



The effect of dynamic retail experiences on experiential perceptions of value: an Internet and catalog comparison[☆]

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Abstract

The authors introduce cognitive continuum theory (CCT) as a theoretical framework to examine the effect of consumer shopping tasks and retail information display properties on consumer perceptions of experiential value. In this empirical investigation, the nature of a consumer's shopping task is found to exert a direct influence on consumer perceptions of efficiency, economic value, and shopping enjoyment, all *active* dimensions of value. In addition, congruent interactions between shopping task and retail information display properties exert an enhancing effect on the *reactive* dimensions of value, as evidenced by perceptions of visual appeal, entertainment value, and service excellence. Future application of CCT is outlined and managerial implications are discussed. © 2002 by New York University. All rights reserved.

Keywords: Cognitive continuum theory; Internet shopping; Catalog shopping

Introduction

Retailing in the 21st century means doing business with customers on their terms. It involves selling not only in stores, but also through the Web, catalogs, call centers, interactive television, and mobile devices. Early concern over the rapid growth of on-line alternatives is slowly giving way to a more mature understanding of how different retail channels can enhance value in different shopping conditions. According to Dan Nordstrom, of the Nordstrom's department store chain, "the same Nordstrom's customer who normally values high personal service may sometimes need to make a purchase in a hurry. This suggests that, instead of one retail format being intrinsically superior to another, it is more a matter of matching a particular format with a particular consumer in a particular situation" (Couzin, 2000, p. 61).

The purpose of this study is to examine how different retail channels either enhance or undermine consumer per-

ceptions of value associated with the retail experience. Cognitive continuum theory (CCT; Hammond, 1980, 1988, 1990, 1996) provides a theoretical framework for examining the compatibility of the physical characteristics of information displayed in retail environments with the tasks performed in those environments. In applying this framework, we empirically examine the value-enhancing effects of different consumer shopping tasks performed in either a catalog or an Internet retail environment.

Background

Cognitive continuum theory, which first arose in the cognitive psychology literature, addresses how decision-makers behave in complex, changing information environments (Hammond, 1988, 1990, 1996). Based on the lens model developed by Brunswik (1952, 1956), "CCT is a broad theoretical framework that provides a general context for understanding cognition in the performance of dynamic tasks" (Hammond, 1988, p. 13). In addition, CCT emphasizes the impact of information display on task achievement (Payne, Bettman, & Johnson, 1993), a relevant issue for retailers that must grapple with the challenges of conveying product information in-store, on-line, and through print or broadcast media.

To structure the study of dynamic task performance, Ham-

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We want to thank three anonymous reviewers and the special issue editors for their many helpful suggestions.

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mond (1988) proposed a theory of dynamic task systems that articulates the variety of task conditions in which people operate. The dynamic aspects of task systems are reflected in their depth and surface properties. Depth properties relate to the structure and function of the task being performed and reflect the covert relationships among the variables inherent to task accomplishment. These relationships affect a person's ability to use displayed information to achieve a particular goal or purpose (Hammond, 1980; Hammond, Hamm, Grassia, & Pearson, 1987). In a retail setting, depth properties are reflected in the nature of the shopping task being performed. In contrast, "the surface properties (of a dynamic task system) are those which the operator sees" (Hammond, 1988, p. 5). In a consumer context, a physical, retail environment or servicescape (Bitner, 1992) constitutes the surface properties of commercial systems.

To adapt the theory of dynamic task systems to a retail context, we isolate three variables for examination: (1) the information display characteristics of a retail environment, that is, the surface properties; (2) the properties of a consumer's shopping task, that is, the depth properties of the task; and (3) the perceived retail channel performance, measured subjectively in terms of consumer perceptions of experiential value.

Surface properties of dynamic task systems

Investigation of the effects of environmental stimuli on cognition and behavior has been underway for nearly 30 years (Turley & Milliman, 2000). Researchers of retail atmospherics (Kotler, 1973-1974), in particular, have investigated the impact of a wide array of physical stimuli, including color, music, odor, and crowding, on consumer evaluations and behavior. Hammond narrowed this focus to information display characteristics by defining these "surface properties" as the overt display of task-relevant information, or the "visible" features of the system.

Surface features determine the nature of the stimuli, such as whether it is presented simultaneously or sequentially, the presence or lack of a clear organizing principle for displayed information; information load measured in terms of the number and redundancy of cues, and whether the information rate is self-paced or time-pressured. These surface features can be ordered along a dynamic task continuum that ranges from analytic- to intuition-inducing properties. Intuitive surfaces are characterized by simultaneously or pictorially presented information and a large number of redundant cues displayed without the benefit of a task-relevant organizing principle. Analytic surfaces, in contrast, are characterized by information displays that are organized in a sequential, self-paced, and simplified manner (Hammond, 1980, 1988, Hammond et al., 1987).

The display characteristics of on-line retail Websites and off-line print catalogs can be used to illustrate how retail surface properties can be classified along this dynamic task continuum. Highly interactive Websites that use rapid-fire,

highly visual, dynamic information displays fall at the intuitive extreme of the continuum. The high level of visual and stimulation typical of this type of site tends to undermine consumers' ability to deliberately analyze decision criteria. At the other end of the continuum are analytic sites organized around text-based menus that are designed to support self-paced navigation on the basis of product category or feature preferences. Text-based menus impose an explicit organizing principle on displayed information, which supports analysis by minimizing dynamic qualities and decomposing information into critical decision points (Hammond et al., 1987).

In the off-line world, industrial supply catalogs, similar to many on-line Websites, provide well-indexed product data, presented through a product- or attribute-based organizing scheme, which supports analysis of alternatives. Consumer catalogs, such as retail fashion "magalogs," however, tend to organize product information around aesthetically pleasing consumption settings or complementary product combinations. Such surfaces tend to lack the clear organizing structure that consumers need to achieve goal-oriented tasks efficiently, which suggests magalogs exhibit intuitive properties (Hammond, 1988; Hammond et al., 1987).

Depth properties of dynamic task systems

A person's reason for being in a particular environment has been shown to exert a powerful influence on that consumer's response to marketing stimuli (Bitner, 1992; Dawson, Bloch, & Ridgway, 1990; Snodgrass, Russell, & Ward, 1988). A consumer's shopping task serves as a decision frame for processing information by effectively establishing distinct vantage points from which to evaluate experiences (Ward, Snodgrass, Chew, & Russell, 1988). As the depth properties of specific tasks change, the vantage point shifts, and the relative significance or desirability of various aspects of an experience are likely to change (Bitner, 1992; Tversky & Kahneman, 1981; Woodruff, 1997). In a retail context, the depth properties of a specific task affect the consumer's tendency to rely on an immediate and visceral assessment of displayed information rather than a more considered and systematic approach. Depth properties also influence the type of heuristics, if any, employed in decision-making, the availability of an organizing principle to guide the decision process, and the certainty associated with resulting decisions or judgments. Like surface properties, depth properties are imbued with intuitive and analysis-inducing tendencies, which enable consumers to locate surface-depth combinations on the same dynamic task continuum (Hammond et al., 1987).

In an empirical investigation of the influence of dynamic task systems, Hammond et al. (1987) operationalized surface and depth properties in a judgment task involving highway engineers. Subjects were asked to make predictions of highway aesthetics (an intuitive task) and highway capacity (an analytic task) on the basis of a variety of information display inputs. For the component of the task that required a prediction of highway aesthetics, "no known

algorithm exists to judge aesthetic value, and no delimited specification of which cues were relevant was offered. Consequently, judgments of highway aesthetics depend largely on the use of perceptual material . . . and are never arrived at by calculation.” In contrast, for the analytic task, the capacity of a highway can be calculated using a “nonstochastic nonlinear algorithm . . . well-known to highway engineers” (Hammond et al., 1987, p. 758).

Applying a similar approach, the intuitive and analytic properties of consumer shopping tasks can be illustrated by contrasting experiential and goal-directed tasks respectively. Consumers who approach retail environments to browse (Bloch, Sherrell, & Ridgway, 1986) or enjoy the experiential aspects of shopping (Bellenger & Korgaonkar, 1980) are motivated by the process rather than by shopping goals or outcomes (Hoffman & Novak, 1996). Without specific purchase objectives, this type of shopping task tends to cause consumers to process data perceptually. As with judgments of highway aesthetics, experiential shoppers appear to “arrive” at their decisions through an intuitive and spontaneous reaction rather than through deliberate decision-making (Deci & Ryan, 1985; Hoffman & Novak, 1996), which suggests that experiential tasks fall toward the intuitive end of the dynamic task continuum.

Goal-directed shopping, however, is based on a clearly definable goal hierarchy that involves specific outcomes determined by following a deliberate search process (Hoffman & Novak, 1996). Familiar heuristics are employed to comprehend product or service attributes within the context of specific situational requirements (Punj & Staelin, 1983). Therefore, goal-directed shopping tasks seem to fall at the analytic end of the continuum (Hammond et al., 1987).

Retail channel performance: consumer perceptions of experiential value

In this study, we examine the impact of surface and depth properties on retail channel performance using a subjective measure: the consumer’s perception of experiential value. Following Holbrook & Corfman (1985), Woodruff (1997), Gardial, Clemons, Woodruff, Schumann, & Burns (1994), and Zeithaml (1988), among others, we define experiential value as follows:

A perceived, relativistic preference for product attributes or service performances arising from interaction within a consumption setting that facilitates or blocks achievement of customer goals or purpose.

Consumers can obtain value from a shopping experience in multiple ways. Value may be extrinsic—the experience helps the shopper to achieve some specific objective. Or, it may be intrinsic—the experience is enjoyed for its own sake (Babin & Darden, 1995; Batra & Ahtola, 1991; Crowley, Spangenberg, & Hughes, 1992). It may also be experienced as the consequence of active or reactive interaction with the product, service, or marketing entity. According to Hol-

brook (1994, p. 43), “active sources of value [are perceived] when one’s valuing results from . . . active manipulation of an object or experience.” The consumer has assumed the role of a coproducer of value in this case (Gummesson, 1998) by exerting control through physical or mental manipulation of objects, entities, or resources. When the retail experience begins to “control” the consumer in a figurative sense, however, reactive value sources become perceptible (Wagner, 1999). “Reactive value occurs when the individual simply apprehends, appreciates or responds to an object . . . in this instance, the object affects the subject – the service changes the customer –rather than the other way around” (Holbrook, 1994, p. 43).

Integrating the intrinsic/extrinsic and active/reactive dimensions creates an experiential value matrix composed of four value sources: consumer return on investment (CROI), play, aesthetic response and service excellence (Holbrook, 1994; Mathwick, Malhotra, & Rigdon, 2001). These value-based perceptions serve as retail performance indicators hypothesized to be influenced by various surface-depth combinations in this study.

The perceived return on cognitive, behavioral, or financial investments made by the consumer is an extrinsic source of active value, termed “consumer return on investment,” or CROI (Mathwick, Malhotra, & Rigdon, 2001). Perceived affordability of the merchandise purchased and the efficiency of the retail experience are indicators of CROI (Grewal, Monroe, & Krishnan, 1996; Holbrook, 1994; Thaler, 1985; Yadav & Monroe 1993; Zeithaml, 1988). Perceived “play” is an intrinsic source of active value that is sustained by the experienced enjoyment and escapism from the demands of daily life (Day, 1981; Huizinga, 1955; Unger & Kernan, 1983).

Reactive sources of value are reflected in a consumer’s appreciation of “aesthetic” elements intrinsic to a consumption setting that are manifest in the visual appeal or entertainment value of a retail experience (Deighton & Grayson, 1995; Wagner, 1999). A consumer’s reaction to “excellent service” is the extrinsic source of reactive value, as reflected in the appreciation of delivered promises and performed functions (Holbrook, 1994; Oliver, 1999).

The effect of the depth properties of a task on active sources of value

Goal-oriented shoppers, who operate at the analytic end of the task continuum, are able and presumably inclined to invest the effort necessary to contemplate product differences. Weighing the trade-off between price and quality is likely to bring to the fore those value components that are directly related to affordability (Grewal, Monroe, & Krishnan, 1996; Thaler, 1985; Yadav & Monroe, 1993). In contrast, consumers performing a more intuitively oriented experiential shopping task lack specific purchase criteria, suggesting that merchandise affordability is less likely to be emphasized. Therefore:

Hypothesis 1: Analytic (goal-oriented) shopping tasks will be associated with significantly heightened perceptions of economic value, compared with intuitive (experientially oriented) shopping tasks.

The work mentality of goal-oriented shopping suggests it is driven by the desire to make the best purchase possible in an efficient and timely manner (Babin, Darden, & Griffin, 1994; Cobb & Hoyer, 1986; Hoffman & Novak, 1996; Holbrook & Hirschman, 1982). This implies that the time, effort, and ease with which a product can be purchased is likely to be psychologically salient and particularly memorable among goal-oriented shoppers, who frame the experience as an analytic exercise (Thaler, 1985; Ward et al., 1988). Among experiential shoppers, however, the investment of time carries with it the promise of recreation and diversion and, for some, constitutes a leisure activity in its own right (Bloch & Richins, 1983). Therefore, efficiency will not be a salient or particularly motivating source of value for this type of shopper:

Hypothesis 2: Analytic (goal-oriented) shopping tasks will be associated with significantly heightened perceptions of efficiency, compared with intuitive (experientially oriented) shopping tasks.

The perception of play is affected by the sense of freedom with which a consumer approaches an activity (Unger & Kernan, 1983). Whereas analytically oriented shoppers may derive intrinsic pleasure from information gathering and the process of becoming a product expert (Bloch, Sherrell, & Ridgway, 1986), the desire for expertise is driven by pressure to make good purchase decisions. This type of shopper is in pursuit of logically defensible purchase decisions rather than an escape from reality. This orientation is likely to compromise the sense of freedom inherent in the shopping experience and consequently undermine the perception of play (Huizinga, 1955). Experiential shopping, in contrast, serves as a form of recreation for those motivated by the enjoyment of shopping rather than by any utilitarian purpose (Bellenger & Korgaonkar, 1980; Bloch & Richins, 1983; Bloch, Sherrell, & Ridgway, 1986; Rook, 1987). This intuitively oriented type of behavior is predicted to afford escapism and intrinsic enjoyment, both indicators of perceived play:

Hypothesis 3: Analytic (goal-oriented) shopping tasks will be associated with significantly lower perceptions of enjoyment, compared with intuitive (experientially oriented) shopping tasks.

Hypothesis 4: Analytic (goal-oriented) shopping tasks will be associated with significantly lower perceptions of escape, compared with intuitive (experientially oriented) shopping tasks.

The congruence effect: the interaction of surface-depth properties

Task characteristics exert a powerful moderating influence on the interaction between the physical properties of a

retail environment and the consumer's response to that environment (Bitner, 1992; Dawson, Bloch, & Ridgway, 1990; Hammond et al., 1987; Snodgrass, Russell, & Ward, 1988; Ward et al., 1988). Hammond et al. (1987) suggested that congruent surface-depth combinations facilitate task performance, whereas incongruent combinations frustrate it. Congruence is achieved when intuitive (analytic) tasks are performed within intuitive (analytic) environments. Applied to a retail experience, the physical properties of a retail surface will enhance a consumer's reaction to retail channel performance if that surface is designed to be congruent with the consumer's objectives. Incongruent combinations should produce the opposite effect.

Retail surfaces that support task completion allow consumers to appreciate the retail environment in which they operate, rather than being preoccupied with the challenge of making that environment conform to current task requirements. When shopping requirements are not met, the consumption experience is disrupted and, among other things, the visual appeal and entertainment value of the retail experience cannot be fully appreciated. We hypothesize that retail surfaces that provide seamless support for the task at hand increase the consumer's propensity to appreciate the aesthetic qualities built into a retail system. In the absence of congruent surface-depth combinations, however, the consumer may become frustrated, and the aesthetic elements of the retail environment become irrelevant. This suggests that:

Hypothesis 5: Incongruent surface-depth task combinations (e.g., experiential Internet shoppers and goal-oriented catalog shoppers) are associated with lower levels of retail visual appeal.

Hypothesis 6: Incongruent surface-depth task combinations (e.g., experiential Internet shoppers and goal-oriented catalog shoppers) are associated with lower levels of retail entertainment value.

In addition, a consumer's perception of service excellence will be enhanced if the consumer can accomplish the task he or she has set out to perform. Surface-depth congruence allows the excellence of the service delivery process to be fully appreciated by the consumer, whereas incongruent combinations are predicted to undermine this reactive perception. Therefore:

Hypothesis 7: Incongruent surface-depth task combinations (e.g., experiential Internet shoppers and goal-oriented catalog shoppers) are associated with lower levels of perceived service excellence.

Methodology

Research design

A national field test using a mail survey was sponsored by a major direct retailer that maintains both Internet and catalog distribution systems. This firm generated sales in excess of

\$3.7 billion in 2000 and was selected because Internet and catalog operations dominate its distribution strategy. The firm's merchandise selection features women's apparel and housewares that are priced similarly across the channels.

The sampling frame for this study was drawn randomly from the list of billed customers who had purchased from the firm's catalog or Internet site within a 45-day period immediately preceding the mailing date. Customers who appeared on both the Internet and catalog billing file were eliminated. The survey sequence began with an endorsement letter from the management of the sponsoring firm, followed one week later by a survey packet mailed to 1,200 catalog and 1,000 Internet shoppers. A postcard thanking respondents for participation and offering a toll-free telephone number for additional materials was mailed the following week. From this sample, 512 usable questionnaires were returned, 299 (25% response rate) from catalog shoppers and 213 (21% response rate) from Internet shoppers. These response rates are typical, considering that no incentive was offered (Malhotra, 1999). Early and late responder categories were analyzed on the basis of median return date. The results indicate no significant differences in comparisons of age, income, household employment status, number of purchases made, or dollars spent through their respective shopping medium.

Preliminary evidence of the distinctiveness of the typical Internet shopper versus the typical catalog shopper in this sample stems from their demographic profiles. For example, one out of five Internet respondents was a male, compared with only one in twenty catalog shoppers. In addition, the Internet shoppers tended to be younger, with 75% younger than 44 years of age, whereas only 58% of the catalog shoppers fell into that same age category. Internet shoppers were also more typically from single-income households (32% as compared with 23% of the catalog shoppers). Household income levels suggest greater affluence among the Internet shoppers, with 32% of that sample reporting income levels exceeding \$75,000, compared with 25% of the catalog shoppers. Finally, Internet shoppers reported spending more per transaction than did catalog shoppers. Catalog shoppers, however, reported making purchases twice as frequently during the previous year.

Measures

Survey respondents were asked to recall the item they most recently purchased from the retailer in question, and the date of that purchase. The remaining survey questions were framed in terms of this specific purchase occasion. Seven indicators of experiential value—efficiency, economic value, intrinsic enjoyment, escapism, visual appeal, entertainment, and service excellence—served as the subjective measures of retail channel performance (Mathwick, Malhotra, & Rigdon, 2001).

The intuitive- versus analytic-inducing property of the shopping tasks performed by respondents was determined from self-reported levels of prepurchase planning. Respon-

dents who reported initiating their retail encounter by browsing with no intent to purchase and those with a purchase intention but no specific product in mind were combined to represent "experientials," that is, people involved in relatively intuitive tasks. Respondents who indicated that they intended to purchase a general category of product or a specific brand were classified as "goal-oriented" customers, whom we believe operated in a relatively analytic mode (Cobb & Hoyer, 1986). Approximately 43% of the catalog shoppers and 36% of the Internet shoppers were engaged in experiential shopping tasks. The remaining 57% of the catalog shoppers and 64% of the Internet shoppers were classified as performing goal-oriented tasks. Regardless of their initial intent, all respondents in this study ultimately made a purchase. Fig. 1 illustrates the sample distribution resulting from this classification.

To identify differences in the analytic-intuitive properties of the two shopping environments, a series of questions suggested by the work of Hammond et al. (1987) was developed. These related to perceived time pressure, visual-versus text-based information format, and the perception of information redundancy, specificity, and information load. Each item was measured using a seven-point rating scale in which "1" indicated an intuitive environment and "7" reflected an analytic environment. These items were summed to create a surface index that could range from 5 to 35. The higher (lower) the index, the more analytic (intuitive) the perceived surface properties were believed to be.

The effect of the Internet versus catalog shopping medium on this surface index then was examined using one-way ANOVA. This analysis served as a check on underlying assumptions but did not test any of the proposed hypotheses. Results indicate a significantly higher surface index ($F=11.285$ ($df=1,510$); $p=.001$) for the Internet compared with the catalog shopping context; hence the Internet shoppers perceived their shopping medium to be a significantly more analytic environment than did the catalog shoppers.

Four subgroups of home shoppers were then created to classify respondents in terms of the retail channel used (Internet vs. catalog) and the shopping tasks initiated (goal-oriented vs. experiential). A multigroup analysis using LISREL (Joreskog & Sorbom, 1989) was performed to test the hypothesized mean differences in experiential value perceptions. LISREL analysis was chosen over other multivariate techniques because it permits measurement error modeling and provides a means of imposing invariance constraints on the underlying measurement model, thereby controlling for response style differences across groups.

Confirmatory factor analysis and measurement invariance tests

To interpret the mean differences across multiple groups, full or partial metric and scalar invariance must be demonstrated. Therefore, tests of measurement invariance were conducted that involved specifying increasingly constrained

Depth Properties of Shopping Tasks

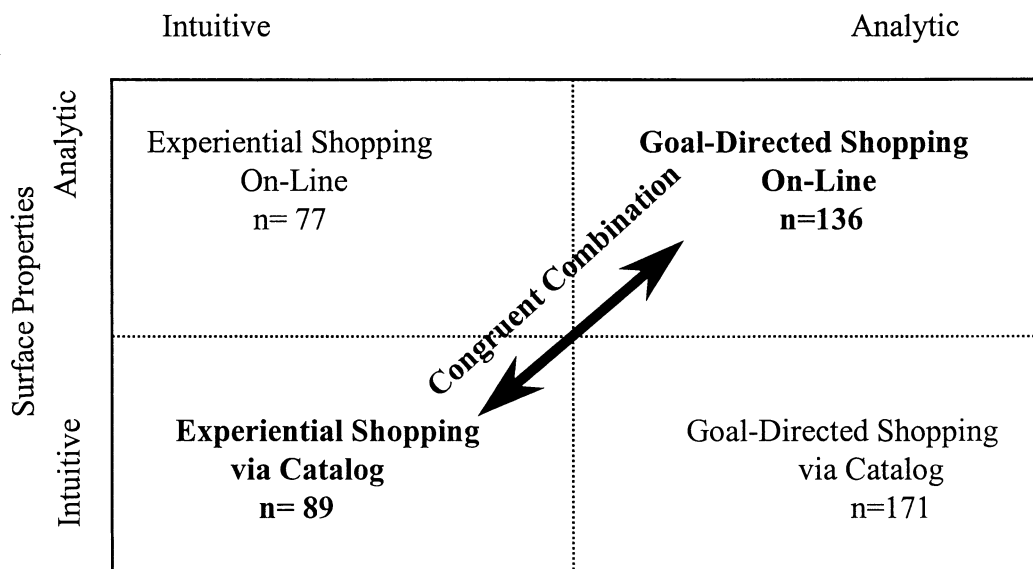


Fig. 1. Shopper group assignment.

models and examining differences in fit. The first confirmatory factor analysis (CFA) specification involved freely estimating the factor loading patterns of the seven value dimensions for one group while constraining the factor loadings to identical patterns across the remaining three groups. The measurement error and factor variance-covariance matrices were allowed to differ across groups. This specification produced a baseline model with acceptable fit ($\chi^2 = 725.40$ (524 df.), $p = .000$, RMSEA = 0.056, Model CAIC = 2433.18, CFI=0.96). The second model involved constraining the factor loadings to invariance across all groups, yielding a nonsignificant change in model fit ($\chi^2 = 762.69$ (560 df.), $\Delta\chi^2 = 37.29$, (Δ df. = 36), $p = .41$, RMSEA = 0.054, Model CAIC = 2209.96, CFI = 0.96), and demonstrating full metric invariance. Composite-based reliability, calculated from this CFA, exceeded or met the reliability threshold of 0.60 for each scale (Bagozzi & Edwards, 1998). Item wording, the associated t-values, and composite reliabilities are reported in the appendix.

The third estimated model involved imposing scalar invariance, which was achieved by constraining the item intercepts (τ_x) to invariance across the four groups. The χ^2 produced by this specification significantly deteriorated in model fit, indicating that full scalar invariance was not achieved. Although the χ^2 increase was significant ($\chi^2 = 856.85$ (596 df.), $\Delta\chi^2 = 94.16$, (Δ df. = 36), $p < .005$), the practical fit indices show limited deterioration and reflect acceptable fit (RMSEA = 0.058, Model CAIC = 2593.57, CFI=0.95). The modification indices (MI) resulting from this specification indicate that the intercept associated with one of the indicators of service excellence (MI=12.64) was the likely source of invariance. Therefore, we believe that

partial scalar invariance is supported; however, we recommend cautious interpretation of the findings related to the service excellence construct (Steenkamp & Baumgartner, 1998).

Results

The effect of the depth properties

To test H_{1-4} , the experiential shoppers in the catalog and Internet context served as baseline groups fixed to zero. The perceptions of efficiency, economic value, enjoyment, and escapism were then compared with those of shoppers performing goal-oriented shopping tasks in the catalog and Internet context. The results indicate an acceptable model fit ($\chi^2 = 199.15$ (180 df.), $p < .000$, RMSEA = 0.028, CFI=0.99). To further aid interpretation, the means for the different groups were obtained through descriptive analysis and are provided in Table 1.

Consumer perception of economic value was significantly higher among goal-oriented shoppers in both catalog ($t = 3.29$) and Internet samples ($t = 6.39$), as predicted by H_1 . The value resulting from perceived efficiency was also significantly higher for the goal-oriented catalog ($t = 2.06$) and Internet shopper ($t = 5.18$) samples, which provide support for H_2 .

The perceived enjoyment of the shopping experience was significantly reduced among goal-oriented shoppers in the catalog context ($t = -2.14$) and was trending in the same direction in the Internet context ($t = -1.94$), as predicted by H_3 . Perceived escapism associated with the on-line and catalog experience did not differ; therefore, H_4 was not supported. The

Table 1
Experiential Sources of Value Means

Mean Estimates	Goal Oriented Task	Experiential Task
Economic Value (Internet)	4.68	4.48
Economic Value (catalog)	4.32	4.00
Efficiency (Internet)	5.37	5.03
Efficiency (catalog)	5.07	4.80
Enjoyment (Internet)	3.74	4.04
Enjoyment (catalog)	3.73	3.94
Escapism (Internet)	3.11	3.06
Escapism (catalog)	2.87	2.97
Entertainment (Internet)	4.28	4.46
Entertainment (catalog)	5.25	5.09
Visual Appeal (Internet)	5.20	4.68
Visual Appeal (catalog)	5.87	5.72
Service Excellence (Internet)	4.56	4.62
Service Excellence (catalog)	5.09	5.02

results suggest that shoppers operating under a goal-orientation perceive significantly higher returns on their investment of time, effort, and money. Intrinsic enjoyment among this group, however, appears to be significantly reduced compared with persons engaged in experiential shopping tasks.

The effect of congruence

To test H_{5-7} , we examined the effect of congruence on reactive value perceptions of visual appeal, entertainment value, and service excellence. In this study, the means for congruent surface-depth combinations (i.e., experiential purchasers using catalogs and goal-oriented purchasers using the Internet) were fixed to zero, and the means for incongruent combinations (i.e., experiential purchasers using the Internet and goal-oriented purchasers using catalogs) were freely estimated. Fit indices for this model are acceptable ($\chi^2 = 1108.47$ (631 df.) $p < .000$, RMSEA=0.078; CFI=0.91), and no problems were detected in the model diagnostics. Mean differences indicate that visual appeal ($t = -8.00$), entertainment value ($t = -4.17$), and perceived service excellence ($t = -3.46$) are all significantly lower for those shoppers involved in incongruent shopping experiences, in support of H_5 , H_6 , and H_7 .

Discussion and implications

The results indicate that active and reactive sources of value are uniquely influenced by different aspects of the dynamic retail experience. Specifically, the nature of the consumer's shopping task appears to exert an influence on perceptions of active value (i.e., efficiency, economic value and enjoyment), whereas the interaction between task depth and surface properties influences reactive sources of value (i.e., visual appeal, entertainment, and service excellence).

Goal-oriented shoppers perceived a significantly higher

return on their investment of time, effort, and money, whereas those engaged in experiential shopping tasks were rewarded with the perception of heightened enjoyment. This suggests that retailers capable of delivering an efficient shopping experience and offering strong economic value should consider targeting their retail channel to goal-oriented shoppers. Consumers with well-formed shopping plans are in a receptive frame of mind for this type of retail experience. Experiential shoppers, however, are looking for and apparently find heightened enjoyment in the process of shopping. Knowing this, retailers might consider designing retail systems with an eye to enhancing the inherent enjoyment of the shopping experience for this type of customer.

Congruence appears to be a key element in enhancing the aesthetic appeal and perception of service excellence in the retail experience. Consumer reaction to retail aesthetics and perceived service excellence suffered when experientially oriented shoppers found themselves in a menu-driven, on-line retail environment. It also appears that consumers who know what they are looking for, may care less for elaborate merchandising techniques that are pleasing to the senses, but of little use when the shopper just wants to "get the job done." Rather than attempting to duplicate the same shopping experience across multiple channels, these results suggest that retailers might enhance the reactive sources of value by tailoring their channels to specific shopper tasks.

Future research directions

Several tenets associated with CCT remain to be tested in a consumer context, providing opportunity for future application of this theory to the marketing domain. For example, Hammond (1996) stated that both surface and depth properties are endowed with the capability to *induce* predictable responses that fall along a cognitive continuum bounded by intuition at one extreme and analysis at the other. Empirical investigation of consumers' tendencies to make purchase decisions using intuitive, analytic, or some hybrid form of cognition would provide a test of this inducement principle in a consumer context. In addition, understanding the effect of surface-depth combinations on the cognitive underpinnings of purchase decisions would add considerable weight to the relevance of CCT to marketers. For example, do intuitively based purchase decisions lead to greater satisfaction or regret? How is consumer confidence influenced when purchase decisions are based on intuition rather than on analysis?

This study tests the effect of surface-depth congruence in an Internet and catalog setting. Investigation of this effect in other retail channels might uncover more subtle differences in experiential value perceptions. Researchers are encouraged to examine the downstream implications of delivering congruent retail experiences in both on- and off-line retail settings. For example, do congruent shopping experiences provide protection against competitive threats or translate into elevated purchase levels? Linking the degree of surface-depth congruence with subsequent customer behavior

is a logical extension of this line of research and may provide additional evidence regarding the importance of designing retail systems to facilitate specific shopping tasks.

Limitations and conclusions

Any conclusions based on these findings must be tempered by an awareness of the study's limitations. First, these results reflect the perceptions of a customer base made up of mostly women. The heavy skew toward women in our sample is a reflection of the target market of this direct retailer, and not the result of a sampling bias. However, given this sample characteristic, it is worth noting that gender effects are likely to surface in perceptual differences across the various dimensions of value (Fontenelle & Zinkhan, 1993). Therefore, replication of this study in mixed gender and male gender populations is warranted. Second, the limitations of mail survey methods apply here. Alternate data collection techniques, including experimental manipulation, would add strength to the findings.

The relatively analytic versus intuitive character of the shopping tasks performed in this study was inferred from the

degree of prepurchase planning engaged in by study participants. Respondents were categorized as performing either experiential or goal-oriented tasks on the basis of a self-report measure. In addition, the designation of retail surface properties as intuitive or analytic was inferred from a combination of items used to represent differences in surface properties. A more complete psychometric treatment of this classification process should be undertaken in the future. The development of a multi-item indicator of dynamic surface-depth task properties, following procedures suggested by Hammond et al. (1987) may be useful in this regard.

In summary, these results suggest that the value retailers are perceived to deliver hinges on what the consumer is trying to accomplish, as well as the fit between that consumer's shopping goals and the properties of the retail environment. Retail managers contemplating market access through a multichannel system must be clear about what their customers are trying to accomplish while using their services. Retail systems designed to facilitate different shopping goals may help clarify where investments should be made and how various retail channels should be positioned in the marketplace.

Appendix

Psychometric Properties of First Order Factor Model: Multi-Sample Analysis of Internet and Catalog Data Set: Full Metric Invariance Imposed [$\chi^2 = 762.69_{(560 \text{ df})}$, (P = .000); RMSEA = .054; CFI = .96; n = 511]*

Construct/Item Wording	CR	SL(t)
Visual Appeal	.94	
1. The way XYZ displays its products is attractive.		.90 (*)
2. XYZ's website (catalog) is aesthetically appealing.		.89 (t = 29.37)
3. I like the way XYZ's website (catalog) looks.		.89 (t = 31.37)
Entertainment Value	.89	
4. I think XYZ's website (catalog) is very entertaining.		.84 (*)
5. The enthusiasm of XYZ's website (catalog) is catching, it picks me up.		.90 (t = 25.10)
6. XYZ doesn't just sell products - it entertains me.		.83 (t = 23.09)
Escapism	.81	
7. Shopping from XYZ's website (catalog) "gets me away from it all"		.71 (*)
8. Shopping from XYZ makes me feel like I am in another world.		.86 (t = 16.86)
9. I get so involved when I shop from XYZ that I forget everything else.		.69 (t = 14.23)
Intrinsic Enjoyment	.80	
10. I enjoy shopping from XYZ's website (catalog) for its own sake, not just for the items I may have purchased.		.76 (*)
11. I shop from XYZ's website (catalog) for the pure enjoyment of it.		.80 (t = 16.40)
Efficiency	.77	
12. Shopping from XYZ is an efficient way to manage my time.		.65 (t = 13.55)
13. Shopping from XYZ's website (catalog) makes my life easier.		.86 (*)
14. Shopping from XYZ's website (catalog) fits with my schedule.		.58 (t = 12.06)
Economic Value	.80	
15. XYZ products are a good economic value.		.80 (*)
16. Overall, I am happy with XYZ's prices.		.88 (t = 18.40)
17. The prices of the product(s) I purchased from XYZ's website (catalog) are too high, given the quality of the merchandise.		.61 (t = 13.85)
Excellence	.76	
18. When I think of XYZ, I think of excellence.		.81 (*)
19. I think of XYZ as an expert in the merchandise it offers.		.77 (t = 17.96)
Shopping Task Designation		
When you began shopping from XYZ's website (catalog) on this occasion, were you: (Check the one that best applied)		
<input type="checkbox"/> browsing with no intention to purchase		
<input type="checkbox"/> intending to purchase a general type of merchandise (i.e.: clothing, house wares, electronics)		
<input type="checkbox"/> planning to make a purchase, but had no particular product in mind		
<input type="checkbox"/> intending to purchase a specific item		

* Completely Standardized Loading (SL), Composite Reliability (CR), and (t) t-value.

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