that the effect on value perceptions is not fully accounted for by incorporating psychological costs. Instead of having a negative (or in the most extreme case no) impact, shopping experiences can directly enhance value perceptions and store purchasing intentions (cf. Kerin, Jain and Howard, 1992). This is in line with environmental research that indicates that store environments can evoke positive

and negative affect (cf. Babin and Darden, 1996). Studies in this field show that positive and negative affect are distinct constructs (Babin, Darden and Babin, 1998; Watson, Clark and Tellegen, 1988). However, perceived value literature to date has not measured both constructs simultaneously. Past research merely focused on negative affect because it has a stronger impact on customers' behavior. We however believe that for some products (e.g., experiential products), the shopping experience is a pivotal part of the purchase decision, and we therefore incorporate the construct of perceived enjoyment. Table 1 summarizes the monetary and nonmonetary costs and benefits.

Table 1: Perceived costs and benefits

Costs		**Benefits**	
Monetary	**Nonmonetary**	**Instrumental**	**Hedonic**
Price	Time	Product quality	Enjoyment, pleasure
	Effort	Service quality	
	Psychological (risk, stress, anger)		

Source: Adapted from Zeithaml (1988)

Figure 1 shows a model of perceived customer value, which based on existent value literature. We argue that this models holds for both the online and offline context. By analyzing the differences in the construction of perceived value, we can identify the relative importance of variables in both channels. In the following section, each of the proposed relationships will be discussed.

Perceived Value

Perceived value reflects consumers' net gain obtained from their consumption behavior; thus it is likely to be used as an indicator of purchase intention in the offline channels, as well as the online channel (Chen and Dubinsky, 2003). Researchers indicate that perceived value, being a richer evaluation criterion, is a better predictor of purchase intentions than product quality (Szybillo and Jacoby, 1974). Previous research has shown that perceived value positively influences willingness-to-buy (Dodds, Monroe and Grewal, 1991; Monroe, 1990; Sweeney, Soutar and Johnson, 1999), store patronage (Baker et al., 2002), and store loyalty intentions (Sirohi, McLaughlin and Wittink, 1998). To address this issue, we propose that:

H1 Perceived value is positively associated with purchase intentions

Service quality

Service quality is generally viewed as a global judgment, or attitude (Parasuraman, Zeithaml, Berry, 1985, 1988). When applied to retailers that sell goods, it often includes dimensions of personal interaction (e.g., friendliness, helpfulness, assurance, and responsiveness of employees) (cf. Dickson and Albaum, 1977), service policies (returns handling and warranties) (Samli, Kelly and Hunt, 1998), and tangible aspects of the service (Parasuraman, Zeithaml and Berry, 1985). The level of service received by customers is frequently noted as a component of store image or attitude (e.g. Louviere and

Johnson, 1990; Reardon and Miller, 1995, Sirohi, McLaughlin and Wittink, 1998) and it is an important aspect of shopping in a retail context (Baker et al., 2002).

There has been a debate on the interrelationships of service quality, value and satisfaction, and their impact on purchase intentions (for a review, see Cronin, Brady and Hult, 2000). On the contrary, there seems to be consensus on the positive effect service quality has on value perceptions (Baker et al., 2000; Bolton and Drew, 1991; Sweeney, Soutar and Johnson, 1999). In general, the more favorable consumers' service quality perceptions, the higher the perceptions of value.

Empirical evidence shows that more favorable perceptions of service quality lead to a reductions of perceived risk (Sweeney, Soutar and Johnson, 1999). The explanation for this can be found in the employee-customer interactions. Research suggests that salespeople-customer interactions affect customers' assessments of service quality (Baker, 1987; Hartline and Ferrell, 1996; Spence, Engel and Blackwell, 1970) and that customers may ask salespeople for advice to reduce their risk in high-risk purchasing situations (Mitchell and McGoldrick, 1996).

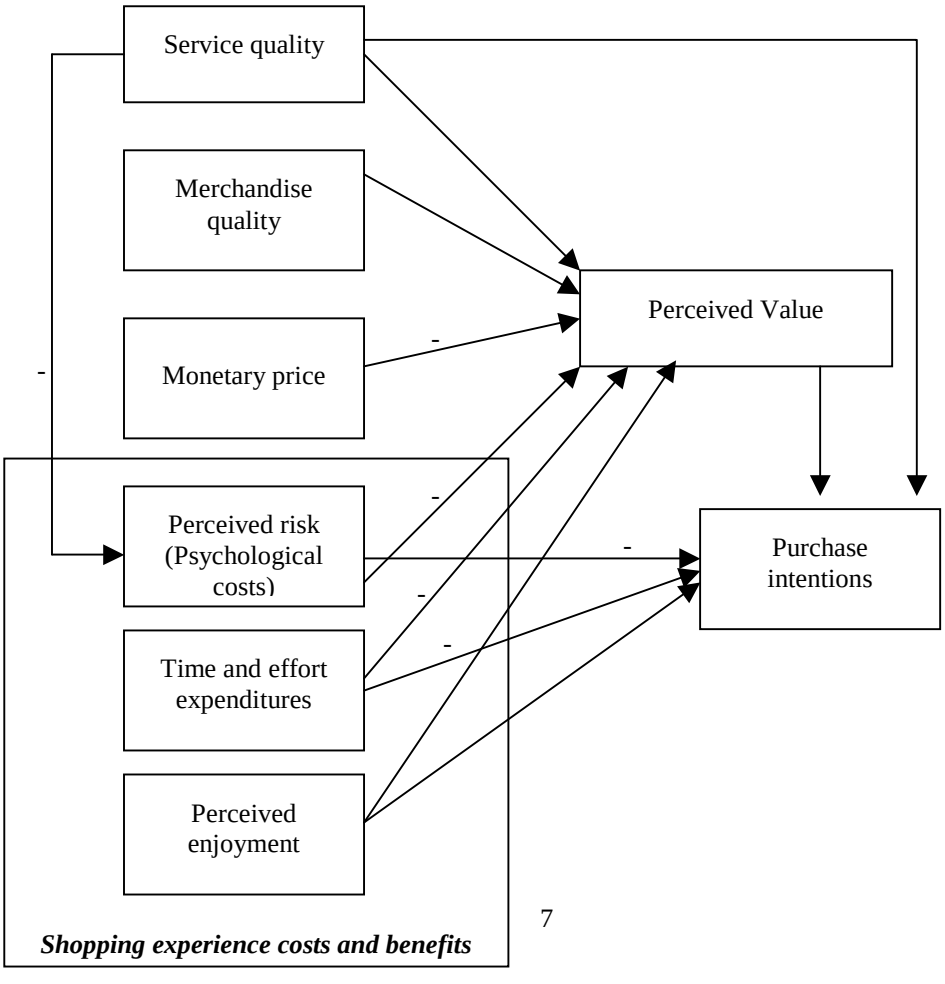
Although research showed that the effects of service quality on behavior are largely mediated by value perceptions (Dodds, Monroe and Grewal, 1991; Sweeney, Soutar and Johnson, 1999), other studies also found a *direct* link between service quality and purchase intentions (e.g., Cronin, Brady and Hult, 2000; Sirohi, McLaughlin and Wittink, 1998; Zeithaml, Berry and Parasuraman, 1996). We therefore developed the following hypotheses:

H2 Service quality is positively associated with perceived value

H3 Service quality is negatively associated with perceived risk

H4 Service quality is positively associated with purchase intentions

Figure 1: Existent Model of Perceived Value



Parasuraman, Zeithaml and Berry (1985, 1988) developed the widely cited multiple-item scale (SERVQUAL) for measuring perceptions of overall service quality in the offline context. The traditional SERVQUAL scale –developed in the field of pure services- entails five dimensions that define the service quality. In recent publications (Grönroos et al., 2000; Kaynama and Black, 2000) there is a discussion about the extent to which the traditional SERVQUAL captures online service quality. Leading researchers (Zeithaml, Parasuraman and Malhotra, 2000) stress that additional dimensions will be needed in order to fully explain consumer evaluations of e-services. They developed e-SERVQUAL for measuring the e-service quality. They discuss four dimensions – *efficiency*, *reliability*, *fulfillment*, and *privacy*- that form the core service scale. *Efficiency* refers to the consumers' ability to get to the website, find their desired product and information associated with it, and check out with minimal effort. *Reliability* refers to the technical functioning of the site, particularly the extent to which it is available and functioning properly. *Fulfillment* incorporates accuracy and of service promises, having products in stock, and delivering the products in the promised time. The *privacy* dimension focuses on the assurance that that shopping behavior data are not shared and that credit card information is secure. In addition, they mention three dimensions that become salient when online customers have questions or run into problems, including *responsiveness*, *compensation* and *contact*. *Responsiveness* measures the ability of online retailers to provide appropriate information to customers when a problem occurs, have mechanisms for handling returns, and provide online guarantees. *Compensation* relates to monetary compensation when problems occur (e.g., returning shipping and handling costs, compensation for receiving lousy service). *Contact* points to the need of customers to be able to speak to a live agent online or through the phone –requiring seamless multiple channel capabilities. The focus of online shoppers is more utilitarian, and based on ease and speed; they only need assistance when problems occur and/or when they have questions to be answered. In those circumstances they often demand quick responses (e.g., order delivery confirmation or answers to e-mail questions).

Although the discussion about the (dis)similarities of online and offline service quality would be valuable, it is well beyond the scope of our paper. We focus on a retail context and use a rather narrow definition of service quality that refers to the additional services delivered. Just like Baker et al. (2002), we conceptualize service quality as the intrapersonal service quality, including helpfulness, responsiveness and courtesy of service personnel (cf. Dickson and Albaum, 1977; Hildebrandt, 1988) but we also want to include the general service level and the quality of the warranties provided.

Merchandise quality

Merchandise quality consists of number, quality and composition of alternatives. This study does not focus on pure service providers that provide pure services in which consumers are physically present during service delivery (e.g., hairdresser, hotels) (cf. Bitner, 1992). Instead, it focuses on companies that are closer to the "tangible-dominant" end of Shostack's (1977) continuum where the merchandise quality is important (Wolfinbarger and Gilly, 2002).

Prior research found a positive relationship between perceptions of product quality and perceived value (Dodds, Monroe and Grewal, 1991; Grewal et al., 1998; Sirohi, McLaughlin and

Wittink, 1998). Several authors (Kerin, Jain and Howard, 1992; Baker et al. 2002) extend this finding to retail settings and use the term merchandise quality to indicate the quality of the retailer's product selection. The rationale behind this is that with higher merchandise quality, consumer needs will be more easily met because of the wide selection and availability, but also because these selections are likely to contain products of higher quality (Szymanski and Hise, 2000). Selection has been found to be consistently important in the literature concerning bricks-and-mortar retailers (e.g., Baker et al., 2002; Reardon and Miller, 1995; Samli, Kelly and Hunt, 1998) and is likely to be important in the online environment. Thus,

H5 Merchandise quality is positively associated with perceived value

Monetary Costs: Price

Previous studies that examine the price-quality-value relationship (Dodds, Monroe and Grewal, 1991; Sirohi, McLaughlin and Wittink, 1998) indicate a negative relationship between the factors. The higher the price perceptions (the higher the monetary costs), the lower are the value perceptions. Sweeney, Soutar and Johnson (1999) use relative price, indicating the perceived relative price of a product compared to other products with similar features. In line with other studies, they find that the greater the perceived relative price, the less is the perceived value. Price-sensitive buyers see price as an important cost criterion in their value judgment.

Price has not only been linked to perceived value, but also to product/merchandise quality. Authors (Agarwal and Teas, 2001; Dodds, Monroe and Grewal, 1991; Monroe, 1990: Teas and Agarwal, 2000) address that price has a dual effect. Price is a financial sacrifice, but it also positively influences perceptions of value through increased product quality perceptions. However, the net effect of price on perceptions of value seems to be negative (Dodds, Monroe and Grewal, 1991). Zeithaml (1988) argues that a general price-quality relationship does not exist. She explains that the use of price as an indicator of quality will depend on (1) the availability of other cues that suggest quality, (2) price and quality variation within a category of products, and (3) consumer price awareness and ability to detect variation in quality in a product category. The price-quality relationship only seems to hold for moderately priced, frequently purchased goods, such as grocery products (Kerin, Jain and Howard; Rao and Monroe, 1989). This study does not expect to find evidence for this latter relationship. This leads to the following hypothesis:

H6 Perceived monetary price is negatively associated with perceived value

Nonmonetary Costs: Time and effort expenditures

The convenience and time-resource management literature indicates that consumers generally perceive time and effort as (nonmonetary) costs. Especially when consumers engage in goal-directed behavior rather than experiential behavior, they are motivated to acquire their products or services in an efficient and timely manner with a minimum of irritation (Babin, Darden and Griffin, 1994). Consumers' interest in conserving time and effort has long been identified (e.g., Anderson, 1972; Kelley, 1958).

High income, time-poor consumers require a lot of value from the limited hours available and may be willing to pay more money to enjoy their leisure time (Engel, Blackwell and Miniard, 1995). Additionally, consumers want to spend their limited cognitive capacity efficiently and may decide that certain purchases are not worth investing a lot of cognitive effort (Simon, 1976). By decreasing obligatory, nondiscretionary time expenditures, such as cleaning, cooking and shopping, consumers can extend their leisure time. Unsurprisingly, retailers currently enable consumers to save time by making the shopping process less time consuming and more convenient (cf. Berry, Seiders and Grewal, 2002).

Although Zeithaml (1988) addressed that the time and effort invested are mediated by the perceptions of product value for money, other researchers suggest that these costs can also directly influence store purchase intentions (Baker et al., 2002). Consumers, for example, will decide not to shop when the perceived costs of spending time and effort are too high (Hui and Bateson, 1991). Additionally, consumers who buy relatively high-priced/low quality buns at gas stations improbably say they do receive good value for money. Additional time and effort expenditures to go to a local store seem to prevent them from making a detour.

H7 Time and effort costs are negatively associated with perceived value

H8 Time and effort costs are negatively associated with purchase intentions

Nonmonetary Costs: Perceived risk (Psychological costs)

Apart from time and effort, consumers can bear psychological or emotional costs in order to receive their products. Although time/effort expenditures and psychological costs are interrelated (e.g. crowding can influence both time/effort expenditures and psychological costs), they have been treated as distinct (cf. Zeithaml, 1988). Baker et al. (2002, p. 122) define the psychological cost construct as the customers' mental stress or emotional labor during the shopping experience. These authors argue that psychological costs refer to the emotional aspects of the shopping experience costs, whereas time and effort costs refer to the rational aspects. For instance, the psychological discomfort of the expectation that products will perform less than expected is not captured by the time/effort expenditures. These psychological costs often originate from perceptions of risk. Perceived risk is here referred to as the consumers' subjective expectation of a loss (Stone and Grønhaug, 1993). Customers expect that something might go wrong or perform less than expected, which increases psychological costs. Despite that perceived risk does not fully account for all psychological costs (e.g. frustration, anger), we use this construct as it has been empirically shown that it has a strong effect on value perceptions and purchase intentions (e.g., Sweeney, Soutar and Johnson, 1999). Moreover, the concept of perceived risk is relevant for explaining online purchasing behavior (cf. Chen and Dubinsky, 2003; Einwiller, 2003; Forsythe and Shi, 2003).

Bauer (1960) proposed that consumer behavior could be viewed as risk taking. Any choice situation involves two aspects of risk: uncertainty about the outcome and uncertainty about the consequences (Taylor, 1974). Cox and Rich (1964) define perceived risk as the overall amount of uncertainty perceived by a consumer in a particular purchase situation. A number of risk dimensions have been proposed including financial, product performance, physical, social, and psychological risk

and time/convenience loss (cf. Kaplan, Szybillo and Jacoby, 1974; Peter and Tarpey, 1975). When consumers buy products, they may be afraid to lose (some of) their money (financial risk), to run the risk that the product purchased will not function as expected and/or will not fulfill their needs (product performance risk); to injure themselves (physical risk); to encounter the risk that peers will not accept their choices or to embarrass themselves in public (social risk); to waste time and/or experience inconvenience (time/convenience risk) and, finally, to run the risk of psychological discomfort (psychological risk).

Risk or uncertainty often involves significant psychological costs (Carmon, Shanthikumar and Carmon, 1995). Decision making generally produces consequences that cannot be anticipated with certainty, and some of which are unpleasant (Bauer, 1960: p. 30), leading to psychological discomfort (Stone and Grønhaug, 1993). In fact, the various risk dimensions (financial, product performance, social, physical, time/convenience) are mediated through psychological risk to influence overall risk. Customers' psyche generally translates any type of risk into feelings of discomfort (Stone and Grønhaug, 1993). Several studies showed that perceived risk negatively impacts perceived value (Agarwal and Teas, 2001; Shimp and Bearden, 1982; Sweeney, Soutar and Johnson, 1999; Agarwal and Teas, 2001). Other studies also propose that psychological costs can have a direct influence on purchase intentions (Baker et al., 2002). For example, high perceptions of (financial and product performance) risk may prevent consumers from online shopping (Forsythe and Shi, 2003; Jarvenpaa and Tractinsky, 1999). Hence, the previous arguments suggest the following hypotheses:

H9 Perceived risk is negatively associated with perceived value

H10 Perceived risk is negatively associated with purchase intentions

Shopping in the offline environment is perceived as rather safe, although some people (e.g., elderly people) rather shop out of their homes to avoid physical injuries and possible robberies. Conversely, shopping online is generally perceived as being more risky (Donthu and Garcia, 1999; Tan, 1999). This is mainly due to the in-home shopping aspects. Akaah and Korgoankar (1988) found that consumers perceive more risk when they shop out of their homes. Other researchers (Spence, Engel and Blackwell, 1970; Gillet, 1970) found that in-home shopping was considered a high-risk strategy for the following reasons: (1) lack of opportunity to examine products prior to purchase; (2) difficulties in returning faulty merchandise; and (3) frequent distrust of business ethics of certain mail-order operations. Apart from the in-home shopping aspects, the Internet is a relatively new and complex shopping environment causing more failures than its established counterpart. Consumers often have not gained much experience with online shopping and therefore lack relevant knowledge about how to deal with certain aspects (Einwiller, 2003).

Financial, product performance, time/convenience, and psychological (privacy) risk have been touted as most prevalent among Internet shoppers (10^{th} GVU WWW User Surveys, 1998). Forsythe and Shi (2003) indicate that all four types of risk impact on online patronage behavior. The security and privacy provided by online channels have frequently been questioned by consumers (e.g. Cranor, Reagle and Ackerman, 1999; Hoffman, Novak and Peralta, 1999; Raganathan and Ganapathy, 2002;

Rowley, 1996; Swaminathan, Lepkowska-White and Rao, 1999; Szymanski and Hise, 2000). Security involves protecting consumers from the risk of fraud and financial loss from the use of their credit card or other financial information (Zeithaml, Parasuraman and Malhotra, 2000). Online shoppers report the importance of this factor; three out of four say that security is important to them (Novak, Hoffman and Yung, 2000). Further research indicates that security risk perceptions have a strong impact on attitude toward use of online services (Montoya-Weiss, Voss and Grewal, 2000). Privacy involves the protection of personal information –not sharing personal information collected about consumers, protecting anonymity, and providing informed consent (Friedman and Kahn., 2000). Although online consumers are largely aware that very detailed information can be collected concerning their search and purchase behaviors (Hoffman, Novak and Peralta, 1999), this does not seem to influence the amount of money spent on the Internet. In general, an increased uncertainty about the outcome of a making a purchase will lead to increased reluctance to engage in purchase activities (Forsythe and Shi, 2003).

Nonmonetary Benefits: Perceived enjoyment

For certain products, the shopping process is fun or entertaining for its own sake, apart from any other performance measures that may be anticipated. For example, consumers often want to extend, to a certain degree, their search time for their holiday trip. Perceived enjoyment relates to intrinsic motivations to perform a behavior that is pleasurable in its own right (Vallerand, 1997). This is distinct from extrinsic motivations, which relate to the performance of an activity in achieving specific goals or rewards that are distinct from the activity itself (Deci and Ryan, 1985).

Environmental psychologists argue that a favorable impression of environments or retail settings may influence consumers' emotional and cognitive states (cf. Mehrabian and Russell, 1974; Eroglu, Machleit and Davis, 2003). Environmental studies show that the feelings of pleasure and arousal have a significant effect on consumer behaviors (Bitner, 1992; Donovan and Rossiter, 1982; Eroglu, Machleit and Davis, 2003; Hui and Bateson, 1991). Consumers experiencing a positive mood exhibit higher approach responses (i.e., staying), whereas those experiencing a more negative affect display more avoidance responses (i.e., leaving). Past research (Babin and Darden, 1996; Donovan et al., 1994) also showed that positive feelings lead to increased (unplanned) spending. The rationale for this relationship is that consumers who are in positive moods are more likely to reach decision resolution and spend less time to reach a decision (Isen, 1989). Moreover, if shoppers have had their moods improved by visiting a shopping environment, they may reciprocate in the form of a small purchase (Babin and Darden, 1996). Thus, this leads to the following hypotheses:

H11 Perceived enjoyment is positively associated with perceived value

H12 Perceived enjoyment is positively associated with purchase intentions

Eroglu, Machleit and Davis (2001) developed a model proposing that, like in the offline context, e-retailers create an atmosphere that affects shopper reactions. Two years later, they tested the PAD model in the online context and results confirmed that atmospherics play a similar role in the online

context. Just as in the offline context, the results show that pleasure and arousal are predictors of attitudes, satisfaction and approach/avoidance behaviors. Other studies (Childers et al., 2001; Mathwick, Malhotra and Rigdon, 2001) confirm that although utilitarian qualities of online shopping (ease and convenience) are important predictors of attitudes and purchase intentions, the hedonic aspects of the Internet play at least an equal role in determining these factors.

Additional Factors to Existent Perceived Value Model

In addition to the basic perceived value model, which is depicted in Figure 1, we add elements that are prevalent to the online context and that further explain the key variables. Scholars have mentioned that the Internet shopping environment is significantly different from the physical retail context (Lohse and Spiller, 1998). For instance, Wolfinbarger and Gilly (2002) address that although some store attributes are common to the online and offline channels (e.g., merchandise assortment, service policies, layout and reputation), others are not (e.g., clientele). They developed a reliable and valid scale (.comQ) for measuring the quality of the complete online experience. Usability, information content, reliability/fulfilment, customer service, selection, privacy/security and experiential atmospheric qualities are the determinants of the online quality experience. All of these factors can be directly related to the offline context. Reliability/fulfilment and customer service are elements of service quality; selection is part of merchandise quality; privacy and security are risk dimensions; and experiential aspects refer to the store atmospherics. Chen and Dubinsky (2003) also address the uniqueness of the Internet and put several characteristics forward that are predictors of value in the online context, including ease of use, informativeness, and online retailer reputation. By incorporating the key influencers of online quality perceptions (which are generally applicable to the offline context), we make it more plausible that the key drivers of value for both channels are present. Additionally, we improve our insights into the underlying factors that shape the predictors of perceived value. For example, this model shows what factors can influence time and effort expenditures. This will further enhance our understanding of the differences in the construction of online and offline perceived value. A review of the E-Commerce literature indicates that ease of use, informativeness, control, and reputation are significant influencers of perceived value in the online context. The next section describes each factor and shows the proposed effect on other variables. In order to enable comparisons, we translate them to the offline context. Figure 2 shows the extended model of perceived value. As the company's offerings also explain channel choice, we also measure the performance of a particular retailer. The dashed lines indicate when the measurement takes place at the retailer level.

Ease of use/Usability

In the offline context, ease of use has been described by retailing concepts, such as: accessibility (Berry, Seiders and Grewal, 2002), store layout and design (Lohse and Spiller, 1998), ease of navigating through the store, and fast checkout (Arnold, Oum and Tigert, 1983). Accessibility deals with the ease of reaching retailers, opening hours and the availability of parking spaces (Berry, Seiders and Grewal, 2002). Often authors refer to the term 'convenience' to describe the ease of using a channel (cf. Childers et al., 2001). According to Seiders et al. (2000) there are mainly four ways to

enhance convenience, namely by improving access, search, possession and transaction convenience. Retailers that are convenient are easy to reach (access convenience); enable consumers to speedily identify and select/order the desired products (search convenience); make it easy to obtain the desired products (possession convenience); and expedite the purchase and return of products (transaction convenience). In particular, Berry, Seiders and Grewal (2002) address that the transaction convenience, which they entitle as post-purchase convenience, refers to the consumer's perceived time and effort expenditures needed to reinitiate contact with the (service) provider to resolve problems and to arrange follow-ups.

In the online context, ease of use has also been termed *usability* (Swaminathan et al., 1999) or *efficiency* (Zeithaml, Parasuraman and Malhotra, 2000). Usability, which includes navigation and ease of use (search functions, download speed, overall design, ease of ordering), is a key factor in realizing the promise of E-Commerce (Swaminathan et al., 1999). Efficiency refers to the ease of online shopping (Zeithaml, Parasuraman and Malhotra, 2000), and clearly establishes the link between ease of use and time/effort savings. The structure of the online environment can both facilitate and impair navigation for product information depending on its impact on consumer search costs (Childers et al., 2001). Technical functioning of a website, which Zeithaml, Parasuraman and Malhotra (2000) call *reliability*, strongly influences the ease of use. When websites are not functioning properly (website unavailable, long download times), it can seriously harm the customer experience and raise psychological costs. Some authors (Rose, 1999) found that download delay has a negative impact on the online experience. Interactive decision aids can improve search convenience. Comparison matrices and recommendation agents help consumers to reduce cognitive effort and time drastically by screening a large number of alternatives quickly and accurately and offering them an organized representation of the 'best' alternatives (cf. Häubl and Trifts, 2000).

Previous studies indicated that ease of use predicts attitude towards online shopping by successfully applying Davis' (1989) Technology Acceptance Model (e.g., Childers et al., 2001; Pavlou, 2003). Ease of use is here referred as whether the system (i.e., the Internet) is 'free of effort' (Davis, 1989; Davis, Bagozzi and Warshaw, 1989,1992). Here, the term is used to indicate the ease of accessing and using a particular channel for purchasing. In particular, it relates to the ease of accessing retailers, finding alternatives, screening these alternatives to form a consideration set, making a choice, ordering and receiving the product, checkout and returning products if repair or maintenance is needed. Obviously, both channels differ in the ease of accessing, searching, selecting, ordering and transferring the ownership of a product. While the online channel is generally perceived as superior in accessing retailers, finding relevant information and selecting/ordering the desired product with minimum time and effort invested (with the exception of physically examining products), the offline channel seems to outperform the online channel in the latter stages (e.g., ease of payments, immediate possession of goods, exchange and return of products and other post-purchase services). This superiority of offline channels in the final stages is likely to hold only for physical products. Financial services, for example, do not require physical pre-purchase examination, can be obtained without entering a local store, and do not require exchange and return services.

As mentioned before the ease of using a channel is strongly related to the time and effort required. When consumers perceive channels as being easier to use, they can more easily and quickly obtain the desired product, leading to time and effort savings (Childers et al., 2001). Additionally, when channels are more convenient, it is less likely that things could to go wrong. This leads to reductions in frustration and, in turn, the psychological costs are reduced. At the same time, it has been proven that perceptions of convenience make the shopping process more appealing, and, in turn, lead to more enjoyment (Childers et al., 2001). This leads to the following hypotheses:

H13 Ease of use is negatively associated with time and effort expenditures.
H14 Ease of use is negatively associated with perceived risk
H15 Ease of use is positively associated with enjoyment

Informativeness

Informativeness is another significant influencer of the predictors of perceived value in the online and offline context. It relates to the extent to which a channel is perceived to provide relevant and in-depth information for decision making. Although information availability overlaps with search convenience, many authors differentiate this construct from ease of use (e.g., Zeithaml, Parasuraman and Malhotra, 2000; Wolfinbarger and Gilly, 2002). Whereas search convenience refers to the speed and ease of retrieving product information, informativeness is concerned with the relevancy of information to make a well-informed decision.

Perceptions of informativeness are generally based on the quantity and quality of information that can be distributed, as well as the opportunity to compare alternatives (Alba et al., 1997). The quantity of information reflects the sheer amount of information a channel provides, whereas the quality of information refers to the depth (or specificity) of information. In particular, the quality of information relates to the degree to which consumers are able to use the information obtained to predict their satisfaction from subsequent consumption (Alba et al., 1997). Finally, comparison of alternatives may facilitate comparability between alternatives and, hence, choice. People have a limited capacity to store and elaborate upon information (Newell and Simon, 1972; Shiffrin, 1976). Information search will lead to time and energy costs, and excessive cognitive efforts are related to unpleasant feelings. Therefore, consumers only find *relevant* information to be useful and valuable (Chen and Dubinsky, 2003).

Internet should prove superior to traditional channels in terms of the sheer amount of alternatives and attribute information it can provide (Alba et al., 1997). In general, Internet is also superior in providing in-depth information; this is, however, not always the case. The inadequacy of distributing tactile information makes it difficult for consumers to assess the quality of products that require physical examination. Additionally, skilled salesmen can customize answers to customers' needs, which is hardly possible on the Internet, and which facilitate choice drastically. In contrast, online buyers often doubt the competence of salespeople, and report they appreciate the direct obtainment of information without having to go through a salesperson (Gilly and Wolfinbarger, 2000).

Consumers can more easily and quickly reach a decision, when channels are perceived to distribute more relevant information. In this way, search costs for products and product-related information are drastically reduced. It is thus expected that more informative channels save time and (cognitive) effort. In addition, by engaging in information seeking, consumers try to eliminate anxiety and reduce the discomfort produced by an uncertainty or perceived risk in a choice situation (Jasper and Oullette, 1994; Roselius, 1971); therefore, finding relevant information is likely to enhance confidence in their decision making. To conclude, we believe that higher levels of perceived informativeness are related to time and effort savings, and increase confidence in making a purchase decision (i.e., reduces anxiety). Therefore, we hypothesize the following:

H16 Informativeness is negatively associated with time and effort expenditures

H17 Informativeness is negatively associated with perceived risk

Perceived control

Perceived control plays an eminent role in explaining consumer behavior (Ajzen, 1991). Ajzen's (1988) Theory of Planned Behavior indicates that the attitude towards an object or behavior is more positive when consumers feel they are able to perform the behavior. When consumers indicate that they lack the resources or opportunities to perform a behavior (shopping), they are unlikely to form strong intention to perform the behavior. Consumer behavior literature generally treats control as a perceptual construct since that is of greater interest than actual control when understanding behavior (see Ajzen, 1991). The literature describes perceived control as the "will to power" (Nietzsche, 1961), the need to demonstrate one's competence, superiority and mastery over the environment (White, 1959), and the need to feel dominant and influential. It is a human desire that consumers generally seek to satisfy in their exchange relationships (Ward and Barnes, 2001).

Research on store atmospherics indicates that feelings of dominance –evoked by the store environment- may alter consumer behavior (Babin and Darden, 1995). Mehrabian and Russell (1974, p.19) argued that "an individual's feeling of dominance in a situation is based on the extent to which he feels unrestricted or free to act in a variety of ways." Although results indicate that pleasure and arousal are consistently found to be predictors of behavior, findings for the effect of dominance on behavior are inconsistent. Babin and Darden (1995) indicate that consumers differ in their ability to regulate their own behavior (i.e., self-regulatory tendency), which causes these inconsistencies. Their study uses Kuhl's (1986) classification of state-oriented versus action-oriented people; state-oriented shoppers have an increased susceptibility for context effects and in-store emotions are likely to impact them significantly, whereas action-oriented are more likely to focus on the task-oriented aspects of shopping and are less distracted by external influences. Results indicate that only state-oriented shoppers are influenced by feelings of dominance. Next, feelings of arousal display a far greater impact on resource expenditures among state-oriented shoppers compared to action-oriented shoppers; this finding suggests that action-oriented shoppers do not want to be distracted from their shopping goals.

This paper does not confine the definition to customers' control perceptions over the environment, but rather defines control as the consumer's perceptions of mastering the entire buying

process, which is similar to Perceived Behavioral Control (Ajzen, 1991); thus, whether consumers think they have the resources, knowledge and opportunities to consistently perform the shopping behavior through certain channels. The consumers' capabilities and resources are linked to the environment (i.e., channels) to understand the ease of performing the behavior. In contrast to the Theory of Planned Behavior where perceived behavioral control is distinct from attitude and is a direct influencer of behavioral intentions, we relate control indirectly to purchase intentions.

Channels differ in their levels of consumers' perceived control (cf. Hoffman, Novak and Schlosser, 2000). Online shoppers experience primary control in the use of electronic channels (Hoffman, Novak and Schlosser, 2000: 2002). Wolfinbarger and Gilly (2001) subscribe this by arguing that online shoppers seek for freedom and control, where the emphasis is rather on goal attainment than on having a compelling experience. These shoppers enjoy the lack of commitment (Mick and Fournier, 1998) because it increases their efficiency, helps them minimize the effort of making a purchase and thus increases their sense of control. They are in control and experience little pressure to purchase before they are absolutely ready; they shop whenever they want as it easy to return and make the transaction later after further thought (e.g., abandoned shopping carts may be remembered by websites). Moreover, there are no (obtrusive) sales personnel that may oblige consumers to make purchases.

Venkatesh (2000) found that perceptions of control positively influence the perceived ease of using information technology. The more control is perceived through higher self-efficacy and facilitating conditions (e.g., availability of support staff), the higher the perceived ease of use. Higher perceptions of control are also associated with reductions in perceived risk (Hoffman, Novak and Yung, 2000). The reasoning behind this is when consumers perceive greater control over their buying behavior, their level of risk experienced decreases. Finally, perceived control positively affects enjoyment. Ward and Barnes (2001) stated that perceptions of control are likely to evoke affect, because they are related to the consumer's judgement of whether the environment will facilitate or frustrate goal achievement. Environments that facilitate goal achievement engender positive affect, whereas nonfacilitating environments evoke the opposite. Moreover, in combination with greater web-related skills, greater perceived control leads to greater *flow* (Novak, Hoffman and Yung, 2000). The state of *flow* is a useful construct for describing more general human-computer interactions (Csikzentmihalyi, 1977). It can be adapted to Internet navigation and be described as the state occurring during network navigation which is (1) characterized by a seamless sequences of responses facilitated by machine interactivity, (2) intrinsically enjoyable, (3) accompanied by a loss of self-consciousness, and (4) self-reinforcing (Novak, Hoffman and Yung, 2000). The construct is important because it underlies what makes a compelling experience (Hoffman and Novak, 1996). Duman's (2002) study on cruise holidays confirms that control positively affects hedonic feelings. This leads to the following hypotheses:

H18 Perceived control is positively associated with ease of use

H19 Perceived control is negatively associated with perceived risk

H20 Perceived control is positively associated with perceived enjoyment

Reputation/Trust

Researchers report that reputation and trust are essential in adequately explaining online shopping behavior (Pavlou, 2003; Swaminathan et al., 1999), but these factors -when related to store image- also have an effect on consumer patronage in the offline context (cf. Agarwal and Teas, 2001; Berry, 1969; Dodds, Monroe and Grewal, 1991; Grewal et al., 1998; Hildebrandt, 1988). Reputation, which can be defined as "the second-hand rumour that one has positive general traits (McKnight and Chervany, 2002), is an important influencer of the likelihood of online shopping (Swaminathan, Lepkowska-White and Rao, 1999). It refers to the (public) third-party evaluation of retailers. Reputation and trust are related constructs: reputation refers to the extent to which a group of consumers believe that the store is honest and concerned about its customers (Doney and Cannon, 1997), whereas trust refers to a willingness to rely on an exchange partner in whom one has confidence (Moorman, Deshpandé and Zaltman, 1993). As such, reputation is an antecedent of trust (Jarvenpaa and Tractinsky, 1999).

Jarvenpaa, Tractinsky and Vitale (2000) found that consumers' evaluations of reputation and size affect their trust in the store. Additionally, Jarvenpaa and Tractinsky (1999) found that reputation was a much stronger predictor of trust than size. Hence, reputation generally engenders trust (cf. Einwiller, 2003). Past research also indicated that reputation is positively related to perceptions of quality (Agarwal and Teas, 2001).

Trust can be defined as the confidence of the trusting party that the trustworthy party is reliable, has high integrity and is associated with such qualities as consistency, competency, honesty, fairness, responsibility, helpfulness and benevolence (Morgan and Hunt, 1994). Trust is a critical factor in any relationship in which the trustor (i.e., consumer) does not have direct control over the actions of a trustee (i.e., retailer), and there are possible negative consequences of one party not fulfilling its promises (Mayer, Davis and Schoorman, 1995). Trust and risk are also related; risk is a necessary condition for trust to be operative (Mitchell, 1999). In fact, trust refers to the consumers' willingness to be vulnerable to the actions of retailers, based on the expectation that a retailer will perform a behavior that is beneficial to them, irrespective of the ability to monitor or control these retailers (Mayer, Davis and Schoorman, 1995). Not surprisingly, trust reduces risk perceptions (cf. Einwiller, 2003; Jarvenpaa and Tractinsky, 1999; Jarvenpaa, Tractinsky and Vitale, 2000). Consumers compare the levels of risk and trust; the higher the initial risk perceptions of risk, the more trust is needed to facilitate a transaction (Mayer, Davis and Schoorman, 1995).

In the online context, it is more difficult for consumers to evaluate merchandise/product quality and security of transactions. They often use extrinsic cues (e.g., website security symbols and reputation) to infer quality and transaction security. Teas and Agarwal (2000) explained this via the "affect-referral" process discussed by Wright (1975); this phenomenon suggests that consumers do not examine every purchase into detail by comparing product attributes but rather simplify their choice by basing their choice on global judgements, such as store image or reputation. Consumers rely heavily on the online vendor's reputation for trustworthiness (Jarvenpaa and Tractinsky, 1999; Lee and Turban, 2001; Liljander, 2001).

Einwiller (2003) indicated that online shoppers also have to trust the Internet (i.e., system trust) to be a safe and low-risk channel for purchasing. Her study shows that, in accordance with

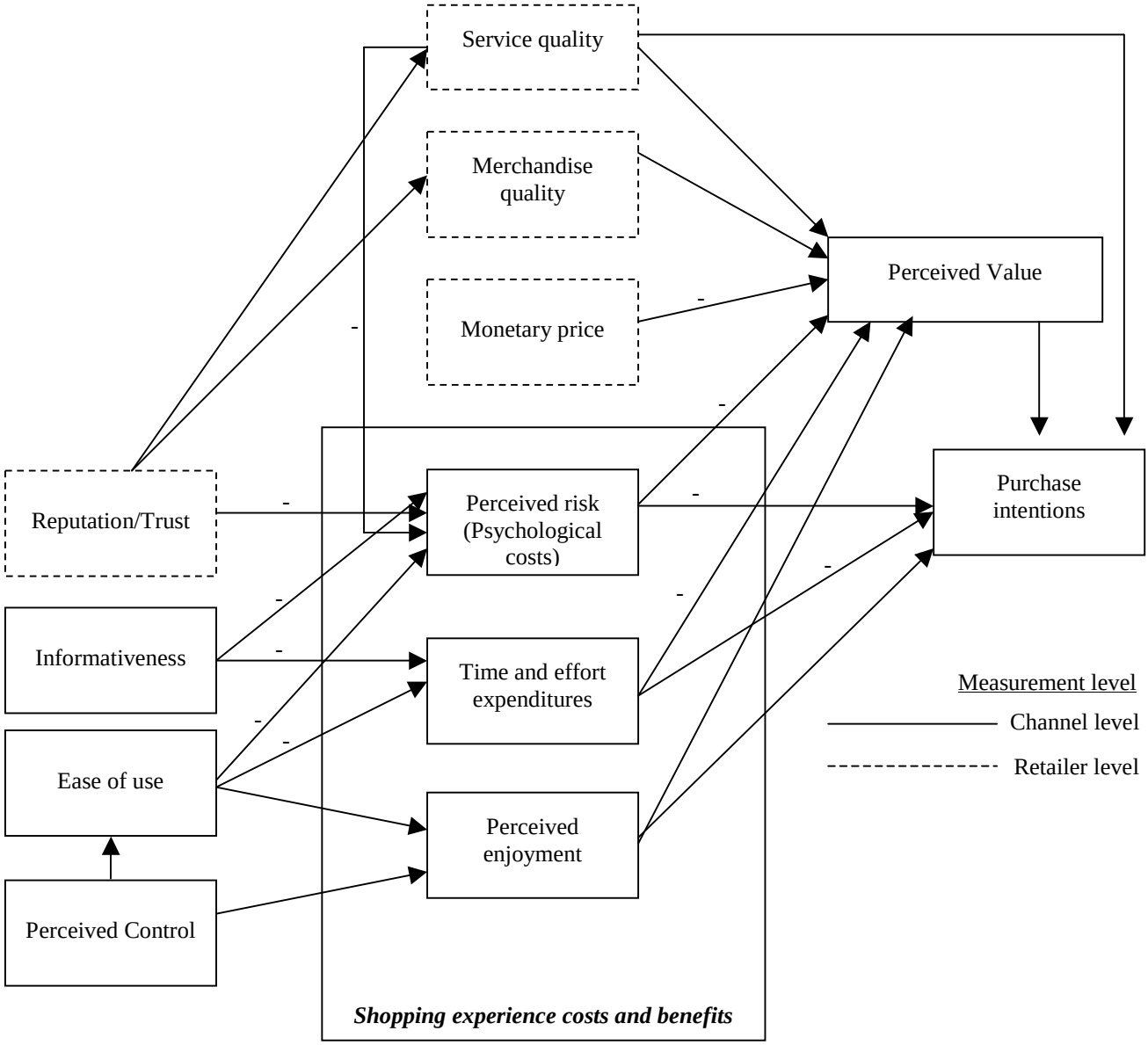
reputation positively affecting retailer trust, system reputation positively influences system trust. Results further indicate that trust in a retailer exerts the strongest effect on the intention to buy something from a particular online retailer; the effect of system trust on buying intentions is fully mediated through vendor trust (system trust -> retailer trust-> buying intentions). For the sake of parsimony, this paper does not differentiate between reputation and trust and uses a constrained reputation/trust construct. Trust/reputation positively influences service quality and merchandise quality and may compensate for risk. This leads to the following hypotheses:

H21 Reputation/trust is positively associated with service quality

H22 Reputation/trust is positively associated with merchandise quality

H23 Reputation/trust is negatively associated with perceived risk

Figure 2: Extended Model of Perceived Value



Relative Importance of Factors for Shoppers in the Online and Offline Context

As mentioned before, the construction of perceived value may vary among channels. We are therefore interested in the strength of the relationships among channels. Research indicated that online shoppers seek for *better information* (Rosen and Howard, 2000; Rowley, 2001; Swaminathan, Lepkowska-White and Rao, 1999), *more convenience* (Anderson and Srinivasan, 2003; Wolfinbarger and Gilly, 2001), *more control* (Hoffman and Novak, 1996; Hoffman, Novak and Yung, 2000, Wolfinbarger and Gilly, 2001), *time and effort savings* (Anderson and Srinivasan, 2003; Bhatnagar, Misra and Rao, 2000; Ernst and Young, 1999; Rosen and Howard, 2000) and *wider selections* (Rosen and Howard, 2000; Gilly and Wolfinbarger 2000; Wolfinbarger and Gilly 2001, 2002). All things equal, intrapersonal *service quality* and *enjoyment* are expected to be of lesser importance to creating value in the online context. *Reputation/trust* is assumed to play a more prominent role in the riskier online context (Swaminathan, Lepkowska-White and Rao, 1999). However, the importance of reputation tends to decrease with increasing levels of familiarity with online shopping (Einwiller, 2003). A similar inconsistent effect can be noticed for *price*; the relative importance of price among channels appears to be ambiguous.

Online buyers are expected to attribute higher levels of *informativeness* to their channel than offline consumers assign to their channel. Consumers frequently mentioned the easy access to in-depth information to be an important reason for shopping online (Swaminathan, Lepkowska-White and Rao, 1999; Li, Kuo and Russel, 1999; Van den Poel and Leunis, 1999). Montoya-Weiss et al. (2000) find that for financial services the information relevance (recency, comprehensiveness and accuracy) is the most important factor, relative to navigation and graphic style. We expect stronger relationships between informativeness and psychological cost reductions, and between informativeness and time and effort expenditures.

Online shopping often involves goal-directed behavior (Wolfinbarger and Gilly, 2001). Online shoppers generally want to have a convenient way to shop (24/7, out of their homes) and spend minimum time and effort to accomplish their purchases (Hoffman and Novak, 1996). Previous work indicated that customers are motivated to shop online because of the *time savings* (e.g., Bellman, Lohse and Johnson, 1999) and *convenience* (e.g., Bhatnagar, Misra and Rao, 2000; Childers et al., 2001; Wolfinbarger and Gilly, 2001). We therefore expect that ease of use is more pronounced in reducing time and effort expenditures and increasing perceived enjoyment in the online context. Additionally, time/effort savings are expected to be stronger predictors of perceived value and behavioral intentions in the online context.

Research indicated that as the Internet allows consumers to experience primary *control* is a motivating factor for them to engage in online shopping (Hoffman, Novak and Peralta, 1999; Hoffman, Novak and Schlosser, 2002). Online shoppers experience more enjoyment through the enhanced control over the environment. Consequently, we believe that the relationships between perceived control and ease of use and between perceived control and enjoyment are stronger for online shoppers compared to offline shoppers.

Consumers also indicated that *increased selection* is a motivation for them to shop online (Ernst and Young, 1999; Gilly and Wolfinbarger, 2000; Wolfinbarger and Gilly, 2001). The online channel has the opportunity to offer a larger number of alternatives per category than the offline

channel and the opportunity to search for unique products (Alba et al., 1997). We expect that merchandise quality is a stronger influencer of perceived value and behavioral intentions for online shoppers compared to offline shoppers.

We expect that online shoppers generally care less about *service quality* (i.e., here defined as the quality of the additional services delivered). Online shoppers largely like the lack of social interaction (Wolfinbarger and Gilly, 2001). The absence of salespeople is appreciated for two reasons: salespeople are often perceived to be unhelpful or uninformed and they pressure or obligate buyers. Salespeople's advice and customer service are relatively lacking on the Internet (Sharma and Krishnan, 2002), and we assume that the online shoppers do not derive much value from improvements in service quality. Thus, this paper predicts that for online shoppers service quality influences perceived value and behavioral intentions to a lesser extent compared to offline shoppers.

Wolfinbarger and Gilly (2001) state that online shoppers rather see purchasing as "buying" instead of "shopping" and are less concerned about the *enjoyment* they receive. They conclude that online and offline environments present different shopping experiences and that the online experience is far less compelling than the multi-dimensional, multi-sensation possibilities offered by offline shopping. In contrast, Childers et al. (2001) showed the strong impact of enjoyment on the attitude towards online shopping in both utilitarian and hedonic settings. They call for research on this subject, but believe that consumers generally expect to find more enjoyment in interactive environments than when they do when shopping in physical environments. We want to address this issue, but believe that enjoyment more significantly affect perceived value and behavioral intentions relationships in the offline environment.

Prior research showed that most online buyers have an internal locus of control (Hoffman et al. 2000; Hoffman et al. 2002; Wolfinbarger and Gilly, 2001), and these Internals often commit themselves to risky, innovative and difficult tasks (Howell and Avolio, 1993). In addition, research indicated that with increasing online experience, online shoppers are less likely to have security concerns (Forsythe and Shi, 2003). In fact, people who just browse on the Internet appear to be much more sensitive to the risks associated with Internet shopping than online shoppers. For these people, the link between perceived risk and online shopping value intentions is rather strong. However, we believe that offline shoppers perceive the bricks-and-mortar environment as being rather safe and predominantly experience product performance risk. When the same products are bought, one might expect that the effect of perceived risk on value and purchase intentions for offline and online shoppers are quite similar.

The strength of relationships among channels for reputation/trust and price appear to be inconsistent. The role of *reputation/trus*t may be more pronounced in the online context because of the novelty of the distribution channel. Consumers will attach more importance to organizational image and reputation as risk relievers in channel selection (Black et al., 2001) because of the absence of intrinsic product cues that are generally used to evaluate quality. Therefore, a stronger relationship between reputation and perceived risk is expected in the online context. However, Einwiller (2003) found that the reputation-trust relationship is particularly pronounced if the consumer's experience with online shopping is low. Customers who had gained much experience with a particular retailer were

significantly less influenced by retailer's reputation than those who had never or rarely bought something from the respective retailer. Results may indicate that more experienced online shoppers pay less attention to a retailer's reputation because of lower risk perceptions through higher levels of familiarity with online shopping. We therefore expect that for inexperienced online shoppers, reputation/trust exerts a strong effect on perceived risk.

The importance of *price* (savings) as a motivating factor to engage in online shopping is widely discussed. Bellman, Lohse and Johnson (1999) address that online shoppers seem to value time saving rather than possible cost savings. A study based on data obtained from Peapod, an online grocery store, underline these findings by stating that price sensitivity is lower and brand sensitivity higher among online shoppers (Degeratu, Rangaswamy and Wu, 2000). Reibstein (2002) concludes that price seems to be an important factor for first-time buyers, but that other factors (i.e., customer service and on-time delivery) are important in retaining customers. However, not all shoppers are less price sensitive; online shoppers that make use of recommendation agents seem to be extremely sensitive to price (cf. Smith and Brynjolfsson, 2001). A 1999 study from Ernst and Young indicates that saving money/lower prices was the most prevalent motivations among online shoppers, whereas non-adopters indicated that products were too expensive on the Internet. The results may appear contradictory, however, Clay, Krishnan and Smith (2001) interestingly conclude that consumers appear to be both more and less price sensitive on the Internet relative to physical channels. Customers who are already price sensitive can more easily search for low prices (shopbots, comparison sites), leading to extremely high elasticities. Conversely, consumers who are already price insensitive due to high income, limited time and brand consciousness, may appear extremely price insensitive when shopping online.

Based on the former discussion, we assume that consumers predominantly engage in online shopping based on the utilitarian aspects of perceived control, informativeness, ease of use, saving time and effort and finding the right high-quality product (i.e., merchandise quality). Consequently, all else being equal, we expect that enjoyment and service quality are of lesser importance to online shoppers compared to offline shoppers. In other words, the (predictors of) utilitarian aspects more strongly influence perceived value and behavioral intentions for online shoppers. We assume that the impact of perceived risk does not differ significantly among online and offline shoppers.

H24: Perceived control, informativeness, ease of use, time/effort expenditures, and merchandise quality have a more pronounced effect on perceived value and purchase intentions to online shoppers compared to offline shoppers

H25: Enjoyment and (intrapersonal) service quality are of lesser importance to online shoppers compared to offline shoppers

Conclusions

This study developed a model that uses consumer value perceptions to improve our understanding of channel choice. The concept of perceived value enables researchers to compare the channels' performance in terms of perceived costs and benefits. Previous work demonstrated the major influence perceived value has on purchase intentions, but merely focused on product or store value perceptions.

This paper extends this view and asks both online and offline shoppers to rate both channels in terms of (expected) performance. Because 'what is delivered' plays a pivotal part in channel choice, we also incorporate organizations' offerings in terms of merchandise quality, service quality and reputation. By adopting this approach, researchers and practitioners can gain valuable insights into the motivations to adopt a certain channel for shopping.

Our conceptual model aims to provide insights on the construction of perceived value in both the online and offline context. To analyze the proposed relationships, we recommend a structural equation modeling approach (SEM). This method is capable of analyzing structural relationships between a set of latent constructs, much like independent and dependent variables in regression analysis (Segars and Grover, 1993). Next, it provides a comprehensive means assessing and modifying theoretical models (Karahanna and Straub, 1999); competitive models can be tested on their goodness-of-fit.

In the first place this model is developed to compare the construction of perceived value among channels. By testing for invariance between the perceptions of online and offline buyers through a two-group analysis, researchers will be able to identify the relative importance of the predictors of perceived value among channels. The relative impact of these factors refers to the (strength of) consumer motivations to adopt a certain channel. We indicated the expected differences in importance and argue that online shoppers attach more value to perceived control, informativeness, ease of use, time/effort savings, and merchandise quality. Conversely, offline shoppers are expected to derive more value from enjoyment and service quality. In the second place, this model also enables to capture the perceptions of using the Internet as purchasing tool for both online and offline buyers. Comparisons of these perceptions put forward the main facilitating and inhibiting factors for engaging in online shopping.

Although this model is based on perceived value, which has empirically been shown to be a good predictor of purchase intentions in multiple settings, its generizability is limited. First, the conceptual model is particularly suited for buying physical goods. It has to be investigated whether the model is generalizable to services settings. Second, our model focuses on understanding mono-channel choice behavior, i.e. using one channel only to complete a shopping task. Although the purchase decision (actual order) takes place in one particular channel, consumers might engage in multi-channeling behavior (switching from one channel to another), resulting in blurred perceptions of individual channel performance. Because of this, our model is more suited for low-involvement, less complex products in which multi-channeling does not frequently occur. Another limitation is that our model assumes that consumers deliberate on channel choice, disregarding the power of habitual decision making. The level of involvement with channel choice can be integrated to capture this effect. Finally, offline consumers may have difficulties in answering questions related to the performance of the Internet (e.g., ease of use) and online retailers (e.g., price levels).

This paper addressed that there are strong product-channel interactions influencing channel choice; e.g., the Internet is less suited to sell experience goods, as it lacks the opportunity to distribute tactile information. Moreover, as perceived value is context-dependent, it is likely to be differently constructed when researching functional vs. experiential products, and low vs. high-involvement

products. Consequently, researching multiple products is necessary to increase the generalizability of the results. We encourage other authors to empirically test our model in multiple settings.

References

- Agarwal, S. and R.K. Teas (2001). "Perceived Value: Mediating Role of Perceived Risk". *Journal of Marketing Theory & Practice.* Vol. 9, No. 4, 1-14.

- Ajzen, I. (1988). *Attitudes, Personality and Behaviour*. Open University Press: Milton Keynes.

- Ajzen, I. (1991). "The Theory of Planned Behavior". *Organizational Behavior & Human Decision Processes.* Vol. 50, No. 2, 179-211.

- Akaah, I. P. and P.K. Korgaonkar (1988). "A Conjoint Investigation of the Relative Importance of Risk Relievers in Direct Marketing". *Journal of Advertising Research.* Vol. 28, No. 4, 40-46.

- Alba, J.W., J.R. Lynch, B. Weitz, C. Janiszewski, R. Lutz, A. Sawyer and S. Wood (1997). "Interactive Home Shopping: Consumer, Retailer, and Manufacturer Incentives to Participate in Electronic Marketplaces". *Journal of Marketing.* Vol. 61, No. 3, 38-53.

- Anderson, R.E. and S.S. Srinivasan (2003). "E-Satisfaction and E-Loyalty: A Contingency Framework". *Psychology & Marketing.* Vol. 20, No. 2, 123-138.

- Arnold, S.J., T.H. Oum and D.R. Tigert (1983). "Determinant Attributes in Retail Patronage: Seasonal, Temporal, Regional, and International Comparisons". *Journal of Marketing Research.* Vol. 20, No. 2, 149-157.

- Anderson, W.T. Jr. (1972). "Convenience Orientation and Consumption Behavior". *Journal of Retailing.* Vol. 48, No. 3, 49-71.

- Babin, B.J., W.R. Darden and M. Griffin (1994). "Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value". *Journal of Consumer Research.* Vol. 20, No. 4, 644-656.

- Babin, B.J. and W.R. Darden (1995). "Consumer Self-Regulation in a Retail Environment". *Journal of Retailing.* Vol. 71, No. 1, 47-70.

- Babin, B.J. and W.R. Darden (1996). "Good and Bad Shopping Vibes: Spending and Patronage Satisfaction". *Journal of Business Research.* Vol. 35, No. 3, 201-206.

- Babin, B.J., W.R. Darden and L.A. Babin (1998). "Negative Emotions in Marketing Research: Affect or Artifact?". *Journal of Business Research.* Vol. 42, No. 3, 271-285.

- Baker, J. (1987). "The Role of the Environment in Marketing Services: The Consumer Perspective". *In:* Czepiel, J.A., C.A. Congram and J. Shanahan (eds). *The Service Challenge: Integrating for Competitive Advantage.* Chicago: American Marketing Association. 79-84.

- Baker, J. (1998). "Examining the Informational Value of Store Environments". *In:* Sherry, J.F Jr. (ed.). *Servicescapes: The Concept of Place in Contemporary Markets.* Chicago: American Marketing Association. 55-80.

- Baker, J., A. Parasuraman, D. Grewal and G.B. Voss (2002). "The Influence of Multiple Store Environment Cues on Perceived Merchandise Value and Patronage Intentions". *Journal of Marketing.* Vol. 66, No. 2, 120-141.

- Batra, R. and O.T. Ahtola (1991). "Measuring the Hedonic and Utilitarian Sources of Consumer Attitudes". *Marketing Letters.* Vol. 2, No. 2, 159-168.

- Bellenger, D.N. and P.K. Korgaonkar (1980). "Profiling the Recreational Shopper". *Journal of Retailing.* Vol. 56, No. 3, 77-92.

- Bellman, S., G.L. Lohse and E.J. Johnson (1999). "Predictors of Online Buying Behavior". *Communications of the ACM.* Vol. 42, No. 12, 32-38.

- Berry, L.L. (1969). "The Components of Department Store Image: A Theoretical and Empirical Analysis". *Journal of Retailing.* Vol. 45, No. 1, 3-20.

- Berry, L.L., K. Seiders and D. Grewal (2002). "Understanding Service Convenience". *Journal of Marketing.* Vol. 66, No. 3, 1-17.

- Bhatnagar, A., S. Misra and R.H. Rao (2000). "On Risk, Convenience, and Internet Shopping Behavior". *Communications of the ACM.* Vol. 43, No. 11, 98-105.

- Bitner, M. (1992). "Servicescapes: The Impact of Physical Surroundings on Customers and Employees". *Journal of Marketing.* Vol. 56, No. 2, 57-71.

- Black, N.J., A. Locket, C. Ennew, H. Winklhofer and S. McKechnie (2002). "Modelling Consumer Choice of Distribution Channels: An Illustration from Financial Services". *International Journal of Bank Marketing.* Vol. 20, No. 4, 161-173.

- Bloch, P.H., D.L. Sherrel and N.M. Ridgway (1986). "Consumer Search: An Extended Framework". *Journal of Consumer Research.* Vol. 13, No. 1, 119-126.

- Bolton, R.N. and J.H. Drew (1991). "A Multistage Model of Customers' Assessments of Service Quality and Value". *Journal of Consumer Research.* Vol. 17, No. 4, 375-384.

- Chen, Z. and A.J. Dubinsky (2003). "A Conceptual Model of Perceived Customer Value in E-Commerce: A Preliminary Investigation". *Psychology & Marketing.* Vol. 20, No. 4, 323-347.

- Childers, T.L., C.L. Carr, J. Peck and S. Carson (2001). "Hedonic and Utilitarian Motivations for Online Retail Shopping Behavior". *Journal of Retailing.* Vol. 77, No. 4, 511-535.

- Clay, K., R. Krishnan and M. Smith (2001). "The Great Experiment: Pricing on the Internet". *In:* Lowry, Cherrington and Watson (eds). *The Handbook of Electronic Commerce in Business and Society.* New York: CRC Press. 139-152.

- Cox, D.F. (1967). *Risk Taking and Information Handling in Consumer Behavior*. Boston: Graduate School of Business Administration, Harvard University.

- Cranor, L.F., J. Reagle and M.S. Ackerman. *Beyond Concern: Understanding Net Users' Attitudes about Online Privacy*. AT&T Labs-Research Technical Report TR 99.4.4. 1999. Ref Type: Report

- Cronin J.J. Jr., M.K. Brady and G.T.M. Hult (2000). "Assessing the Effects of Quality, Value and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments". *Journal of Retailing.* Vol. 76, No. 2, 193-218.

- Crowley, A.E., E.R. Spangenberg and K.R. Hughes (1992). "Measuring the Hedonic and Utilitarian Dimensions of Attitudes Toward Product Categories". *Marketing Letters.* Vol. 3, No. 3, 239-240.

- Csikszentmihalyi, M. (1977). *Beyond Boredom and Anxiety*. San Francisco: Jossey-Bass.

- Davis, F.D. (1989). "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology". *MIS Quarterly.* Vol. 13, No. 3, 318-340.

- Davis, F.D., R.P. Bagozzi and P.R. Warshaw (1989). "User Acceptance of Computer Technology: A Comparison of Two Theoretical Models". *Management Science.* Vol. 35, No. 8, 982-1002.

- Davis, F.D., R.P. Bagozzi and P.R. Warshaw (1992). "Extrinsic and Intrinsic Motivation to Use Computers in the Workplace". *Journal of Applied Social Psychology.* Vol. 22, No. 14, 1111-1132.

- Deci, E.L. and R.M. Ryan (1985). *Intrinsic Motivation and the Self-Determination of Human Behavior*. New York: Plenum.

- Degeratu, A.M., A. Rangaswamy and J. Wu (2000). "Consumer Choice Behavior in Online and Traditional Supermarkets: The Effects of Brand Name, Price, and other Search Attributes". *International Journal of Research in Marketing.* Vol. 17, No. 1, 55-78.

- Deveraj, S., M. Fan and R. Kohli (2002). "Antecedents of B2C Channel Satisfaction and Preference: Validating e-Commerce Metrics". *Information Systems Research.* Vol. 13, No. 3, 316-333.

- Dickson, J. and G. Albaum (1977). "A Method for Developing Tailormade Semantic Differentials for Specific Marketing Content Areas". *Journal of Marketing Research.* Vol. 14, No. 1, 87-91.

- Dodds, W.B., K.B. Monroe and D. Grewal (1991). "Effects of Price, Brand, and Store Information on Buyers' Product Evaluations". *Journal of Marketing Research.* Vol. 28, No. 3, 307-319.

- Doney, P.M. and J.P. Cannon (1997). "An Examination of the Nature of Trust in Buyer-Seller Relationships". *Journal of Marketing.* Vol. 61, No. 2, 35-51.

- Donovan, R.J. and J.R. Rossiter (1982). "Store Atmosphere: An Environmental Psychology Approach". *Journal of Retailing.* Vol. 58, No. 1, 34-57.

- Donovan, R.J., J.R. Rossiter, G. Marcoolyn and A. Nesdale (1994). "Store Atmosphere and Purchasing Behavior". *Journal of Retailing.* Vol. 70, No. 3, 283-294.

- Donthu, N. and A. Garcia (1999). "The Internet Shopper". *Journal of Advertising Research.* Vol. 39, No. 3, 52-58.

- Einwiller, S. (2003). "When Reputation Engenders Trust: An Empirical Investigation in Business-to-Consumer Electronic Commerce". *Electronic Markets.* Vol. 13, No. 3, 196-209.

- Engel, J.F., R.D. Blackwell and P.W. Miniard (1995). *Consumer Behavior: International Edition*. Fort Worth, TX: Harcourt Brace College Publishers: The Dryden Press.

- Ernst & Young LLP. *The Second Annual Ernst & Young Internet Shopping Study. The Digital Channel Continues to Gather Steam*. Report from Ernst and Young.

- Eroglu, S.A., K.A. Machleit and L.M. Davis (2001). "Atmospheric Qualities of Online Retailing A Conceptual Model and Implications". *Journal of Business Research.* Vol. 54, No. 2, 177-184.

- Eroglu, S.A., K.A. Machleit and L.M. Davis (2003). "Empirical Testing of a Model of Online Store Atmospherics and Shopper Responses". *Psychology & Marketing.* Vol. 20, No. 2, 139-150.

- Forsythe, S.M. and B. Shi (2003). "Consumer Patronage and Risk Perceptions in Internet Shopping". *Journal of Business Research.* Vol. 56, No. 11, 867-875.

- Friedman, B. and P.H. Kahn Jr. (2000). "Trust Online". *Communications of the ACM.* Vol. 43, No. 12, 34-40.

- Gillett, P.L. (1970). "A Profile of Urban In-Home Shoppers". *Journal of Marketing.* Vol. 34, No. 3, 40-45.

- Gilly, M.C. and M. Wolfinbarger (2000). "A Comparison of Consumer Experiences with Online and Offline Shopping". *Consumption, Markets and Culture.* Vol. 4, No. 2, 187-205.

- Grewal, D., R. Krishnan, J. Baker and N. Borin (1998). "The Effect of Store Name, Brand Name and Price Discounts on Consumers' Evaluations and Purchase Intentions". *Journal of Retailing.* Vol. 74, No. 3, 331-352.

- Grönroos, C. (1982). *Strategic Management and Marketing in the Service Sector*. Hellingfors: Swedish School of Economics and Business Administration.

- Grönroos, C., F. Heinonen, K. Isoniemi and M. Lindholm (2000). "The NetOffer model: A Case Example from the Virtual Marketspace". *Management Decision.* Vol. 38, No. 3/4, 243-252.

- Häubl, G. and V. Trifts (2000). *Consumer Decision Making in Online Shopping Environments: The Effects of Interactive Decision Aids. Marketing Science*. Vol. 19, No. 1, 4-21.

- HDE. (2002) *IT im Einzelhandel-Wertschöpfung, Kommunikation, E-Commerce*. HDE 2002. Available at: http://www.einzelhandel.de/servlet/PB/menu/1013643/index.html

- Hildebrandt, L. (1988). "Store Image and the Prediction of Performance in Retailing". *Journal of Business Research.* Vol. 17, 91-100.

- Hirschman, E.C. and M.B. Holbrook (1982). "Hedonic Consumption: Emerging Concepts, Methods, and Propositions". *Journal of Marketing.* Vol. 46, No. Summer, 92-101.

- Hoffman, D.L. and T.P. Novak (1996). "Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations". *Journal of Marketing.* Vol. 60, No. 7, 50-68.

- Hoffman, D.L., T.P. Novak and M.A. Peralta (1999). "Information Privacy in the Marketspace: Implications for the Commercial Uses of Anonymity on the Web.". *Information Society.* Vol. 15, No. 2, 129-139.

- Hoffman, D.L., T.P. Novak and A.E. Schlosser (2000). *Consumer Control in Online Environments*.

- Hoffman, D.L., T.P. Novak and A.E. Schlosser (2002). *Locus of Control, Web Use, and Consumer Attitudes Toward Internet Regulation.*

- Holbrook, M.B. (1999). *Consumer Value: A Framework for Analysis and Research*. New York, NY: Routledge.

- Holbrook, M.B. (1994). "The Nature of Customer Value: An Axiology of Services in the Consumption Experience". *In:* Rust, R. and R.L. Oliver (eds). *Service Quality. New Directions in Theory and Practice.* 21-71.

- Howell, J.M. and B.J. Avolio (1993). "Transformational Leadership, Transactional Leadership, Locus of Control, and Support for Innovation: Key Predictors of Consolidated-Business-Unit Performance". *Journal of Applied Psychology.* Vol. 78, No. 6, 891-902.

- Hui, M.K. and J.E.G. Bateson (1991). "Perceived Control and the Effects of Crowding and Consumer Choice on the Service Experience". *Journal of Consumer Research.* Vol. 18, No. 2, 174-184.

- Isen, A.M. (1989). "Some Ways in Which Affect Influences Cognitive Processes: Implications for Advertising and Consumer Behavior". *In:* Cafferata, P. and A.M. Tybout (eds). *Cognitive and Affective Responses to Advertising.* Lexington, MA: Lexington Books. 3-37.

- Jarvenpaa, S.L. and N. Tractinsky (1999). "Consumer Trust in an Internet Store: A Cross-Cultural Validation". *Journal of Computer-Mediated Communication.* Vol. 5, No. 1, Available at: http://www.ascusc.org/jcmc/vol5/issue2/jarvenpaa.html

- Jarvenpaa, S.L., N. Tractinsky and M. Vitale (2000)."Consumer Trust in an Internet Store". *Information Technology and Management.* Vol. 1, No. 1/2, 45-71.

- Jasper, C.R. and S.J. Oullette (1994). "Consumers' Perception of Risk and the Purchase of Apparel from Catalogs". *Journal of Direct Marketing.* Vol. 8, No. 2, 23-36.

- Kaplan, L.B., G.J. Szybillo and J. Jacoby (1974). "Components of Perceived Risk in Product Purchase". *Journal of Applied Psychology.* Vol. 59, No. 3, 287-291.

- Karahanna, E. and D.W. Straub (1999). "The Psychological Origins of Perceived Usefulness and Ease-of-Use". *Information & Management.* Vol. 35, No. 4, 237-250.

- Kaynama, S.A. and C.I. Black (2000). "A Proposal to Assess the Service Quality of Online Travel Agencies: An Exploratory Study". *Journal of Professional Services Marketing.* Vol. 21, No. 1, 63-88.

- Kelley, E.J. (1958). "The Importance of Convenience in Consumer Purchasing". *Journal of Marketing.* Vol. 23, No. 1, 32-38.

- Kerin, R.A., A. Jain and D.J. Howard (1992). "Store Shopping Experience and Consumer Price-Quality-Value Perceptions". *Journal of Retailing.* Vol. 68, No. 4, 376-397.

- Kotler, P. (1997). *Marketing Management: Analysis, Planning, Implementation and Control.* Upper Saddle River (NJ): Prentice Hall.

- Kuhl, J. (1986). "Motivation and Information Processing: A New Look at Decision Making, Dynamic Exchange, and Action Control". *In:* Sorrentino, R.M. and T. Higgins (eds). *Handbook of Motivation and Cognition. Foundations of Social Behavior.* New York: The Guilford Press.

- Lee, M.K.O. and E. Turban (2001). "A Trust Model for Consumer Internet Shopping". *International Journal of Electronic Commerce.* Vol. 6, No. 4, 75-.

- Li, H., C. Kuo and M.G. Russel (1999). "The Impact of Perceived Channel Utilities, Shopping Orientations, and Demographics on the Consumer's Online Buying Behavior". *Journal of Computer-Mediated Communication.* Vol. 5, No. 2. Available at: http://www.ascusc.org/jcmc/vol5/issue2/hairong.html

- Liljander, V., A.C.R. van Riel and M. Pura. *Customer Satisfaction with E-Services: The Case of an Online Recruitment Portal.* 1-32. 2001.
  Ref Type: Report

- Lohse, G.L. and P. Spiller (1998). "Electronic Shopping". *Communications of the ACM.* Vol. 41, No. 7, 81-88.

- Lohse, G.L., S. Bellman and E.J. Johnson (2000). "Consumer Buying Behavior on the Internet: Findings from Panel Data". *Journal of Interactive Marketing.* Vol. 14, No. 1, 15-29.

- Louviere, J.J. and R.D. Johnson (1990). "Reliability and Validity of the Brand-Anchored Conjoint Approach to Measuring Retailer Images". *Journal of Retailing.* Vol. 66, No. 4, 359-382.

- Mathwick, C., N.K. Malhotra and E. Rigdon (2001). " Experiential Value: Conceptualization, Measurement and Application in the Catalog and Internet Shopping Environment". *Journal of Retailing.* Vol. 77, No. 1, 39-56.

- Mathwick, C., N.K. Malhotra and E. Rigdon (2002). "The Effect of Dynamic Retail Experiences on Experiential Perceptions of Value: An Internet and Catalog Comparison". *Journal of Retailing.* Vol. 78, No. 1, 51-60.

- Mayer, R.C., J.H. Davis and D.F. Schoorman (1995). "An Integrative Model of Organizational Trust". *Academy of Management Review.* Vol. 20, No. 3, 709-734.

- McKnight, D.H. and N.L. Chervany (2002). "What Trust Means in E-Commerce Customer Relationships: An Interdisciplinary Conceptual Typology". *International Journal of Electronic Commerce.* Vol. 6, No. 2, 35-59.

- Mehrabian, A. and J.A. Russell (1974). *An Approach to Environmental Psychology*. Cambridge, MA: MIT Press.

- Mick, D.G. and S. Fournier (1998). "Paradoxes of Technology: Consumer Cognizance, Emotions, and Coping Strategies". *Journal of Consumer Research.* Vol. 25, 123-143.

- Mitchell, V-W. and P.J. McGoldrick (1996). "Consumers' Risk-Reduction Strategies: A Review and Synthesis". *International Review of Retail, Distribution & Consumer Research.* Vol. 6, No. 1, 1-33.

- Mitchell, V-W. (1999). "Consumer Perceived Risk: Conceptualisations and Models". *European Journal of Marketing.* Vol. 33, No. 1/2, 163-195.

- Monroe, K.B. (1990). *Pricing: Making Profitable Decisions.* New York: McGraw-Hill Book Company.

- Montoya-Weiss, M.M., G.B. Voss and D. Grewal (2000). *Bricks to Clicks: What Drives Customer Use of the Internet in a Multichannel Environment.* Unpublished Work.

- Moorman, C., R. Deshpandé and G. Zaltman (1993). "Factors Affecting Trust in Marketing Research Relationships". *Journal of Marketing.* Vol. 57, No. 1, 81-101.

- Morgan, R.M. and S.D. Hunt (1994). "The Commitment-Trust Theory of Relationship Marketing". *Journal of Marketing.* Vol. 58, No. 7, 20-38.

- Newel, A. and H.A. Simon (1972). *Human Problem Solving*. Englewood Cliffs, NJ: Prentice-Hall.

- Nietzsche, F., R. Hollingdale and W. Kaufman (1961). *The Will to Power*. New York: Vintage Books.

- Novak, T.P., D.L. Hoffman and Y.-F. Yung (2000). "Measuring the Customer Experience in Online Environments: A Structural Modeling Approach". *Marketing Science.* Vol. 19, No. 1, 22-42.

- Parasuraman, A., V.A. Zeithaml and L.L. Berry (1985). "A Conceptual Model of Service Quality and Its Implications for Future Research". *Journal of Marketing.* Vol. 49, No. 4, 41-50.

- Parasuraman, A., V.A. Zeithaml and L.L. Berry (1988). "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality". *Journal of Retailing.* Vol. 64, No. 1, 12-40.

- Pavlou, P.A. (2003). "Consumer Acceptance of Electronic Commerce: Integrating Trust and Risk with the Technology Acceptance Model". *International Journal of Electronic Commerce.* Vol. 7, No. 3, 101-134.

- Peter, J.P. and L.X. Tarpey Sr. (1975). "A Comparative Analysis of Three Consumer Decisions Strategies". *Journal of Consumer Research.* Vol. 2, No. 1, 29-37.

- Peterson, R.A., S. Balasubramanian and B.J. Bronnenberg (1997). "Exploring the Implications of the Internet for Consumer Marketing". *Journal of the Academy of Marketing Science.* Vol. 25, No. 4, 329-346.

- Pine, B.J. and J.H. Gilmore (1999). *The Experience Economy: Working is Theatre & Every Business a Stage*. Boston, MA: Harvard Business School Press.

- Ranganathan, C. and S. Ganapathy (2002). "Key Dimensions of Business-to-Consumer Web Sites". *Information & Management.* Vol. 39, No. 6, 457-465.

- Rao, A.R. and K.B. Monroe (1989). "The Effect of Price, Brand Name, and Store Name on Buyers' Perceptions of Product Quality: An Integrative Review". *Journal of Marketing Research.* Vol. 26, No. 3, 351-357.

- Reibstein, D.J. (2002). "What Attracts Customers to Online Stores, and What Keeps Them Coming Back?". *Journal of the Academy of Marketing Science.* Vol. 30, No. 4, 465-473.

- Rose, G.M. and D.W. Straub (2001). "The Effect of Download Time on Consumer Attitude Toward the e-Service Retailer". *e-Service Journal.* Vol. 1, No. 1, 55-76.

- Roselius, T. (1971). "Consumer Rankings of Risk Reduction Methods". *Journal of Marketing.* Vol. 35, No. 1, 56-61.

- Rosen, K.T. and A.L. Howard (2000). "E-Retail: Gold Rush or Fool's Gold?". *Journal of Retailing.* Vol. 42, No. 3, 72-100.

- Rowley, J. (1996). "Retailing and Shopping on the Internet". *International Journal of Retail & Distribution Management.* Vol. 24, No. 3, 26-37.

- Rowley, J. (2001). "Product Search in E-Shopping: A Review and Research Propositions". *Journal of Consumer Marketing.* Vol. 17, No. 1, 20-35.

- Samli, A.C., J.P. Kelly and H.K. Hunt (1998). "Improving Retail Performance by Contrasting Management- and Customer-Perceived Store Images: A Diagnostic Tool for Corrective Action". *Journal of Business Research.* Vol. 43, No. 1, 27-38.

- Schoenbachler, D.D. and G.L. Gordon (2002). "Multi-Channel Shopping: Understanding What Drives Channel Choice". *Journal of Consumer Marketing.* Vol. 19, No. 1, 42-53.

- Segars, A.H. and V. Grover (1993). "Re-Examining Perceived Ease of Use and Usefulness: A Confirmatory Factor Analysis.". *MIS Quarterly.* Vol. 17, No. 4, 517-525.

- Seiders, K., L.L. Berry and L.G. Gresham (2000). "Attention, Retailers! How Convenient is Your Convenience Strategy?". *Sloan Management Review.* Vol. 41, No. 3, 79-89.

- Sharma, A. and R. Krishnan (2002). "Clicks Only, Clicks and Bricks, and Bricks Only: Are Retail Salespeople an Important Factor in Choice?". *Journal of Marketing Management.* Vol. 18, No. 3/4, 317-336.

- Shiffrin, R.M. (1975). "Capacity Limitations in Information Processing, Attention and Memory". *In:* Estes, W.K. (ed.). *Handbook of Learning and Cognitive Processes.* Hillsdale, NJ: Erlbaum.

- Shostack, G.L. (1977). "Breaking Free from Product Marketing". *Journal of Marketing.* Vol. 41, No. 2, 73-80.

- Simon, H.A. (1976). *Administrative behavior: A Study of Decision Making Processes in Administrative Organizations*. New York: Harper.

- Sirohi, N., E.W. McLaughlin and D.R. Wittink (1998). "A Model of Consumer Perceptions and Store Loyalty Intentions for a Supermarket Retailer". *Journal of Retailing.* Vol. 74, No. 2, 223-245.

- Smith, M.D. and E. Brynjolfsson (2001). "Consumer Decision-making at an Internet Shopbot: Brand Still Matters". *Journal of Industrial Economics.* Vol. 49, No. 4, 541-558.

- Spence, H.E., J.F. Engel and R.D. Blackwell (1970). "Perceived Risk in Mail-Order and Retail Store Buying". *Journal of Marketing Research.* Vol. 7, No. 3, 364-369.

- Stone, R.N. and K. Grønhaug (1993). "Perceived Risk: Further Considerations for the Marketing Discipline". *European Journal of Marketing.* Vol. 27, No. 3, 39-50.

- Swaminathan, V., E. Lepkowska-White and B.P. Rao (1999). "Browsers or Buyers in Cyberspace? An Investigation of Factors Influencing Electronic Exchange". *Journal of Computer-Mediated Communication.* Vol. 5, No. 2, Available at: http://www.ascusc.org/jcmc/vol5/issue2/swaminathan.htm

- Sweeney, J.C., G.N. Soutar and L.W. Johnson (1999). "The Role of Perceived Risk in the Quality-Value Relationship: A Study in a Retail Environment". *Journal of Retailing.* Vol. 75, No. 1, 77-105.

- Swinyard, W.R. and S.M. Smith (2003). "Why People (Don't) Shop Online: A Lifestyle Study of the Internet Consumer". *Psychology & Marketing.* Vol. 20, No. 7, 567-597.

- Szybillo, G.J. and J. Jacoby (1974). "Intrinsic versus Extrinsic Cues as Determinants of Perceived Product Quality". *Journal of Applied Psychology.* Vol. 59, No. 1, 74-78.

- Szymanski, D.M. and R.T. Hise (2000). "e-Satisfaction: An Initial Examination". *Journal of Retailing.* Vol. 76, No. 3, 309-322.

- Tan, S.-J. (1999). "Strategies for Reducing Consumers' Risk Aversion in Internet Shopping". *Journal of Consumer Marketing.* Vol. 16, No. 2, 163-180.

- Vallerand,R.J. (1997). "Toward a Hierarchical Model of Intrinsic and Extrinsic Motivation". *In:* Zanna, M. (ed.). *Advances in Experimental Social Psychology.* Vol. 29. New York: Academic Press. 271-360.

- Van den Poel, D. and J.Leunis (1999). "Consumer Acceptance of the Internet as a Channel of Distribution". *Journal of Business Research.* Vol. 45, No. 3, 249-256.

- Venkatesh, V. (2000). "Determinants of Perceived Ease of Use: Integrating Control, Intrinsic Motivation, and Emotion into the Technology Acceptance Model". *Information Systems Research.* Vol. 11, No. 4, 342-365.

- Ward, J.C. and J.W. Barnes (2001). "Control and Affect: The Influence of Feeling in Control of the Retail Environment on Affect, Involvement, Attitude, and Behavior". *Journal of Business Research.* Vol. 54, No. 2, 139-144.

- Watson, D., L.A. Clark and A. Tellegen (1988). "Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS Scales". *Journal of Personality and Social Psychology.* Vol. 54, No. 6, 1063-1070.

- White, R.W. (1959). "Motivation Reconsidered: The Concept of Competence". *Psychological Review.* Vol. 66, No. 5, 297-333.

- Wolfinbarger, M. and M.C. Gilly. (2002) "*.comQ: Conceptualizing, Measuring and Predicting e-Tail Quality*. Report No. 02-100. Boston, MA, Marketing Science Institute.

- Wolfinbarger, M. and M.C. Gilly (2001). "Shopping Online for Freedom, Control, and Fun". *California Management Review.* Vol. 43, No. 2, 34-55.

- Woodruff, R.B. (1997). "Customer Value: The Next Source for Competitive Edge". *Journal of the Academy of Marketing Science.* Vol. 25, No. 2, 139-153.

- Wright, P.L. (1975). "Consumer Choice Strategies: Simplifying vs. Optimizing". *Journal of Marketing Research.* Vol. 12, No. 1, 60-67.

- Zeithaml, V.A. (1988). "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence". *Journal of Marketing.* Vol. 52, No. 3, 2-22.

- Zeithaml, V.A., L.L. Berry and A. Parasuraman (1996). "The Behavioral Consequences of Service Quality". *Journal of Marketing.* Vol. 60, No. 2, 31-46.

- Zeithaml, V.A., A. Parasuraman and A. Malhotra (2000). *A Conceptual Framework for Understanding e-Service Quality: Implications for Future Research and Managerial Practice: Implications for Future Research and Managerial Practice*. Unpublished Work.

- Zeithaml, V.A., A. Parasuraman and A. Malhotra (2002). "Service Quality Delivery Through Web Sites: A Critical Review of Extant Knowledge". *Journal of the Academy of Marketing Science.* Vol. 30, No. 4, 362-375.