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#### AN EXPLORATORY STUDY OF THE EFFECT OF SHOPPING CONGRUENCE ON PERCEPTIONS, ATTITUDES, AND PURCHASE INTENTIONS IN ONLINE AND OFFLINE STORES

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**Eun-Jung Choi** 

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# AN EXPLORATORY STUDY OF THE EFFECT OF SHOPPING CONGRUENCE ON PERCEPTIONS, ATTITUDES, AND PURCHASE INTENTIONS IN ONLINE AND OFFLINE STORES

By

**Eun-Jung Choi** 

# A DISSERTATION

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

# **DOCTOR OF PHILOSOPHY**

Retailing

### ABSTRACT

### An Exploratory Study of the Effect of Shopping Congruence on Perceptions, Attitudes, and Purchase Intentions in Online and Offline Stores

#### By

#### **Eun-Jung Choi**

Using the Cognitive Continuum Theory (CCT) as a theoretical framework, this study initially proposes a new theory, "shopping congruence," which explains how people react to shopping environments, based on their shopping tasks. The research empirically tested the impact of shopping congruence on perceptions, attitudes and purchase intentions in an actual offline store situation in Study 1. Due to the increasing importance of multi-channel retail strategies, Study 2 tested the robustness of the impact of shopping congruence in an actual online store situation. This study found that a shopping congruence incorporates both cognitive shopping congruence and intuitive shopping congruence. The results of Study 1 assure the positive impact of shopping congruence on both cognitive and intuitive perceptions, on cognitive attitudes, and on purchase intentions toward stores, though not on affective attitudes toward stores. The results of Study 2 found that the impact of shopping congruence on perceptions and purchase intentions is robust across multi-channels (offline and online stores), whereas the impact of shopping congruence on analytic and affective attitudes toward stores is not robust across multi-channels. Considering these results, multi-channel retail strategies and strategic plans for store environments should differentiate between offline stores and online stores. Managerial implications for multi-channel retailers and further research for shopping congruence are discussed.

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### **DEDICATION**

I dedicate this dissertation to my family, especially,

to my mother, Chulja Lee who made all of this possible for her endless encouragement and support to my husband, Eun-Suk Chun for his patience and warm advice to my farther in law, Jungho Chun, and my mother in law, Soonja Cho for instilling their importance of hard work and high motivation

to my lovely son, Young who might be proud of his mom's this big achievement.

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# **TABLE OF CONTENTS**

LIST OF TABLES	 viii
LIST OF FIGURES	 iv

# **CHAPTER 1**

INTRODUCTION	1
Research Problem	1
Theoretical Background	2
Purpose of the Research	5
Significance of the Research	6

# **CHAPTER 2**

LITERATURE REVIEW	8
Cognitive Continuum Theory (CCT)	8
Depth properties on dynamic task systems in CCT	10
Surface properties on dynamic task systems in CCT	12
Intuition and analysis in CCT	13
Advantage of CCT	15
Shopping Environment Literature	16
The Impact of shopping environment on decision-making	19
The Impact of Affect on Decision-Making	20
Affect literature	20
Interaction between cognition and affect in decision-making	23

# **CHAPTER 3**

CONCEPTUAL FRAMEWORK	26
Study 1. Exploring Shopping Congruence	29
The impact of shopping congruence on perceptions toward stores .	29
The impact of shopping congruence on attitudes toward stores	32
The impact of shopping congruence on purchase intentions	34
Study 2. Exploring Shopping Congruence across Multi-channels	35

# **CHAPTER 4**

RESEARCH METHODOLOGY	39
Research Design	39
Manipulation of retail store	40
Manipulation check	43
Procedure for the experiment	45

Independent Variables and Dependent Variables	47
Independent variables	47
Dependent variables	48
Control Variables	49

# **CHAPTER 5**

RESULTS	53
Results of Study 1	54
Results of Study 2	61
Results of Regression Analysis	. 67

# **CHAPTER 6**

DISCUSSIONS & CONCLUSIONS	72
Discussions and Conclusions	72
Directions for Future Study	79
Contributions and Implications	81

# APPENDICES

APPENDIX 1. Flow of Online Survey Process	86
APPENDIX 2. Scenario for Shopping Tasks	88
APPENDIX 3. Measurement of Survey	89
APPENDIX 4. Control Variables	90

91

# LIST OF TABLES

Table 1. Task Characteristics	12
Table 2. Properties of Intuition and Analysis	15
Table 3. Results of Manipulation Check for Offline Store	44
Table 4. Results of Manipulation Check for Online Store	44
Table 5. Subject Demographic Features	53
Table 6. Results of ANOVA Test for H2	59
Table 7. Results of ANOVA Test for H4	60
Table 8. Results of ANOVA Test for H6	60
Table 9. Results of ANOVA Test for H8	65
Table 10. Results of ANOVA Test for H10	66
Table 11. Results of ANOVA Test for H12	66
Table 12. Result of the Regression for Study 1	70
Table 13. Result of Regression for Study 2	71

# **LIST OF FIGURES**

	Page
Figure 1. Conceptual Model of Study	27
Figure 2. MCM Island Store	41
Figure 3. MCM Boutique Store	41
Figure 4. SDD Mall	42
Figure 5. mcmworldwide.com	42
Figure 6. Email to Ask for Online Survey	46

\* The Images of Figure 2 to Figure 6 in this dissertation are presented in color.

### **CHAPTER I. INTRODUCTION**

### **Research Problem**

For the past two decades, the shopping environment literature has been the focus of extensive research. Shoppers perceive shopping environments as providing meaningful cues for store evaluation, which provide reliable information about product quality, value, and the overall shopping environment (Bitner, 1992). For example, store layout is a crucial factor in creating store image, which positively influences merchandise value and loyalty intentions (Baker, Parasuraman, Grewal, and Voss, 2002). Due to the strong impact of shopping environments, a retail store's internal and external environments directly influence store performance, such as store sales and market share (Kumar and Karande, 2000).

Scholars and practitioners try diligently to understand the processes behind a consumer's decision-making process for shopping. They work to support their actions through a better understanding of consumer choice and to allocate marketing resources wisely. Better business performance can be achieved through a better understanding of consumer shopping behaviors. However, even though prior literature has reported on how consumers use multi-channels differently, and how they perceive different shopping channel environments, few studies have looked at how consumers experience their shopping environments across multi-retail channels when making their purchase decisions, and what drives those shopping decisions (e.g., Mathwick, Malhotra, and Rigdon, 2002).

Therefore, when considering dynamic consumer shopping choices in multi-channel shopping situations, it is crucial to examine how shopping decisions are made through a multi-channel shopping environment and to identify the factors that effect shopping

behaviors across multi-channels.

#### **Theoretical Background**

In the last decades, a pivotal study on consumer shopping decision-making has focused on cognitive processes and decision-making, by intertwining them with motivational forces. Research about the interplay between motivation and cognition has provided us with an understanding of consumer behavior goals, decision-making processes and judgments (Johar, Maheswaran, and Peracchio, 2006). This study will be based on the Cognitive Continuum Theory (CCT) (Hammond, 1988), for exploring the shopper's decision-making process, because CCT successfully explains the mechanism behind the interplay between motivation and cognition in consumer-shopping decision-making.

CCT is an adaptive theory of human judgments made by the dynamic interaction between task characteristics and environmental characteristics. According to the theory, people perform a task based on that task's characteristics, and dynamically change their cognitive decision-making according to task environments. Various cognition modes are distributed along a continuum, with intuition at one pole and analysis at the other pole. The two distinctive types of cognition cannot be separated by a sharp boundary. Some cognitive modes may include a larger number of intuitive elements than analytic elements, so they may be located closer to the intuitive pole of the cognitive continuum. On the other hand, one might engage less with ideas that induce intuitive cognition, such as design and color. As a result, that decision-making would lie closer to the analytical anchor of the cognitive continuum because people tend to make a connection between task characteristics and cognitive activities. A salient advantage of CCT is that it allows us to predict people's cognitive activities by looking at the task demands. Due to the task and cognitive continuum, a person's cognitive activities can be predicted. Depending on the task demands, the appropriateness and effectiveness of analysis or intuition are considered. People change their decision-making strategies less often if they are making good decisions than if they are making bad decisions. By matching this cognitive mode with the task characteristics a cognitive continuum is established (Hammond, 2000). Therefore, from a practical perspective, we can forecast consumer-shopping behaviors based on CCT because CCT provides an understanding of the pattern-seeking behaviors found between shopping tasks and shopping environments. In addition, CCT has the potential to provide us with directions regarding information display, information design, and stimuli of multi-cues for decision-making (Dunwoody et al., 2000). Thus, considering today's multi-channel retail situations, CCT is a useful theory for explaining and predicting consumers' shopping choices in a multi-channel shopping context.

It should be noted, however, that CCT seems to have a serious omission in that the theory only focuses on cognition. Earlier literature on decision-making documented the impact of affect on decision-making as it influences consumer decisions and decision-making processes (e.g., Darden and Babin, 1994). Affect is integrated with cognition in a heuristic way, so future studies need to investigate the integration between cognition and affect in decision-making (Zimiles, 1981). When considering shopping behavior, people might react both cognitively and affectively when they interact with a shopping environment in their decision-making process. When adapting CCT into the shopping context, the following research questions emerge from the literature:

• Does a congruence exist between shopping tasks and shopping environments in an offline store?

• If the congruence between shopping tasks and shopping environments exists in an offline store, will the congruence influence people's decision-making in shopping? In other words, will various people perceive a shopping environment differently? Will people have different attitudes toward a store? Will people purchase more when experiencing congruence in the store?

• How do people react cognitively and affectively to a shopping environment?

These days, with the emergence and growing popularity of e-commerce, there are a number of conventional retailers who have worked to integrate e-commerce into their channel mix. Multi-channel retailing, including e-commerce, has created a "click and mortar" synergy, which combines physical and virtual competitive advantages with the avoidance of channel conflicts (Steinfield, Adelaar, and Lai, 2002). Due to the emergence of multi-channel retailers, consumer-shopping patterns have evolved that take advantage of the benefits found in multi-channel shopping situations. The population of multi-channel shoppers is also growing (Choi, 2006).

Multi-channel shoppers combine diverse channels, approach multi-channels, and search information across multi-channels in various ways: for example, they may search online but make their purchase in an offline store, based on their online-information search (Wallace, Giese, and Johnson, 2004). Due to the rapid emergence of multi-channel retailing, including online shopping, there are various consumer behavioral studies that compare online shopping and conventional shopping: for instance, searching behaviors

across physical and virtual channels have made people more price-sensitive, so that the price ranges offered by the two different channels have narrowed (e.g., Bryjolfsson and Smith, 2000; Degeratu, Rangaswamy and Wu, 2000); and people have found different levels of satisfaction from dynamic retail experiences and perceptions in multi-channel shopping situations (e.g., Mathwick et al., 2002; Montoya-Weiss and Voss, 2003).

However, most of these research issues have been investigated only in an online shopping situation, so we are not sure how different an online channel and an offline channel are in a shopping decision-making context. The following research questions emerge:

• Does the congruence between shopping tasks and shopping environments exist in an online store?

• Are there differences in the congruence between shopping tasks and shopping environments when comparing online and offline stores?

• Are cognitive and affective reactions to shopping environments different?

In summary, CCT was chosen as the foundation for this study. While employing CCT as a theoretical framework, this study explores the existence of shopping congruence between shopping tasks and shopping environments across multi-channels. It also explores how shopping congruence influences perceptions, attitudes towards stores, and purchase intentions while experiencing online and offline stores.

### **Purpose of the Research**

With CCT's theoretical framework as a basis, this study's primary purpose lies in

exploring shopping congruence, which deepens the understanding of a shopper's decision-making and its managerial implications. Thus, this study's purposes are as follows:

- To explore whether congruence between shopping tasks and store environments affect perceptions toward stores;
- (2) To explore whether congruence between shopping tasks and store environments affect attitudes toward stores;
- (3) To investigate whether congruence between shopping tasks and store environments increases purchase intentions;
- (4) To empirically test whether shopping congruence is robust across multi-channels;
- (5) To explore any differences in the impact of shopping congruence across multi-channels;
- (6) To explore how affect influence on shopping decision-making process; and
- (7) To provide meaningful managerial implications for multi-retail channel strategy to marketers who operate multi-retail channels.

## Significance of the Research

- (1) This study explores shopping congruence by empirically testing the shopping congruence between tasks and store environments and its impact on purchases.
- (2) By comparing offline and online stores, we can understand how different multi-retail channels are from a shopping decision-making perspective.

- (3) Based on an understanding of consumers' shopping choices by their shopping tasks, this study provides managerial implications such as retail multi-channel strategies and strategic plans for store environments.
- (4) Empirical tests of CCT have rarely been conducted in a consumer shopping choice context. CCT is an adaptive theory, derived from both theoretical and empirical considerations on human judgments (Doherty and Kurz, 1996). As Hammond, Hamm, Grassia, and Person (1987) mentioned, it is important to empirically test CCT in a specific context. Therefore, this study is meaningful and brings insight about the interaction between shopping tasks and shopping environments, by empirically testing CCT in the retail context.
- (5) By testing shopping congruence, which incorporates cognition and affect toward the shopping environment, this study provides understanding how shoppers analytically and intuitively react to shopping environments by shopping tasks.

The dissertation is organized as follows: Chapter 2 provides a comprehensive review of Cognitive Continuum Theory, shopping environment literature, and the impact of affect on decision-making. In Chapter 3, I address a conceptual framework consisting of study 1, which is set to explore the shopping congruence, and study 2, which is designed to explore the shopping congruence across multi-channels. Research design and data collection methods are provided in Chapter 4, and Chapter 5 contains findings from this study. Finally, in chapter 6, a discussion, along with conclusions and managerial implications of the study are addressed, as well as directions for future study.

### **CHAPTER II. LITERATURE REVIEW**

### **Cognitive Continuum Theory (CCT)**

Cognitive Continuum Theory (CCT) is an adapted theory that explains how people make decisions in complex and dynamic information environments by analyzing a person's cognitive activity and its shift, produced by task circumstances (Hammond, 1988, 1990, 1996). CCT view is that this dynamic relationship, between tasks and the depth- and surface- properties of obtained information, influences a person's ability to utilize that information in order to achieve his/her particular goals (Hammond, 1988). Consequently, the relationship between tasks and the properties of both intuitive cognition and analytic cognition form a cognitive continuum.

CCT provides a theoretical understanding of people's cognition when they perform and make decisions based on complicated information in dynamic tasks. CCT suggests that people operate under various task conditions and perform in order to complete a given task, depending on the structure and function of that task. Thus, tasks are important because people think and act according to the given tasks. Tasks evoke various cognitive activities and influence a person's ability to utilize information, in order to achieve his/her particular goals. Task characteristics are features brought on by task conditions (e.g., number of cues, measurement of cues, and decomposition of task). Task conditions influence whether a task is intuitive or analytical. There are two types of task characteristics: those that induce intuition and those that induce analysis. Tasks can be ordered on a continuum by their capacity to induce intuitive cognition, quasi-rationality, and analytic cognition (Hammond, 1988).

CCT suggests that people's cognition does not anchor on a certain mental function,

but also moves between intuition and analysis, and there is an all-or-none shift between them over time. The behavioral consequences of these changes can be foreseen by given tasks, and thus anticipated, because of the gradual movement between intuition and analysis, and by the all-or-none shift between them (Hammond, 1988).

There are four premises in CCT (Hammond, 2000):

- Various modes of cognition can be placed on a continuum anchored at two poles.
  One is intuitive cognition and the other is analytical cognition;
- (2) There are three cognitive forms (activities): analysis, intuition, and quasi-rationality. These lie on a continuum, with quasi-rationality falling between intuition and analysis. Quasi-rationality is a kind of bounded rationality on decision-making. It relates to an intermediate level of a given task characteristic, between an intuition level and an analysis level (Doherty and Kurz, 1996). For example, assume one lost a purchased item when visiting a very crowded shopping mall. After arriving home, one would go back to the shopping mall in order to find the item, even late at night. On the other hand, if one lost the same item, but it had been obtained by using a free coupon, one's reaction might vary. Most normal people are less likely to go back to the shopping mall to find the item they received for free. This reaction might be irrational, because the value of the item is obviously equal in either case, but the perceived value of the item is different. As in the example, human cognition often settles in the middle of the continuum, in the mode of quasi-rationality, called common sense. This brings on inconsistency, error, and so on. However, it emerges as a valuable form of cognition as it tries to avoid the irrationality of intuition, as well as the fragility of analysis (Hammond, 1987,

1988).

- (3) Cognition is dynamic over time. Cognitive activities move back and forth along the continuum between one pole and the other pole. In doing so, intuitive and analytical components, relative to quasi-rationality, will be changed by dynamic cognition. CCT views cognition as having constancy, with a stable environment as bringing the best response to tasks. Under destabilized conditions, inconsistent cognition is changed on the continuum. In other words, cognition can be changed by inconsistency in the relative intuitive and analytical components of an environment, so the cognition that is anchored at a certain pole can move to the other pole on the continuum.
- (4) There can be an order of tasks on the continuum, depending on whether they induce intuition, quasi-rationality, or analysis. CCT believes that inducing one of the three modes of cognition is within an individual's capability.

CCT views decision-making as a dynamic task system, which consists of two properties: depth properties and surface properties. The surface properties are divided into intuitive surface properties and analytic surface properties. The following is a detailed review about depth and surface properties in CCT.

#### Depth properties of dynamic task systems in CCT

Depth properties refer to the nature of shopping tasks, so they include structures and functions of the tasks. Hammond, Hamm, Grassia, and Person (1987, p. 756) defined the depth property of a dynamic task system as "the covert relationships among the variables within the task," that is, the properties of a task. Suppose, for example, that one has a task of shopping for a gift for a friend's birthday, and will attend the birthday party tonight. He/she decides to purchase a cellular phone that provides high quality at the cheapest price. In this case, depth properties are a gift shopping task looking for a cellular phone having a high quality at a cheap price.

Hence, the depth properties can be replaced with other properties of task. In the retail context, the depth properties of a task system are very important because they influence store/brand choice and purchase. As depth properties are linked with business performance, many studies have examined the depth properties of shopping (e.g., Roy, 1993; Suri, Long, and Monroe, 2003). The depth properties of a task system also influence a consumer's assessment of immediately-displayed information, so they influence the technical types of decision-making, such as an heuristic technique and an attribute-based technique, as well as the organizing principles of given information that lead to the decision processes. In CCT, task characteristics are significant because people tend to focus on cognitive processing in order to achieve their tasks, whether they are influenced by intuition or analysis, while ignoring the problems of describing and differentiating among judgment tasks.

Table 1 below presents task characteristics that induce either intuition or analysis, which are summarized by Doherty and Kurz (1996). As can be seen in Table 1, task characteristics will be induced by either intuition or analysis, so depending on the task characteristics, tasks will require different information processing and decision-making styles.

Task characteristics inducing intuition	Task characteristics inducing analysis
Familiar task	Unfamiliar task
No prior training or task information	Prior training and task information given
Many cues presented (more than 5)	Few cues presented
Contemporaneous cues presentation	Sequential cue presentation or orthogonal cues
Inter-correlated cues	Skewed, peaked, multimodal (bimodal) distribution
Pictorial cues presentation	and criteria
Subject measures cue levels	Quantitative cue presentation
Many alternatives on judgment scales	Objective measures, pointer readings
Rapid response required	Few alternatives on judgment scale
Normally distributed criteria	Open response time
No available organizing principle	Nonlinear functions relating cues to criteria
Equal cue weight	Organizing principle readily available
Linear organizing principle and functions	Unequal cue weights
relating cues	Nonlinear organizing principle
Outcome knowledge available	Outcome knowledge not available
Minimal or no feedback	Cognitive feedback

Source: Doherty and Kurz (1996) Social judgment theory. Thinking and Reasoning, 2 (2/3), 109-140.

#### Surface properties of dynamic task systems in CCT

**Table 1. Task Characteristics** 

The surface properties of dynamic task systems are "those which the operator sees" (Hammond, 1988, p.5) and "the overt display of the task variables to the subjects," that is, information display characteristics (Hammond et al., 1987, p.756). CCT narrows the influence of the shopping environment into direct stimuli of the information display. That is, the surface property is comprised of the retail environment, such as the store interior, music, and service from sales people.

The surface properties are divided into two types of properties: intuitive surface properties and analytic surface properties. The intuitive surface properties are reflected by pictorial and simultaneous information presentation and the analytical surface properties are reflected by organizations of information in a sequential, simplified and self-paced manner. For example, return to the earlier case in which the shopper wished to purchase a cellular phone as a birthday present. When the customer visits a mobile service provider's retail store for gift shopping, he/she experiences the store interior and product displays, presenting various designs and colors of cellular phones, which are intuitive surface properties of the task system, as well as the sales person's explanations about certain products' functions and POP displays about prices and features, which are analytic surface properties of the task system in the store.

#### **Intuition and Analysis in CCT**

There are many modes of cognition, which are cognitive mental processes formed when humans experience and process knowledge and information. CCT views people as having two forms of cognitions: intuitive cognition and analytic cognition. In CCT, the intuitive cognition is defined as a judgment obtained by an informal and unstructured mode of reasoning, without using analytic methods or accurate calculations about given information. Intuitive cognition is a primary intuitive mental function, low in terms of being cognitively controllable and conscious, so spontaneous and speedy actions may flow. On the other hand, analytic cognition is defined as a judgment obtained by a formal and structured mode of reasoning, using analytical methods or accurate calculations about given information. Analytic cognition is a mental function, such as the ability to think, reason, and remind, which is cognitively controllable, conscious, and structured (Hammond et al., 1987).

However, CCT rejects this simple dichotomous view of analysis and intuition. Cognition is not strictly rational or intuitive, but often falls between the two extremes, which is called "quasi-rationality." Thus, the cognitive mode cannot be purely analytic cognition or intuitive cognition, and is more often a mixture of analysis and intuition

(Hammond et al., 1987). To find the differences between intuitive cognition and analytic cognition, Hammond, et al. (1987) tested the efficacy between intuitive and analytic cognition by the direct comparison of three modes of cognitions: intuitive, analytic, and quasi-rational cognition. In contrast to prior cognition studies, they found that intuitive and quasi-rational cognition frequently outperformed analytic cognition in accuracy of judgment. CCT initially recognized intuitive cognition as one of the modes of cognition on the cognitive continuum that may be superior to analytic cognition in terms of judgment.

As can be seen in Table 2, the properties of intuitive cognition and analytic cognition are very distinctive in terms of control, awareness, activity speed, memory, metaphor usage, organizing principle, errors, and confidence. Human judgment is located on the cognitive continuum, which has these two different forms of cognitions. To determine the location of a judgment on the cognitive continuum, each property for intuition and analysis is aggregated by its mean value. This measure provides a "Cognitive Continuum Index," and the resultant number indicates the location of each person's judgments on the cognitive continuum. The CCI provides a means of quantifying a person's direction and degree of cognitive movement on the cognitive continuum, given a certain task circumstance (Hammond, 2000).

	Intuitive Cognition	Analytic Cognition
Cognitive control	Low	High
Conscious awareness	Low	High
Amount of shift across	High	Low
Indicators	High	Low
Speed of cognitive activity	Raw data or events shared	Complex principles stored
Memory	Pictorial	Verbal, quantitative
Metaphors used	Weighted average	Task specific
Organizing principle	Normally distributed	Few, but large
Errors	High confidence in answer;	Low confidence in answer;
Confidence	Low confidence in method	High confidence in method

### **Table 2. Properties of Intuition and Analysis**

Source: Hammond (2000). Judgments Under Stress. New York: Oxford University Press; Hammond et al. (1988). Judgment and decision making in dynamic tasks. Information and Decision Technologies, 14(March), 3-14.

### Advantages of CCT

CCT has an important advantage in the prediction of a person's cognition, in that CCT makes it possible to predict the person's cognitive activity (Doherty and Kurz, 1996). Because of the pattern-seeking behaviors, CCT allows us to quantify cognitive movement and also allows us to predict both the movement of cognition and the interaction between cognition and task by measuring these pattern behaviors. That is, due to the congruence between tasks and behavioral consequences, behavioral consequences can be anticipated.

Pattern seeking behaviors can be influenced by three conditions: (1) organization of information display that offer a high degree of perception such as visual, auditory, or otherwise; (2) organization of information display that offer a high degree of concepts such as presentation of a time sequence of events; and (3) situations that require people to provide coherent explanations about his/her decision-making related with the events (Hammond, 1988).

In spite of CCT's advantage over a possibility of behavior prediction, there are few studies that have applied CCT in a retailing context. Mathwick, Malhotra, and Rigdon's

research (2002) initially adapted CCT into a retail context in order to explain the relationship between retail display information and shopping tasks. Using CCT, they examined the effect of the dynamic retail experience from retail display information on experiential perceptions of value for two different retail formats: online shopping and catalog shopping. They also examined how consumer shopping tasks and retail information display properties influenced consumer perceptions of experiential value, and whether they enhance or undermine consumer perceptions of value associated with their retail experiences. They found that shopping tasks directly influenced perceptions of efficiency, economic value, shopping enjoyment, and all active dimensions of value. Goal-oriented shoppers are associated with higher perceptions of economic value and efficiency and a lower perception of enjoyment than intuitive shopping oriented shoppers.

They also found that congruent interactions between shopping tasks and retail information display properties enhanced the impact on reactive dimensions of value. Incongruent combination between shopping tasks and retail information display properties are associated with lower levels of retail visual appeal, retail entertainment value, and perceived service excellence than congruence combination.

Emphasizing the impact of information display on task achievement, they suggested that retailers should be aware of the challenges found in conveying product information in different store environments, such as in-store, online, and through print or broadcast media.

### **Shopping Environment Research Literature**

From a theoretical viewpoint, a central tenet of shopping environmental psychology is grounded in the Theory of Affordances (Gibson, 1979). This theory suggests that people perceive physical environments related to information as a meaningful entity and implies that people use a store's physical environmental cues when they are evaluating stores, because these cues provide reliable information about product-related attributes like quality, value and the overall shopping experience (Bitner, 1992).

People store their perceptions of these physical environmental cues, which directly convey information to them about stores and products in the stores. Based on the experience of a shopping environment, people make shopping decisions. Due to the significant influence of shopping environment on shopping choice, many studies have intensively investigated the impact of various store environmental cues on store patronage, store image, or purchase intention: music (e.g., Dube, Chebat, and Morin, 1995); lighting (e.g., Golden and Zimmerman, 1986); colors (e.g., Babin, Hardesty, and Suter, 2003); ambience (e.g., Spangenberg, Crowley, and Henderson, 1996); and store crowding (Hui and Bateson, 1991).

For example, Babin et al. (2003) treated color (orange vs. blue), lighting (bright vs. soft), and product item price (US\$59.95 vs. US\$149.95) and then tested these effects by the main effect itself, by two-way interactions, and by three-way interactions. They found that consumers evaluated a blue interior more favorably than orange interior, by showing greater excitement and higher store patronage intention. The result changed, though, when the color was combined with lighting changes and controlling for price.

Indeed, it has been found that store environmental cues strongly influence shopping

related decisions in the previous shopping environmental studies. Furthermore, a retail store's internal and external environment actually influences retailer performance. For example, Kumar and Karande (2000) reported that retail performance (sales and market share) was significantly influenced by internal retail store environments such as number of checkout counters, the number of non-grocery products sold and external retail store environments such as a type of store neighborhood.

The shopping environment automatically influences shopping tasks, guides information processes related to shopping, and can even change shopping behaviors. Recent evidence shows that environments automatically activate tasks (e.g., goals and motives), which are frequently associated with the previous experience, and these tasks then unconsciously influence information processing and behaviors (e.g., Chartrand and Bargh, 2002).

Due to the powerful impact of the store environment on retail business, retailers are trying to provide various retail environments for their customers and potential customers. To date, multi-channel retailers utilize the Internet as their technical tool to build various, deep relationships with customers. They have tried to provide personalized information, communities, and proactive interaction tools in order to meet customers' needs and to create a competitive advantage in the market. For example, while using the Internet or navigating on Web sites, consumers experience many banner advertisements designed to gain the consumers' attention, either by flashing techniques or with attractive offers for a certain product (such as coupons and special discounted offers). Due to these efforts, consumers may come to the Internet with an experiential shopping task.

### The impact of shopping environment on decision-making

People make choices heuristically, in order to minimize the cognitive efforts of their decision-making processes, but the heuristics used for store choice are largely unknown (Mitchell, 2001). Earlier literature seems to have been interested in studying heuristic processing to find the distinction between analytic processing (data-driven processing) and intuitive processing (overall evaluation-driven processing) (Fiske and Neuberg, 1990; Mantel and Kardes, 1999; Sujan, 1985). For instance, Mantel and Kardes (1999) tested analytic and intuitive processing—though they used somewhat different terms: attribute-based processing (specific attributes) and attitude-based processing (overall evaluation)—in a consumer preference context. In analytic processing, focal attributes are heavily weighed, whereas less focal attributes are easily neglected. Weights for attributes influencing a certain choice are different in not only intuitive processing but also in analytic processing, depending on the importance of the attributes.

Other studies, on the other hand, tried to exploit consumers' store choice with the alternative "gestalt" view of store image (e.g., Lindquist, 1974). They insisted that consumers simplified analytic processing when constructing complicated store information because they have limited motivations and cognitive capabilities, which suggests that store image is more than just "factually-based opinions." It implies "a structure of some sort that is tying together the dimensions that are at work" (Lindquist, 1974, p. 30).

When people positively perceived store environmental cues, their store patronage, store image, and purchase intentions were higher than people who had negative or neutral perceptions. In another words, people who positively perceived store environmental cues

were also satisfied with other factors in the store, such as service and products. For instance, store layout is an important determinant when creating the store image, which positively influences merchandise value and patronage intention (Baker et al., 2002). Store layout not only contributes to a store's image, but also increases value perception and patronage intention toward the store.

Thus, we can imply from these results that store environmental cues might influence the store-related decision-making (judgment) in a heuristic manner. There are numerous store environmental cues, so people might experience the complexity and subtlety of cognitive functioning when they make decisions related to shopping, based on the information from those cues.

#### The Impact of Affect on Decision-Making

#### Affect literature

Cognitive psychology affirms the importance of affect in fully accounting for cognitive schemata of various decision-making concepts and contexts. In the shopping environment literature, studies examine both positive and negative affect elicited from store environmental cues. Positive affect induced by pleasant store environmental cues encourages customers to stay longer and to have more interactions with other sales people (e.g., Babin and Darden, 1995); to simplify their purchase decision-making; to build positive store image (Darden and Babin, 1994); and to increase the quality and value perceptions of the merchandise (Baker et al., 1994). On the other hand, negative affect, which is induced by loud music or crowding, encourages customers to leave earlier (e.g., Eroglu and Machleit, 1990). Therefore, considering the literature, positive affect and

negative affect are very important as positive and negative affect elicited from store environment eventually influence store performance as well as simply influence shoppers' store interactions.

In the previous psychological literature, positive affect is found to promote cognitive flexibility and to generate more elaborate, organized thoughts. This is because happy feelings become more associated with differentiations among different, multiple relations of stimuli (similarities or differences) on cognitive decision-making. That is, consequently, happy feelings influence cognition by promoting cognitive decision processes (Isen, 1997).

On the other hand, negative affect does not seem to influence the motivational and methodological complexity of decision-making processes because people in a negative frame may be more concerned about loss, so they frame behavior conservatively in order to protect themselves from loss. Thus, the impact of positive affect cannot be simply extended into a negative affect frame. Specifically, strong negative affect, not positive affect, impacts decisions by disrupting the decision process (Isen and Geva, 1987).

Thus, in summary, it is important to consider the impact of affect on cognition to understand consumers' decision-making because affect influences cognition's elaboration. Positive affect and negative affect seem to differently influence cognitive decision-making because positive affect diversely influences cognitive decision-making and its process; whereas negative affect does not influence complexity of decision-making and its process, but conservatively and passively influences a loss frame of decision-making.

The impact of affect depends on situations or tasks, and is regular, predictable, and understandable. That is, positive affect seems to increase the ability to interact between

task types and encourages a substantive process related to the elaboration and thinking of decision making, rather than response bias or non-systematic processes (Isen, 1997). Positive affect is influential in two kinds of tasks (global and specific tasks) and fosters intrinsic motivation such as interest in related task and variety seeking (stimulation seeking) among alternatives. People tend to stay in a positive affect-condition in order to be fun. In doing so, their global tasks become more specific by the intrinsic motivation (Estrada, Young, and Isen, 1992).

Positive affect also may influence diverse types of decision-making, depending on task types, situations, importance or utility of the tasks. It is usually assumed that the decision influenced by affect is irregular or unusual. For that reason, affect has been regarded as a negative moderator, having non-conscious and contaminative effects on the elaboration of cognitive decision-making processes. The intensity of emotions, which are closely tied to a specifiable behavior, is likely to interrupt ongoing behaviors and eventually to result in behaviors directed toward different goals (goals that differ from the shoppers' original goals) (Clark and Isen, 1982).

Positive affect (even mild positive affect) could explicitly influence decision-making and its process in a regular fashion (e.g., Isen, 1997). Positive affect cues positive material in memory and makes it easier to access that memory, allowing people to have more accurate and organized information. In doing so, people induced by positive affect have more efficient (less time) decision-making and at the same time, they put their efforts on more complex decision-making (Isen and Means, 1983). That is, positive affect makes information more accessible and eventually helps efficient decision-making. Furthermore, positive affect may change behavioral orientations. For instance, people tend

to have hedonic orientation when they have no specific goals. The hedonic orientation attributes pre-existing pleasure emotions and, in doing so, people become engaged with favorable evaluations of novel stimuli (Schwarz, 1986). Thus, as positive emotion increases the desire to approach more novel stimuli, positive emotion fundamentally changes psychological orientation.

Due to the impact of the positive affect, previous studies tried to identify positive affect-inducing properties of retailing environments because they attract shoppers and influence in-store shopping behaviors. For example, Childers, Carr, Peck, and Carson (2001) found that entertainment is a very strong predictor of attitude for online shopping in both utilitarian and immersive/hedonic online shopping environments. They found that consumers' online purchases are motivated not only by utilitarian but also hedonic motivations. Similarly, Wakefield and Baker (1998) found the importance of affect (excitement). Consumers who experienced mall shopping excitement have a desire to say more about the mall and the excitement is the strongest factor influencing re-patronage intention and shopping involvement with the mall. Regarding to the literature, the affective quality of shopping experience might have a significant effect on shopping intentions, so more investigation about the impact of affect on shopping experience is needed.

### Interaction between cognition and affect in decision-making

In the literature, the principle of cognitive-affective interaction was invoked as a moderator, bothering a process of mental thinking. The affective system is less amenable to behavioral analysis and is acknowledged to have an interior apparatus, by pointing to the linkage between thought and feeling. Due to the features of affective systems,
psychologists reasserted the importance of internal states in understanding how people think. In particular, this cognitive-affective interaction received great attention in a learning context. However, the affective system is not merely a necessary condition for learning, or an independent driving force, but rather, an interactive element that contributes to its scope and character by steering and monitoring the cognitive performance. Cognitive style refers to a characteristic mode of cognition that is closely interwoven with aspects of an individual's character and personality (Zimiles, 1981).

From a semantic network perspective, which explains people's mental information processes, cognitive and affective perceptions are related to each other (e.g., Bower and Cohen, 1982). The frequency and variance of affective or emotional responses across different stimuli are indicative of varying affective meaning. People have affect evolving into important nodes in the semantic network of their brains that could guide future action. These nodes are naturally linked to more concretely perceived elements, which form traditional cognitive nodes of information and also associate with the objects and environments. That is, relevant cognitive information and affective information are highly interactive with each other in decision-making. Thus, there is a significant need for more research in this area. Investigation of individuals' cognitive and affective components will provide a more in-depth understanding of their respective contribution to one's general predisposition toward an object than we gain by looking at either component alone (Cervellon and Dube, 2002).

Therefore, considering the cognitive and affective decision-making literature, shoppers might experience store environments in both cognitive and affective aspects. Also, stores environments are important drivers to shopping decision-making because they

induce the affective and cognitive interaction and consequently influence shopping decision-making.

In summary, this chapter reviews CCT's significant features such as depth and surface properties on dynamic task systems in CCT, intuition and analysis in CCT, and its advantages. The shopping environmental literature review addresses the significant impact of the shopping environment on consumer choice and its impact on decision-making. The impact of affect on decision-making is studied in the later part of the literature review.

#### **CHAPTER III. CONCEPTUAL FRAMEWORK**

An idea from the shopping environment literature leads me to a shopping congruence framework that interweaves shopping tasks and store environments, and integrates the general framework of the Cognitive Continuum Theory.

Consumer shopping tasks are categorized in the shopping task literature by various contexts and aspects due to the strong influence of the shopping task on store-attribute salience and store choice. For instance, Kenhove and Waterschoot (1999) defined the shopping tasks as regular purchases, urgent purchases, large quantities, difficult jobs, and getting ideas. Kau, Tang, and Ghose (2003) proposed a typology of online shoppers, using six brand criteria: comparison, online shopping, deal proneness, information seeking, ad orientation, and offline shopping. The typology includes (1) the on-off shopper; (2) the comparison shopper; (3) the traditional shopper; (4) the dual shopper; (5) the e-Laggard; and (6) the information surfer. Tauber (1972) classified shopping tasks motivated by psychological needs into two categories: personal (role playing, diversion, self-gratification, learning about new trends, physical acuities and sensory stimulation) and social (social experience, communication with others, peer group attractions, status and authority, pleasure and bargain). Most Internet studies have seen the online consumer as engaging in two tasks: experiential-oriented shopping and goal-oriented shopping (e.g., Hoffman and Novak, 1996).

It is not surprising that there is an array of shopper types to meet various product contexts. However, due to the variety presented, it was difficult to draw any significant generalizations from the previous studies. As a result, two types of shoppers are identified for this study, using a simple typology: utilitarian and hedonic. The utilitarian shopper is

characterized as task-related and rational, while the hedonic shopper is characterized as entertainment-seeking and emotional. Westbrook and Black (1985) mentioned that the classifications do not necessarily have to be sharply delineated from each other; some tasks can be more utilitarian or hedonic in nature, but can contain features of both.

In the decision-making literature people might react both cognitively and affectively during their shopping decision-making process, as they interact with their shopping environment. Further research that provides a more in-depth understanding of the interaction between cognitive and affective components is needed (Cervellon and Dube, 2002). This study, therefore, examines shopping and product choice through both a cognitive decision process and an affective decision process. This viewpoint is different from CCT, as CCT only focuses on the cognitive continuum in decision-making.

Adapting a general framework from the Cognitive Continuum Theory, my study conceptualizes dynamic shopping tasks as being two tasks: (1) a goal-oriented shopping task; and (2) an experiential-oriented shopping task. Based on the shopping environment literature, this study also conceptualizes two shopping environments: an analytic shopping environment and an intuitive shopping environment. I refer to this congruent state between shopping tasks and shopping environments as "shopping congruence." The shopping congruence explains how people, contingent upon their shopping tasks, make decisions related to shopping choice when they interact with shopping environments cognitively and affectively.

The overall conceptual model for shopping congruence is shown in Figure 1. The conceptual model consists of two types of shopping congruence and two types of shopping incongruence: (1) analytic shopping congruence (goal task-analytic store environment);

(2) intuitive shopping congruence (experiential task-intuitive store environment); (3)

shopping incongruence (goal task-intuitive store environment); and (4) shopping

incongruence (experiential task-analytic store environment).

### Figure 1. Conceptual Model of Study

#### **Store Environment**

		Analytic store environment	Intuitive store environment
ıg Task	Goal-oriented shopping task	Analytic Shopping Congruence Perceptions toward Stores Attitude Components toward Stores Purchase Intention	↓ Perceptions toward Stores Attitude Components toward Stores Purchase Intention
<u>Shopii</u>	Experiential -oriented shopping task	↓ Perceptions toward Stores Attitude Components toward Stores Purchase Intention	Intuitive Shopping Congruence Perceptions toward Stores Attitude Components toward Stores Purchase Intention

#### **STUDY 1. Exploring Shopping Congruence in Offline Stores**

According to the Theory of Reasoned Action, people will consider a given behavior's consequences before performing that particular behavior. As a result, people's perceptions and attitudes influence behavioral intention, which is an important factor in determining behaviors and behavioral changes (Ajzen, 1985). To examine the impact of shopping congruence on the shopping decision, and based on TRA, this study looks at perceptions, attitudes toward stores and purchase intentions as sequential outputs.

#### The impact of shopping congruence on perceptions toward stores

The shopping environment supports shoppers' task completion goals and allows shoppers to appreciate the store environment. Consumers obtain experiential values in various ways. When the shopping task requirement is met, value perceptions of a retail experience are fully appreciated. Mathwick et al. (2002) tested retail experiential values (visual appeal, retail entertainment and service excellence) as a means of evaluating retail channel performance. They found that when there is congruence between the shopping environment and the task, shoppers perceive more retail experiential values than when incongruence exists. Hence, shopping congruence could lead shoppers to tend toward favorable or unfavorable evaluations about the stores they experienced.

Shoppers who experience a shopping congruence extend mental energy, driven by the desire to make the most efficient and the best decision possible, relative to time and effort. Therefore, shoppers who experience a shopping congruence might more positively respond about both their analytic and intuitive perceptions toward stores.

### Hypothesis 1-1: Shoppers who experience a shopping congruence will show higher analytic perceptions (a. perceived usefulness and b. ease of use) toward

stores than shoppers who experience a shopping incongruence. Hypothesis 1-2: Shoppers who experience a shopping congruence will show higher intuitive perceptions (entertainment) toward stores than shoppers who experience a shopping incongruence.

According to Moye and Kincade's study (2002), consumer's shopping orientations will directly influence responses toward retail store environments. They found differences in the importance ratings of sensory/layout environments, in environmental dimensions, among shopping task orientations of decisive-, confident-, bargain- and appearance-consumer groups. This result indicates that shoppers evaluate store environments differently, depending on their shopping orientations.

Based on CCT, goal-oriented tasks might have a higher value perception, requiring analytic cognition correlated with a specific transaction. Goal-oriented shoppers will associate more with an analytic cognition mode when experiencing store environmental cues, than with an intuitive cognition mode. Thus, goal-oriented shoppers who prefer a cognitive experience might look for more novel stimuli and exhibit more curiosity about analytic store environments and saliently perceived analytic shopping environments than experiential-oriented shoppers.

# Hypothesis 2-1: Shoppers who experience an analytic shopping congruence will show higher analytic perceptions (a. perceived usefulness and b. ease of use) toward stores than shoppers who experience an analytic shopping incongruence.

On the other hand, hedonic task orientation has similar shopping motives to utilitarian motives, but the hedonic task focuses only on hedonic fulfillment, such as experiencing fun, amusement, fantasy and stimulation (Babin, Darden, and Griffin, 1994). As mentioned earlier, there are an intuitive pole and an analytic pole in the CCT continuum. Highly visual, dynamic information displays might fall on the intuitive pole of the continuum, whereas text-based explicit information displays would fall on the analytic pole of the continuum. People who are experiential-oriented will minimize the dynamic qualities of information and will either re-organize or disregard some of the information they receive when they are interacting with store environments. In doing so, their decision-making becomes an intuitive and spontaneous reaction, rather than an elaborate analytic decision-making process (Hammond, 2000).

People tend to be influenced by the levels of pleasure and arousal induced by product characteristics as they experience store environments. Their later shopping behaviors can be influenced by the previous arousal and pleasure experience, through carry-over effects (Menon and Kahn, 2002). When associating with experiential goals in emotionally appealing store experiences, experiential-oriented shoppers may have the flow experience, which is a mental state of operation in which the shoppers are fully immersed in what they are doing (e.g., Mathwick and Rigdon, 2004).

When people are in a flow status, they associate with skills and challenges that are balanced and motivating for some important threshold. The flow experience appears in association with experiential goals during emotionally appealing store experiences (e.g., Mathwick and Rigdon, 2004). Hence, shoppers who are oriented by intuition might be more associated with intuitive shopping environments than with analytic shopping environments because of their flow experiences in the store environments.

Hypothesis 2-2: Shoppers who experience an intuitive shopping congruence will show higher intuitive perceptions (entertainment) toward stores than shoppers who experience an intuitive shopping incongruence.

#### The impact of shopping congruence on attitudes toward stores

In the consumer behavior literature, many studies sought to distinguish between the cognitive and affective components of attitudes toward stores (e.g., Crites, Fabrigar, and Petty, 1994). In general, attitudes consist of three main components: affective (the way we feel); cognitive (the way we think); and behavioral (the way we act) towards a particular entity (Petty, Wegener, and Fabrigar). This study only focuses on affective and cognitive attitudes here because behavioral attitudes will be addressed in the section of purchase behavior intention.

Cognitive components of attitudes are believed to be more fundamental and constant over time, and more closely connected to basic values as well, so it is difficult to change them. They may be changed by new knowledge that is convincing and credible. On the other hand, affective attitudes reflect emotional reactions and are somehow spontaneous. Thus, they may be changed by repeated exposure to situations related to the goal associated with the attitude (Wood, 2000).

In the retailing context, the cognitive components of attitudes toward stores pertain to diverse attributes and functions attached to a given store, whereas the affective components of attitudes toward stores contain sensations, feelings and emotions that come from experiencing store environments. A large body of literature reports that store environment is important for enhancing both affective pleasure and cognitive pleasure. An affective pleasure influences approach responses such as global attitude and willingness to buy (e.g., Sprangenberg, Crowley, and Henderson, 1996). A store environment also fosters cognitive pleasure, so that cognitive pleasure influences approach responses as well (e.g., Fiore, Yan, and Yoh, 2000). Thus, store experiences fostered by store atmospherics might

influence both affective and cognitive pleasures. These pleasures then affect approach responses toward a product, such as attitude and purchase intention. According to the literature, a store experience associated with a certain shopping task might positively influence the formulation of both analytic and intuitive attitudes toward a store.

Hypothesis 3-1: Shoppers who experience a shopping congruence will show higher analytic attitudes toward stores than shoppers who experience a shopping incongruence. Hypothesis 3-2: Shoppers who experience a shopping congruence will show higher intuitive attitudes toward stores than shoppers who experience a shopping incongruence.

Based on CCT, goal-oriented shoppers under a shopping goal task that requires analytic cognition will be more associated with an analytic cognition mode, when experiencing store environmental cues through a pattern-seeking behavior. Thus, an analytic shopping congruence might seek more novel stimuli and exhibit more curiosity about analytic store environment factors, compared with an intuitive shopping congruence.

On the other hand, experiential-oriented shoppers who are under an experiential shopping task requiring intuitive cognition will be more associated with an intuitive cognition mode, when experiencing store environmental cues through a pattern-seeking behavior. Thus, intuitive shopping congruence will have more influence than incongruence on intuitive attitudes toward the experienced store.

Hypothesis 4-1: Shoppers who experience an analytic shopping congruence will show higher analytic attitudes toward stores than shoppers who experience an analytic shopping incongruence. Hypothesis 4-2: Shoppers who experience an intuitive shopping congruence will show higher intuitive attitudes toward stores than shoppers who experience an intuitive shopping incongruence.

#### The impact of shopping congruence on purchase intention

As theoretical and empirical studies indicate, the congruence of the surface property-depth, combined with tasks, facilitates task performance (e.g., Hammond et al., 1987; Mathwick et al., 2002). This shopping congruence facilitates purchase decisions more than incongruence when they are experiencing stores by shopping tasks.

## Hypothesis 5: Shoppers who experience a shopping congruence will show higher purchase intention than shoppers who experience a shopping incongruence.

Based on CCT, in order to achieve a shopping goal, a dynamic relationship between a shopping goal and analytic shopping environment might influence shoppers' abilities to use the information obtained while experiencing stores. Goal-oriented shoppers will make more purchase decisions when they experience an analytic shopping congruence because they go through a flow status, where they are fully immersed in their shopping experience because they have achieved an analytic congruence between their shopping tasks and the environment (e.g., Mathwick and Rigdon, 2004). Thus, goal-oriented shoppers under shopping goal tasks will make more purchase decisions when they experience analytic congruence because of their goal driven behaviors, when compared with shoppers who experience a shopping incongruence or an intuitive shopping congruence.

# Hypothesis 6: Shoppers who experience an analytic shopping congruence will show higher purchase intentions than shoppers who experience an analytic shopping incongruence.

#### **STUDY 2. Exploring the Shopping Congruence across Multi-Channels**

"Webmospherics" is a virtual environment counterpart to the physical surroundings found in an offline retailing context. It includes structural design attributes (frames, graphics, text, pop-up windows and search engine configuration), transaction attributes (one-click check-out, purchase procedures and hyperlinks), media dimensions (graphics, text, audio, color and streaming video), and site layout dimensions (organization and grouping of merchandising) (Childers et al., 2001).

Analytic surface properties of online stores are normally reflected by the organization of information into a sequential, simplified and self-paced manner (e.g., text-based Websites). The analytic surface properties of a store are related to the quality of online stores because the analytic surface properties of online stores focus on Website quality and efficiency. For instance, Wolfinbarger and Gilly (2003) suggest quality measures for e-tailers (called eTailQual), which include four key dimensions: Web design (related to depth of information and browsing time issues), fulfillment/reliability, security/privacy and customer service. They found that an etailer's quality, which is determined by these key dimensions, is highly related to customer satisfaction, retention and loyalty, and consequently leads to an etailer's success.

"Aesthetic response is a reaction to the symmetry, proportion, and unity of a physical object, a work of poetry or a performance" (Mathwick et al., 2001, p. 42). In the online shopping literature, "aesthetics," which induces intuitive cognition, has received much attention. In retail shopping, aesthetics is reflected in two key dimensions: visual appeal and entertainment (Bellenger, Steinberg, and Stanton, 1976; Mano and Oliver, 1993; Mathwick et al., 2001). The aesthetics of both visual appeal and entertainment offer

immediate intrinsic pleasure for its own sake and eventually increase consumers' desire to shop by providing a desirable consumption experience (Deighton and Grayson, 1995; Mathwick et al., 2001).

As Internet technology is able to serve as a more powerful medium, it provides various information and experiences to shoppers beyond traditional non-store retailing formats (e.g., catalog shopping and TV shopping). Through this, an application of a virtual experience has emerged into online shopping. By inducing intuitive cognition, the virtual experience indicates a movement toward more multi-sensory interactions, by integrating high quality visuals, stereo sound, and 3-D imagery. Many previous online studies have reported that online stores can provide emotional and hedonic experiences like enjoyment and pleasant or arousing feeling as well as functional and utilitarian experiences such as ease of use and usefulness (e.g., Menon and Kahn, 2002).

However, there are some key aspects of online store environments that are different from traditional retail environments. First, a narrow window—the computer screen—allows consumers to immediately focus on particular items in online shopping environments. This immediate focus on particular items means that online store environments might have more influence than physical stores would on the perception of those items seen by shoppers (Burke, Harlam, Kahn, and Lodish, 1992). Second, online shopping environments cannot provide offerings such as a high level of service, highly trained staff, and entertaining and fun retail environments, which are typical devices used for obtaining competitive advantages in "brick-and-mortar" environments (e.g., Burke, 1997; Wakefield and Baker, 1998). Third, online shopping environments have a weakness in that they present low tactile information (they lack a range of sensory experiences). As a

result, goods requiring multi-sensory inputs to make product choices are purchased less often on the Internet (e.g., Citrin, Stem, Spangenberg, and Clark, 2003).

Indeed, in the literature, many previous studies have reported the organizational and/or theoretical differences between offline and online stores, with regards to store characteristics and offered values. However, very few empirical studies have compared consumer behavior in offline and online stores. Even then, most of them have only tested for the online shopping situation itself; they have not empirically tested differences and similarities between these two channels, so we don't know whether differences exist across multi-channels, or what those differences might be. To assure the robustness of the shopping congruence across multi-channels, Study 1—which used an offline store context—is repeated in an online store context for Study 2.

Vrechopoulos et al. (2004) reported that consumers perceived usefulness, ease of use, entertainment and time toward three major store layout types (grid, freedom, and racetrack/boutique) differently, when comparing them between a conventional retailing context and an online retailing context. Thus, the impact of shopping congruence on perceptions toward online stores may be different. On the other hand, even if shoppers perceive shopping environments differently between offline and online stores, the shopping congruence between shopping environment and task is a very strong, concrete concept, so its impact on perceptions and attitudes toward stores may be robust. Study 2, therefore, is meaningful in that it investigates whether the shopping congruence is robust across multi-channels and, furthermore, if differences exist across multi-channels, how offline and online retail channels are different or similar. Thus,

Hypothesis 7-1: Shoppers who experience a shopping congruence will show higher analytic perceptions (a. perceived usefulness and b. ease of use) toward online stores than shoppers who experience a shopping incongruence. Hypothesis 7-2: Shoppers who experience a shopping congruence will show higher intuitive perceptions (entertainment) toward online stores than shoppers who experience a shopping incongruence.

Hypothesis 8-1: Shoppers who experience an analytic shopping congruence will show higher analytic perceptions (a. perceived usefulness and b. ease of use) toward online stores than shoppers who experience an analytic shopping incongruence.

Hypothesis 8-2: Shoppers who experience an intuitive shopping congruence will show higher intuitive perceptions (entertainment) toward online stores than shoppers who experience an intuitive shopping incongruence.

Hypothesis 9-1: Shoppers who experience a shopping congruence will show higher analytic attitudes toward online stores than shoppers who experience a shopping incongruence.

Hypothesis 9-2: Shoppers who experience a shopping congruence will show higher intuitive attitudes toward online stores than shoppers who experience a shopping incongruence.

Hypothesis 10-1: Shoppers who experience an analytic shopping congruence will show higher analytic attitudes toward online stores than shoppers who experience an analytic shopping incongruence.

Hypothesis 10-2: Shoppers who experience an intuitive shopping congruence will show higher intuitive attitudes toward online stores than shoppers who experience an intuitive shopping incongruence.

Hypothesis 11: Shoppers who experience a shopping congruence will show higher purchase intention than shoppers who experience a shopping incongruence.

Hypothesis 12: Shoppers who experience an analytic shopping congruence will show higher purchase intentions than shoppers who experience an analytic shopping incongruence.

#### **CHAPTER IV. RESEARCH METHOD**

#### **Research Design**

Previous studies have employed different experimental designs to empirically test CCT. For example, Hammond (1987) utilized a between-subjects experimental design (decision-making made only under a specific task), with highway construction engineering experts as his test-subjects. On the other hand, Dunwoody et al. (2000) applied a within-subjects experimental design (decision-making made under all task conditions), using undergraduate students as the subjects. A review of the literature reveals a possible problem in the between-subjects experimental design; there is some fluctuation in the scores of groups, due to different participants providing those scores. A better design of within-subjects experimental research would be one that controls unwanted participants' variability through an awareness that shopping congruence tests both cognitive and affective movements as people experience store environments.

Mathwick et al. (2002) examined how shopping task orientations affect perceptions toward store environments by asking subjects to recall their shopping task orientations and their most recent shopping experiences in a real shopping situation. This may present serious inherent problems, such as a time gap between the shopping experiences and the testing leading to the subjects having difficulty recalling their shopping task orientations. Retailing research should be done in an actual retailing setting to meet the realities of retailing. An experimental design would be better for research into the precise causal relationships between independent variables and dependent variables.

Therefore, this research employed an experimental research design in offline and online shopping situations that utilized a within-subjects experimental design for shopping

task assignments in real shopping situations. My experiment employed "a quasi-experimental design." Internal validity may be threatened by using this experimental design (Campbell and Stanley, 1966). It was chosen, however, because this research examines SC in field settings in which random assignments of groups cannot be accomplished.

The research consisted of two experimental studies: Study 1 for offline shopping situation and study 2 for online shopping situation. Thus, the experiment design had 3 shopping tasks (a goal-oriented task, an experiential-oriented shopping task, no task, within the subjects) x 2 offline stores (offline store with intuitive properties and offline store with analytic properties, within the subjects) x 2 online store with analytic properties and online store with analytic properties, within the subjects).

#### Manipulation of retail store

To have the reality of a retailing setting, this study utilized a real retail company who has both offline stores and online stores, which have appeal intuitively and analytically for their variety of online and offline retail stores. For this field experiment execution, research cooperation was granted by MCM in Korea. MCM is a luxury brand of German origin leather goods. In 2005, Sungjoo Group, a Korean fashion company, owned MCM. After the merger with Sungjoo Group, MCM rapidly expanded worldwide. For this present research, MCM was selected as it currently offers different offline and online store environments, varied by country and regional situations, in order to meet various overseas market situations.

In the Korean market, offering two different store environments, most of MCM offline stores are located in major department stores. There co-exist island style stores,

small stores which require less space and show analytic merchandise display by product categories in department stores, and boutique stores, relatively big stores which are spacious and show intuitive merchandise displays attractively compelling consumers. MCM island stores were selected because they organized products by category and it is ease to find specific merchandise. On the other hand, MCM boutique stores were selected because people perceive more emotional appealing and entertaining by their store atmosphere. Therefore, MCM island stores were used for the analytic store environment and MCM boutique stores were used for the intuitive store environment and for this present study (Refer to Figure 2 and Figure 3).



Figure 2. MCM Island Store

Figure 3. MCM Boutique Store



For the online store study, MCM's official shopping mall, SDD Mall

(www.sddmall.com) was used as the analytic online store environment. An official home page of the Sungjoo Group (www.mcmworldwide.com) was used as the intuitive online store environment. The SDD Mall offers conventional online shopping environments such as product display by product categories and segments, community, special events, outlet mall for old stocks and information about new arrivals. On the other hand, the mcmworldwide.com offers information about new season collections, company information, and brand heritage by offering fancy visual information by using a flash technique and eCatalogue (Refer to Figure 4 and Figure 5).



Figure 4. SDD Mall

Figure 5. mcmworldwide.com



#### **Manipulation Check**

A manipulation check was executed to ensure how the four MCM stores chosen for this research are different in terms of analytic and intuitive perceptions. The manipulation for four retail stores in this study consist of an MCM boutique store (analytic offline store) and an MCM island store (intuitive offline store), and SDD Mall (analytic online store) and mcmworldwide.com (intuitive online store). The respondents rated the four stores, within subjects, in terms of their 'perceived usefulness' and 'ease of use' for analytic perceptions toward stores and their 'entertainment' for intuitive perceptions toward stores. 139 usable samples were collected.

The manipulation check results suggested that all four of the store manipulations were successful. According to the T-test analysis of the offline stores, MCM island stores showed a higher score of 'perceived usefulness' than MSM boutique stores (Island store mean = 5.22; Boutique store mean = 4.58, t(82) = -2.439, p<.05). MCM island stores showed a statistically higher score of 'ease of use' than MCM boutique stores (Island store mean = 5.13; Boutique store mean = 4.62, t(82) = -2.258, p<.05). On the other hand, MCM boutique stores showed a statistically higher score of 'entertainment' than MCM island stores (Boutique store mean = 4.64; Island store mean = 4.21, t(82) = 2.366, p<.05). Thus, people perceived the MCM island stores to be more analytic than MCM boutique stores. People also perceived MCM boutique stores as being more intuitive than MCM island stores (Table 3).

T-test analyses were also executed for online stores. SDD Mall showed a higher score of 'perceived usefulness' than mcmworldwide.com (SDD Mall mean = 5.87; mcmworldwide mean = 4.32, t(53) = -5.705, p<.001). SDD Mall showed a statistically

higher 'ease of use' than mcmworldwide.com (SDD Mall mean = 4.89; mcmworldwide mean = 4.14, t(53) = -3.352, p<.001). Mcmworldwide.com showed a statistically higher score of 'entertainment' than SDD Mall (mcmworldwide mean = 5.02; SDD Mall mean = 3.16, t(53) = 5.989, p<.001). Thus, the results of the manipulation check confirmed that people perceive the SDD Mall as being more analytic than mcmworldwide.com. People perceive mcmworldwide.com as being more intuitive than SDD Mall (Refer to Table 4).

Offline MCM Shopping environment MCM Island Store Sig. t - value perception Boutique Store (Analytic Store) (Intuitive Store) n=41 n=43 Analytic Perception -Perceived Usefulness 5.22 -2.439 .017 4.58 - Ease of Use 5.13 .027 4.62 -2.258 **Intuitive Perception** 4.21 4.64 2.366 .020 - Entertainment

Table 3. Results of Manipulation Check for Offline Store

#### Table 4. Results of Manipulation Check for Online Store

	0			
Shopping environment perception	SDD Mall (Analytic Store) n=27	mcmworldwide.com (Intuitive Store) n=28	t - value	Sig.
Analytic Perception				
-Perceived Usefulness	5.87	4.32	-5.705	.001
- Ease of Use	4.89	4.14	-3.352	.001
Intuitive Perception - Entertainment	3.16	5.02	5.989	.001

In summary, all of the t-test results demonstrated that the experimental manipulation worked as expected. The four MCM stores were perceived differently, in terms of their shopping environments. It was confirmed that the four MCM stores would work as actual stimuli for this experimental research. Therefore, these four retail stores were used as an experimental manipulation for this study.

#### **Procedure for the experiment**

#### (Study 1\_Offline store research)

For this field experiment execution, research cooperation was granted by MCM in Korea. Most MCM offline stores are located in department stores, so for the offline research, a store intercept survey in Korea was executed in department stores. For the analytic store environment I used two offline island style stores. For the intuitive store environment, I used two offline boutique stores.

According to MCM customer research data, more than 50% of MCM store visitors are goal-oriented shoppers, so even if scenarios are allocated to MCM visitors, it might not be possible to control their original purpose for visiting the stores. Thus, research recruiters asked only department store shoppers who just passed in front of the MCM offline stores (and did not enter into the store) to participate in this survey.

First, subjects completed the pre-survey questionnaire before their store experience. After finishing the pre-survey, they received one of the three scenario cards (a goal-oriented task, an experiential-oriented task, and no task) and they read the given card before entering the store with this scenario in mind. After experiencing the store, they were stopped on their way out to fill out the main survey and demographic survey. MCM diaries were granted thank-you-gifts to all respondents after they finished their responses. To

increase a response rate, respondents were told of the gifts when being asked for the research participation.

#### (Study 2\_Online store research)

To obtain a balanced sample for the online research, I used the online customer database of the department store in which we conducted the offline store. The department store customers received a web mail asking for their participation in the online research. The web mail included an online survey button linked with the online survey (Refer to Figure 6)



Figure 6. Email to Ask for Online Survey

When they click the "start button in the email, the first page of the Internet survey asked respondents to fill out a screening survey and then asked subjects to click "next page," which randomly assigned one out of the six conditions: goal task with analytical online store, goal task with intuitive online store, experiential task with analytical online store, experiential task with intuitive online store, no task with analytical online store, and no task with intuitive online store. Subjects were asked to read the given scenario. Keeping the scenario in their mind, they visited the linked MCM web store. After experiencing the online store, they were asked to fill out the main survey and demographic survey (Refer to Appendix 1). To increase the response rate, the last part of the online survey asked respondents' mail addresses. MCM diaries were sent by using the mail addresses to the all of the online participants.

Finally, after the experiment for both offline and online research, background questions were asked of the participants. The background questions covered demographic factors including gender, age, income, occupation, and the control variables.

#### **Independent and Dependent Variables**

#### **Independent variables**

Shopping tasks are the independent variables in this study. Previous studies have examined shopping task orientations, through self-reporting, after shoppers interacted with store environments (e.g., Mathwick et al., 2002). Given the large body of evidence suggesting that people categorize things based on characteristics derived from their previous experiences, such as cognitive concepts and schema-based affects (e.g., Fiske and Neuberg, 1990), there may have been a validity problem if the shopping task orientations were not controlled. To handle the possible errors, a scenario approach was used to execute this experimental research. While a scenario technique is open to criticism for its lack of realism, it was useful for this study because the scenario technique allowed a valid examination of consumer reactions to store environments (Babin, Hardesty, and Suter, 2003). Thus, two scenarios—one for the goal-oriented shopping task orientations in the subjects.

Several scenarios each were developed for the goal-oriented shopping task and the experiential shopping task. In-depth interviews were executed to confirm which scenarios would provide clear shopping tasks to the interviewees. Finally, two scenarios were selected for use in this research. Each scenario is described in Appendix 2.

#### **Dependent variables**

The perception of store environments was tested using measures set by Vrechopoulos et al. (2004): perceived usefulness and ease of use for the analytic perception of stores, and entertainment for the intuitive perception of stores. All three of these dependent variable measures of perception are highly reliable. The reliability scores are: four items for 'perceived usefulness' (.98); three items for 'ease of use' (.95); and three items for 'entertainment' (.94).

The original measures were developed for online shopping environments only, on a 7-point Likert scale. To meet both offline and online retail store contexts for this study, they were modified or eliminated. Thus, three items were used to test for the perceived usefulness and three items were used to test for ease of use and entertainment (Refer to Appendix 3).

The components for identifying attitudes toward stores were tested using semantic differential cognitive attitude component- and affective attitude component- items. Respondents were asked to indicate how they thought about stores, when visiting the stores, for the cognitive attitude components, and how they felt about stores, when visiting the stores, for the affective attitude components, by using a semantic differential scale on a 7-point Likert scale. The scale has been used in various contexts and has reported scores with high reliability.

Purchase intention was measured by Ajzen and Fishbein's scale (1980), which originally consisted of six items that measured the semantic differentiation of an inclination, with each item associated with a specific behavior. The scale has been broadly accepted in various contexts in the literature because it is considered sufficient for explaining both purchase- and non-purchase- behaviors. Taking time constraints into consideration, only three of the six items were used for this study (refer to Appendix 3).

#### Control

When examining cognition and affect in decision-making, various external variables and individual characteristics can have an influence on the interaction with shopping environment, shopping choice, and its process. Prior studies focused on external variables such as experience/knowledge, mood, and Internet efficacy as moderators. Therefore, when examining the shopping continuum, I eliminated the possible impact of the three external variables on the experiment's result. Measurement items of the control variables are listed in detail in Appendix 4.

#### Brand experience/knowledge

When an experiment uses existing retail stores, it would be difficult to interpret the results because many exogenous variables that cannot be controlled, such as experience or knowledge of particular retail stores, are expected. To ensure the validity of the results of the experiment, experience/knowledge about shopping are expected to influence this research because prior experiences are used as a guideline to evaluation, called "schema-driven affect" (Fiske, 1982).

For instance, Mandel and Johnson's online experiment (2002) reported that

experience and knowledge induces a different formation of decision-making, called "priming," about preference toward Websites. They tested the impact of priming on preference by manipulating Websites' pictures and colors between experts and novices. Novices were strongly influenced by the priming in external search in the Websites, but experts were not mediated by the priming. Mantel and Kardes (1999) also found a similar result in decision-making processing. Their results showed that when high levels of involvement are moderated by experience and influence motivations, analytic processing is made more thoroughly and systematically. On the other hand, previous bad experiences with online stores such as difficulties or failures of transactions from certain online stores can affect value perceptions toward the online stores in this experiment.

#### Mood

Many psychologists suggested that pre-existing pleasure emotions might increase favorable evaluations of novel stimuli more than familiar stimuli in evaluating information. In doing so, people tend to seek novel stimuli (e.g., Schwarz, 1986). This strong impact of mood on consumer evaluation is called the "carry-over effect." For instance, Gardner (1985) reported that mood states have direct and indirect effects on evaluation, recall, and behavior through reviewing influences of mood states on consumer behavior. Swinyard's investigation of shopping intention (1993) found a similar result: that mood did not exert significant main effects on shopping intentions, but it played an important role in interaction effects. Similarly, Li et al. (1999) also found that shopper types were more influential than mood on impulsive purchase behavior. However, the interesting finding in this research is that both recreational shoppers who entered the mall in a positive mood and economic shoppers who entered the mall in a negative mood revealed relatively higher

impulse purchase rates. That is, mood was a significant mediator on interactions between shopper type and purchase.

However, it is important to distinguish between moods that shoppers have and emotions toward online stores. Researchers have generally distinguished two types of affect: emotions (e.g., relatively intense feeling states) and moods (e.g., more generalized mild and long lasting feeling states). However, the previous studies do not provide a clear distinction between mood and emotion. The possible influence of shoppers' moods before interaction with the Web stores might influence the interaction of cognitive and affective perceptions toward online stores, influencing the shopping decision-making (process) in this research. Thus, subjects' moods before experiencing the Web stores in this research were controlled to examine the interaction between cognition and affect from Web stores' properties. Subjects who are in an extremely high or low mood (a pleasurable state or a unpleasurable state) were eliminated from the analysis.

#### **Internet efficacy**

For the online store experiment, a high level of Internet experience/knowledge might cause one to engage with more thorough systematic analysis, so that people who have high Internet experience and knowledge might be associated with higher cognition than affect from the surface- and depth-properties of online stores. That is, responses from the subjects who have had too many experiences and who have a high degree of knowledge about online shopping may show distorted reactions to the Websites for this research.

In particular, Internet self-efficacy is important because it reflects a capability with regards to Internet usage. It is a belief in one's ability to organize and execute a particular course of action related to the Internet. Many prior studies reported that as Internet

self-efficacy increases, Internet users become well able to use it to achieve desired outcomes. Eventually, Internet usage and related activities on the Internet increase through high Internet self-efficacy (e.g., Choi, LaRose, and Lee, 2003). The Internet experience/knowledge measurement was measured using measures for Internet self-efficacy. The three items of Internet efficacy were modified to fit into an online shopping context.

#### V. RESULTS

495 usable response samples were collected. To manage the control variables discussed in the literature, subjects who showed high scores (6 and 7 out of 7 on the Likert scale) on the three control variables (brand knowledge/experience, mood, and Internet efficacy) were eliminated. Thus, 368 response samples were used for further analysis. 188 samples were used for Study 1 (offline store) and 180 samples were used for Study 2 (online store).

As can be seen in Table 5, subject demographic features are very similar to the MCM customer profile data (which is regulatory reported). Therefore, the subjects in this research are representative of MCM customers.

Subjects in Present Res	earch	MCM Customers*		
Gender		Gender		
Male	20.2%	Male	18.5%	
Female	79.8%	Female	81.5%	
Marriage		Marriage		
Unmarried	78.7%	Unmarried	70%	
Married	21.3%	Married	30%	
Age		Age		
20-25	30.8%	20-25	25.1%	
26-30	46.6%	26-30	41.9%	
31-35	14.4%	31-35	17.8%	
Over 36	6%	Over 36	11.7%	
Income (Monthly Household Income)		Income (Monthly Household Income)		
Under 2 Million	36.4%	Under 2 Million	40.0	
2-3 Million	29.3%	2-3 Million	30-4	
3-4 Million	12.3%	3-4 Million	8.5	
4-5 Million	6.0%	4-5 Million	8.1	
5-6 Million	5.8%	5-6 Million	5.0	
6-7 Million	4.7%	6-7 Million	4.3	
Over 7 Million	5.5%	Over 7 Million	3.7	

#### **Table 5. Subject Demographic Features**

\* The MCM customer features were compiled from the MCM customer profile data (2008. 1.).

After checking that a subject was suitable, a reliability test was executed. In analytic perceptions toward store environments, the reliability score of the three items for 'perceived usefulness' showed .94, and the reliability score of the three items for 'ease of use' showed .90. Regarding intuitive perceptions toward store environments, the reliability score of the three items for 'entertainment' showed .93. The reliability score for the five items measuring cognitive attitude components toward stores showed .93 and that for the five items measuring affective attitude components toward stores showed .94. The reliability score of the three items for purchase intention showed .95. Overall, all measures showed .90 or higher, and so were highly reliable (Refer to Appendix 2).

#### **Results of Study 1**

Study 1 examined the effect of both shopping congruence (on perceptions and attitudes toward stores) and purchase intentions, in the context of an offline retail channel. ANOVA tests were conducted to test the hypotheses, examining the effect of shopping congruence. Post-hoc tests were performed following the ANOVA tests.

The result of the ANOVA for H1-1a showed that shoppers who experienced shopping congruence between their shopping tasks and the store environments showed a higher 'perceived usefulness' toward the stores than shoppers who experienced shopping incongruence (perceived usefulness\_congruence = 5.67; perceived usefulness\_incongruence = 4.33, F(186) = 72.987, p<.001). H1-1b revealed that shoppers who experienced shopping congruence between their shopping tasks and the store environments also showed a higher 'ease of use' toward the stores than shoppers who experienced shopping incongruence (ease of use\_congruence = 5.86; ease of use\_incongruence = 4.43, F(186) = 79.562, p<.001). Consistent with H1-2, it was apparent that shoppers who experienced shopping congruence between their shopping tasks and the store environments showed a higher 'entertainment' measurement toward the stores than shoppers who experienced shopping incongruence (entertainment\_congruence = 5.02; entertainment\_incongruence = 4.48, F(186) = 8.726, p<.05). Therefore, H1-1 and H1-2 were statistically supported.

The result of the ANOVA test for H2-1a indicated that the scores for perception toward stores were statistically different between the four groups. Analytic shopping congruence showed the highest score on 'perceived usefulness' (perceived usefulness\_analytic congruence = 5.85; perceived usefulness\_intuitive congruence = 5.47; perceived usefulness\_incongruence (goal task-intuitive store) = 4.88; perceived usefulness\_incongruence (experiential task-analytic store) = 3.75, F(184) = 40.218, p<.001).

The result of the ANOVA test for H2-1b indicated that the scores for perception toward stores were also statistically different between the four groups. Intuitive shopping congruence showed the highest score on 'ease of use' (ease of \_analytic congruence = 5.61; ease of use\_intuitive congruence = 6.14; ease of use\_incongruence (goal task-intuitive store) = 5.32; ease of use\_incongruence (experiential task-analytic store) = 3.49, F(184) = 82.164, p<.001).

The result of the ANOVA test for H2-2 indicated that the scores for perception toward stores were statistically different between the four groups. Intuitive shopping congruence showed the highest score on 'entertainment' (entertainment\_analytic congruence = 4.02; entertainment\_intuitive congruence = 6.14; entertainment\_incongruence (goal task-intuitive store) = 5.14; entertainment\_incongruence (experiential task-analytic store) = 3.79, F(184) = 68.537, p<.001). Therefore, H2-1 and 2-2 were statistically supported, as hypothesized (Refer to Table 6).

Consistent with H3-1, shoppers who experienced shopping congruence between their shopping tasks and the store environments showed a higher score on cognitive attitude components toward the stores (CAC) than shoppers who experienced shopping incongruence (CAC\_congruence = 5.41; CAC\_incongruence = 4.99, F(186) = 10.424, p<.05). That is, shoppers who experienced shopping congruence thought that the stores offered higher quality (more cognitive attitudes toward stores) than shoppers who experienced shopping incongruence.

Not consistent with H3-2, however, shoppers who experienced shopping congruence between their shopping tasks and the store environments did not show higher affective attitude components toward the stores (AAC) than shoppers who experienced shopping incongruence (AAC\_congruence = 5.01; AAC\_incongruence = 5.07, F(186) = 0.146, p=.703). That is, shoppers who experienced shopping congruence did not like the store more (more affective attitudes toward stores) than shoppers who experienced shopping incongruence. Thus, H3 was only partially supported.

The result of the ANOVA test for H4-1 indicated that scores for cognitive attitude components toward stores were statistically different between the four groups. Analytic shopping congruence indicated the highest score on the 'cognitive attitude component' toward stores (CAC\_analytic congruence = 5.45; CAC\_intuitive congruence = 5.37; CAC \_incongruence (goal task-intuitive store) = 5.10; CAC\_incongruence (experiential task-analytic store) = 4.88, F(184) = 3.995, p<.05). Interestingly, the result of the ANOVA test for H4-2 showed that scores for the affective attitude components toward stores were statistically different between the four groups. In contrast with the hypothesis, intuitive shopping

congruence did not show the highest score on an 'affective attitude component' toward stores (AAC\_analytic congruence = 4.79; AAC\_intuitive congruence = 5.25; AAC\_incongruence (goal task-intuitive store) = 5.34; CAC\_incongruence (experiential task-analytic store) = 4.77, F(184) = 4.579, p<.05). Therefore, H4 was only partially supported.

Shoppers who experienced shopping congruence showed a higher cognitive attitude component toward the stores than shoppers who experienced shopping incongruence (H4-1). On the other hand, shoppers who experienced shopping congruence did not show a higher affective attitude component toward the stores than shoppers who experienced shopping incongruence (H4-2). Thus, the results revealed that shopping congruence did not influence affective attitude components toward stores (Refer to Table 7).

The result for H5 showed that participants who had a shopping congruence between their shopping tasks and their shopping environments showed higher purchase intentions than participants who did not (purchase intention\_congruence = 6.08; purchase intention\_incongruence = 4.53, F(186) = 77.709, p<.001). Hence, H5 was statistically supported.

The result of the ANOVA test for H6 showed that scores for purchase intention were statistically different between the four groups. Analytic shopping congruence showed the highest score on 'purchase intention' (purchase intention\_analytic congruence = 6.28; purchase intention\_intuitive congruence = 5.86; purchase intention\_incongruence (goal task-intuitive store) = 5.42; purchase intention\_incongruence (experiential task-analytic store) = 3.57, F(184) = 66.126, p<.001) (Refer to Table 8). In summary, all of the hypotheses in Study 1, except H3-2 and H4-2, were statistically supported. As hypothesized, the results found that shoppers who experienced shopping congruence had higher analytic and intuitive perceptions toward offline stores and purchase intentions than shoppers who experienced shopping incongruence. One thing that was not supported is the effect of shopping congruence on affective attitude components toward stores. Shoppers who experienced shopping congruence had higher cognitive attitude components toward stores than shoppers who experienced shopping incongruence, but shoppers who experienced shopping congruence did not have higher affective attitude components toward stores than shoppers who experienced shopping incongruence.

The results for Study 1 also found that when experiencing analytic shopping congruence, shoppers showed higher analytic perceptions and attitudes than shoppers did when experiencing an intuitive shopping congruence. Shoppers experiencing an intuitive shopping congruence showed higher intuitive perceptions and attitudes than shoppers experiencing an analytic shopping congruence. Consequently, shoppers experiencing analytic shopping congruence showed the highest purchase intentions when compared with shoppers experiencing analytic shopping incongruence, intuitive shopping congruence or intuitive shopping incongruence.

Table	6.	Results	of	ANOVA	J	lest	for	H2
	•••		~-					

	<b>Offline Store Environment</b>			
_	Analytic store environment	Intuitive store environment		
Goal-oriented shopping task	<b>5.85</b> (n=48)	4.88 (n=50)		
Experiential-oriented shopping task	3.75 (n=47)	<b>5.47</b> (n=43)		
, , , , , , , , , , , , , , , , , , ,	<u>Offline Store</u> Analytic store environment	<u>Environment</u> Intuitive store environment		
Goal-oriented	5.61 (n=48)	5.32 (n=50)		
Experiential-oriented	3.49 (n=47)	6.14 (n=43)		
Intuitive Perception - E	Intertainment Offline Store	Environment		
-				
-	Analytic store environment	Intuitive store environment		
Goal-oriented shopping task	Analytic store environment 4.02 (n=48)	Intuitive store environment 5.14 (n=50)		


# Table 7. Results of ANOVA Test for H4

Table 8. Results of ANOVA Test for H6

		Offline Store	<b>Environment</b>
	_	Analytic store environment	Intuitive store environment
Shopping Ta	Goal-oriented shopping task	<b>6.28</b> (n=48)	5.42 (n=50)
	Experiential-oriented	3.57	5.86

# **Results of Study 2**

Study 2 was designed to test both the influence of shopping congruence (on perceptions and attitudes toward stores) and purchase intentions, in an online retail channel context. That is, Study 2 tested the robustness of shopping congruence in online stores. To analyze Study 2, ANOVA tests were administered, as in Study 1.

On the whole, in an online store context, the results of Study 2 were only partially consistent with Study 1, which used an offline store context. Some of the results from Study 2 showed different results than those from Study 1. First, it was apparent that shopping tasks affected each shopping environment's perceptions and attitude components, whether in an online or an offline context.

Consistent with H7-1a, it was apparent that shoppers who experienced shopping congruence between their shopping tasks and store environments showed higher 'perceived usefulness' toward online stores than shoppers who experienced shopping incongruence (perceived usefulness\_congruence = 5.59; perceived usefulness\_incongruence = 4.16, F(178) = 75.460, p<.001). The result of the ANOVA test showed that shoppers who experienced shopping congruence had higher intuitive perceptions toward stores than shoppers who experienced shopping congruence and higher intuitive perceptions toward stores than shoppers who experienced shopping incongruence.

Consistent with H7-1b, shoppers who experienced shopping congruence between shopping tasks and store environments showed a higher 'ease of use' toward online stores than shoppers who experienced shopping incongruence (ease of use\_congruence = 5.48; ease of use\_incongruence = 3.98, F(178) = 67.200, p<.001).

Consistent with H7-2, it was apparent that shoppers who experienced shopping congruence between their shopping tasks and store environments showed a higher

'entertainment' perception toward online stores than shoppers who experienced shopping incongruence (entertainment\_congruence = 5.56; entertainment\_incongruence = 4.54, F(178) = 41.088, p<.001). Therefore, H7-1 and H7-2 were statistically supported.</pre>

The result of the ANOVA test for H8-1a indicates that the scores for perception toward online stores are statistically different between the four groups. Analytic shopping congruence indicates the highest score on 'perceived usefulness' toward online stores (perceived usefulness\_analytic congruence = 5.89; perceived usefulness \_intuitive congruence = 5.26; perceived usefulness\_incongruence (goal task-intuitive store) = 5.00; perceived usefulness \_incongruence (experiential task-analytic store) = 3.46, F(176) = 58.572, p<.001).

The result of the ANOVA test for H8-1b indicates that the scores for perception toward online stores are statistically different between the four groups. Analytic shopping congruence indicates the highest score on 'ease of use' toward online stores (ease of use analytic congruence = 5.38; ease of use \_intuitive congruence = 5.59; ease of use\_incongruence (goal task-intuitive store) = 5.02; ease of use\_incongruence (experiential task-analytic store) = 3.10, F(176) = 58.284, p<.001).

The result of the ANOVA test for H8-2 indicates that the scores for perception toward online stores are statistically different between the four groups. Analytic shopping congruence indicates the highest score on 'entertainment' perception toward online stores (entertainment\_analytic congruence = 5.18; entertainment \_intuitive congruence = 5.98; entertainment\_incongruence (goal task-intuitive store) = 4.81; entertainment\_incongruence (experiential task-analytic store) = 4.30, F(176) = 21.499, p<.001). Therefore, H8-1 and H8-2 were statistically supported (See Table 9).

Not consistent with H9-1, shoppers who experienced shopping congruence

between their shopping tasks and the store environments did not show higher cognitive attitude components toward online stores (CAC) than shoppers who experienced shopping incongruence. In other words, there is no difference in the cognitive attitude components toward online stores, between shopping congruence and shopping incongruence

 $(CAC\_congruence = 5.93; CAC\_incongruence = 5.91, F(178) = 0.026, p=.873).$ 

Also, not consistent with H9-2, shoppers who experienced shopping congruence between their shopping tasks and the store environments did not show higher affective attitude components toward online stores (AAC) than shoppers who experienced shopping incongruence (AAC\_congruence = 5.81; AAC\_incongruence = 5.90, F(178) = 0.443, p=.507). Thus, neither H9-1 nor H9-2 was supported.

The result of the ANOVA test for H10-1 indicates that the scores for cognitive attitude components toward online stores were not statistically different between the four groups (CAC\_analytic congruence = 5.95; CAC\_intuitive congruence = 5.91; CAC\_incongruence (goal task-intuitive store) = 6.04; CAC\_incongruence (experiential task-analytic store) = 5.80, F(176) = .545, p=.652). The result of the ANOVA test for H10-2 also

indicates that the scores for affective attitude components toward online stores were not statistically different between the four groups. (AAC\_analytic congruence = 5.76; AAC

\_intuitive congruence = 5.87; AAC\_incongruence (goal task-intuitive store) = 6.00;

CAC\_incongruence (experiential task-analytic store) = 5.86, F(176) = .327, p=.806). Therefore, H10-1 and H10-2 were not supported (Refer to Table 10).

The result for H11 showed that participants who had a shopping congruence between their shopping tasks and their shopping environments showed higher purchase intentions than participants who did not (purchase intention\_congruence = 6.30; purchase intention\_incongruence = 5.96, F(178) = 5.643, p<.05). Hence, H11 was statistically supported.

The result of the ANOVA test for H12 indicated that the scores for purchase intention were statistically different between the four groups. Analytic shopping congruence showed the highest score on 'purchase intention' (purchase intention\_analytic congruence = 6.37; purchase intention\_intuitive congruence = 6.22; purchase intention\_incongruence (goal task-intuitive store) = 6.12; purchase intention\_incongruence (experiential task-analytic store) = 5.83, F(176) = 2.788, p<.05). Thus, H12 was also supported (Refer to Table 11).

In summary, the results for Study 2 revealed that shopping congruence was partially robust in an online retail channel context. Shopping congruence influenced analytic and intuitive perceptions toward online stores, as well as purchase intentions in an online retail channel context. On the other hand, shopping congruence did not affect either cognitive attitude components or affective attitude components toward online stores. In particular, shopping congruence did not influence affective attitude components toward online stores, the same result as found with offline stores.

	Online Store	<u>Environment</u>
-	Analytic store environment	Intuitive store environment
Goal-oriented shopping task	<b>5.89</b> (n=47)	5.00 (n=41)
Experiential-oriented shopping task	3.46 (n=49)	<b>5.26</b> (n=43)
	Analytic store	Intuitive store
	environment	environment
Goal-oriented	5.38	5.02
shopping t <b>a</b> sk	(n=47)	(n=41)
Experiential-oriented	3.10	5.59
Experiential-oriented shopping task	3.10 (n=49)	<b>5.59</b> (n=43)
Experiential-oriented shopping task	3.10 (n=49) Entertainment <u>Online Store</u>	5.59 (n=43) Environment
Experiential-oriented shopping task	3.10 (n=49) Entertainment <u>Online Store</u> Analytic store environment	5.59 (n=43) <u>Environment</u> Intuitive store environment
Experiential-oriented shopping task . Intuitive Perception - 7 Goal-oriented	3.10 (n=49) Entertainment <u>Online Store</u> Analytic store environment 5.18	5.59 (n=43) Environment Intuitive store environment 4.81
Experiential-oriented shopping task	3.10 (n=49) Entertainment <u>Online Store</u> Analytic store environment 5.18 (n=47)	5.59 (n=43) Environment Intuitive store environment 4.81 (n=41)
Experiential-oriented shopping task . Intuitive Perception - Goal-oriented shopping task Experiential-oriented	3.10 (n=49) Entertainment <u>Online Store</u> Analytic store environment 5.18 (n=47) 4.30	5.59 (n=43) Environment Intuitive store environment 4.81 (n=41) 5.98

# Table 9. Results of ANOVA Test for H8

		<b>Online Store</b>	<b>Environment</b>
	_	Analytic store environment	Intuitive store environment
	Goal-oriented shopping task	5.95 (n=47)	6.04 (n=41)
	Experiential-oriented	5.80	5.91
	shopping task	(n=49)	(n=43)
			I
-2	2. Affective Attitude Con	nponent <u>Online Store</u>	<b>Environment</b>
	2. Affective Attitude Con	nponent <u>Online Store</u> Analytic store environment	<u>Environment</u> Intuitive store environment
	2. Affective Attitude Con Goal-oriented	mponent <u>Online Store</u> Analytic store environment 5.76	Environment Intuitive store environment 6.00
	2. Affective Attitude Con Goal-oriented shopping task	mponent Online Store Analytic store environment 5.76 (n=47)	Environment Intuitive store environment 6.00 (n=41)
	2. Affective Attitude Con Goal-oriented shopping task Experiential-oriented	mponent <u>Online Store</u> Analytic store environment 5.76 (n=47) 5.86	Environment Intuitive store environment 6.00 (n=41) 5.87

# Table 11. Results of ANOVA Test for H12

<b>[12.</b> ]	Purchase Intention		
		<b>Online Store</b>	<b>Environment</b>
<u>sk</u>	_	Analytic store environment	Intuitive store environment
Ta	Goal-oriented	6.37	6.12
ping	shopping task	(n=47)	(n=41)
hop	Experiential-oriented	5.83	6.22
	shopping task	(n=49)	(n=43)

### **Results of Regression Analysis**

In addition to the other tests, a regression analysis was done to investigate how shopping congruence influences purchase intention, along with perceptions and attitudes toward stores, and control variables. As mentioned earlier, respondents who showed high scores (6 and 7 on 7- point Likert scale) on the three control variables (brand experience/knowledge, mood and Internet efficacy) were eliminated in Study 1 and Study 2. For this additional analysis, however, the total data—including respondents who showed high scores on the three control variables (brand experience/knowledge, mood and Internet efficacy)—were used. The purpose of this analysis is to investigate whether shopping congruence influences purchase intention and whether perceptions and attitudes toward stores influence purchase intention under a statistically un-controlling situation.

A dummy-coding scheme was used in the regression analysis to observe the impact of shopping congruence on purchase intention; shopping congruence was assigned value 1 and shopping incongruence was assigned value 0. The estimation result for the regression model is shown below:

## Model for Regression Analysis:

Purchase Intention = $\beta_0 + \delta_0$ Shopping Congruence + $\beta_1$ Analytic Perception
+ $\beta_2$ Intuitive Perception + $\beta_3$ Analytic Attitude
+ $\beta_4$ Intuitive Attitude + $\beta_5$ Brand Experience + $\beta_6$ Mood
+ $\beta_7$ Internet Efficacy + $\mu$

The result of the regression analysis for Study 1 is shown in Table 12. This model, which looked at seven variables (two types of perceptions, two types of attitude

components toward stores, and three control variables) and shopping congruence, fit perfectly and explained a large percentage of the variance with  $R^2 = .588$ . The coefficient for shopping congruence was  $\beta = .213$  (p<.01). Thus, the positive impact of shopping congruence on purchase intention was found.

The results also found positive impacts for 'perceived usefulness' ( $\beta$ =.255, p<.01) and 'ease of use' ( $\beta$ =.090, p<.05), as well as for cognitive perception and 'entertainment' ( $\beta$ =.144, p<.01), on purchase intentions. On the other hand, the results for cognitive and affective attitude components toward stores were not significant. Among the three control variables, the results found that only 'brand experience' positively influenced purchase intentions ( $\beta$ =.194, p<.01) and that the others were not significant.

The result of the regression analysis for Study 2 is shown in Table 13. The result of this regression analysis was different from that for Study 1. The results for Study 2 found the positive impact of 'shopping congruence' on purchase intentions ( $\beta$ =.194, p<.05) as expected. However, both 'cognitive attitude components' toward stores ( $\beta$ =.098, p<.05) and 'affective attitude components' toward stores were statistically significant ( $\beta$ =.111, p<.01), whereas those for 'cognitive perception' and 'affective perception' toward stores were not statistically significant in the online context. The results also found positive impacts for 'brand experience' ( $\beta$ =.181, p<.05) and 'Internet efficacy' ( $\beta$ =.085, p<.01) on purchase intentions. On the other hand, 'mood' was not significant. The model for Study 2 explained a large percentage of the variance with R<sup>2</sup> = .597.

Consequently, the regression results showed that a shopping congruence, indeed, influences purchase intentions in both offline and online store situations. Aside from the impact of shopping congruence, the impacts of perceptions and attitudes toward stores on purchase intentions are totally different, depending on the retail channels. Cognitive and affective perceptions toward stores positively influence purchase intentions in online stores, whereas cognitive and affective attitude components do not influence purchase intentions in offline stores. In online stores, cognitive and affective attitude components toward stores positively influence purchase intentions, whereas cognitive and affective perception do not influence purchase intentions in offline stores.

Lastly, the three control variables influence purchase intentions differently, depending on offline and online situations. Brand experience influences purchase intentions in both offline and online stores, whereas mood does not have an influence in either retail channel. Internet efficacy does not influence purchase intentions in offline stores, but does influence purchase intentions in online stores.

Study 1. Offline Store	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	T-value	F	R <sup>2</sup>
(Constant)	.121		.241		
Shopping congruence	.320	.213	2.067 **		
Cognitive perception - Perceived usefulness - Ease of use	.394 .170	.255 .090	2.521 ** 1.010 *		
Intuitive perception - Entertainment	.231	.144	1.337 **	39,127	.588
Cognitive attitude component	.111	.094	1.293		
Affective attitude component	.001	.001	.012		
Brand experience	.642	.194	2.097 **		
Mood	.070	.020	.009		
Internet efficacy	.009	.004	.014		

# Table 12. Result of the Regression for Study 1

\* p<.05 \*\* p<.01

Study 2. Online Store	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	T-value	F	<b>R</b> <sup>2</sup>
(Constant)	.524		1.252 *		
Shopping congruence	.441	.194	2.429 *		
Cognitive perception - Perceived usefulness - Ease of use	001 005	001 014	009 137		
Intuitive perception - Entertainment	.059	.084	.999	45.575	.597
Cognitive attitude component	.191	.098	1.001 *		
Affective attitude component	.254	.111	1.904 **		
Brand experience	.242	.181	1.929 *		
Mood	.170	.197	.259		
Internet efficacy	.152	.085	1.870 **		

# Table 13. Result of Regression for Study 2

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\* p<.05 \*\* p<.01

# **VI. DISCUSSIONS AND CONCLUSIONS**

### **Discussion and Conclusion**

This study contributes to the development of a new shopping theory. Based on CCT, this study initially conceptualizes a shopping congruence formed by reviewing CCT, and literature on shopping environments and the impact of affect on decision-making. People have a tendency toward pattern-seeking shopping behavior, made by the dynamic interaction of shopping task characteristics and shopping environment characteristics (Hammond, 2000). Shopping congruence is an adaptive theory about pattern-seeking shopping behaviors. As shopping congruence explains how people focus more attention on those aspects of stores that are salient to their shopping goals, we can forecast people's reactions toward stores based on their shopping goals.

This study empirically tested shopping congruence across multi-retail channels. Study 1 examined whether the shopping congruence influenced perceptions and attitudes toward stores, and, furthermore, whether the shopping congruence influenced purchase intentions in an offline store situation. Later, to assure the robustness of the shopping congruence across two retail channels (offline and online stores), Study 2 tested shopping congruence in online stores.

The results for H1 and H2 strongly supported the impact of a shopping congruence between shopping tasks and shopping environments on perceptions toward stores. Goal-oriented shoppers were more associated with analytic perceptions of shopping environments, whereas experiential-oriented shoppers were more associated with intuitive perceptions of shopping environments, as hypothesized. This result is consistent with the previous studies that reported the influence of consumers' shopping orientations on their

responses to retail store environments (e.g., Babin, et al., 1994; Mathwick et al., 2002; Moye and Kincade, 2002). In particular, the results found that analytic shopping congruence influenced shoppers to look for more novel analytic information to meet their analytic shopping goals. The result also found that intuitive shopping congruence influenced shoppers to prefer more intuitive shopping experience and saliently perceived intuitive shopping environments. These results strongly support the previous shopping literature (e.g., Babin et al., 1994; Mathwick et al., 2002).

Thus, by testing shopping congruence in terms of cognition and affect, the result of Study 1 initially assured that shopping congruence incorporates analytic shopping congruence and intuitive shopping congruence. Goal-oriented shopping seems to drive more cognitive decision-processes. In doing so, goal-oriented shoppers prefer cognitive experiences and focus more attention on the cognitive aspects of stores because those aspects are salient to their cognitive shopping goals. It can be called an "analytic shopping congruence." On the other hand, an experiential shopping orientation seems to drive more intuitive decision-processes and, in doing so, shows that experiential-oriented shoppers prefer intuitive experiences and focus more attention on intuitive aspects of stores because those aspects are salient to their intuitive cognitive shopping goals. It can be called an "intuitive shopping congruence."

The results for H3 and H4 revealed that shopping congruence only partially influences attitudes toward stores. Shopping congruence positively influences on cognitive attitude components, but it does not influence on affective attitude components toward store. Moreover, an analytic shopping congruence influences cognitive attitudes toward stores, but an intuitive shopping congruence does not influence affective attitudes toward

stores, likewise.

Regarding the results, goal shoppers might easily form analytic perceptions through their analytic shopping experiences. In doing so, it can be seen that shopping experiences under specific shopping goals also seem to change cognitive attitudes toward stores. Thus, this study supported the previous studies that insisted that shopping congruence impacted cognitive attitudes toward stores (e.g., Fiore et al., 2000; Wood, 2000). This shares a similar idea with the study by Mathwick et al. (2002), which investigated the impact of shopping tasks on retail experiential values.

On the other hand, intuitive shopping congruence is built by an experiential shopping task, which is not specific. Even if shoppers are more engaged with intuitive shopping environmental cues in flow experience, their attitudes toward the store are unlikely to be changed by their store experience. In general, attitudes can be changed by store experiences under a certain task situation. However, this study presented a new finding—affective attitudes do not seem to be changed easily by store experiences under shopping tasks. This is different from the previous studies reporting that affective attitudes can be changed by experiences under certain goals (e.g., Sprangenber et al., 1996; Wood, 2000).

In H5, the research showed that there is an impact of shopping congruence between tasks and environments on a purchase intention. The results strongly suggest that both analytic-and intuitive-shopping congruencies in shopping tasks and shopping environments will increase purchase intentions. In particular, it is important to note that experiential shoppers under non-specific shopping goals may make purchases if they experience intuitive shopping congruence through their shopping experience. This result

supported the previous studies, which reported that the congruence of combinations between task and environment would facilitate a task's performance (e.g., Hammond et al., 1987; Mathwick et al., 2002).

The result of H6 found the importance of the impact of shopping goal tasks on purchase intentions and assured that either an analytic- or an intuitive- store experience with a store environment is an important factor, as its congruence increases purchase intentions. Thus, retail stores should provide both analytic and intuitive store environments in various ways, to meet to various shoppers' shopping goals. For example, for shoppers whose shopping goals are lower prices, a retail store environment should provide an easy search for prices, either by a price device or by providing price information by POP, to allow for price comparison. For shoppers with a shopping goal of looking for diverse merchandise assortments, retailers should provide VMD, such as an easy layout for finding diverse colors and sizes, in order to meet their customers' shopping goals.

Study 2 tested whether the impact of shopping congruence on perceptions, attitudes, and purchase intentions toward stores is robust across multi-channels. The results for H7 and H8 showed that the impact of shopping congruence on perceptions toward stores is robust in an online store context. According to Vrechopoulos et al. (2004)'s finding, people differently perceive shopping environment such as store layout when comparing between offline and online stores. Thus, different impact of shopping congruence on perceptions toward online stores was expected. However, the result revealed that the impact of shopping congruence on perceptions toward stores is robust.

The results for H9 and H10 about the impact of shopping congruence on analytic and affective attitude were not the same for online store research as for offline store

research. Online shopping experiences under shopping tasks do not influence both the analytic attitude and the affective attitude toward online stores. This result seems to be caused by the limitations of online store environments, as the existing online shopping literature has insisted (e.g., Burke, 1997; Burke et al., 1992; Citrin et al., 2003; Wakefield and Baker, 1998).

As many previous studies have indicated, online shopping environments have big weaknesses, such as the lack of a range of sensory experiences and a low level of service. Due to the poor online shopping environments, in comparison with offline shopping environments, online shoppers seem to be unable to go through the flow experience, which is a mental state of operation in which people focus on what they are doing. As online shopping experiences do not provide this powerful flow experience, people might find it difficult to associate emotionally with intuitive online shopping environments. As a result, their online shopping congruence does not seem to influence their attitudes toward stores, which is a subsequent behavior of the perception toward stores.

Thus, as Childers et al. (2001) pointed out, online stores should provide entertaining shopping environments because online shopping purchases are influenced by both utilitarian and hedonic motivations. The flow experience of a hedonic shopping environment in online stores might also influence online shoppers' analytic and affective attitudes toward online stores. As hypothesized, the results of H11 and H12 found that the impact of shopping congruence on purchases is robust across multi-channels. Shopping congruence might be a powerful theory for explaining pattern-seeking behaviors. Thus, retailers need to focus their efforts on ideas that will instill concrete shopping goals to consumers before they enter stores, and then provide better shopping environments for

attracting analytic goal-oriented shoppers and intuitive goal-oriented shoppers in various ways.

Finally, the result of a regression analysis showed that shopping congruence, along with perceptions, attitudes toward both offline and online stores, and three control variables, strongly influences purchase intentions. In a regression model of purchase intentions for offline stores, cognitive and affective attitudes toward stores did not influence purchase intention. On the other hand, in a regression model of purchase intention for online stores, cognitive and affective perceptions toward stores did not influence purchase intention. These contrasting results reveal that purchase models for offline stores and online stores are different. For example, shoppers are facilitated in achieving their goals by the more effective navigating offered by online stores than conventional stores (Vrechopoulos et al., 2004).

Considering the results, retailers should develop multi-channel strategies carefully due to the differences between offline and online retail store situations. According to Shim et al. (2000), online shopping involves a higher search quality for cognitive information, whereas offline shopping (traditional shopping) involves a higher experience quality for experiential information. These two retail channels might provide different shopping experiences by the different quality of search. Thus, offline and online retailers should complement their relative weaknesses in comparison with the other. For example, offline stores should provide a higher quality of search for cognitive information in offline shopping environments. On the other hands, online stores should provide a higher quality of experience through improved affective store environments.

Therefore, considering the weaknesses and the differences found between offline

and online retail channels, multi-channel retailers should investigate their limitations in each retail channel and then try to overcome them. Retailers should develop, and then implement, multi-channel strategies that will increase the advantages of both physical and virtual synergy (e.g., Steinfield et al., 2002; Tate, Hope, and Coker, 2005). For example, Steinfield et al. (2002) suggested that the benefits of synergy in multi-channels are lower costs, greater differentiation through value-added services, an improvement in trust, and geographic- and product-extensions. Tate et al. (2005) pointed out success factors for multi-channel retailers: functional integration, channel synergy, brand management, information management, logistics management, customer management and active scanning.

In summary, the results of Study 1 assure the positive impact of shopping congruence on both cognitive and intuitive perceptions, on cognitive attitudes, and on purchase intentions toward stores, except for affective attitudes toward stores. The initial results found that a shopping congruence incorporates both cognitive shopping congruence and intuitive shopping congruence. The results of Study 2 found that the impact of shopping congruence on perceptions and purchase intentions is robust across multi-channels (offline and online stores), whereas the impact of shopping congruence on analytic and affective attitudes toward stores is not robust across multi-channels. Analytic attitudes (the way to think) and affective attitudes (the way to feel) toward stores do not seem to be easily changed by a short store experience, which this study used in its testing. Additionally, the results of a regression analysis supported that shopping congruence, indeed, strongly influences purchase intentions in both offline and online store situations.

Considering the differences between offline and online retail channels, retailers should develop elaborate multi-channel strategies for success.

### **Directions for Future Study**

First, shopping time may influence shopping congruence, as well as its impact on attitudes toward stores and on purchase intentions. In the offline store research, subjects normally took 5-20 minutes while they looked around the offline stores. In the online store research, shopping time could not be measured because participation was conducted by email, so it is difficult to say how online subjects spent their time experiencing the online stores. Thus, a future study should measure shopping time in order to control its impact on the results. Otherwise, it would be interesting for a future study to focus on shopping time in order to investigate how the impact of shopping congruence may differ by shopping time.

Second, this study used the MCM brand of leather goods. This product is of a touch-and-feel type, and is an expensive brand that targets a luxury market. Due to the product type and price, the results may not be generalized for other industries or products. Thus, there are opportunities for further research using diverse product types (experiential goods vs search goods vs credence goods) and different prices (low vs middle vs high prices) to discover whether shopping congruence is dependent on product types and/or prices.

Third, for decades, there have been many studies that have reported on the impact of environmental cues on product evaluation and brand choice. For example, Berger and Fitzsimons (2008) found that conceptual priming that is built by the surrounding

environmental cues influences product evaluation and choice. In particular, there have been few studies that have investigated the impact of shopping tasks on perceptions and attitudes toward products. It would be interesting to see a future study focus on the impact of shopping congruence on perceptions and attitudes toward product brands in stores.

Fourth, in regards to the result that the purchase model for an online store situation was not the same as that for an offline store situation, a future study needs to develop a purchase model for online stores. In general, the objectives in Internet sites can be divided into three areas: goal orientation (buy), hedonic orientation (browse), and search orientation (search) (Bucklin et al., 2002). In particular, a searching behavior is one of the most important factors used in online shopping, so that many online studies have focused their attention on shoppers' behaviors in searching for better deals; on search attributes and search costs (e.g., Bakos, 1997; Degeratu et al., 2000); and on online search efficiencies, experiences, and processes (e.g., Biswas, 2004; Mathwick and Rigdon, 2004). This searching for low-cost online shopping might have an influence on the impact of shopping congruence on multi-channel purchase behaviors. Thus, it would be interesting to see a future study that focuses on the three orientations for the online purchase model by including a searching task.

Lastly, the online stores use non-Asian models on their pages, which did not appear to be the case in the offline stores. This difference in offline and online store environments may influence shoppers' reaction to stores. The use of actual retail settings in this study means that the environmental differences cannot be controlled, which may be a limitation.

In addition, mcmworldwide.com allowed site visitors to actually complete a purchase when collecting the research data. The site visitors who are participated in this

study were able to complete their purchases after looking around both mcmworldwide.com and the SDD Mall. However, it should be noted that mcmworldwide.com has been changed after the data collection, so that the site do not allow site visitors to complete a purchase these days.

### **Contributions and Implications**

This study contributes in three ways. First, this exploratory study contributes in that it initially proposes shopping congruence. This exploratory study brings new insights about the interaction between shopping tasks and shopping environments. This is meaningful in that this research initially conceptualizes shopping congruence and then empirically tests its impact on shopping decision-making processes in actual retail settings. Furthermore, this study finds that shopping congruence consists of both an analytic shopping congruence and an intuitive shopping congruence.

Second, the existence of both an analytic shopping congruence and an affective shopping congruence has been supported by this study. This study provides an understanding of how shoppers cognitively and affectively react to their shopping environments, based on their specific shopping tasks. In the literature on decision-making, most of the studies have only focused on cognition, as CCT does, with affect being treated as a mediator to decision-making. This study views cognition and affect as being equal in value and has found that shopping congruence consists of both cognitive shopping congruence and intuitive shopping congruence.

Thus, retailers should try to provide both analytic and intuitive shopping environments, so as to satisfy shoppers with varying shopping goals. When focusing on the

results of intuitive shopping congruence on purchase intention, retailers should create a variety of store environments through visual merchandising and POP. When developing a store environment plan, a "shot gun strategy" might be an appropriate option. As different shoppers have a variety of shopping tasks, retailers should strategically provide both analytic and affective store environments, rather than focus strictly on either analytic or affective store environments.

In particular, e-tailers should provide those various types of information (i.e., multi-sensory cues) that would meet different online consumers' characteristics for the future success of e-commerce, as online store environments are a crucial factor to business effectiveness, traffic and sales in online retailing (Citrin et al., 2003). Hence, multi-channel retailers should develop interface designs that provide interactions between customers and Web sites. An online store's navigation structure and information content can positively influence online service quality, and eventually influences overall satisfaction moderated by the service quality perception (Montoya-Weiss and Grewal, 2003). Thus, retailers should try to increase the quality of online service, which is perceived as being inferior to that of offline. In addition, retailers should try to enhance affective shopping environments because shoppers react to shopping environments and then build their attitudes toward stores both analytically and affectively. To build strong affective shopping environment, retailers should provide rich multi-sensory information and build strong relationships with their customers.

Third, it was meaningful to find some robustness and differences, by investigating shopping congruence between offline and online stores. This study found that shopping congruence is a concrete concept across multi-channels, but provided an understanding of

how multi-retail channels differ from decision-making perspective of a shopper. Considering these results, there are apparent differences in offline-and online- retail channels, so retail multi-channel strategies and strategic plans for store environments should differentiate between offline- and online- stores. For example, in an online store situation, shopping congruence does not influence a shopper's attitude toward the stores, neither is there an impact on purchase intention, whereas there is an influence in an offline store situation. The findings emphasize that multi-channel retailers need to understand channel synergy, in which multi-channels consistently provide seamless communication and experiences to customers (Steinfield et al., 2002; Kaufman-Scarborough et al., 2002).

Therefore, retailers offering multi-channels to consumers should understand what differences drive channel choices and create a consistent image across their multi-channels. For example, an offline store should promote its own Web multi-channel advantage for two-way synergy (Schoenbachler and Gordon, 2002). Considering the results of this research, it would be appropriate to employ a "click & mortar strategy" to multi-channel situations. As found in this research, an online retail channel and an offline retail channel are viewed differently in a shopper's decision-making process. Thus, when juggling these two different retail channels, this hybrid approach might be the way to enlarge the synergy opportunities (Steinfield et al., 2002). For example, online stores should provide more analytical information to induce online shoppers to shop in offline stores. The online shoppers will purchase more through their interactions with offline shopping environments.

Consumers acquire richer information about products and retailers through the search process. For example, online interactions such as bulletin boards, news groups,

chatting, and user evaluation provide e-tailers with the ability to seek out potential customers and to give more information to their existing customers. In doing so, consumers seem to be more involved with a number of third parties in their pursuit of good deals in their online transactions (Coupey, 2001). In reality, most retailers operate their offline- and online- business systems separately, so it is difficult to achieve synergy between the two retail channels. Hence, to increase the synergy, multi-channel retailers should have a deep understanding of these two retail channels and set up integrated operation and marketing systems.

Finally, from a CCT perspective, this research contributes in that CCT has rarely been empirically tested in a retail context (Doherty and Kurz, 1996), so this study assured that theoretical idea of CCT provides an explanation about consumers' decision-making when shopping.

In conclusion, based on CCT, this study conceptualizes a shopping congruence, which explains how people react to shopping environments, based on their shopping tasks. The empirical results found that a shopping congruence incorporates both cognitive shopping congruence and intuitive shopping congruence, and is robust across multi-channels. This study also found that the shopping congruence influences perceptions and attitudes toward stores and that it influences purchase intentions. The impact of shopping congruence on attitudes toward stores works in an offline store situation, but does not apply in an online store situation. Finally, this research found that the impact of shopping congruence on purchase intentions is robust across multi-retail channels, so

shopping congruence is a very important factor to retailers. Retailers should understand how it works and try to build synergistic multi-channel marketing strategies.

#### **APPENDIX 1. Flow of Online Survey Process**

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KONDER MAR #2/1880H 22400		1 01	0.0	1.4	1.4	1.4	12.8		
HON BET HER WI/TOWNED BY TENDE		4 64	28	1.4	44		- 2		
CARRIED TRANS				0.4	1.0	18	0.2		
KOF801 822 AUTO1 2124 8:08 0580		4	1.1	14	11		0.2		
NOV BOD BOUCH BE MILED.		1	1.0	04	- 14	1.8	10		
KOLESS 23 84 250 040 8308 828 720		1.14	1.12	1.1	14	1.4			
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#### (1) Screening Survey

(2) Allocating Scenarios



#### (3) Asking for Visiting to Online Store

2 - D - W - Jerrer - Ja-D

#### (4) Experiencing Online Store



(5) Main Survey

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	V0024-1	æ						
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Corners 288 + 3/Gencle #5		100	100	14	14	28	1.1	
Or \$50 kas \$2/Gache 23500			- 1	1.4	18			
CONTRACT FOR A MARKING TO A REAL PROPERTY.		100	12.1	14	14	28	1.2	
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CHEW BOR DER INALES CONTRACTOR		1.8	-58	1.1	14	28	-1	
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CHER BOX BACK GLO COST 26 AL 2004	51	1.5		24	1.5	1.		
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(6) Demographic Survey



# **APPENDIX 2. Scenario for Shopping Tasks**

# Scenario of goal-oriented shopping tasks

Suppose that you have a need to buy MCM leather good in this MCM store today. You recently received an MCM gift coupon, with a \$500 value, from a friend. The coupon will expire in two days.

You therefore visit this MCM store. You will buy a MCM handbag or small leather goods in this store.

# Scenario of experiential-oriented shopping tasks

Suppose that you have an appointment to meet your friend in this department store, but you arrived early.

For fun and to kill time, you visit this MCM store. You are just looking around to see the latest styles in handbags and purses.

# APPENDIX 3. Measurement of Survey

Items									Reliability
Analytic Perceptions to	war	d Si	tore	es					
<u>Perceived usefulness</u> The store that I have just visited is useful for searching and buying products.									.94
The store that I have just visited enhances my effectiveness in product searching and buying. The store that I have just visited makes it easier to search for and purchase									
products.									
The store that I have just vis	sited	l is e	easy	tou	ıse.				
The store that I have just vis	sited	l is f	lexi	ble	to ii	ntera	act v	vith.	.90
It is easy to interact with the	e sto	re I	hav	e ju	st v	isite	d		
Intuitive Perceptions to	war	d S	tor	es					
Entertainment		. 1+	f	£	ta 1				
The store I have just visited	was	not	5 01 inst	iun tseli	ιο c ling	it	vse. Was	s entertaining me and	.93
I appreciated that.	was	not	Ju01					ontor taning ine and	
I like the look and feel of th	e sto	ore l	[ jus	t vis	sited	<b>i</b> .			
Attitude Components to	wa	rd S	Stor	es.					
Cognitive components of a	attit	ude	tow	ard	l the	e pr	odu	ct/brand	
: How do you think about the	nis N	1CN	1 sto	ore a	after	r yo	u ha	ve visited it?	
Poor	1	2	3	4	5	6	7	Excellent	.93
Worthless	1	2	3	4	5	6	7	Valuable	
Unfriendly	1	2	3	4	5	6	7	Friendly	
Not credible	1	2	3	4	5	6	7	Credible	
Bad	1	2	3	4	5	6	7	Good	
Affective components of a	ttitu	ide 1	tow	<u>ard</u>	the	pro	oduc	<u>ct/brand</u>	
: How do you feel about thi	s M	СМ	stor	e af	ter	you	hav	e visited it?	
Unsatisfied	1	2	3	4	5	6	7	Satisfied	
Do not concentrate fully	1	2	3	4	5	6	7	Concentrate fully	.94
Unhappy	1	2	3	4	5	6	7	Нарру	
Pleasant	1	2	3	4	5	6	7	Unpleasant	
Like	1	2	3	4	5	6	7	Dislike	
Purchase Intention									
Unlikely	1	2	3	4	5	6	7	Likely	.95
Improbable	1	2	3	4	5	6	7	Probable	
Uncertain	1	2	3	4	5	6	7	Certain	

# **APPENDIX 4. Control Variables**

Items										Reliability
Experience/Knowled Store brand familian Regarding MCM bran	.94									
Unfamiliar		1	2	3	4 4	5 5	6	77	Familiar Experienced	
Not knowledgeable		1	2	3	4	5	6	, 7	Knowledgeable	
Knowledge of store I feel quite knowledg Among my circle of f I know much about M Strongly disagree 1– Mood (global)	bran eable friend ACM -2	<b>Id</b> e ab ds, 1	out I'm	MC one	CM. of	the —7	"ex Str	pert: ongl	s" on MCM. y agree	.93
Are you?		•	•		-				-	
Sad Bod mood	1	2	3	4	5	6	1		lappy Good mood	.84
Irritable	1	2	<u>ר</u>	4	5	6	. 7	' F	Pleased	
Depressed	1	2	3	4	5	6	7	(	Cheerful	
Internet Self-effica I feel confident about I feel confident descr on-line. I feel confident under	.92									

## **BIBLIOGRAPHY**

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), Action-control: From cognition to behavior (pp. 11- 39). Heidelberg, Germany: Springer.
- Ajzen, I. & Fishbein, M. (1980). Prediction of goal directed behavior: attitude, intentions, and perceived behavioral control. <u>Journal of Experimental Social Psychology</u>, 22 (September), 453-474.
- Babin, B. J. & Darden, W.R. (1995). Consumer self-regulation in a retail environment. Journal of Retailing, 71 (1), 47–71.
- Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and /or Fun: Measuring Hedonic and Utilitarian Shopping Value. <u>Journal of Consumer Research</u>, 20 (March), 644-656.
- Babin, B. J., Hardesty, D. M., & Suter, T. A. (2003). Color and shopping intentions: the intervening effect of price fairness and perceived affect. <u>Journal of Business</u> <u>Research</u>, 56 (7), 541-551.
- Baker, J., Parasuraman, A., Grewal, D., & Voss, G. B. (2002). The influence of multiple store environment cues on perceived merchandise value and patronage intentions. Journal of Marketing, 66 (April), 12-141.
- Bakos, J. Y. (1997). Reducing buyer search costs: implications for electronic marketplaces. <u>Management Science</u>, 43 (December), 1676-1692.
- Beatty, S.E. & Talpade, S. (1994). Adolescent influence in family decision-making: a replication with extension. Journal of Consumer Research, 21 (Sept.) 332-341.
- Bellenger, D. N., Steinberg, E., & Stanton, W. (1976). The congruence of store image and self image. Journal of Retailing, 52 (1), 17-32.
- Berger, J. & Fitzsimons, G. (2008). Dogs on the street, pumas on your feet: how cues in the environment influence product evaluation and choice. <u>Journal of Marketing</u> <u>Research</u>, 45 (February), 1-14.
- Biswas, D. (2004). Economics of information in the Web economy towards a new theory. Journal of Business Research, 57, 724-733.
- Bitner, M. J. (1992). Evaluating service encounters: the effects of physical surroundings and employee responses. Journal of Marketing, 54 (2), 69-82.
- Bryjolfsson, E. & Smith, M. D. (2000). Frictionless commerce? A comparison of Internet and conventional retailers. <u>Management Science</u>, 46 (4), 563-85.

- Burke, R. (1997). Do you see what I see? The future of virtual shopping. Journal of the Academy of Marketing Science, 25 (4), 352-361.
- Burke, Ramond B., Harlam, B., Kahn, B. E., & Lodish, L. (1992). Comparing dynamic consumer decision processing in real and computer-stimulated environments. <u>Journal of Consumer Research</u>, 18 (June), 71-82.
- Campbell, D. & J. Stanley. (1963). <u>Experimental and Quasi-Experimental Designs</u>. Chicago: Rand McNally.
- Cervellon, M.-C. & Dube, L. (2002). Assessing the cross-cultural applicability of affective and cognitive components of attitude. Journal of Cross-Cultural Psychology, 33 (3). 346-357.
- Chartrand, T.L. & Bargh, J.A. (2002). Nonconscious motivations: Their activation, operation, and consequences. In A. Tesser, D. Stapel, & J. Wood (Eds.), <u>Self and</u> <u>Motivation: Emerging Psychological Perspectives (pp. 13-41)</u>. Washington, D.C.: American Psychological Association Press.
- Choi, E. (2006). How do consumers shop in multi-channel situations? <u>Retailing Magazine</u>, 7, 34-39.
- Choi, E., LaRose, R., & Lee, D. (2003). Cross-cultural comparison of Internet usage: media habits, gratifications, and addictions in Korea and the US at the IADIS International Conference WWW/Internet 2003, Portugal.
- Citrin, A. V., Stem, D. E., Spangenberg, E. R., & Clark, M. J. (2003). Consumer need for tactile input: an Internet retailing challenge. Journal of Business Research, 56, 915-922.
- Coupey, E. (2001). Marketing and the Internet. Prentice-Hall, Englewood Cliffs, NJ.
- Crites, S. L., Fabrigar, L. R., & Petty, R. E. (1994). Measuring the Affective and Cognitive Properties of Attitudes: Conceptual and Methodological Issues, <u>Personality and</u> <u>Social Psychology Bulletin</u>, 20 (6), 619-634.
- Darden, W.R. & Babin, B.J. (1994). Exploring the affective quality of retail environments: expanding the scope of retail personality, <u>Journal of Business Research</u>, 24 (2), 101-109.
- Darden, W. R. & Reynolds, F. D. (1971). Shopping orientations and product usage rates, Journal of Marketing, 8, 505-508.

Degeratu, A. M., Rangaswamy, A., & Wu, J. (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, 17, 55-78.

- Deighton, J. & Grayson, K. (1995). Marketing and seduction: building exchange relations by managing social consensus. Journal of Consumer Research, 21 (March), 660-676.
- Doherty, M. & Kurz, E. M. (1996). Social judgment theory. <u>Thinking and Reasoning</u>, 2 (2/3), 109-140.
- Dube, L., Chebat, J.-C., & Morin, S. (1995). The effects of background music on consumers' desire to affiliate in buyer-seller interactions. <u>Psychology of Marketing</u>, 12 (4), 305-319.
- Dunwoody, P. T., Haarbauer, E., Mahan, R. P., Marino, C., & Tang, C.-C. (2000). Cognitive adaptation and its consequences: a test of cognitive continuum theory. Journal of Behavioral Decision Making, 13, 35-54.
- Estrada, C. A., Young, M. J., & Isen, A.M. (1992). Positive affect influences reported source of practice satisfaction in physicians. <u>Clinical Research</u>, 40 (3), 768.
- Fiore, A. M., Yan, X., & Yoh, E. (2000). Effects of product display and environmental fragrancing on approach responses towards a product and pleasurable experiences. <u>Psychology and Marketing</u>, 17 (1), 27-54.
- Fiske, S. T. (1982). Schema-triggered affect: applications to social perception, in <u>Affect</u> <u>and Cognition</u>. Fiske, S. T., & Clark, S. (Eds.), Erlbaum Associates, Hillsdale, NJ, 55-78.
- Fiske, S. T. & Neuberg, S. L. (1990). A continuum of impression formation, from category-based to individuating process: influences of information and motivation on attention and interpretation. In Advances in <u>Experimental Social Psychology</u>, 23, ed. Mark P. Zanna, New York: Academic Press, 1-74.
- Gardner, M. P. (1985). Mood states and consumer behavior: a critical review. Journal of Consumer Research, 12 (3), 281-300
- Gibson, J. J. (1979). <u>An Eological Approach to Visual Perception</u>. Booston:Houghton Mifflin.
- Golden, L. G. & Zimmerman, D.A. (1986). Effective Retailing. Boston: Houghton Mifflin.

- Grewal, D., Monroe, K.B., & Krishnan, R. (1998). The effect of price-comparison advertising on buyers' perceptions of acquisition value, transaction value, and behavioral intentions. Journal of Marketing, 62 (2), 46-59.
- Hammond, K. R. (1988). Judgment and decision making in dynamic tasks. Information and Decision Technologies, 14 (March), 3-14.

Hammond, K. R. (2000). Judgments Under Stress. New York: Oxford University Press.

- Hammond, K. R., Hamm, R. M., Grassia, J., & Person, T. (1987). Direct comparison of the efficacy of intuitive and analytic cognition in expert judgment. IEEE Transactions on Systems, Man & Cybernetics, 17 (September-October): 753-770.
- Hoffman, D. L. & Novak, T. P. (1996). Marketing in hypermedia conputer-mediated environments: conceptual foundations. Journal of Marketing, 60 (July), 50-68.
- Hui, M. K. & Bateson, J. E. G. (1991). Perceived control and the effects of crowding and consumer choice on the service experience. <u>Journal of Consumer Research</u>, 18 (Sept.), 174-184.
- Isen, A. M. (1997). Positive affect and decision making. In Goldstein, W. M., & Hogarth, R. M. (Eds.), <u>Research on Judgment and Decision Making: Currents, Connections,</u> <u>and Controversies</u>, 509-534. Cambridge: Cambridge University Press.
- Isen, A. M. & Geva, N. (1987). The influence of positive affect on acceptable level of risk: The person with a large canoe has a large worry. <u>Organizational Behaviors and</u> <u>Human Decision Processes</u>, 39, 145-154.
- Johar, G. V., Maheswaran, D., & Peracchio, L. A. (2006). Mapping the frontiers: theoretical advances in consumer research on memory, affect, and persuasion. Journal of Consumer Research, 33 (June), 139-149.
- Kau, A. K., Tang, Y., & Ghose, S. (2003). Typology of online shoppers. Journal of Consumer Marketing, 20 (2), 139-156.
- Kaufman-Scarborough, C. & Lindquist, J. D. (2002). E-shopping in a multiple channel environment. Journal of Consumer Marketing, 19 (4), 333-350.

Kumar, V., & Karande, K. (2000). The effect of retail store environment on retailer

performance. Journal of Business Research, 49, 167-181.

- Lee, L. & Ariely, D. (2006). Shopping goals, goal concreteness, and conditional promotions. Journal of Consumer Research. 33 (2), 60-70.
- Li, H., Kuo, C. & Russell, M. G. (1999). The impact of perceived channel utilities, shopping orientations, and demographics on the consumer's online buying behavior. Journal of Computer-Mediated Communication, 5[Online], 2. Available: http://www.ascuse.org/jcmc/vol5/issue2/hairong.html

Lindquist, J. D. (1974). Meaning of image. Journal of Retailing, 50 (4), 29-38.

- Mandel, N. & Johnson, E. J. (2002). When Web pages influence choice: effects of visual primes on experts and novices. <u>Journal of Consumer Research</u>, 29 (September), 235-245.
- Mantel, S. P. & Kardes, F.R. (1999). The role of direction of comparison, attribute-based processing, and attitude-based processing in consumer preference. Journal of <u>Consumer Research</u>, 25 (4), 335-352.
- Mano, H. & Oliver, R. L. (1993). Accessing the Dimensionality and Structure of the Consumption Experience: Evaluation, Feeling, and Satisfaction. Journal of <u>Consumer Research</u>, 20, 451-466.
- Mathwick, C., Malhotra, N. K., & Rigdon, E. (2002). The effect of dynamic retail experiences on experiential perceptions of value: an Internet and catalog comparison. Journal of Retailing, 78 (1), 51-60.
- Mathwick, C. & Rigdon, E. (2004). Play, flow, and the online search experience. Journal of Consumer Research, 31, 324-332.
- Menon, S. & Kahn, B. (2002). Cross-category effects of induced arousal and pleasure on the Internet shopping experience. Journal of Retailing, 78 (1), 31-40.
- Mitchell, V. W. (2001). Re-conceptualizing consumer store image processing using perceived risk. Journal of Business Research, 54, 167-172.
- Montoya-Weiss, M. & Voss, D. (2003). Determinants of online channel use and overall satisfaction with a relational, multichannel service provider. Journal of the Academy of Marketing Science, 31 (4), 448-458.
- Moye, L. N. & Kincade, D. H. (2002). Influence of usage situations and consumer shopping orientations on the importance of the retail store environment. <u>International Review of Retail, Distribution, and Consumer Research</u>, 12 (1), 59-79.
- Schoenbachler, D. D. & Gordon, G. L. (2002). Multi-channel shopping: understanding what drives channel choice. Journal of Consumer Marketing, 19 (1), 42-53.
- Schwarz, N. (1986). Feelings as information: informational and motivational functions of affective states. In Higgins, E. T., & Sorrentino, R. M. (Eds.). <u>Handbook of</u> <u>Motivation and Cognition</u> (Volume 2), 527-561. New York: The Guildford Press.
- Shim, S., Eastlick, M. A., & Lotz, S. (2000). Assessing the impact of Internet shopping on store shopping among mall shoppers and Internet users. Journal of Shopping <u>Center Research</u>, 7 (2), 7-43.
- Spangenberg, E. R., Crowley, A. E., & Henderson, P. W. (1996). Improving the store environment: do olfactory cues affect evaluations and behaviors? <u>Journal of</u> <u>Marketing</u>, 60 (April), 67-80.
- Steinfield, C., Adelaar, T., & Lai, Y. (2002). Integrating brick and mortar locations with E-commerce: understanding synergy opportunities. <u>IEEE in the Proceedings of the</u> <u>Hawaii' International Conference on System Sciences</u>, January 7, 1-10.
- Sujan, M. (1985). Consumer knowledge: effects on evaluation strategies mediating consumer judgments. Journal of Consumer Research, 12 (June), 31-46.
- Suri, R., Long, M., & Monroe, K. B. (2003). The impact of the Internet and consumer motivation on evaluation of price. Journal of Business Research, 56, 379-390.
- Swinyard, W. R. (1993). The effects of mood, involvement, and quality of store experience on shopping intentions. Journal of Consumer Research, 20 (September), 271-280.
- Tate, M., Hope, B., & Coker, B. (2005). The buywell way: seven essential practices of a highly successful multi-channel etailer. <u>Australasian Journal of Information</u> <u>Systems</u>, 12 (2), 147-163.

Tauber, E. M. (1972). Why do people shop? <u>Journal of Marketing</u>, 36 (3), 42-49.
Vrechopoulos, A. P., O'Keefe, R. M., Doukidis, G. I., & Siomkos, G. J. (2004). Virtual store layout: an experimental comparison in the context of grocery retail. <u>Journal of Retailing</u>, 80 (1), 13-22.

- Wakefield, K. L. & Baker, J. (1998). Excitement at the mall: determinants and effects on shopping response. Journal of Retailing, 74 (4), 515-540.
- Wallace, D. W., Giese, J. L., and Johnson, J. L. (2004). Customer retailer loyalty in the context of multiple channel strategies. Journal of Retailing, 80, 249-263.
- Westbrook, R. A, & Black, W. C. (1985). A motivation-based shopper typology. Journal of <u>Retailing</u>, 61 (1), 78-103.

- Wood, W. (2000). Attitude change: persuasion and social influence. <u>Annual Review of</u> <u>Psychology</u>, 51, 539-570.
- Zimiles, H. (1981) Cognitive and affective growth: developmental interaction. In E. K. Shapiro, E. K., & Weber, E. (Eds.). Lawrence Erlbaum Associates, Publishers: Hillsdale, New Jersey.

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