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Eco-Fashion Consumption: Cognitive-Experiential Self-Theory

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Abstract

This study integrates the simple information-processing model (Bettman, 1979) and the cognitive-experiential self-theory (Epstein, 1998) to delineate the hierarchical structure of individual differences, responses, and consumer behavioral tendencies toward eco-fashion. The results indicate that consumers' need for variety positively influences their affective responses and eventually their purchase intention toward and willingness to pay more for eco-fashion. However, the results do not support the relationship between consumers' fashion interest and affective responses. Moreover, consumers' ecological consciousness and social consciousness positively influence their cognitive responses and eventually their purchase intention and willingness to pay more toward eco-fashion. Further, consumers' cognitive responses have very strong effects on their affective responses toward eco-fashion.

The model developed for this study has broadened the application of IOP (Information Processing Model) and CEST (Cognitive-Experiential Self-Theory). First, the results reveal that affective responses and cognitive responses to eco-fashion are determined by individual differences in need for variety, ecological consciousness, and social consciousness. Second, the results provide empirical evidence of the cognitive-affective response approach in an eco-fashion context. Moreover, when consumers' behaviors are driven by logic thinking, their cognitive dissonance can be reduced because consumers' logic thinking can lead to their favorable feelings toward eco-fashion and reduce their discomfort about eco-fashion's high price and the lack of aesthetic design.

A closer examination of the results reveals that ecological consciousness has a stronger impact on cognitive responses than social consciousness, indicating that consumers' ecological consciousness is a particularly important predictor of their cognitive responses. In addition,

cognitive responses toward eco-fashion have stronger effects on purchase intention than affective responses toward eco-fashion, implying that consumers' cognitive responses are much stronger predictors of their purchase intention toward eco-fashion.

To effectively promote eco-fashion, marketers can encourage consumers' desire for variety by emphasizing the innovative attributes of eco-fashion offerings and diversifying the styles and designs of eco-fashion to enhance consumers' affective responses. Marketers can also advertise ecological attributes of eco-fashion such as low impact dyes to enhance consumers' cognitive responses. The positive cognitive responses can eventually enhance consumers' affective responses because their cognitive responses have a very strong effect on their affective responses.

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Chapter 1

Introduction

Fashion provides an enjoyable lifestyle to fashion-conscious consumers but makes significant costs in environmental and societal terms. Some individuals adopt new styles to maintain their differentiation, and they continuously focus their interest on acquiring fashion merchandise; for those consumers, seeking new and unfamiliar products/brands is significant (Babin, Darden, & Griffin, 1994). However, these fashion products rapidly become unfashionable, and the wasted clothing ends up in landfills where it pollutes the ground and water (Payne, 2014). Thus, the concerns in environmentally friendly production and consumption create conflicting needs and challenges for a society that desires both fashion and sustainability.

To operate efficiently and act responsibly, companies must deliver value to consumers in a way that maintains and improves consumers' and society's well-being (Armstrong & Kotler, 2013). As an increasing number of organizations aspires to "go green," marketers of established brands have begun to launch green-brand extensions to reach ecologically and socially conscious consumers and to enhance the overall brand image (Faisal, 2010). Manufacturers have modified their product design, development, and sourcing strategies to incorporate environmentally friendly practices to promote eco-fashion, and both manufacturers and retailers have modified marketing strategies to better communicate with consumers (Lipson, 2008). For example, companies have incorporated terms such as eco, green, ethical, natural, organic, and sustainable in their promotional messages to attract consumers' attention (Bennie, Gazibara, & Murray, 2010). Eco-products are products that cause minimal harm to people and the environment, reduce waste, benefit the society, and make the planet a good place to live (Chouhan, Kumar,

Sharma, & Ameta, 2013). In this sense, eco-products are associated with different terms such as green, ethical, natural, organic, and sustainable products. Many fashion companies, including both manufacturers and retailers, are developing and marketing eco-fashion to promote ethical consumption. Accordingly, the terms ethical fashion, eco-fashion, and sustainable fashion have become popular within the media over the last few years (Bennie, Gazibara, & Murray, 2010).

Eco-fashion is fashion clothing designed for long lifetime use, produced in an ethical and ecological production system that causes little or no negative environmental or social impacts (Fletcher, 2008; Niinimaki, 2010). It is made with biodegradable or recycled materials such as corn fiber and environmentally responsible processes such as dyed in the natural dyes (Fletcher, 2008; Niinimaki, 2010). Eco-fashion is a brand extension strategy that the fashion industry uses to reduce its environmental and social problems, to enhance its social reputation, and to maintain high profits (Choi, Liu, Tang, & Yu, 2011). Manufacturers and retailers expect to see that the brand-extension strategy leads to a reciprocal spillover effect between the extended eco-fashion and the fashion parent brand (Dwivedi, Merrilees, & Sweeney, 2006; Choi et al., 2011). Specifically, marketers expect to see that responses toward the fashion parent brand could also be obtained from its eco-fashion product.

Consumers are increasingly aware of environmental and social issues (Carey & Cervellon, 2014). Ecologically conscious consumers actually use more eco-products than consumers who are less ecologically conscious (Lin & Chang, 2012). Consumers continue to buy eco-products despite facing the realities of a difficult economy, which is supported by the finding that 35% of American adults would pay more for environmentally friendly products (Mintel Oxygen Report, 2010) and that 78% of US consumers are willing to pay extra for environmentally friendly products and prefer green advertisement promoting these products

(Laroche, Bergeron, & Barbaro, 2001). According to Shen, Wang, Lo, and Shum (2012), consumers' social and environmental concerns are positively related to their support for social and environmental friendly businesses and their willingness to pay premium for social and environmental friendly products.

On the other hand, some consumers perceive eco-fashion products as not fashionable, not meeting their aesthetic needs and fashion interest (Beard, 2008), and pricy because they pay more attention to style and price when purchasing the fashion products (Chan & Wong, 2012). In fact, some American consumers are not willing to pay extra for eco-products because of insufficient promotion of eco-products for their premium price (Neff & Halliday, 2000), and consumers do not have a real opportunity to choose eco-fashion because of limited styles and fewer choices of eco-fashion (Legoeul, 2006). This leads to raising research questions such as how consumers respond to eco-fashion, whether individual differences influence their responses toward eco-fashion, and what type of responses contribute to consumer behavioral tendency toward eco-fashion. Moreover, by exploring individual differences in information processing, researchers may broaden and strengthen their understanding of how consumer behavioral outcomes are explained by affective responses and cognitive responses. Therefore, this study examines the hierarchical relationships among individual differences, responses, and consumer behavioral tendencies in the eco-fashion context.

This study combines qualitative and quantitative research techniques to address the research questions. A focus group interview, one of the most frequently used qualitative techniques (Greenbaum, 2000), is used to select eco-fashion clothing images as visual stimuli and to decide on the age ranges of the sample. A self-administered online questionnaire, a quantitative research technique, is used to collect data and test the hierarchical relationships

among individual differences, responses, and consumer behavioral tendencies based on Bettman's consumer information processing model (1979) and Epstein's cognitive-experiential self-theory (1998).

Both Bettman's information processing model (1979) and Epstein's cognitive-experiential self-theory (1998) introduce how an individual processes information. Bettman's information processing model emphasizes the flow of information in which an input enters into the storage or process stage, and an individual processes the input information and then makes the accept-reject decisions based on choice object attributes (i.e., color, price, or weight of a product), external environmental attributes (i.e., word of mouth or online reviews of a product), and internal cues or cognitive variables (i.e., risk involving toward a product). Input can be an individual, her activity, others' advice, others' comments or information provided by the environment, a product, or a service. Storage or process intervenes between input and output. Output indicates the outcome from the storage or process step. Epstein's cognitive-experiential self-theory underlines that the human brain has the capability for extensive parallel processing to carry out multiple operations such as utilitarian attributes (e.g., materials and price) and experiential attributes (e.g., design and color) of a product.

The information processing varies among different consumers, and consumer choice is inherently constructive (Bettman, Luce, & Payne, 1998). Bettman (1979) explained the individuals' information processing as a structural concept of the individual consumer decision-making process in his consumer information-processing model. As a processor of information, the consumer receives a large amount of information externally from the marketer and the environment, and stores information as a database processed over time from her learning, experiences, and social influences. With a huge amount of information to which the consumer is

exposed, the processing is difficult and hard to manage. The consumer uses certain simplifying strategies such as focusing on the most important attribute to make the decision. That is, the consumer does not process all information together and uses simplifying strategies such as intervening response system to process information.

The rational and experiential systems operate in parallel and are interactive to determine human goals, thoughts, and behavior (Epstein & Pacini, 1999). In an eco-fashion consumption context, the experiential system is associated with consumers' favorable feelings and experiences toward fashion, while the rational system is associated with their rational thinking toward environmental and social issues of the fashion industry. Experiential and rational responses toward eco-fashion occur simultaneously as well as sequentially and contribute to the consumer behavioral tendencies regarding eco-fashion. The next section addresses ways to understand consumers' responses and their behavioral tendency toward eco-fashion, fashion as a social and ecological concern, eco-fashion as a brand extension strategy and a niche market, and cognitive-experiential responses in eco-fashion consumption. The section also examines the significance of the study, research objectives, and definitions of concepts and constructs.

Fashion as a Social and Ecological Concern

Fashion is one of the essential arts of civilization. It reflects the culture, the history, and the social and environmental characteristics of a particular geographical area at a certain time period (Geczy & Karaminas, 2012). Fashion clothes are colorful; however, production processes such as dyeing, drying, and finishing utilized to keep the color look fresh and long generate a high environmental impact, resulting in approximately 20% of global industrial water pollution (Brito, Carbone, & Blanquart, 2008). To keep the low cost of fashion clothing, fashion industry causes social issues such as child labor or low wages. The current mode of production in the

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fashion industry is unsustainable in the long term because of the negative social and environmental impacts from the manufacturing processes of apparel. At the same time, the constant change in fashion styles increases consumption and production, which aggravates these negative impacts (Gertsakis & Neil, 2011). Many consumers may buy cheaply made fashion clothes to keep up the latest fashion trend, while the fiber and textile production processes required to manufacture these cheap fashionable clothes have harmful effects on both workers and environments in the form of pollution of waterways resulting from using pesticides, dyes, and chemicals (Heathcote, 2009).

In recent years, sustainability has become a central consideration for the apparel industry, and it has begun to affect apparel industry strategies, operations, and workforce engagement (Pookulangara & Shephard, 2013). Sustainability is a broader term regarding products and services used over a much longer period of time, and it considers social and financial impacts as well. Sustainability is crucial to companies' strategies, especially for those that produce goods in environmentally sensitive business areas such as the fashion industry (Caniato, Caridi, Crippa & Moretto, 2012). With great concern about environmental issues, companies realize that trend-sensitive fashion typically has the potential to earn high profit but raises ecological and social issues.

As a result, the fashion industry is gradually implementing more environmentally and socially responsible practices (Payne, 2014). For example, fashion retailers such as H & M and NIKE are looking for strategies that incorporate considerations of sustainability in product designs (Wiese, Kellner, Lietke, Toporowski, & Zielke, 2012). Also, Loomstate (http://www.loomstate.org) is an apparel company that actively participates in environmental

programs. Consumers purchasing Loomstate T-shirt directly support the company to cleanup beach, protect wildlife, and upcycle projects.

Eco-Fashion as a Brand Extension Strategy

To achieve sustainable growth in revenue and market share, fashion organizations with established brands are increasingly launching brand extensions, which include category and line extensions, to promote eco-fashion consumption (Choi et al., 2011). Category extension occurs when a parent brand launches new product categories, while line extension occurs when a parent brand introduces new lines within the same product category (Albrecht, Backhaus, Guraki, & Woisetschlager, 2013). Different brands adopt different brand extensions, with line extension more common than category extension. Specifically, line extension reduces overall promotion costs and risks by introducing product varieties to the eco-fashion area (Choi et al., 2011). For example, Levi's, a well-known worldwide American clothing company, extended its product to the eco-fashion area by developing the Waste Less Jeans made from recycled plastic bottles and plastic waste under the Levi's name (Weisbaum, 2013); Puma extended its product lines by introducing a new collection called InCycle composed of biodegradable or recyclable items (Pasonlini, 2013); and Gucci, the Italian luxury goods company, launched a new line of eco-friendly shoes made with biodegradable plastic, targeting both male and female consumers (Turra, 2012). With these extensions, manufacturers and retailers expect a spillover effect between the parent brand and its eco-fashion (Dwivedi, Merrilees, & Sweeney, 2006), which leads to the consumers' favorable feelings toward eco-fashion.

Challenges of Eco-Fashion

The fashion industry is increasingly launching eco-fashion to promote sustainable consumption and to achieve sustainable growth in revenue and in market share (Choi et al.,

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2011). Despite the effort manufacturers and retailers have made and the widespread attention to and consumer awareness of sustainability, sales of eco-fashion still represent only a small fraction of overall demand (Luchs, Naylor, Irwin, & Raghunathan, 2010). Several reasons may explain the lower sales revenue of eco-fashion. First, the impact of eco-products on the environment is subtle, difficult to highlight, and indirect, so it takes a long time to foster consumers' environmental conservation-generating behavior (Sima, 2014). Further, although consumers indicate that they are willing to buy sustainable products, they have difficulty in identifying brands that are truly environmentally friendly and trusting the origin of products and their performance on environment (Yan, Hyllegard, & Blaesi, 2012). The lack of explicit information in eco-fashion such as eco-labels and consumers' confusion about the information of specific materials and methods used to manufacture eco-fashion impede generating positive responses to eco-fashion (Tompkins, 2008). In addition, higher prices associated with environmentally friendly apparel and textiles may be obstacles to purchasing for many consumers (Fletcher, 2008; Niinimaki, 2010). Also, many consumers consider eco-fashion to be unfashionable and limited style/less choices, which reduce their purchase interests toward eco-fashion (Carey & Cervellon, 2014).

Manufactures, designers, and retailers must understand what consumers need and expect from eco-fashion, satisfy their needs, and then build a profitable long-term relationship with consumers. Therefore, clothes should be produced sustainably and fashionable with a wide variety of selections as well as suit consumers' aesthetic needs and fashion interest (Beard, 2008). Specifically, Mintel (2009) found that consumers do not see an environmental aspect of eco-product as value added and do not want to pay a premium price for the eco-product. Nakano (2007) found that consumers are not willing to pay over 10% more for sustainable clothing.

Thus, controlling the cost of eco-fashion and promoting the product effectively are important for eco-fashion. Marketers should tell customers why eco-fashion is worth a higher price and determine how to best communicate its fashion and ethical attributes to consumers.

Previous Research on Sustainable Fashion

Previous research on sustainable fashion highlights consumers' preferences toward fashion, their interest in sustainability, and their purchase intention toward sustainable products. For example, Gabrielli, Baghi, and Codeluppi (2013) investigated fashion product consumption habits of consumers with different ages and lifestyles and found that consumers who are under the age of 35 consider fashion as freedom and those who are over the age of 35 view fashion as wearing something unusual. Hartmann and Apaolaza-Ibanez (2012) concluded that psychological benefits such as warm glow, self-expressive benefits, and nature experiences can enhance consumer attitudes toward green energy brands and increase purchase intention. Similarly, Shen, Wang, Chris, Lo, and Shum (2012) found that consumers' beliefs about ethical fashion influence their support toward socially and environmentally responsible business. A qualitative study of Birtwistle and Moore (2007) examined how consumers disposed of fashion products and how clothing can be re-used and recycled. The authors discovered that the increase in fashion purchasing leads to disposing of garments, and sending them to charity shops or to a recycling plant. On the other hand, Kim and Damhorst (1998) found that consumers' environmental knowledge had a limited relationship with their concern for the environment or environmentally responsible apparel consumption.

Cognitive-Experiential Responses in Eco-Fashion Consumption

Both affect and cognition are important for information processing of fashion (Hoyer & Stokburger-Sauer, 2012). Cognitive-experiential self-theory (CEST; Epstein, 1990, 1991, 1993,

1994) proposes two fundamentally different modes of information processing: intuitive-experiential and analytical-rational thinking (Epstein, Pacini, Denes-Raj, & Heier 1996). Experiential and rational system responses are parallel in consumers' decision making and occur simultaneously as well as sequentially (Epstein, 1998). The intuitive-experiential process is automatic, fast, holistic, associationistic, primarily nonverbal, and highly affective. In contrast, the analytical-rational thinking is analytic, logical, effortful, slow, primarily verbal, and relatively affect free (Epstein, Pacini, Denes-Raj, & Heier, 1996). "Experiential" individuals reply on impressions and prefer rapid intuitive conclusions, while "rational" individuals are willing to engage in careful conscious processing (Hample & Richards, 2014). These arguments are similar to those of prior researchers in that affective response is a reaction toward whether an object is pleasant, attractive, valuable, likable, or preferable (Russell & Snodgrass, 1987), and that rational responses such as knowledge, opinions, beliefs, and thoughts are produced from memory in response to the environment (Fishbein & Azjen, 1975).

In an eco-fashion consumption context, consumers can be emotionally driven by the need to adopt new styles to maintain their differentiation and interest in acquiring fashion merchandise. On the other had, consumers can be logically driven by their concerns about environmental and social impacts that are caused by the fashion production process. Their favorable feeling toward fashion and their awareness of environmtal and social problems toward fashion production may create desire for eco-fashion. In sum, consumers feel experientially and think rationally when engaging in consumption activities such as eco-fashion consumption (Shiv & Fedorikhin, 1999).

Consumption of fashion products leads to experiential responses that are fun, pleasure, and excitement to consumers (Khan, Dhar, & Wertenbroch, 2005). Moreover, consumers in the

developed world are well aware of the environmental impact of the present industrial production and thus have an increasing interest in ecologically and socially conscious products, and this interested is associated with rational responses (Lin & Chang, 2012). Eco-fashion with ethical and fashion attributes can satisfy consumers' desire for fashion products and reconcile their concerns in environmental and social issues. Therefore, experiential and rational system responses provide strong explanations and predictions of individual behavior toward eco-fashion (Epstein, 2003).

The Significance of the Study

To effectively promote eco-fashion, marketers need to understand the consumer purchase decision process. To do so, this study examines relationships among consumers' emotion-driven dispositions (need for variety and fashion interest) and logic-driven dispositions (ecological consciousness and social consciousness), their cognitive and experiential responses associated with eco-fashion, and the corresponding consumer behavioral tendencies toward eco-fashion (purchase intention and willingness to pay more). Within the hierarchical framework of consumers' individual differences (their dispositions), their responses, and their behavioral tendencies, the research model explains consumers' information response system from two perspectives (i.e., experiential system response and rational system response), and it examines the effects of individual differences on responses, the effects of cognitive responses on affective responses, and the effects of responses on consumer behavioral tendencies.

The CEST has been widely used in different studies (Akinci & Sadler, 2013; Hogarth, 2002; Mischel & Shoda, 1995; Shiv & Fedorikhin, 1999; Sloman, 1996). Akinci and Sadler (2013) found that using CEST to assess intuitive (experiential) and rational (analytical) cognitive styles in workplace performance is valid. For example, employee selection and performance

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appraisal could use the measures of intuition (experientiality) and analysis (rationality) by matching individuals to different tasks. Hogarth (2002) argued that there is a trade-off between the intuition and the analysis when people make decisions. Specifically, the greater the complexity a task exhibits in analytical terms, the less likely a person will both know the appropriate formula and apply it correctly. According to Sloman (1996), people behave in a rational manner by using cognition to guide them, while they follow their experiential system response by allowing feeling to lead them. Individuals differ in reacting to cognitive and affective information responses and different types of cognitive and affective process can generate different behavior among individuals (Mischel & Shoda, 1995). However, no consumer researcher has investigated these relationships in eco-fashion consumption by using cognitive-experiential self-theory. To address this issue, the current study applies the CEST to explain how humans' two fundamental information processing systems—a rational system and an experiential system—work in consumers' eco-fashion consumption.

This study will offer several contributions to manufacturers, designers, and retailers of eco-fashion. First, this study will determine whether emotion-driven dispositions (i.e., fashion interest and need for variety) impact affective responses and eventually purchase intention and willingness to pay more toward eco-fashion and whether logical-driven dispositions (i.e., ecological consciousness and social consciousness) influence cognitive responses and eventually purchase intention and willingness to pay more toward eco-fashion. In addition, this study attends to determine whether cognitive-affective response approach can be applied to the eco-fashion context. The findings may assist eco-fashion marketers to enhance consumers' affective responses and cognitive responses toward eco-fashion, increasing consumers' purchase intention toward eco-fashion, and generating their long-term willingness to pay more for eco-fashion. The

findings also will help designers add ethical attributes such as fair trade, low impact dyes, or Made In USA to eco-fashion and design a variety of stylish eco-fashion to appeal to a large number of consumers who understand and recognize the benefits of eco-fashion and willing to purchase and pay premium price for eco-fashion.

Research Objectives

Based on the discussion related to ecological and sociologic issues in fashion and characteristics of eco-fashion, this study attempts to find ways to promote eco-fashion. The purpose of this study is to examine the hierarchical relationships among individual differences, consumer responses and consumer behavioral tendencies in an eco-fashion consumption context by applying the cognitive-experiential self-theory. Specifically, the objectives of this study are to:

1. Investigate the effects of consumers' emotion-driven dispositions (fashion interest and need for variety) on their affective responses toward eco-fashion.

2. Investigate the effects of consumers' logical-driven dispositions (ecological consciousness and social consciousness) on their cognitive responses toward eco-fashion.

3. Explore the effects of consumers' cognitive responses on their affective responses toward eco-fashion.

4. Explore the effects of consumers' cognitive and affective responses on their eco-fashion consumption behavior tendencies (purchase intention and willingness to pay more).

Definitions of Concepts and Constructs

Affective response – Physiological and/or behavioral manifestation of an entity's emotional state (Gross, 2013).

Cognitive response – Individuals' thinking when they listen to messages of others and when they read, watch TV, listen to the radio, or surf the Internet (Dasgupta, 2009).

Cognitive dissonance – discomfort caused by contradictory beliefs or ideas and a situation involving conflicting attitudes, beliefs, or behaviors (Armstrong & Kotler, 2013).

Disposition – Physical inclination or tendency (Dictionary, 2015).

Eco-fashion – Clothing designed for long lifetime use and produced in an ethical production system and causes little or no environmental impact (Fletcher, 2008).

Ecological consciousness – A way to be respectful toward the natural world such as plants, trees, animals, and insects that reflects the harmony between the human and the natural world (Alwitt & Berger, 1993).

Fashion interest – Consumers' attention toward fashion or consumers' interest regarding fashion clothing (Chung, 2012).

Intervening response system – The processes by which information is stored and retrieved (Shiffrin & Atkinson, 1969).

Need for variety – Personal desire to be fashionable and to adopt new styles to maintain their differentiation (Kim, Forsythe, Gu, & Moon, 2002).

Social consciousness – Consciousness shared within a society and awareness of social situations (Cooley, 1992).

Need to maintain the stability and coherence of person's conceptual system – People have an interest to maintain their basic negative as well as positive beliefs and the maintenance of a low self-image is a way to prevent the disorganization of the self (Epstein, 1998).

Need for relatedness – The feeling of belonging and the need to feel connected to others (Bowlby, 2008).

Need for self-esteem – The need to maintain and enhance the positive self-concept (Epstein, 1993).

Pleasure principle – The desire to maximize pleasure and minimize pain (Freud, 2003).

Dissertation Organization

This dissertation consists of five chapters. Chapter one introduces the background of the study including fashion as a social and ecological concern, previous research on sustainable fashion, eco-fashion as a brand extension strategy, challenges of eco-fashion, cognitive-experiential responses in eco-fashion consumption, and the significance of the study, followed by research objectives, definitions of concepts and constructs, and dissertation organization. Chapter two provides an overview of eco-fashion, lays out the theoretical background (Information processing mode and cognitive-experiential self-theory), assumption of cognitive-experiential self-theory (CEST), application of information processing mode (IPO) and cognitive-experiential self-theory (CEST), the cognitive-experiential response approach of CEST, and the research model based on a review of the literature, which addresses the research hypotheses. Chapter three discusses both the qualitative method (focus group) and the quantitative method (self-administered online questionnaire) that are used to achieve the research objectives. In addition, it describes the instrument development and a self-administered online questionnaire. Chapter four provides the data analyses and results of the hypothesis testing. The two-step approach (Anderson & Gerbing, 1988) is used to validate the measurement model via confirmatory factor analysis (CFA) and to test the proposed hypotheses via structural equation modeling (SEM). Chapter five presents conclusions, implications of the study, limitations, and recommendation for future research.

Chapter 2

Literature Review

Chapter one introduced the background, significance, objectives of the study, and definitions of concepts and constructs. The main objectives of this study are to determine (a) the effects of consumers' emotion-driven dispositions (fashion interest and need for variety) on their affective responses toward eco-fashion, (b) the effects of consumers' logical-driven dispositions (ecological consciousness and social consciousness) on their cognitive responses toward eco-fashion, (c) the effects of consumers' cognitive responses on their affective responses toward eco-fashion, and (d) the effects of consumers' cognitive and affective responses on eco-fashion consumption behavior (purchase intention and willingness to pay more). To achieve these objectives, Chapter two provides an overview of eco-fashion, accompanied by the theoretical background (information processing model and cognitive-experiential self-theory) and the conceptual model development. Following this, research hypotheses are proposed depicting the relationships among consumers' dispositions (fashion interest, need for variety, ecological consciousness, social consciousness), their responses (affective response and cognitive responses), and their behavioral tendency (purchase intention and willingness to pay more).

Overview of Eco-Fashion

Eco-fashion refers to fashion clothing designed for long lifetime use, produced in an ethical and ecological production system that causes little or no negative environmental or social impacts. Eco-fashion is made with biodegradable or recycled materials such as corn fiber and environmentally responsible processes such as natural dyes. It is important to note that these production processes may result in higher prices for eco-fashion products (Fletcher, 2008;

Niinimaki, 2010). Eco-fashion is devoted to the clothing made with eco-fabric such as renewable materials that can accomplish consumers' need to try out new technologies representing a different life experience (Aaijaz & Ibrahim, 2010). With the growing concern about the environment and the natural world, eco-products can start a trend and benefit consumers, society's well-being, and eventually companies (Kaufman, 1999).

Sustainability is a broad term regarding products and services used over a much longer period of time and considers the influence of social, environmental, and economic impacts as well. As a business strategy, sustainability is important for the fashion industry as it endeavors to develop and market eco-fashion to promote ethical consumption. The history of sustainability traces back to human ecological systems. The term "ecology" was first used in the 1980s. A more general term "environmental" emerged in the 1990s and at the same time the word "green" fell into the history. Many eco-products are made from natural fabrics like silk, linen, hemp, and wool, made by designers who use ethical and environmentally friendly manufacturing processes (500eco, 2013). To enhance social reputation and maintain high profits, the fashion industry applies a brand extension strategy to eco-fashion (Choi et al., 2011). Firms with established brands are increasingly developing green brand extensions, either as line extensions or category extensions (Chatterjee, 2009). Category extension happens when a parent brand launches new product categories, while line extension happens when a parent brand introduces new lines within the same product category (Albrecht et al., 2013). These extensions offer the types of clothing designed and manufactured to maximize benefits to people and society while minimizing adverse environmental impacts (Joergens, 2006).

Consumers buying eco-fashion clothing make consumption decisions differently from consumers in other consumption sectors do (Chan & Wong, 2012). For example, consumers in

the food sector express care and show commitment to ethical consumption because food directly influences their health and their right choice reflects the possibility of a direct benefit to them. On the other hand, consumers in the fashion sector show less commitment to eco-consumption because a non-ethical choice does not directly affect their health (Joergens, 2006). For eco-products, various product cues such as the colors of the product's packaging and content are commonly used to convey their eco-friendly status (Lin & Chang, 2012). In demonstrating eco-fashion consumption behavior, a consumer may choose items based on attributes associated with less harm to the environment and society or based on considerations of energy and materials used for production, packing, transportation, and distribution (Sonnenberg, Jacobs, & Momberg, 2014).

Theoretical Background: Information Processing Model (IPO)

Humans respond to information, and information processing is the change of information to describe everything that happens in the universe. Bettman's information processing model (1979) indicates the flow of information from input to storage or process and then output. Input is something that is put into the system for some type of use and could be an individual, her activity, others' advice, others' comments or information provided by the environment, a product, or a service. Storage or process is the step to process information and mediate between input and output. Output is the outcome, resulting from the storage or process step. From a consumer input perspective, individual difference, search activity, type of involvement, task definition, and resources that a consumer brings to the exchange transaction may influence her information processing and eventually impact her behavior output (Bettman, 1979). Various environment and consumer inputs are processed by an intervening response system that generates output consequences, criteria, and learning effects (Holbrook & Hirschman, 1982).

Intervening response system such as a rational system or an experiential system refers to the consumer responses that mediate between various sorts of inputs and outputs (Holbrook, 1995).

The consumer information process is shown in Figure 1, which allocates a consumer as central to a host of information processing activities. The consumer is exposed to a large amount of information daily, and she stores information and processes the information over time from her learning, experiences, and social influences. It is hard for her to process and manage such a large amount of information. Thus, the consumer does not process all information together and uses certain simplifying strategies such as making decisions based on routine thinking or focusing on the most important attribute to make the decision.

Further, the human brain has the capability for extensive parallel processing to carry out multiple operations such as seeing utilitarian attributes (e.g., materials and price) and experiential attributes (e.g., color and design) of a product (Epstein, Seymour, & Pacini, 1999). For example, when a product's functional features are inputs, the intervening response system processes the product's utilitarian information based on its features and then leads to the consumer behavioral tendency such as purchasing the product or obtaining more information about the product. When a product's experiential features are inputs, an individual's affective responses could be generated by those features and then lead to the consumer behavioral tendency. In sum, humans operate by two fundamental information-processing systems that are a rational system and an experiential system (Epstein, 1990, 1991, 1993, 1994, 1998, 2003).

Bettman's Information Processing Model
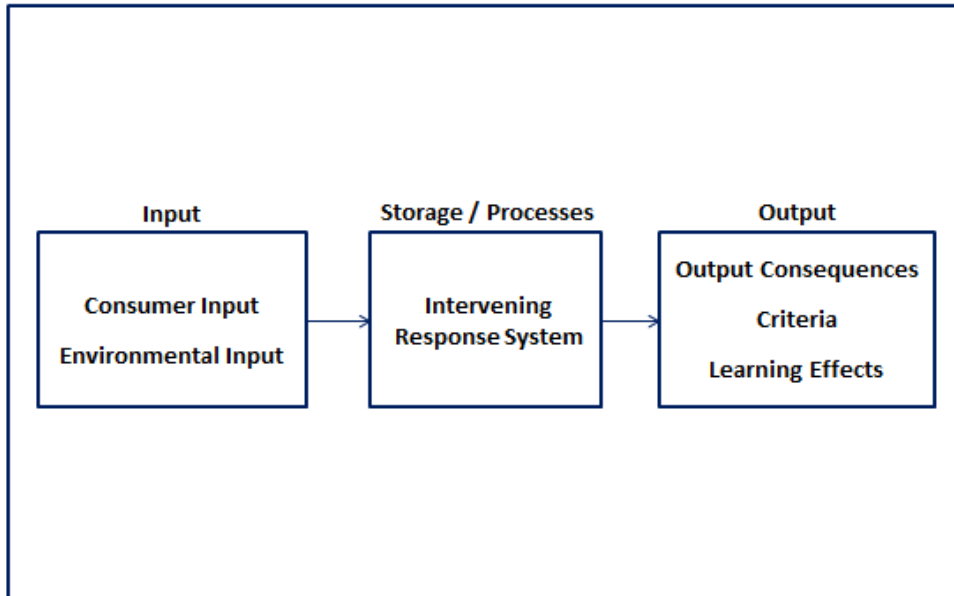
Figure 1. Consumer Information Processing Model

Theoretical Background: Cognitive-Experiential Self-Theory (CEST)

Originated from Freud's primary and secondary theory (Freud, 2007), CEST (Epstein, 1990, 1991, 1993, 1994, 1998, 2003) proposes that humans operate by two fundamental information-processing systems: a rational system and an experiential system. The experiential and rational systems operate in parallel and are interactive. The intuitive-experiential process has been variously referred to as automatic, fast, holistic, associationistic, primarily nonverbal, and highly affective, while the analytical-rational thinking is assumed to be analytic, logical, effortful, slow, primarily verbal, and relatively affect-free (Epstein, Pacini, Denes-Raj, & Heier, 1996). The experiential system responses may give rise to affective reactions; the rational system responses are likely to drive cognitive reactions; and together they perform task, achieve goal, and conduct behavior (Epstein, 1998, 2003; Novak & Hoffman, 2009).

As shown in Figure 2, experiential system responses (affective system responses) can be associated with cognitive appraisal (rational system responses), and eventually the analytical-rational system responses can lead to a behavior outcome (goals, thoughts, & behaviors). Furthermore, cognitive appraisal (rational system responses) can be related to affective responses (affective system responses), and the intuitive-experiential system responses can lead to a behavior outcome (goals, thoughts, & behaviors).

Cognitive-Experiential Self-Theory
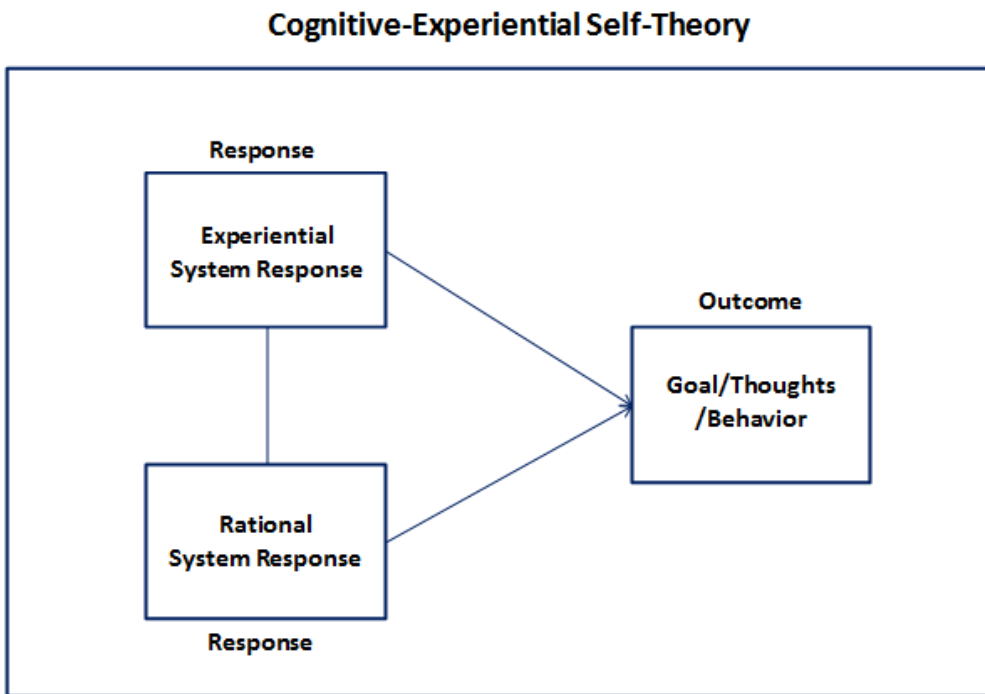
Figure 2. Cognitive-Experiential Self-Theory

Humans operate by two fundamental information-processing systems that are a rational system and an experiential system. Their goals, thoughts, and behavior are a joint function of the two systems (Epstein, 1998, 2003; Epstein, Pacini, & Denes, 1996). The intuitive-experiential systems of human psychology have been labeled as primary (Freud, 2007), intuitive (Hogarth,

2002), impulsive (Strack & Deutsch, 2004), automatic (Bargh, 1989), heuristic (Chaiken, 1980), and implicit (Koestner, Weinberger & McClelland, 1991), while the analytic-rational systems have been labeled as secondary (Freud, 2003, 2007**)**, reflective (Strack & Deutsch, 2004), deliberative-effortful-intentional-systematic (Bargh, 1989; Chaiken, 1980), and explicit (Koestner, Weinberger & McClelland, 1991).

Freud's (2003, 2007) primary process and secondary process system theory posits that there exist two fundamentally different kinds of mental processes (i.e., primary process and secondary process). The primary process occurs in the present tense and is unable to delay pleasure, and it is dominated by the pleasure principle. The secondary process includes the thinking and reasoning ability that represents the past, present, and future. The secondary process is controlled by the ego that focuses "I" and based on the reality principle. According to Freud (2007), the primary process is called "primary" because it comes first in humans. The secondary process occurs later in development and modifies primary process thinking because sometime humans must be rational to get what they want. In other words, the primary process thinking is dominated by the pleasure principle, while secondary process thinking is controlled by the ego and based on the reality principle. In an eco-fashion consumption context, primary process is related to consumers' pleasure toward fashion, and their secondary process is associated with environmental and social problems toward fashion production. Further, consumers' favorable feeling toward fashion and their awareness of environmental and social problems relating to fashion production may contribute to their desire for eco-fashion.

According to Hogarth (2002), people can make decisions through two systems that are tacit (intuitive) and deliberate (analytic). Tacit (intuitive) system is the part that lies below the surface (of consciousness) and individuals have quite limited access to it. Deliberate (analytical)

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system lies above the surface and can be made explicit. The essential difference between tacit (intuitive) system and deliberate (analytical) system is cognitive effort that is related to the level of processing. Greater cognitive effort leads to greater recall, which in turn leads to a greater tendency to integrate the task environment. The tacit system is triggered by stimuli that are available in the environment, whereas deliberate thought can be controlled by the individual. In an eco-fashion consumption context, consumers' tacit system may be triggered by stylish fashion merchandise, and their deliberate thought may be generated and directed by environmental and social problems of fashion production. Moreover, consumers make eco-fashion decisions through the tacit (intuitive) system to satisfy their desires for fashion products and through the deliberate (analytical) system to reconcile their concerns regarding environmental and social issues.

According to Strack and Deutsch (2004), social behavior is the effect of the operation of two distinct systems of information processing: a reflective system and an impulsive system. In the reflective system, behavior is elicited as a consequence of a decision process. In the impulsive system, behavior is elicited without the person's intention or purpose and is influenced by motivation and the information available in the environment. The reflective system and the impulsive system operate in parallel. Strack and Deutsch (2004) assumed that information entering the storage or process stage will always be processed in the impulsive system. In other words, the impulsive system is always engaged in processing information. In an eco-fashion consumption context, consumers' reflective system is activated when they think about environmental and social impacts caused by the fashion production process, while their impulsive system is activated when they process information about fashion merchandise. The

reflective system and the impulsive system operate in parallel, which determines consumers' behavior outcome toward eco-fashion.

In the work of Chaiken (1980), a systematic view of persuasion emphasizes detailed information processing of message content and reveals considerable cognitive effort in the assessment of the validity of the message. When recipients receive information relating to personally important topics or when they feel that their opinion judgments have important consequences for themselves or for others, they employ a systematic processing strategy. In contrast, a heuristic view of persuasion focuses on simple rules to process messages and shows relatively little effort in judging messages. Heuristic information processing may involve the use of general rules developed by individuals through their past experiences and observation. In an eco-fashion consumption context, a heuristic view may be used when individuals are simply attracted by a variety style of eco-fashion, while a systematic view may be used when individuals' social benefits derived from products are weighted more highly than their personal benefits.

As proposed by Bargh (1989), an automatic thought process is unintentional, involuntary, effortless, autonomous, and happening outside of awareness. Specifically, it occurs without the need for any intention, without any awareness of the operation of the process, and without interfering with other thought processes. The conscious or controlled process is under the flexible and intentional control of the individual. Specifically, an individual is consciously aware of and constrained by the available cognitive resources. In an eco-fashion consumption context, an automatic thought process may be involved in satisfying an individual's desire to maintain their differentiation and interest in acquiring fashion merchandise, while a conscious or

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controlled process may be involved in satisfying an individual's desire to reconcile their concerns regarding environmental and social issues.

Koestner, Weinberger and McClelland (1991) proposed that there are two independent motivational systems: those related to implicit needs and explicit (self-attributed) needs. The two types of motivational systems (implicit and explicit) are connected with two kinds of situational factors (task-intrinsic and social-extrinsic), which influence performance. The implicit system is more likely to be regulated by intrinsic factors in performing an activity. The explicit system is more likely to be influenced by variations in the social context and is driven by a desire to perform socially valued achievement activities. In other words, extrinsic social factors tend to combine with a person's explicit self-attributed achievement motive to influence activities, whereas task-intrinsic factors tend to combine with a person's implicit needs to influence performance. In an eco-fashion consumption context, the implicit system may be influenced by intrinsic factors such as favorable feeling regarding fashion, while the explicit system may be driven by individuals' desire to engage in ecologically and socially responsible activities. Therefore, consumers' desires for fashion products and their concerns regarding environmental and social issues can be satisfied by eco-fashion products.

Assumptions of CEST

CEST has three assumptions. The first assumption is that people process information by two independent, interactive conceptual systems: a preconscious experiential system and a conscious rational system. The second assumption is that the experiential system is fast and emotion-driven, while the rational system is slow and logic-driven. In other words, the experiential system is affective in nature and is associated with rapid processing; the rational system is cognitive in nature and relates to a deliberative processing. The third assumption is that

four basic needs ─ "pleasure principle," "need to maintain the stability and coherence of a person's conceptual system," "need for relatedness," and "need for self-esteem"─ are equally important (Epstein, 1998).

The "pleasure principle" refers to the desire to maximize pleasure and minimize pain (Freud, 2007; Epstein, 1998). The "need to maintain the stability and coherence of a person's conceptual system" means that people have interests to maintain their basic beliefs (Epstein, 1998). The "need for relatedness" refers to the feeling of belonging and the need to feel connected to others (Epstein, 1998; Bowlby, 2008). The "need for self-esteem" refers to the need to maintain and enhance the positive self-concept (Epstein, 1993, 1998). All needs are fundamental in the sense, and CEST considers the four basic needs as equally basic (Epstein, 1998).

The context of individuals' eco-fashion consumption is related to CEST's four basic needs ─ the pleasure principle, the need to maintain the stability and coherence of a person's conceptual system, the need for relatedness, and the need for self-esteem. Individuals adopt fashionable clothing to satisfy their pleasure needs, and at the same time they want to minimize the pain associated with possible harmful impacts caused by the production of fashion on the society and the environment (illustrating the pleasure principle). To satisfy their desire to feel belonging and their need to feel connected to others (showing the need for relatedness), individuals adopt new styles in fashion merchandise in order to maintain their relatedness. Further, individuals are aware of the environmental and social issues caused by the process of production of fashion clothing and care about the environment and members of the society (showing the need to maintain the stability and coherence of a person's conceptual system). To balance their cognition (ethical concern) and affect (fashion needs) needs, consumers adopt eco-

fashion to make themselves feel good and to be esteemed by others, which increases their positive self-concept (showing their need for self-esteem).

The Cognitive-Affective Response Approach

Both affect and cognition are important for information processing in the fashion area (Hoyer & Stokburger-Sauer, 2012). Literature has been developed on whether consumers first experience emotional feelings or cognitive thoughts when they encounter an environment. Some researchers argued that affect is precognitive in nature, which occurs without any cognitive process and therefore proceeds cognition (Hoch, & Loewenstein, 1991; Verplanken, Hofstee, & Janssen, 1998; Zajonc, 1984), while other researchers argued that cognitions precede affective reactions (Lazarus, 1984; Oliver, 1980, 1981; Compeau, Grewal, & Monroe; 1998).

The emotion–cognition approach suggests that affect precedes cognition. For example, Verplanken, Hofstee, and Janssen (1998) demonstrated that individuals respond more rapidly to their feelings than to their cognition. Lavine, Thomsen, Zanna, and Borgida (1998) found that an individual has a spontaneous affect-based reaction when encountering a new person, even before acquiring any information about the personal qualities of that person.

On the other hand, Compeau, Grewal, and Monroe (1998) found affective responses mediate the influence of cognitive responses on consumers' subjective evaluation (perceptions of quality). Lazarus (1991) further found that an individual cannot have an emotional reaction to a stimulus when a cognitive appraisal is missing. Lin (2004) stated that when consumers enter an environment, they are constantly collecting and retrieving information within the environment to create an overall mental picture in their minds, which leads to an affective evaluation. Therefore, the cognitive-affective response approach is strongly supported.

Emphasizing only the affective responses of eco-fashion is not enough because emotion-driven behaviors are typically short in duration (Cohen, Pham, & Andrade, 2008), and emotion-driven purchases such as impulse buying can generate hedonic feeling but cause high cognitive dissonance or regret (George & Yaoyuneyoung, 2010). The term cognitive dissonance refers to discomfort caused by contradictory beliefs or ideas and is related to a situation involving conflicting attitudes, beliefs, or behaviors (Armstrong & Kotler, 2013). Cognitive dissonance may occur when some consumers have doubts about the ecological and social benefits of eco-fashion, when those consumers view the eco-fashion as pricy, and when they consider that eco-fashion products do not meet their aesthetic needs.

As such, focusing on only cognitive responses of eco-fashion is not enough because consumers want to experience a variety of styles or new designs for fashion products. When individuals' social benefits of products are weighted higher than personal benefits, their consumption behaviors are more likely to be driven by a logic think process, which reduces their positive affective experience. By reflecting the need to reduce the cognitive dissonance of eco-fashion purchase and to enhance the positive feeling of the purchases toward eco-fashion, this study will apply cognitive-affective responses.

Even though the IPO and CEST provide strong explanations for an overall prediction of individual behavior, it has not been used in the eco-fashion consumption context. Recognizing this research gap, this study examines the information processing model by applying IPO and CEST to understanding hierarchical relationships among individual differences, experiential and rational system responses, and consumer behavior tendencies. The theoretical framework, shown in Figure 3, incorporates information processing system cognitive-experiential self-theory (Epstein, 1978) into the information-processing model (Bettman, 1979).

Proposed Research Model

The main objectives of this study are to determine (a) the effects of consumers' emotion-driven dispositions (fashion interest and need for variety) on their affective responses toward eco-fashion, (b) the effects of consumers' logical-driven dispositions (ecological consciousness and social consciousness) on their cognitive responses toward eco-fashion, (c) the effects of consumers' cognitive responses on their affective responses toward eco-fashion, and (d) the effects of consumers' cognitive and affective responses on eco-fashion consumption behavior (purchase intention and willingness to pay more). The proposed research model is shown in Figure 4. In terms of an information-processing view of CEST, the study tests how individual differences influence their experiential system responses and rational system responses as well as the effects of their responses on consumer behavioral tendencies. Also, the study tests the effects of consumers' cognitive responses on their affective responses toward eco-fashion.
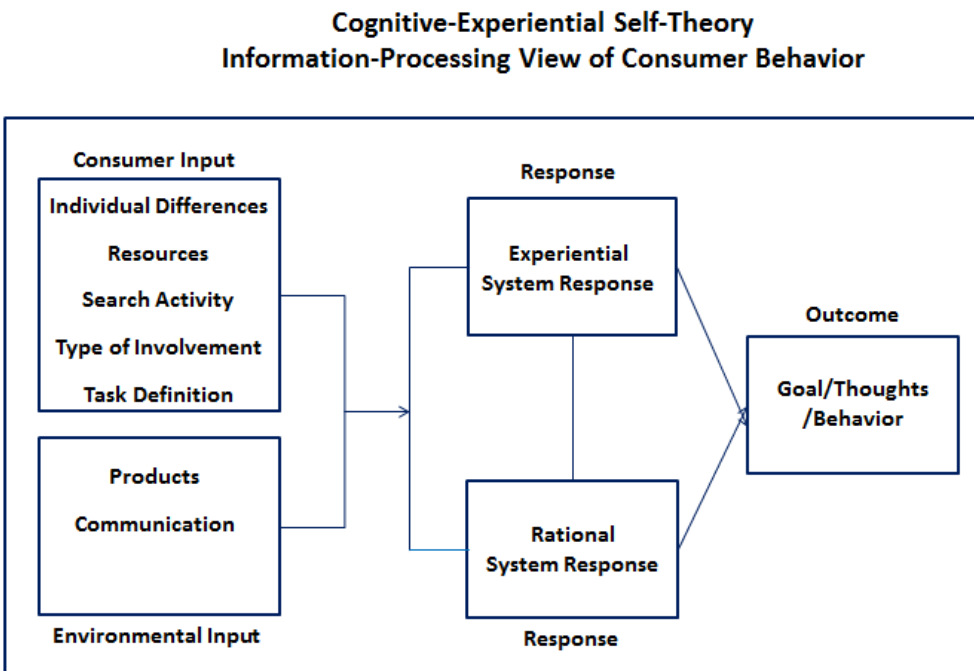
Figure 3. Theoretical Framework

As mentioned above in the theoretical background of CEST, this study applies cognitive-affective response approach based on CEST. Consumers in the western society live in a saturated market with overwhelmed choices beyond their needs (Thackara, 2006). On the one hand, individuals want to look good, follow trends and get admiration from others (Niinimaki, 2010), which are often related to owning the latest trendy clothes. On the other hand, individuals are conscious toward environmental and social issues generated by fashion clothing production process. By understanding the positive impacts of eco-fashion on the environment and society in a way that protect limited amount of resources and benefit members of society's well-being, consumers will have positive affective responses toward eco-fashion. Hence, it can be assumed that affective system responses arise with a cognitive appraisal.
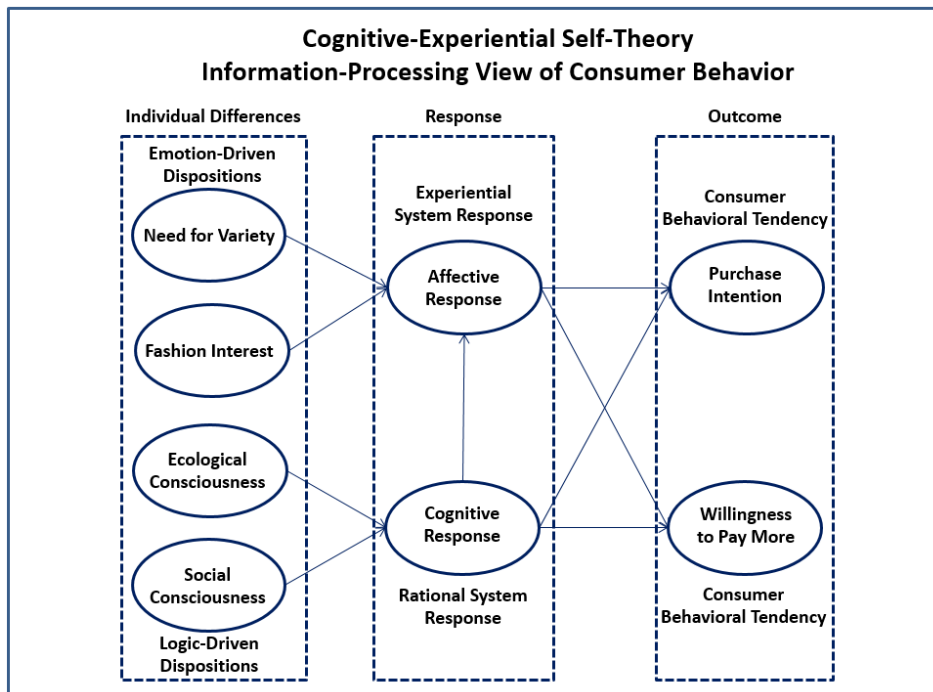
Figure 4. Proposed Research Model

Review of Literature

Individual Differences: Need for Variety, Fashion Interest, Ecological Consciousness, and Social Consciousness

Consumers who are faced with a variety of situations show different processing skills (Childers et al., 1985). Individuals who like to adopt new styles to maintain their differentiation and those who continuously focus their interest on acquiring fashion merchandise are emotion-driven, while individuals who are ecologically and socially conscious about the human impact on the enviornment, the benefits of societal members, and the fashion industry production process are logic driven. By exploring individual differences in information processing, marketers may broaden their understanding of how individual differences influence their intuitive-experiential and analytical-rational thinking processes (Bettman, 1979; Childers et al., 1985).

Need for Variety and Fashion Interest

The term eco-fashion refers to the clothing made from eco-fabric such as biodegradable or renewable materials that can meet consumers' needs to try out new or different products (Aaijaz & Ibrahim, 2010). Consumers generally have a tendency to seek variation (Simonson 1990), especially in relation to hedonic products such as restaurant food, music, leisure activities, and fashion products (Ratner, Kahn, & Kahneman, 1999). Need for variety has been defined as a person's tendency to switch away from a choice made on a previous occasion (Kahn, Kalwani, & Morrison, 1982; Ratner et al., 1999). According to McAlister and Pessemier (1982), direct and derived determinants drive consumers' need for variety. Direct determinants include interpersonal and intrapersonal motives.

In interpersonal contexts, consumers have a desire to appear different and unique, motivating them to make choices different from those of other consumers (Ariely & Levav,

2000). As Kim and Drolet (2003) argued, consumers show variation in their choices to differentiate themselves from others. In addition, a few intrapersonal mechanisms lead consumers to seek variety. First, consumers become satiated, at least temporarily, with a specific product if they consume the product repeatedly (Coombs & Avrunin 1977). Another intrapersonal mechanism of need for variety is a cognitive need for stimulation (Berlyne, 1970), novelty, change or curiosity (Venkatesan, 1973; Raju, 1980). Consumers can choose products they have not consumed recently to increase their level of stimulation (Faison, 1977; Venketesan, 1973). Finally, consumers seek variety because they have not found a product that features all the attributes they need (Huber & Reibstain, 1978) or they need a balance of attributes to maximize utility (Farquhar & Rao, 1976). Generally, consumers seek variety because they believe they can get more pleasure from switching than from repeating their choices (Ratner, Kahn, & Kahneman, 1999).

Derived determinants include multiple needs and changes in the choice problem. The multiple needs include the existence of multiple users (e.g., different members in a household may have different needs), multiple situations (e.g., the social context of consumption, the location of consumption, time constraints on consumption, the quantity consumed, emotional reactions) (Laurent, 1978; McAlister & Pessemier, 1982), and multiple uses. Changes in the choice problem include changes in the feasible alternatives (e.g., new products are launched and old ones are discontinued), changes in tastes, or changes in the constraints governing choice (e.g., a sudden change in wealth, time, or energy).

Eco-fashion is a growing design philosophy, and it comprises fashion clothing designed to reduce social and environmental impacts, from the growth of its fibers to its use and disposal. Consumers' fashion interest and need for variety can be fulfilled by the assortment of products

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and services provided by manufacturers, wholesalers, and retailers. The variety of fashion clothing offered by retailers provides a sufficient source of particular styles to meet a consumer's need for differentiation and to satisfy her interest in fashion (Gabrielli, Baghi, & Codeluppi, 2013). Consumer behavior is influenced by psychosocial needs that can be personal (experiencing novelty and change) or social (being viewed as up-to-date and stylish). Specifically, when a person feels bored with her appearance, she starts to look for fashionable or stylish products to satisfy her needs (Arnold & Reynolds, 2003; Law, Zhang, & Leung, 2004). Therefore, consumers may choose particular products/brands not only because they provide functional benefits but also because the products can fulfill their psychological needs, such as need for variety (Kim, Forsythe, Gu, & Moon, 2002).

As for the experiential system, experiencing new, unfamiliar, and fashion products can generate affective responses (Babin, Darden, & Griffin, 1994). In Arnold and Reynolds' (2003) study, a significant number of female and male customers reported that they shop to keep up with the latest trends, to satisfy their curiosity, or to resolve the boredom associated with another brand. Consumers are willing to learn about new trends and keeping informed about the latest trends in fashion, styling, or innovations. These psychosocial needs may enhance consumers' experiences, which in turn yield affective responses. Fashion interest reflects consumers' attention toward fashion or their interest in fashion clothing (Chung, 2012). Consumers who have a strong interest in fashion enjoy shopping for clothing and adopt new apparel products earlier than other consumer groups (Gam, 2011). By offering eco-fashion containing both ethical and fashion attributes, designers, manufacturers, and retailers try to capture consumers' fashion interest and foster their preferences toward the brand (Choi et al., 2011).

Ecological Consciousness and Social Consciousness

Consumers differ in the extent of their concerns about the environment, the natural world, and social issues (List, 1993). Consumers who care about the environment and read eco-labels show a strong sense of environmental responsibility as evidenced by their efforts to protect and preserve the environment (Alsmadi, 2012). To satisfy their green beliefs and follow ethical standards, eco-minded individuals have many ways to pursue their environmental interests, including buying eco-products, basing their personal consumption decisions on the product's sustainability, and altering their behaviors in accordance with their green beliefs (Cho, Thyroff, Rapert, Part, & Lee, 2013). Environmental concern is positively related to purchase intention. Specifically, those who have high levels of environmental consciousness are willing to purchase products and services that have a positive impact on the environment (Chang, 2012; Roberts, 1996; Gam, 2011; Zinkhan & Carlson, 1995). Eco-products such as eco-fashion provide environmental, social, and economic benefits to protect the earth and mankind, and eco-labeled products would help consumers identify eco-products (Ferguson, 2014).

Socially responsible consumer behavior is associated with societal concerns and ecological considerations (Robert, 1995). The key social concerns are related to forced labor, low wages, excessive hours of work, discrimination, health and safety hazards, psychological and physical abuse, lack of awareness of workers' right, and lack of worker representation in negotiations with management (Kozer & Connel, 2012). Socially conscious individuals have been found to take active roles within their communities for social, political, and charitable causes (Hainmueller, 2012). Socially responsible consumers purchase products and services that they perceive have a positive or less negative impact on the environment, and use their purchasing power to express current social concerns (Kozar & Connell, 2013).

Socially conscious consumers who care about fair wages and work conditions tend to help provide better living conditions for other people and live up their altruistic values of "equality" and "social justice" (Jägel et al., 2012). Those consumers think about ways to improve the quality of life in society and want to have a positive impact on others' lives by buying ethical clothing (Broker, 1976). Their purchase decisions lead the way to improve the quality of life in society. Because socially conscious consumers are more likely to recognize the needs of others in the society, societal concerns such as the fair trade and made in USA and ecological considerations such as concerns about pollution are more likely to generate their cognitive responses. Therefore, social conscious consumers are more likely to purchase eco-products (Anderson & Cunningham, 1972; Gam, 2011).

Affective and Cognitive Responses

Responses are reactions to an event or situation such as an answer to a question or any behavior resulting from a stimulus such as behavioral reactions of consumers toward a store environment (Bagozzi, 1986). Affect is how an individual feels and is a non-conscious experience of intensity (Shouse, 2005). Affect shows an individual's feelings toward an object, which will be favorable, unfavorable, or neutral (Fishbein & Azjen, 1975). The terms affect and emotion appear to be used interchangeably; typical categories of emotion include rage, hate, joy, and sadness (Havlena & Holbrook, 1986; Lacher & Mizerski, 1994). An affective response is the emotional response to a situation such as the feeling of pride (Cohen, Pham, & Andrade, 2008). Product sensory cues such as color, style, aroma, and flavor positively influence affective responses, and the availability of sensory stimuli is important to develop affective responses (Compeau, Grewal, &and Monroe, 1998). Further, some affective responses are more

immediate, take little cognitive effort, and are direct responses to environmental input (Compeau, Grewal, & Monroe, 1998).

Cognition concerns what an individual knows about an object. Cognition is the sum of what is known, represents an individual's thoughts, and is the process by which input is transformed, reduced, elaborated, stored, recovered, and used (Fishbein & Azjen, 1975; Kitayama, Duff, Kawamura, & Larsen, 2003). Cognitive responses usually rely on consumers' own personal experiences or mental images rather than on what they see (Wright, 1980). Cognitive responses are related to individuals' thinking when they listen to messages of others and when they read, watch TV, listen to the radio, or surf the Internet (Dasgupta, 2009). Cognitive responses can also be thoughts generated in response to persuasive communication (Petty, 1981). Thus, a cognitive response may be message relevant (Petty & Cacioppo, 1979). If individuals are very interested in the topic, they will elaborate their cognition. If the messages are irrelevant to individuals or they do not have related knowledge or experience, they will have limited cognitive responses.

Consumer Behavioral Tendencies: Purchase Intention and Willingness to Pay More

Purchase intention is the consumer tendency to purchase products or services (Yoo & Donthu, 2001). In other words, it measures the consumer's plan to buy particular goods or service sometime in future. Fishbin and Ajizen (1975) claim that the single best predictor of a person's behavior is the measure of her intention to do that behavior. Willingness to pay more takes into account the price factor and refers to an individual's willingness to pay more for a good or a service compare to the occasion purchase (Bower, Saadat, & Whitten, 2003). For example, the product or the service may contain certain attributes such as ethical attributes that

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consumers need. Consumers who have positive feeling toward firms' supporting society's well-being would be willing to switch brands to and purchase products from the firms (David, Kline, & Dai, 2005). Those consumers are willing to pay a price premium for various types of eco-products marketed by the firms. For example, Keurig estimated that American consumers are willing to pay a 9% price increase of green coffee and cocoa (Keurig Green Mountain, Inc., 2014). As another example, ethical consumers are willing to pay more when buying a product that involves certain ethical issues such as human rights, labor conditions, animal well-being, and environment (Pelsmacker, Driesen, & Rayp, 2005).

Research Hypotheses

Consumers' inputs such as individual differences are processed by a cognitive and affective response system, which activates outcomes such as goals, behavior, and plans (Hample & Richards, 2014). Based on this viewpoint, five main research hypotheses, shown in Figure 5, are proposed to test relationships among individual differences, responses, and consumer behavioral tendencies.

Individual Differences and Responses

Individuals differ in how they process information. Cognitive-experiential self-theory shows that individuals adopt rational and experiential thinking styles to process information (Novak & Hoffman, 2009). Individuals' emotional responses may be evoked when they consider hedonic products such as movies, vacations, and fashion clothing (Hirschman & Holbrook, 1982), while rational responses may be generated when individuals analyze information (Epstein, 1994).

Cognitive-Experiential Self-Theory
Information-Processing View of Consumer Behavior
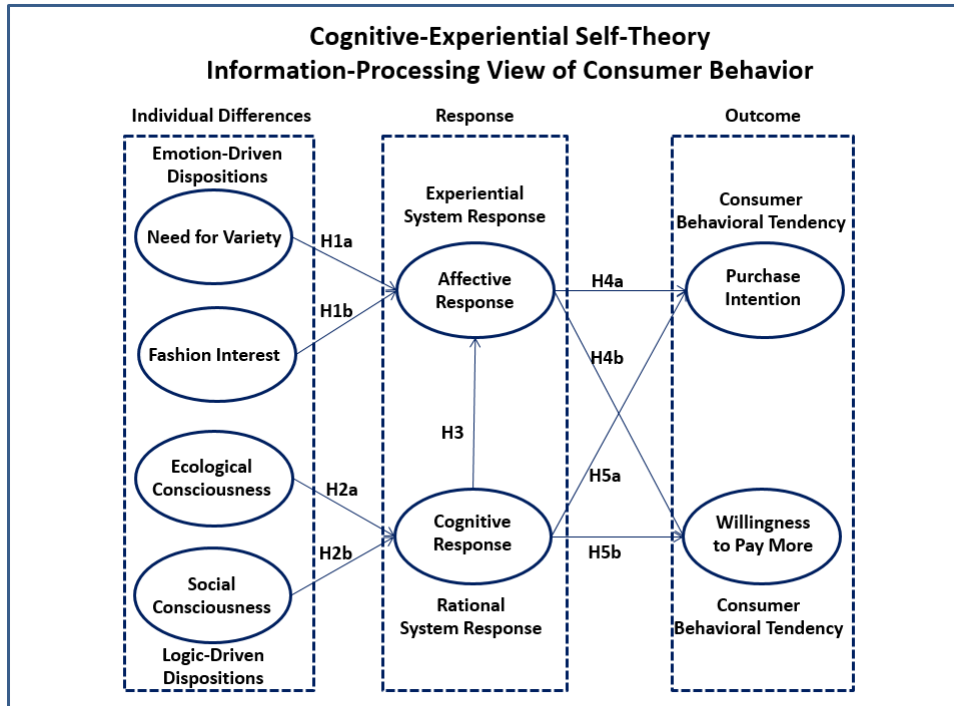
Figure 5. Research Hypotheses

Individual differences such as personality, intelligence, memory, age, ego strength, and gender have been found to influence the results of cognition such as ethical beliefs and judgments (Haines, Street, & Hainess, 2008). These individual differences can help marketers to understand individuals' receptivity to different kinds of communication. Specifically, personal experience and the use of real examples may be more effective for individuals who process information primarily in an intuitive mode, whereas logical arguments and presenting facts may be more helpful for individuals who process information primarily in an analytical mode (Epstein, Pacini, & Raj, 1996). For example, solving mathematic problems mainly involves analytical-rational thinking processes, and watching movies most likely involves intuitive-experiential processes. Therefore, individuals differ in their responses to situations such as eco-fashion purchasing. Some consumers engage in intuitive-experiential processes and base their

responses on their feelings and affect. Others involve in analytical-rational thinking processes and base their responses on their thoughts and cognition.

From Need for Variety to Affective Responses

The need for variety is the need that leads individuals to make a choice that differs from the last one (Kahn, Kalwani, & Morrison, 1982; Ratner et al., 1999). In the context of fashion products, the need for variety refers to individuals' desire to be fashionable and to adopt new styles in order to maintain their differentiation (Kim, Forsythe, Gu, & Moon, 2002). The variety-seeking behavior is not caused by price reduction or based on the recommendation of a product by someone. Rather, it is a result of the need for uniqueness (Ariely & Levav, 2000), for change and novelty (Venkatesan, 1973), for resolving the boredom associated with daily routines (Coombs & Avrunin, 1977), for achieving the optional stimulation level (Ehrenbur, 1982; Faison, 1977; Venketesan, 1973; Van-Trijp, Hoyer, & Inman, 1996), and for maximizing the utility of a product (Farquhar & Rao, 1976).

Fashion is one of the defining characteristics of a civilization (Geczy & Karaminas, 2012). Consumers are seeking variety when they purchase hedonic products such as fashion clothing (Ratner, Kahn, & Kahneman, 1999). Seeking new and unfamiliar products is significant for some consumers who want to adopt new styles to maintain their differentiation (Babin, Darden, & Griffin, 1994). The issue of sustainability has become an important consideration in the fashion industry in recent years (Pookulangara & Shephard, 2013). Consequently, more socially and environmentally responsible practices have been increasingly implemented by the fashion industry (Choi et al., 2011; Payne, 2014). For example, Levi's (Weisbaum, 2013), Puma (Pasonlini, 2013), and Gucci (Turra, 2012) have all launched eco-fashion lines. Levi's Waste Less Jeans are made from recycled plastic bottles and plastic waste, Puma's InCycle product line

is made with biodegradable or recyclable items, and Gucci's eco-friendly shoes are produced using biodegradable plastic.

As new or even unique fashion products are introduced to consumers, eco-fashions may be a good option to satisfy consumers' need for variety. When consumers find eco-fashion, they may use an intuitive-experiential process first and base their responses on their intuition, feelings, and affect because, for consumers with a strong need for variety, "different" is strongly associated with "good," while "same" is coupled with "bad" (Maimaran & Wheeler, 2008). Consumers with a strong need for variety may get more pleasure from switching than from repeating their choices (Ratner, Kahn, & Kahneman, 1999). Therefore, consumers may have a strong desire to adopt eco-fashion products to satisfy their feelings, affect, and need for variety. Hence,

H1a: Consumers' need for variety will positively influence their affective responses toward eco-fashion products.

From Fashion Interest to Affective Responses

Consumers' fashion interest and aesthetic needs are met by fashion clothes (Beard, 2008). Fashion interest explains individuals' interest in and attention to fashion products such as fashion clothing (Chung, 2012; Gutman & Mills, 1982). Consumers who have high interest in fashion enjoy shopping for clothing and adopt new apparel products earlier than members of other consumer groups (Gam, 2011; Chan & Wong, 2012). These consumers are motivated by the specific attributes of a product, such as product design, which are related to the product's features and performance (Sullivan, 2009). Variety in the style and design of eco-fashion creates fashion value (Chan & Wong, 2012), and fashion consumers prefer eco-fashion that is

esthetically pleasant, which helps them feel emotional connection with it (Chan & Wong, 2012; Ismail & Gabriella, 2012).

Fashion links individuals to their emotional needs and involves expression of their inner personality by using different brands or status items (Batra, Ahuvia, & Bagozzi, 2012; Ismail & Spinelli, 2012). Responses to hedonic products like fashion clothing are generally based on affective and sensory experience of aesthetic or sensual pleasure, fantasy, fun, and excitement (Cho, Fiore, & Russell, 2015; Dhar & Wertenbroch, 2000; Hirschman & Holbrook, 1982). Kempf (1999) found that for hedonic products, emotional responses have stronger effect than do cognitive responses. Batra, Ahuvia, and Bagozzi (2012) found that interest toward a fashion product is positively associated with consumers' affective responses such as feelings of love for the product. Therefore, fashion products primarily involve the automatic, fast, and highly affective experiential system of CEST. Consumers who have high fashion interest use fashion clothing to express their "selves" to others and to differentiate themselves from others (Ismail & Spinelli, 2012). Further more fashion clothing fulfills their personal fashion needs and makes them feel good and happy. In other words, eco-fashion with a combination of fashion aesthetics and ethical attributes can satisfy consumers' fashion desire (Bratt, 1999). Thus,

H1b: Consumers' fashion interests will positively influence their affective responses toward
eco-fashion products.

From Ecological Consciousness to Cognitive Responses

Ecological concern is a way to be respectful toward living things in the natural world such as plants, trees, animals, and insects, while it reflects the harmony of humans and nature (Alwitt & Berger, 1993; List, 1993). Ecologically conscious consumers show their ecological concern and care about the nature world. Ecologically conscious consumers want to help the

environment and reduce the environmental impact of production, and they have a positive attitude toward green clothing advertisement (Kim & Damhorst, 1998; Lin & Chang, 2012).

One obvious feature of fashion clothing is its colorful appearance. However, a high environmental impact results from the processes of dyeing, drying, and finishing that are necessary to keep the color fresher longer. For the production of eco-products, natural and renewable materials are used, different production processes are employed to reduce pollution, and the recovery of resources is attempted; the result is a lower environmental cost. As a consequence, consumers' concerns about environmental conservation can be addressed, and the ecological attributes of eco-products can improve the well-being of both consumers and the broader society (Sima, 2014). A concern for ecology in production enables ecologically conscious consumers to maintain the integrity of their basic beliefs on helping the environment and reducing the environmental impact of production (Epstein, 1998). This behavior enables consumers to keep a positive self-concept by making selective purchase decision based on their inner ethical values (Epstein, 1993, 1998) and to approach an ideal environment.

In addition to affect, cognition also is important in the processing of information in relation to fashion (Hoyer & Stokburger-Sauer, 2012). Consumers may use the analytic-rational system to evaluate eco-fashion products. When they engage in analytical-rational thinking, they will elaborate their cognition to consider the ecological benefits of eco-fashion. Specifically, consumers who have responsibilities and obligations to contribute to the natural world want to have a comfortable feeling when wearing ethical clothing while trying to avoid unethical companies (Similary, Jägel, Keeling, Reppel, & Gruber, 2012). Since the analytic-rational system is slow and logic-driven (Epstein, 1990, 1991, 1993, 1994, 1998, 2003), consumers can elaborate their cognition to evaluate the benefits such as lower ecological impact and

shortcomings such as expense of eco-fashion. The more involved consumers are with the environment, the more likely they think about the benefits of eco-products (Alwitt & Berger, 1993). Therefore,

H2a: Consumers' ecological consciousness will positively influence their cognitive responses toward eco-fashion products.

From Social Consciousness to Cognitive Responses

Social consciousness is consciousness shared within a society and awareness of social situations (Cooley, 1992). It can also be defined as social awareness, as being aware of the problems that different societies and communities face on a day-to-day basis, and as being conscious of the difficulties and hardships of society (Cooley, 1992). An individual is socially concerned when she is worried about ethical issues such as low wages, excessive hours of work, health and safety hazards, and lack of awareness of workers' rights (Kozer & Connel, 2012) and interested in fair trade products, regionally produced items, eco-labelled products, and recycled materials (Jägel et al., 2012).

To reduce the price and control the cost of fashion clothing, some manufacturers may open factories in developing countries, hire child labor, and pay low wages to them, or ignore employees' working environments and their human rights, all of which lead to social issues. Eco-fashion is fashion clothing designed to reduce social and environmental impacts, from the growth of its fibers to its use and disposal (Fletcher, 2008; Niinimaki, 2010). Rational individuals are willing to engage in conscious processing to think about ways to improve the quality of life in society and enhance others' lives by purchasing eco-products (Brooker, 1976).

Cognitive responses usually depend on consumers' own personal experiences or mental images rather than on what they see (Wright, 1980). Socially conscious consumers have societal

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concerns and ecological considerations, and they may be in favor of products produced in an ethical production system (Robert, 1995). When they engage in analytical-rational thinking, they will elaborate their cognition to consider the social benefits of eco-fashion. Thus, socially conscious consumers are more likely to respond to eco-fashion positively (Robert, 1995) because eco-fashion is produced in an ethical production system that causes positive impacts on the society. Hence,

> H2b: Consumers' social consciousness will positively influence their cognitive responses
> toward eco-fashion products.

From Cognitive Responses to Affective Responses

Individuals develop both cognitive and affective evaluations in relation to a particular environment (Proshansky, Fabian, & Kaminoff, 1983). Cognitive responses such as knowledge, opinions, beliefs, and thoughts are produced by logic information processing in response to a stimulus (Fishbein & Azjen, 1975), whereas affective responses are related to physiologically experienced emotional states (Gross, 2013). This study applies the cognitive-affective response approach because the degree of relative dominance of either a rational system or an experiential system is determined by individual differences in preference, the situation, or the degree of emotional involvement (Epstein, Pacini, & Denes, 1996). Consumers differ in their concerns toward the environment, the natural world, and social issues (List, 1993). Some show a strong sense of environmental responsibility and have many ways to satisfy their environmental beliefs and to follow their ethical standards such as buying eco-products (Alsmadi, 2012; Cho, Thyroff, Rapert, Part, & Lee, 2013). Further, consumers' social and environmental concerns are positively related to their support for socially and environmentally friendly businesses and their willingness to pay a premium for these products (Shen, Wang, Lo, & Shum, 2012). The design of eco-

fashion focuses on its ethical attributes, which can benefit the environment and society's well-being. By emphasizing ecological and social benefits of eco-fashion and encouraging consumers' cognitive-affective responses, marketers can effectively promote eco-fashion products.

As mentioned in the section on the theoretical background of cognitive-experiential self-theory and the cognitive-affective response approach, consumers engaging in their intuition-experiential system may have favorable affective responses toward eco-fashion products because eco-fashion products may satisfy their need for variety and fashion interest. If consumers also engage their analytic-rational system, they will be aware that eco-fashion products can also satisfy their ecological and social concerns, enhance their positive self-concept (Epstein, 1993, 1998) and reconcile their concerns in environmental and social issues.

Moreover, consumers engaging in a cognitive-affective response approach may reduce their cognitive dissonance generated by eco-fashion purchase and lead to stronger positive affective responses than those engaging only their intuitive-experiential system do. Cognitive dissonance may occur when some consumers have doubts about the ecological and social benefits of eco-fashion, view the eco-fashion as pricy, and consider eco-fashion products as not meet their aesthetic needs (Armstrong & Kotler, 2013). Therefore,

H3: Consumers' cognitive responses will positively influence their affective responses

toward eco-fashion products.

From Responses to Behavioral Tendencies

Humans adjust their behavior to respond to altered conditions. In this adjustment, affect and cognition play important roles in leading to specific behavior (Koller, Floh, & Zauner, 2011). That is, individuals' behavior is the result of an interaction between the rational and experiential processing systems (Epstein, 1994). Specifically, the intuitive-experiential style has

an affective basis and the analytical-rational style has a cognitive basis, which provides strong explanations and predictions of individual behavior (Epstein, 2003). In fact, the relationship among cognition (thinking), affect (feeling), and conation (behavior) has been discussed and demonstrated in several consumer behavior and communication response models in marketing (Ajzen, 2001; Kempf, 1999). Attitude adapts to the environment and is an evaluative response to stimuli, and it is a predictor of behavioral intentions (Ajzen & Madden, 1986). Attitude comprises cognitive, affective, and conative components and can be viewed as the result of cognition only or as the joint effect of affect and cognition (Ajzen, 2001). For example, according to Kempf (1999), attitude includes cognition and affect components and excludes the conation component. The cognitive response represents an individual's thoughts, the affective response represents an individual's feelings toward an object, and conative response is the intent/action component and refers to behavior. In sum, individuals' attitudes have an effect on their behavior, and the attitude toward behavior includes both cognitive response and affective response (Ajzen & Fishbein, 2000; Hrubes, Ajzen, & Daigle, 2001).

From Affective Responses to Purchase Intention and Willingness to Pay More

The relationship between affective responses and behavior has been demonstrated by several researchers. For example, consumers' affective responses can influence persuasion and their acceptance of advertising (Batra & Ray, 1986; Peck & Wiggins, 2006). Affect is positively related to purchase intention (Lacher & Mizerski, 1994) and willingness to pay more (Winkielman, Berridge, & Wilbarger, 2005). Emotions resulting from perceived product design benefits can fulfill consumers' need for changes and contribute to their behavioral tendencies (Franzak, Makarem, & Jae, 2014). Further, Park, Stoel, and Lennon (2008) found that affective reaction toward apparel product has a direct effect on consumer behavioral tendencies such as

intention to purchase and willingness to pay more. Kumar, Lee, and Kim (2009) demonstrated that both cognitive and affective responses have positive effects on Indian consumers' purchase intention in the apparel context.

Products attributes such as style variety and fashion design can influence consumers' decision processes (Hoyer & et al., 2012). Moreover, perceived qualities can affect the affective state of the consumer, which leads to a greater propensity to purchase (Farias, Aguiar, & Melo, 2013). According to Niinimaki (2010), individuals adopt fashionable clothing to satisfy their pleasure needs, and fashion clothing can expresses individuals' inner selves through the use of external marks, symbols, brand names, and status items. Eco-fashion is fashion products with innovative features such as corn fiber, recycled polyester, or vegetable tanned organic leather and its production process may result in higher prices (Fletcher, 2008). Some consumers may select eco-fashion even it means high prices, driven by their affective responses based on the new and unique features of eco-fashion (Maimaran & Wheeler, 2008; Pelsmacker, Driesen, & Rayp, 2005). That is, consumers' affective responses may influence their intention to purchase and willingness to pay more for eco-fashion. Therefore,

H4a: Consumers' affective responses will positively influence their purchase intention toward eco-fashion products.

H4b: Consumers' affective responses will positively influence their willingness to pay more for eco-fashion products.

From Cognitive Responses to Purchase Intention and Willingness to Pay More

Cognitive responses have been viewed as critical determinants of consumer persuasion (Brinol, Petty, & Tormala, 2004). Customers' willingness to pay premium prices reflects the ability of a company to differentiate its products from those of its competitors and maintain a

high price in the marketplace (Naeini, Azali, & Tamaddoni, 2015). When consumers make purchase decisions, they are likely to make choices based on cognitive elaboration of information (Epstein, 1993; Leventhal, 1994). Thogersen (2000) found that environmentally significant information had a positive impact on consumer purchase behavior such as purchase intention and willingness to pay more. Ferguson (2014) found that environmental information helped consumers increase their awareness of the environmental and social benefits offered by eco-products, which enhanced their intention to purchase eco-products. Similarly, Bower, Saadat, and Whitten (2003) argued that purchase intention was significantly affected by label information and that the willingness to pay more depended on the process of cognitive elaboration toward products or service.

Chatterjee (2009) found that purchase intention and willingness to pay more were influenced by consumers' rational responses toward parent brands. Some consumers may elaborate their cognition to evaluate the ecological and social benefits of eco-fashion and even the shortcomings (e.g., higher prices) of eco-fashion. Based on these considerations reflecting their ecological and social concerns, they adopt eco-fashion. Therefore, consumers' cognitive responses influence their intention to purchase and willingness to pay for eco-fashion. Taking these considerations together,

> H5a: Consumers' cognitive responses will positively influence their purchase intention toward eco-fashion products.

> H5b: Consumers' cognitive responses will positively influence their willingness to pay more for eco-fashion products.

Chapter 3

Research Methods

The previous chapters have dealt with an overview of eco-fashion, the theoretical background (Information processing mode and cognitive-experiential self-theory), assumption of cognitive-experiential self-theory (CEST), application of information processing mode (IPO) and cognitive-experiential self-theory (CEST), the cognitive-experiential response approach of CEST, and the research model based on a review of the literature and addresses the research hypotheses. Focusing on research methods to achieve the research objectives proposed in Chapter 1, this chapter introduces both the qualitative method (focus group) and the quantitative method (self-administered online questionnaire). Moreover, the instrument development and a self-administered online questionnaire are described.

Objectives

1. Investigate the effects of consumers' emotion-driven dispositions (fashion interest and need for variety) on their affective responses toward eco-fashion.

2. Investigate the effects of consumers' logical-driven dispositions (ecological consciousness and social consciousness) on their cognitive responses toward eco-fashion.

3. Examine the effects of consumers' cognitive responses on their affective responses toward eco-fashion.

4. Examine the effects of consumers' cognitive and affective responses on their eco-fashion consumption behavior tendencies (purchase intention and willingness to pay more).

This chapter is divided into four sections. The first section describes instrument development, including construct measurement of individual differences, measurement of responses, and measurement of consumer behavioral tendencies. The second section illustrates

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the focus group used to select eco-fashion clothing images as visual stimuli and to decide on the age range of the sample. The third section explains a self-administered online questionnaire used to collect data and test the hierarchical relationships among individual differences, responses, and consumer behavioral tendencies based on Bettman's consumer information processing model (1979) and Epstein's cognitive-experiential self-theory (1998). The fourth section discusses the pretest conducted for the preliminary testing of the questionnaire on a small sample of respondents by identifying and eliminating potential problems. This will ensure that the questionnaire has proper question wording, content, sequence, and form and layout. Also, a pilot test was used to evaluate the feasibility of the study design before using the full sample.

Instrument Development

Based upon information found in the literature review, this study adapted existing measurement scales to identify individual differences (need for variety, fashion interest, ecological consciousness, and social consciousness), responses (affective responses and cognitive responses), and consumer behavior tendencies (purchase intention and willingness to pay more). The measurement items were developed based on a literature search and were refined based on a pretest, and validity test.

Measurements were developed in terms of individual differences (consumers' different processing skills in a variety of situations), responses (reactions to an event or situation), and consumer behavior tendencies (their natural dispositions to act). All the items were 7-point Likert scale range from 'strongly disagree' (1) to 'strongly agree' (7). Appendix III shows the original scale items and the modified scale items used for the pretest. The final measures with refined items for the main test are summarized in Table 17.

Measurement of Individual Differences: Need for Variety, Fashion Interest, Ecological Consciousness, and Social Consciousness

Need for variety is defined as a person's tendency to switch away from a choice made on a previous occasion (Kahn, Kalwani, & Morrison, 1982; Ratner et al., 1999). Consumers generally have a tendency to seek variation in services or goods (Simonson 1990), especially in relation to hedonic products such as restaurant food, music, leisure activities, and fashion products (Ratner, Kahn, & Kahneman, 1999). Consumers' variety seeking is rooted in a need for a change to solve the boredom associated with a brand or a product, and they seek something different or new relative to their previous choice (Steenkamp & Baumgarner, 1995; Irani & Hanzaee, 2011). To measure need for variety, a four-item scale was adopted from Trijp, Hoyer, and Inman (1996); that scale is a shortened version of the consumer-specific Exploratory Acquisition of Products (EAP) scale (Baumgarner & Steenkamp, 1996) used to measure a consumer's tendency to seek variation in product purchase through innovative product choices and changing purchase experience.

Fashion interest is an indication of consumers' attention toward fashion or their interest in fashion clothing (Chung, 2012). Consumers have a wide range of fashion consciousness and behavior and those who have a strong interest in fashion enjoy shopping for clothing and adopt new apparel products earlier than do members of other consumer groups (Gam, 2011; Tigert, Ring, & King, 1976). The nature of fashion clothing draws people into the style or fashion of the moment, and some people place a great deal of emphasis on their clothing and keep up with seasonal trends in clothing (O'Cass, 2001). In Arnold and Reynolds' (2003) study, a large number of customers report that they shop to keep up with the latest trends, to satisfy their curiosity, or to resolve the problem of the boredom associated with another brand. For those

individuals, fashion clothing means a lot to them and they are willing to learn about new trends

and keep informed about the latest trends in fashion, styling, or innovations. To measure fashion

interest, a five-item scale was adopted from O'Cass (2000, 2001).

A concern for ecology in production causes ecologically conscious consumers to

maintain the integrity of their basic beliefs about helping the environment and reducing the

environmental impact of production (Epstein, 1998). Ecologically conscious consumers care

about the nature world, tend to help the environment, and wish to reduce the environmental

impact of production (Kim & Damhorst, 1998; Lin & Chang, 2012). Ecologically conscious

consumers show their ecological concern and pursue their environmental interests, in ways

including buying eco-products, basing their personal consumption decisions on the product's

sustainability, and altering their behaviors in accordance with their green beliefs (Cho, Thyroff,

Rapert, Part, & Lee, 2013). Consumers who have responsibilities and obligations to contribute to

the natural world want to have a comfortable feeling and try to avoid purchasing products from

unethical companies (Similary, Jägel, Keeling, Reppel, & Gruber, 2012). Therefore, they tend to

purchase less harmful products, products that cause less pollution, and recycled products and

they also switch products for ecological reasons. For ecological consciousness, a four-item scale

was adapted from Peloza, White, & Shang (2013).

Social consciousness is consciousness shared within a society and awareness of social

situations (Cooley, 1992). Socially conscious individuals believe that human beings are all

connected and they are active within their communities promoting for social, political, and

charitable causes (Hainmueller, 2012; O'Shaughnessy, 2000). Socially conscious consumers care

about ethical issues such as low wages, excessive hours of work, health and safety hazards, and

lack of awareness of workers' rights; they are in favor of providing better living conditions for

other people, and they live up to their altruistic values of "equality" and "social justice" (Jägel et al., 2012; Kozer & Connel, 2012). Their activities lead the way to improving the quality of life in society, and they purchase products and services that they perceive have a positive or at least a less negative impact on the environment and use their purchasing power to express current social concerns (Kozar & Connell, 2013). Because of these reasons, they follow high ethical standards and consider the ethical reputation of business when shopping (Pepper, Jackson, & Uzzell, 2009). Therefore, these consumers think about ways to improve quality of life in society by buying eco-fashion products. For social consciousness, a three-item scale was adapted from Wagner, Lutz, and Weitz (2009).

Measurement of Responses: Affective Responses and Cognitive Responses

Affective response means the emotional response to a situation such as the feeling of pleasure (Cohen, Pham, & Andrade, 2008). In the eco-fashion context, the cognitive and affective responses are reactions that result from eco-fashion. Affective responses are related to physiologically experienced emotional states (Gross, 2013), and they can be favorable, unfavorable, or neutral feelings (Fishbein & Azjen, 1975). The experiential attributes of eco-fashion, such as the use of innovative raw materials and unique product processes are important to generate favorable affective responses, which may be characterized in terms such as pleasurable, good, enjoyable, attractive, and likable. To measure affective responses, a seven-item scale was adapted from Moorman, Neijens and Smit (2002) and Zhou and Somn (2003).

Cognitive responses such as knowledge, opinions, beliefs, and thoughts are related to individuals' thinking when they listen to messages from others and when they read, watch TV, listen to the radio, or surf the Internet (Dasgupta, 2009; Fishbein & Azjen, 1975). Cognitive responses are usually produced by logical information processing in response to a stimulus and

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depend on consumers' own personal experiences or mental images rather than on what they see (Wright, 1980). If individuals are very interested in the topic or the product, they will elaborate their cognition. Eco-fashion has ethical attributes such as adherence to fair trade guidelines, the use of low impact dyes, or being made in the USA, which can benefit the environment and society's well-being. When ecologically and socially conscious consumers are exposed to eco-fashion, they view eco-fashion as beneficial to the nature world, environment, and human beings in the society. For cognitive responses, a seven-item scale was adapted from Shiv and Fedorikhin (1988) and Wilcox, Kramer, and Sen (2011).

Measurement of Consumer Behavior Tendencies: Purchase Intention and Willingness to Pay More

Purchase intention is a consumer's tendency to purchase products or services, corresponds to the consumer's plan to buy particular goods or service sometime in the future (Yoo & Donthu, 2001). Specifically, label information has a significant impact on consumers' purchase intention (Bower, Saadat, & Whitten (2003). Eco-fashion made with biodegradable or recycled materials and corn fiber and through environmentally responsible processes carries a premium (Fletcher, 2008). These product-related attributes, along with store-related attributes, can influence consumers' consumption decisions (Niinimaki, 2010). For purchase intention, a three-item scale was adapted from Rodgers (2004).

Willingness to pay more depends on the process of cognitive elaboration toward products or service (Bower, Saadat, & Whitten, 2003). Consumers who have positive feelings toward firms that support society's well-being are willing to switch brands to and purchase products from the firms (David, Kline, & Dai, 2005). Some consumers are willing to pay extra for various types of eco-products marketed by the firms and have positive attitudes toward green

advertisements that promote eco-products (Laroche, Bergeron, & Barbaro, 2001; Mintel Oxygen Report, 2010). For example, ethical consumers are willing to pay more when buying a product involving ethical issues of human rights, labor conditions, animal well-being, and environment (Pelsmacker, Driesen, & Rayp, 2005). To measure willingness to pay more, a five-item scale was adapted from D'Souza, Gilmore, Hartmann, Ibanez, and Sullivan-Mort (2014) and Shen, Wang, Lo, and Shum (2012).

Focus Group Interview

Focus group is the most frequently used qualitative technique and particularly useful to explore participants' responses, knowledge, and experiences toward unanticipated issues (Greenbaum, 2000; Kitzinger, 1995). Discussion of the focus group has high validity and is relatively low-cost depending on the source available (Greenbaum, 2000). Therefore, a focus group interviews was used in this study to select appropriate eco-fashion clothing images as visual stimuli and to decide on the age range of the study sample. To achieve the objectives of this study, it was necessary to show eco-fashion visual images to respondents and ask questions regarding individual differences, responses, and consumer behavioral tendencies in the eco-fashion context. In addition, the ages of respondents for this study should be decided upon.

Time, Place, Participants, and Moderator of the Focus Group

According to Greenbaum (2000) and Kitzinger (1995), the focus group should be conducted in an informal and natural way where participants are free to discuss and a relaxed, informal atmosphere is necessary, Participants in a focus group should be recruited on the basis of similar demographics, psychographics, buying attitudes, or behavior. A trained moderator is needed for a successful focus group.

The focus group was conducted in January 2015 by an experienced moderator who is a professor of Retail, Hospitality, and Tourism Management Department at the University of Tennessee, and nine participants who were undergraduate students in the Department of Retail, Hospitality, and Tourism Management at the University of Tennessee were involved in the discussion. The participation was voluntary and had no extra credit or incentive reward. The moderator led the discussion in one classroom and maintained the relaxed and informal environment.

Visual Image Selection and Age Determination

A number of organizations work with fashion designers, organizations and businesses to facilitate, support, or monitor sustainable practices and standards, and together they develop standards and attributes for eco-fashion. In this study, only eco-fashion images with authorized symbols such as fair trade certified cotton, certified organic cotton, made in USA, or low impact dyes were considered as stimuli.

A number of images that contained male and female eco-fashion with different designs and styles including shirts, T-shirts, sweaters, fleece clothing, jackets, and jeans were identified from different websites based on key words such as eco, green, ethical, natural, organic, and sustainable typed into the search engine (Google). Then, professionals including one professor and four PhD students in the Department of Retail, Hospitality, and Tourism Management at University of the Tennessee finalized forty-six male and forty-six female eco-fashion images from high-end outdoor clothing companies such as Patagonia, fair trade fashion pioneers such as People Tree, organic and sustainable designer apparel companies such as Loomstate, and US-made eco-friendly clothing companies such as Soul Flower.

Male and female eco-fashion images with different designs and styles, such as shirt, T-shirt, sweater, fleece, jacket, and jeans, were shown to nine participants who are undergraduate students in Department of Retail, Hospitality, and Tourism Management at University of Tennessee. Specifically, forty-six female eco-fashion images were grouped into fourteen sets of images based on styles and color, and forty-six male eco-fashion images were grouped into fifteen sets of images based on styles and color. After viewing images, nine participants discussed their ideas, thoughts, and feeling toward eco-fashion images based on styles, design, age range, and gender preference of eco-fashion images.

The focus group discussion questions were open-ended and were worded in such a way that participants provide free-flowing responses to the given topic. Open-ended questions are opposite to closed-ended questions that can be answered with a simple "yes" or "no." Exploration questions, such as which images could better represent female or male eco-fashion, what do you think/feel about those eco-fashion images, and which age ranges would fit those female/male eco-fashions were asked. The questions for the focus group are shown in Appendix I. Based on the discussion guided by the moderator, the number of eco-fashion images was reduced to eight female and eight male images. Then, eight female and eight male eco-fashion images were selected as visual stimuli. The age ranges of the sample were decided as 18-55 by the focus group.

Other Considerations for the Focus Group

Because all nine participants were female, participants were also required to construct responses from the points of view of their family members (brothers, dads, and grandpas) or their boyfriends. In addition, a sample questionnaire with eighteen questions was used to ask about participants' feelings and thoughts of eco-fashion images and to confirm their selection for the

final sixteen eco-fashion visual images (eight female and eight male visual images). Questions were asked to rate items of "eco-fashion is comfortable," "eco-fashion is beneficial," and "eco-fashion is a wise choice" to confirm the participants' selection of the final sixteen visual images. One question "eco-fashion is refined" was deleted because of the ambiguity of the question. The questions used are shown in Appendix II. The mean score of the sixteen questions was 5.66, implying that the selection of eight eco-fashion images was satisfactory.

Self-Administered Online Questionnaire

To achieve this study's objectives, it was necessary to show eco-fashion visual images to respondents and ask them questions regarding individual differences, responses, and consumer behavioral tendencies in the eco-fashion context. The self-administered online questionnaires are less expensive and anonymous and can be distributed in large numbers at once and involve less administrative time (Hair, Celsi, Money, Samouel, &d Page, 2011). Respondents could read and answer questions in a variety of locations by using computers or other electronic devices by themselves, a condition which generates less interviewer bias (Hair, Celsi, Money, Samouel, &d Page, 2011). Therefore, a self-administered online questionnaire was selected to obtain information from respondents.

The objective of the self-administered online questionnaire was to test the questionnaire, to evaluate the feasibility of the study design before the test was administered to the full sample, and to test the research model in this study. Specifically, a pretest was conducted to test the questionnaire and to ensure that the questionnaire has proper question wording, content, sequence, and form and layout, a pilot test was used to evaluate the feasibility of the study design before using the full sample, and the main test was used to test the proposed hypotheses. Questions regarding fashion interest, need for variety, ecological and social consciousness,

cognitive and affective responses toward eco-fashion, willingness to pay more toward eco-fashion, and purchase intention toward eco-fashion were included in the survey. In sum, the self-administered online questionnaire was used for a pretest, a pilot test, and the main test.

Sample Size

Sample size plays an important role in the accuracy of results (Burns & Bush, 2006) and in determining the appropriateness of the chosen statistical technique (Hair, Black, Babin, & Anderson, 2006). This study employed confirmatory factor analysis (CFA) and structural equation modeling (SEM). A wide range of recommendations regarding sample size in factor analysis have been suggested for running CFA and SEM. Breckler (1990) surveyed 72 studies in which SEM was conducted and found the median sample size to be 198. However, MacCallum, Widaman, Zhang, and Hong (1999) recommended the minimum desirable number of 250 for a CFA analysis. A sample size of 300 for CFA analysis is good, while a sample size of 500 for factor analysis is favored. In SEM, sample sizes less than 100 are usually considered to be small and the sample size should not be small because SEM relies on mode-fitting criteria that are sensitive to sample size. ((Burns & Bush, 2006; Kline, 2005). Garver and Mentzer (1999) and Hoelter (1983) suggested a critical-sample size of 200 to provide sufficient statistical power for data analysis. Based on the above considerations, this study obtained a total sample size of 253 for the pretest, 150 for the pilot test, and 657 for the main test.

The Design of Self-Administered Online Questionnaire

According to Hair et al. (2011), questions should be grouped by topic and should start with general questions leading to specific ones, while demographic and socioeconomic questions should be asked at the end of the survey. Therefore, the survey was divided into four parts in terms of its form and layout. The first part is the introduction including the purpose of the study,

the perceived benefits of the survey, the time required to take the survey, the research participants' rights, the potential risks to the research participants, and the assurance of confidentiality for participants of the survey. With the first part asking a screening question to include only participants whose ages are 18 – 55, the second part contains general questions about fashion interest, need for variety, and ecological and social consciousness. The third part is comprised of eight female and eight male eco-fashion images that were designed to present male participants with male eco-fashion images and female participants with female eco-fashion images. Finally, the last part includes specific questions about issues such as cognitive and affective responses toward eco-fashion, willingness to pay more for eco-fashion, and purchase intention toward eco-fashion, along with demographic questions.

The questionnaire was designed using a survey tool website (Quadrics), and the online survey link was sent to each respondent. The questionnaire was designed to be completed in less than 15 minutes. A screening question was asked at the beginning of the survey to include only respondents whose ages were 18 – 55, and then the general and specific questions and demographic questions followed. All questions were close-ended and included nominal such as gender and ethnicity, ordinal such as income, and ratio types such as such as those regarding age. For each question, the forced response function in Qualtrics was used, which means that participants could not skip to the next question without finishing the current one.

After approval from the Institutional Review Board (IRB), a pretest was conducted for the preliminary testing of the questionnaire, a pilot test was used to evaluate the feasibility of the study design before using the full sample, and the main test was used to test the proposed hypotheses.

Pretest

A pretest can be used to test the questionnaire on a small sample of respondents to identify and eliminate potential problems (Malhotra, 2010). To ensure that the questionnaire has proper question wording, content, sequence, and form and layout, a pretest was conducted and surveys were distributed to undergraduate students in two classes in the Retail, Hospitality, and Tourism Department at a public university in Tennessee in Spring 2015. A total of 260 surveys were collected in the course of two weeks during the academic session, and extra credits were given to the students who completed the survey. As a result, 253 surveys were determined to be valid. The self-administered online questionnaire of the pretest is shown in Appendix III.

Descriptive Statistics of the Pretest

The descriptive statistics of the pre-test sample are shown in Table 1 and contain demographic information on respondents such as gender, age, and ethnicity. Analysis of respondents' demographic information shows that the respondents represented more females (70.00%) than males. About three-quarters were Caucasians (74.70%) in the age groups of 18–25 (71.9%) years. The mean age of respondents was 25.83. Because respondents were undergraduate students and the total household income question may represent a mix of family and personal incomes (a single person, the married couple, or respondents' parents), the information on income is not reported here. Means for scale items range from 2.901 to 5.54, and standard deviations range from 1.19 to 1.839.

Evaluating and Testing the Questionnaire

Two experts in Retail, Hospitality, and Tourism Management at University of Tennessee reviewed all scale items and evaluated the question wording, content, sequence, and form and

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Table 1. Descriptive Statistics of the Pretest

Demographics		Frequency (n = 253)	Percentage (%)
Gender	Male	76	30.0%
	Female	177	70.0%
Ethnicity	African-American	38	15.0%
	Caucasian	189	74.7%
	Native American	1	0.4%
	Asian or Pacific Islander	5	2.0%
	Hispanic	6	2.4%
	Other	14	5.5%
Income	Less than $20,000	91	36.0%
	$20,000-39,999	34	13.4%
	$40,000-59,999	32	12.6%
	$60,000-79,999	25	9.9%
	$80,000-99,999	18	7.1%
	$100,000-119,999	15	5.9%
	$120,000-139,999	7	2.8%
	$140,000-159,999	4	1.6%
	$160,000 or more	27	10.7%
Age	18-25	182	71.90%
	26-35	36	14.20%
	36-45	8	5.90%
	46-55	9	7.90%

layout. Among forty-eight pretest scale items, two scale items of need for variety are negatively worded and other items are positively worded. To check whether the measurement items of need for variety including two negative statements with reversed coding and two positive statements are reliable, the researcher decided to check internal consistency (Cronbach's Alpha) of need for variety.

Cronbach's Alpha is the most commonly used measure of internal consistency reliability, and its cutoff criterion is 0.6 (Hair, 2010). The alpha of an adequate scale should be at least .70, and the alpha of a good scale should be .80 or higher. Reliability assessed by Cronbach's alpha is based on the indicators' inter-correlations, and the higher indicators' inter-correlations are, the higher the alpha is (Miller, 1995). In this study, Cronbach's alpha was used to determine the reliability of each construct.

The measurement items of need for variety were two items with reversed statements and two items with positive statements. After turning the reversed statements to positive statements, the researcher checked the reliability of need for variety with four items. The reliability of need for variety with four items was 0.393 that is much lower than the cut-off level of 0.60. Further, the reliability of two negative statements after reversed coding was 0.824 and that of two positive statements was .757. Therefore, the measurement items of need for variety need further improvement.

It was concluded that two items with reversed statements ("I would rather stick with a product I usually buy than try something I am not very sure of" and "If I like a product, I rarely switch from it just to try something different") may have provided some confusion to the respondents. In other words, respondents may be confused about the mix of two reverse-ordered

statements and two positive statements. This may have been the cause of low reliability of the need for variety construct.

To obtain a reliable measure of need for variety, at least three scale items had to be used for the measuring of one construct (Hair, 2010; Kenny, 2014). So, the researcher decided to delete the two items with reversed statements and add more items. Five items in the exploratory change seeker scale (Steenkame & Baumgartner, 1995; Campbell & Goodstein, 2001; Vazquez-Carrasco & Foxall, 2006) were added to the need for variety construct. The refined measurement items of need for variety are shown in Table 2.

Table 2. Refined Measurement Items of Need for Variety

Need for Variety	NFV1	1. I enjoy taking chances in buying unfamiliar brands just to get some variety in my purchases.
	NFV2	2. I like to experience novelty and change in my daily routine.
	NFV3	3. I like a job that offers change, variety, and travel, even if it involves some dangers.
	NFV4	4. I am continually seeking new ideas and experiences.
	NFV5	5. I like continually changing activities.
	NFV6	6. When things get boring, I like to find some new and unfamiliar experiences.
	NFV7	7. I like to continue doing the same old things rather than try new and different things. ®
	NFV8	8. I prefer a routine way of life to an unpredictable one full of change. ®

Pilot Test

Pilot test is a small-scale trial and is used to evaluate the feasibility of the study design before using the full sample. Pilot test data were collected from 150 participants within one week in June 2015 by a marketing research firm in California, and participants were online consumer panels of the marketing research firm. Once participants agreed to do the study, they received the survey link. After participants completed a full survey, they received an incentive of $2.5. There was no incomplete survey, and all surveys were usable.

Descriptive Statistics of the Pilot Test

The descriptive statistics of the pilot test are shown in Table 3 and contain the demographic information on respondents such as gender, age, and ethnicity. Analysis of respondents' demographic information shows that the respondents are comprised of more females (71.30%) than males. The Majority of the respondents are Caucasians (79.30%), and about half of them are in the age groups of 46–55 years (48.00%). The mean age of respondents is 44.2. Majority respondents have income lower than $80,000–$99,999 (60.7%).

Evaluating and Testing the Questionnaire

Wording, content, sequence, and form and layout of all questions have been verified by undergraduate students in the pretest. However, to ensure the study can work in the "real world" and to identify potential practical problems by using people who are similar to target population (Teijlingen & Hundley, 2001), a pilot test with 150 online consumer panels was conducted. By analyzing participants' responses, the researcher found that respondents were still confused for measurement items of need for variety, probably because of the reversed statements.

The refined measurement items of need for variety still included two items with reversed statements (NFV 7 and NFV 8), the researcher decided to compute the inter-item correlation of the measurement items. The inter-item correlation of need for variety is shown in Table 4. After turning the reversed statements (NFV 7 and NFV 8) to positive statements (NFV 7N and NFV 8N), the researcher checked the inter-item correlation of need for variety. Inter-item correlation examines how well one item is related to all other items in a scale (Hair, 2010). The inter-item correlations of eight items are shown in following Table 4. The low inter-item correlations of need for variety ranged from .058 to .203, which were caused by two reversed statements. In other words, two items with reversed statements (NFV 7 and NFV 8) had extremely low

Table 3. Descriptive Statistics of the Pilot Test

Demographics		Frequency (n=150)	Percentage (%)
Gender	Male	43	28.7%
	Female	107	71.3%
Ethnicity	African-American	11	7.4%
	Caucasian	119	79.3%
	Native American	2	1.3%
	Asian or Pacific Islander	5	3.3%
	Hispanic	13	8.7%
Income	Less than $20,000	22	14.7%
	$20,000-39,999	24	16.0%
	$40,000-59,999	22	14.7%
	$60,000-79,999	23	15.3%
	$80,000-99,999	21	14.0%
	$100,000-119,999	12	8.0%
	$120,000-139,999	5	3.3%
	$140,000-159,999	9	6.0%
	$160,000 or more	12	8.0%
Age	18-25	2	1.33%
	26-35	24	16.00%
	36-45	52	34.67%
	46-55	72	48.00%

Table 4. Inter-Item Correlation Matrix of NFV

	NFV_1	NFV_2	NFV_3	NFV_4	NFV_5	NFV_6	NFV_7N	NFV_8N
NFV_1	1.000	.792	.689	.732	.718	.677	.092	.107
NFV_2	.792	1.000	.764	.820	.831	.788	.121	.158
NFV_3	.689	.764	1.000	.772	.792	.735	.058	.182
NFV_4	.732	.820	.772	1.000	.844	.798	.134	.200
NFV_5	.718	.831	.792	.844	1.000	.793	.131	.203
NFV_6	.677	.788	.735	.798	.793	1.000	.116	.173
NFV_7N	.092	.121	.058	.134	.131	.116	1.000	.700
NFV_8N	.107	.158	.182	.200	.203	.173	.700	1.000

correlations with all items. Therefore, NFV 7 and NFV 8 were removed from the final measurement items of need for variety. The final measure for need for variety is shown in Table 5.

Then, internal consistency (Cronbach's Alpha) was checked for all constructs to ensure that the final measures with refined items for the main test is reliable. Specifically, Cronbach's alpha was used to determine how well the measurement items measure the same construct. The reliabilities of all constructs are shown in Table 6 and range from 0.870 to 0.986. Cronbach's alpha of each construct is above the cut-off level of 0.70 (Hair 2010), thereby indicating the internal consistency.

The final measures used to evaluate the feasibility of the study design before using the full sample are shown in Table 7 and were tested by the online consumer panels. One item (I would pay a premium for certified sustainable clothing) of willingness to pay more was deleted because this item strongly correlated with WTPM1 (r = 0. 900), WTPM2 (r = 0.780), WTPM (r = 0.716), and WTPM4 (r = 0.908).

Main Test: Overview of the Sample

Main test was used to test the proposed hypotheses. Main test were collected from 657

participants within one week in June 2015 by a marketing research firm in California, and

participants were online consumer panels of the marketing research firm. Participants received

an incentive of $2.5 after they completed a full survey. There was no incomplete survey, and all

surveys were usable.

Descriptive Statistics of the Main Test Sample

The descriptive statistics on the measurement items are shown in Table 8. The

demographic information on respondents such as gender, age, and ethnicity is recorded. Analysis

of respondents' demographic information shows that respondents are comprised of more females

Table 5. Final Measurement Items of Need for Variety

Need for Variety	NFV1	1. I enjoy taking chances in buying unfamiliar brands just to get some variety in my purchases.
	NFV2	2. I like to experience novelty and change in my daily routine.
	NFV3	3. I like a job that offers change, variety, and travel, even if it involves some dangers.
	NFV4	4. I am continually seeking new ideas and experiences.
	NFV5	5. I like continually changing activities.
	NFV6	6. When things get boring, I like to find some new and unfamiliar experiences.

Table 6. The Pilot Test: Reliabilities of the Constructs

Construct	Number of Items	Cronbach's Alpha Coefficients
Need for Variety	6	0.936
Fashion Interest	5	0.986
Ecologically Consciousness	4	0.929
Social Consciousness	3	0.870
Affective Responses	7	0.968
Cognitive Responses	7	0.964
Willingness to Pay More	5	0.953
Purchase Intention	3	0.948

Table 7. Final Measures of All Constructs

Variable	Scale Item	Scale Items
Need for Variety	NFV1	1. I enjoy taking chances in buying unfamiliar brands just to get some variety in my purchases.
	NFV2	2. I like to experience novelty and change in my daily routine.
	NFV3	3. I like a job that offers change, variety, and travel, even if it involves some dangers.
	NFV4	4. I am continually seeking new ideas and experiences.
	NFV5	5. I like continually changing activities.
	NFV6	6. When things get boring, I like to find some new and unfamiliar experiences.
Fashion Interest	FI1	1. Fashion clothing means a lot to me.
	FI2	2. Fashion clothing is a significant part of my life.
	FI3	3. I think about fashion clothing a lot.
	FI4	4. I am very interested in fashion clothing.
	FI5	5. I am very much involved in/with fashion clothing.
Social Consciousness	SC1	1. I am a socially responsible person.
	SC2	2. I am concerned to improve the well-being of society.
	SC3	3. I follow high ethical standards.
Ecological Consciousness	EC1	1. It is important to take care of the environment.
	EC2	2. I try to make environmentally sustainable choices.
	EC3	3. Everyone should make an effort to conserve our natural resources.
	EC4	4. I often consider the impact we make on the environment.
Affective Responses	AR1	1. Eco-fashion is comfortable.
	AR 2	2. Eco-fashion is good.
	AR 3	3. Eco-fashion is likable.
	AR 4	4. Eco-fashion is enjoyable.
	AR 5	5. Eco-fashion is nice-looking.
	AR 6	6. Eco-fashion is pleasing.
	AR 7	7. Eco-fashion is attractive.
Cognitive Responses	CR 1	1. Eco-fashion is beneficial.
	CR 2	2. Eco-fashion is a wise choice.
	CR3	3. Eco-fashion is useful.
	CR4	4. Eco-fashion is valuable.
	CR5	5. Eco-fashion is positive.
	CR6	6. Eco-fashion is original.
	CR7	7. Eco-fashion is high quality
Willingness to Pay More	WTPM1	1. I am willing to pay a premium for eco-fashion.
	WTPM2	2. It is still worthwhile to support eco-friendly apparel.
	WTPM3	3. I would rather spend my money on eco-fashion clothes more than anything else.
	WTPM4	4. I prefer to purchase eco-fashion even if it is somewhat more expensive.

Table 7. Continued

	PI1	1. I would like to make a purchase toward eco-fashion.
Purchase intention	PI2	2. I would like to have more information about eco-fashion.
	PI2	3. I'm interested in eco-fashion.
	PI3	4. It is still worthwhile to support eco-friendly apparel.

(70.00%) than males. About three-quarters of the respondents are Caucasians (74.70%), and

about one-third of them are in the age groups of 36–45 (33.79%) years or 46–55 (36.99%). The

mean age of respondents is 41.02.

Assessment of Normality for the Main Test

The assessment of normality for the measurement items used in the main test is shown in

Table 9, which contains descriptive statistics of each measurement item such as minimum,

maximum, mean, standard deviation, skewness, and kurtosis. The mean values range from 3.61

to 5.74, and the standard deviations range from 1.167 to 2.012 on the 7-point scale. To check the

univariate normality of data, values for skewness and kurtosis have been calculated. For a normal

distribution, the values of skewness should be near 0, and values of kurtosis between –2 and +2

are considered acceptable (George & Mallery, 2010). In this study, the absolute values of

skewness range from 0.003 to 1.049 and the absolute values of kurtosis range from 0.027 to

1.293, indicating that the main test data are normally distributed.

Table 8. Descriptive Statistics of the Main Test

	Demographics	Frequency (n=657)	Percentage (%)
Gender	Male	197	30.0%
	Female	460	70.0%
Ethnicity	African-American	64	9.7%
	Caucasian	497	74.7%
	Native American	6	0.91%
	Asian or Pacific Islander	36	5.5%
	Hispanic	53	8.1%
	Other	7	1.1%
Income	Less than $20,000	98	36.0%
	$20,000-39,999	133	20.2%
	$40,000-59,999	147	22.4%
	$60,000-79,999	105	16.0%
	$80,000-99,999	65	9.9%
	$100,000-119,999	50	7.6%
	$120,000-139,999	15	2.3%
	$140,000-159,999	21	3.2%
	$160,000 or more	23	3.5%
Age	18-25	31	4.72%
	26-35	161	24.50%
	36-45	222	33.79%
	46-55	243	36.99%
	Mean	41.02	
	Median	41	
	Min	18	
	Max	55	

Table 9. Assessment of Normality for the Main Test

Construct	Item	Min	Max	Mean	STD	Skewness	Kurtosis
Need for Variety	NFV	1	7	4.70	1.519	-0.644	-0.027
	NFV	1	7	4.86	1.486	-0.625	-0.049
	NFV	1	7	4.11	1.775	-0.138	-0.931
	NFV	1	7	5.05	1.451	-0.655	0.183
	NFV	1	7	4.74	1.527	-0.445	-0.288
	NFV	1	7	5.04	1.393	-0.686	0.337
Fashion Interest	FI	1	7	3.87	1.967	-0.045	-1.243
	FI	1	7	3.76	1.982	0.013	-1.273
	FI	1	7	3.62	2.011	0.155	-1.273
	FI	1	7	3.95	2.012	-0.096	-1.293
	FI	1	7	3.61	1.976	0.137	-1.228
Ecological Consciousness	EC	1	7	5.74	1.214	-1.049	1.226
	EC	1	7	5.26	1.358	-0.805	0.714
	EC	1	7	5.63	1.272	-0.997	1.266
	EC	1	7	5.24	1.409	-0.762	0.427
Social Consciousness	SC	1	7	5.17	1.238	-0.545	0.684
	SC	1	7	5.12	1.271	-0.601	0.722
	SC	1	7	4.79	1.501	-0.466	-0.149
	SC	1	7	5.17	1.292	-0.523	0.428
	SC	1	7	5.14	1.472	-0.503	-0.280
Affective Responses	AR	1	7	5.42	1.209	-0.647	0.399
	AR	1	7	5.6	1.167	-0.75	0.701
	AR	1	7	5.59	1.209	-0.787	0.655
	AR	1	7	5.43	1.189	-0.522	0.056
	AR	1	7	5.47	1.234	-0.817	0.835
	AR	1	7	5.43	1.222	-0.66	0.597
	AR	1	7	5.44	1.239	-0.754	0.773
Cognitive Responses	CR	1	7	5.67	1.202	-0.896	0.923
	CR	1	7	5.62	1.228	-0.748	0.49
	CR	1	7	5.6	1.226	-0.807	0.603
	CR	1	7	5.47	1.231	-0.569	0.077
Cognitive Responses	CR	1	7	5.71	1.22	-0.989	1.062
	CR	1	7	5.62	1.202	-0.736	0.448
	CR	1	7	5.36	1.284	-0.601	0.274
Purchase Intention	PI	1	7	4.74	1.571	-0.656	0.128
	PI	1	7	5.03	1.578	-0.87	0.479
	PI	1	7	4.89	1.581	-0.806	0.364
Willingness to Pay More	WTPM	1	7	4.02	1.738	-0.188	-0.801

Table 9. Continued

Willingness to Pay More	WTPM	1	7	5.04	1.418	-0.763	0.737
	WTPM	1	7	3.98	1.75	-0.172	-0.787
	WTPM	1	7	4.06	1.731	-0.209	-0.728

Chapter 4

Data Analyses and Results

The previous chapters have dealt with instrument development, the qualitative method (focus group) and the quantitative method (self-administered online questionnaire) that are used to achieve the research objectives. This chapter discusses data analyses of the main test, introducing a confirmatory factor analysis (CFA) performed to evaluate the measurement model and a SEM used to test hypotheses. As the first step in data analyses, an overview of the main test sample including descriptive statistics and an assessment of the normality of the main test sample is performed. The two-step approach (Anderson & Gerbing, 1988) is used to validate the measurement model and to test the proposed hypotheses. As the first step, a confirmatory factor analysis (CFA) is conducted to evaluate whether all measures are reliable and valid. As the second step, a SEM is used to examine the causal relationships among all latent variables (fashion interest, need for variety, ecological consciousness, social consciousness, cognitive responses, affective responses, purchase intention, and willingness to pay more). Both the measurement model and the structural model are assessed using AMOS 20 with the maximum likelihood method. The model fits of the estimated models are assessed by chi-square (χ^2) tests, the ratio of chi-square to degrees of freedom, the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square error of approximation (RMSEA).

Confirmatory Factor Analysis

A confirmatory factor analysis (CFA) is used to evaluate all measures and to test how well the measured variables represent the number of constructs (Malhotra, 2010). A CFA is conducted for each construct (need for variety, fashion interest, ecological consciousness, social

consciousness, affective responses, cognitive responses, purchase intention, and willingness to pay more) and the measurement model.

The model fits of each construct and the estimated models are assessed by chi-square (χ^2) tests, the ratio of chi-square to degrees of freedom, the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square error of approximation (RMSEA). Because chi-square is sensitive to the sample size, relative chi-square (chi-square/degree of freedom) has been used to evaluate model fit. Values of the ratio between 2 and 5 indicate acceptable fit level and values less than 2 indicate good fit (Kenny, 2012). For the RMSEA, values less than .05 indicate good fit; values between .05 and .08 show reasonable fit; values between .08 and .10 reflect mediocre fit; and values > .10 indicate poor fit to the data (MacCallum, Browne, & Sugawara, 1996). For the CFI, values of .90 or greater have been found to indicate good model fit (Schumacker & Lomax, 2004). The Tucker-Lewis Index (TLI) is also called the non-normed fit index (NNFI). A value of 0.90 or greater for this index has been found to indicate good model fit (Kenny, 2012).

CFA for Each Construct

Before developing a measurement model, the measurement items for each construct are subjected to confirmatory factor analysis (CFA) by using AMOS 20 to identify whether the measurement variables reliably reflected the latent variables (need for variety, fashion interest, ecological consciousness, social consciousness, affective responses, cognitive responses, purchase intention, and willingness to pay more). Fit statistics such as number of items used for each construct, the chi-square (χ^2), the ratio of chi-square to degrees of freedom (χ/df), the comparative fit index (CFI), the goodness-of-fit index (GFI), and the root mean square error of approximation (RMSEA) are reported in Table 10. According to the fit statistics for each

construct, the ratio of chi-square to degrees of freedom (χ/df) for all constructs are greater than 5 and the RMSEA for all constructs are greater than 0.1, which indicate the poor fit. Therefore, the models need to be improved.

Table 10. Fit Statistics for Each Construct- Initial Model

Construct	No. of Items	$\chi2$ (df)	$\chi2$ /df	CFI	TLI	RMSEA
Need for Variety	6	70.583(9)	7.843	0.977	0.962	0.102
Fashion Interest	5	77.789(5)	15.558	0.987	0.974	0.149
Ecologically Consciousness	4	135.678 (2)	67.839	0.8941	0.824	0.319
Social Consciousness	3	N/A	N/A	N/A	N/A	N/A
Affective Responses	7	468.542(14)	33.467	0.919	0.878	0.222
Cognitive Responses	7	156.313(14)	11.165	0.974	0.961	0.124
Willingness to Pay More	4	15.717(2)	7.859	0.994	0.981	0.102
Purchase Intention	3	N/A	N/A	N/A	N/A	N/A

$2 < \chi^2/df$: < 5 indicates acceptable fit level, < 2 good fit (Hair et al., 1998)
CFI: $\geq$ 0.80 acceptable fit, $\geq$ 0.90 good fit
TLI: $\geq$ 0.80 acceptable fit, $\geq$ 0.90 good fit
RMSEA: < 0.05 very good, < 0.08 acceptable, < 0.10 mediocre, $\geq$ 0.10 poor errors of approximation (Byrne, 2001).

Model Improvement

If a model poorly fits to the data, three statistical criteria can be used to evaluate the models: standardized regression weights, standardized residual covariance, and modification indices (MIs) that are a univariate index used to estimate the amount of an unestimated relationship and to improve the overall fit of the model. A standardized regression weight less than 0.4 is unacceptable because of measurement error (Singh, 1995). An absolute value of standardized residual covariance greater than 2.58 indicates a substantial prediction error (Joreskog & Sorbom, 1988). An excessively high MI is an indication of misfit. A MI is expressed as chi-square statistics with one degree of freedom and the value of MI greater than ten was considered high (Bryne, 2013; Joreskog & Sorbom, 1988; Hari et al., 1998). Based on these criteria, model modifications will be made by eliminating the measurement items with a

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standardized regression weight less than 0.4, standardized residual covariance greater than 2.58, and high modification indices.

Need for variety

Six items were used to measure need for variety (NFV), and standardized regression weights range from 0.69 to 0.90, indicating a good fit of the model. The absolute values of standardized residual covariance are less than 2.58, showing a good fit of the model. The error variance between NFV1 and NFV4 showed a very high modification index value of 54.754, however the standardized regression weight of NFV1 (0.72) and NFV4 (0.88) are much higher than 0.4 and the standardized residual covariance (1.95) is lower than 2.58. Then, the researcher decided to correlate the error of NFV1 and NFV4, which is another way use to improve the fit (Joreskog & Long, 1993; Gerbing & Anderson, 1984). The CFA of need for variety was run again. The CFA was run again on the model and the improved model fit is indicated in Table 11.

Table 11. Fit Statistics for Each Construct- Refined Model

Construct	Eliminated Items	$\chi 2$ (df)	$\chi 2$ /df	CFI	TLI	RMSEA
Need for Variety	-	10.224(8)	1.278	0.999	0.998	0.021
Fashion Interest	FI5, FI6	N/A	N/A	N/A	N/A	N/A
Ecologically Consciousness	-	135.678 (2)	67.839	0.8941	0.824	0.319
Social Consciousness	-	N/A	N/A	N/A	N/A	N/A
Affective Responses	AR5, AR6, AR7	26.783(2)	13.392	0.991	0.972	0.137
Cognitive Responses	CR6	92.442(9)	10.271	0.983	0.971	0.119
Willingness to Pay More	-	15.717(2)	7.859	0.994	0.981	0.102
Purchase Intention	-	N/A	N/A	N/A	N/A	N/A

Fashion interest

Five items were used to measure fashion interest (FI), and all items have significant standardized regression weights ranging from 0.95 to 0.98, indicating a good fit of the model. The absolute values of standardized residual covariance are less than 2.58, showing a good fit of the model. Four pairs of error variance showed high modification indices: FI6e and FI7e (MI=26.910), FI5e and FI7e (MI=26.025), FI4e and FI6e (MI=23.268), and FI4e and FI5e (MI=24.765). Items FI5 and FI6 were frequently available across four pairs of error variance with high modification indices and the researcher decided to remove those two items. The CFA was run again on the model and the improved model fit is indicated in Table 11.

Ecological consciousness

Four items were used to measure ecological consciousness (EC). All items have significant standardized regression weights ranging from .82 to .91, which indicates a good fit of the model. The absolute values of standardized residual covariance are less than 2.58, indicating a good fit of the model. Hence, no change has been made to the measure of ecological consciousness.

Social consciousness

Three items were used to measure social consciousness (SC). All items have significant standardized regression weights ranging from .76 to .86, showing a good fit of the model. The absolute values of standardized residual covariance are less than 2.58, indicating a good fit of the model. Hence, no change has been made to the measure of ecological consciousness.

Affective responses

Seven items were used to measure affective responses (AR). All items have significant standardized regression weights ranging from .89 to .92, and the absolute values of standardized

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residual covariance are less than 2.58, exhibiting a good fit of the model. However, the error variances between AR5 and AR7, between AR6 and AR7, and between AR5 and AR6 showed extremely high modification index values of 188.70, 68.03, and 43.24 respectively. Therefore, AR5, AR6, and AR7 were removed. The improved model fit after the running is shown in Table 11.

Cognitive responses

Seven items were used to measure cognitive responses (CR). All items have significant standardized regression weights ranging from .80 to .94, and the absolute values of standardized residual covariance are less than 2.58, reflecting a good fit of the model. The error variance between CR7 and CR6 showed a high modification index value of 34.97. The error variance between CR7 and CR1 showed a high value of 19.59. The error variance between CR7 and CR4 showed a high value of 16.75. Thus, CR7 was removed. CFA was run again on the model, and results of the improved model fit appear in Table 11.

Willingness to pay more

Four items were used to measure willingness to pay more (WTPM). All items have significant standardized regression weights ranging from .68 to .96, showing a good fit of the model. The absolute values of standardized residual covariance are less than 2.58, indicating a good fit of the model. Hence, no change has been made to the measure of willingness to pay more.

Purchase intention

Three items were used to measure purchase intention (PI). All items have significant standardized regression weights ranging from .91 to .96, and the absolute values of standardized

residual covariance are less than 2.58, revealing a good fit of the model. Therefore, no change has been made to the measure of purchase intention.

<center>**CFA for the Measurement Model**</center>

A confirmatory factor analysis (CFA) is used to validate the measurement model (Malhotra, 2010). In this study, CFA was conducted for the measurement model that included eight constructs to test how well the measured variables represent the number of constructs. The model fits of the measurement model is assessed by chi-square ($\chi 2$) tests, the ratio of chi-square to degrees of freedom, the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square error of approximation (RMSEA).

For the measurement model, a correlation matrix of the variables was first analyzed to indicate relationships among eight constructs and to identify the presence of highly correlated constructs. As shown in Table 12, the following pairs of variables are highly correlated: affective responses with cognitive responses (r = 0.930), purchase intention with willingness to pay more (r = 0.827), and ecological consciousness with social consciousness (r = 0.814), indicating the possible issues of multicollinearity. Therefore, correlations among all measurement items of ecological consciousness and social consciousness and correlations among all measurement items of purchase intention and willingness to pay more were conducted.

As shown in Table 13, correlations among all measurement items of purchase intention and willingness to pay more are moderate or high and range from 0.588 to 0.898, which caused the researcher to consider whether purchase intention and willingness to pay more represent the same variable and should be combined as one construct. However, purchase intention and willingness to pay more have been used as completely different constructs according to the literature. Purchase intention refers to the consumer tendency to purchase products or services

Table 12. Correlation Matrix

Construct	1	2	3	4	5	6	7	8
1. Need for Variety	1.000							
2. Fashion Interest	0.625	1.000						
3. Ecologically Consciousness	0.545	0.369	1.000					
4. Social Consciousness	0.647	0.483	0.814	1.000				
5. Affective Responses	0.502	0.397	0.705	0.622	1.000			
6. Cognitive Responses	0.493	0.398	0.716	0.658	0.930	1.000		
7. Willingness to Pay More	0.591	0.595	0.585	0.612	0.585	0.595	1.000	
8. Purchase Intention	0.564	0.515	0.656	0.648	0.671	0.695	0.827	1.000

and the resistance to switch to other products or services (Yoo & Donthu, 2001), while

willingness to pay more takes into account the price factor and refers to the maximum price that

a given consumer is willing to pay for a product or service (Bower, Saadat, & Whitten, 2003).

Thus, the researcher decided to test whether purchase intention and willingness to pay more

represent the same construct or need to be used as different constructs by using a chi-square

difference test.

Table 13. Correlation of Purchase Intention and Willingness to Pay More

Construct	1	2	3	4	5	6
1. WTPM1	1.000					
2. WTPM2	0.654	1.000				
3. WTPM3	0.772	0.588	1.000			
4. WTPM4	0.877	0.631	0.823			
5. PI1	0.714	0.713	0.658	1.000		
6. PI2	0.632	0.720	0.572	0.845	1.000	
7. PI3	0.718	0.752	0.676	0.898	0.876	1.000

For purchase intention and willingness to pay more, the researcher compared two models, an unconstrained measurement model and a constrained measurement model (PI2WTPM). In the constrained measurement model, the research assigned purchase intention and willingness to pay more as one construct by assigning the correlation between purchase intention and willingness to pay more as one. If the unconstrained measurement model and the constrained measurement models are the same, purchase intention and willingness to pay more represent the same construct. In contrast, if those two models are statistically different, purchase intention and willingness to pay more are different constructs. As indicated in Tables 14 and 15, the constrained measurement model (PI2WTPM) is statistically and practically different from the unconstrained model.

Table 14. Model Comparison of PI2WTPM

Model	NPAR	CMIN	DF	P	CMIN/DF
Unconstrained	95	1254.720	433	.000	2.898
PI2WTPM	94	1980.307	434	.000	4.563

Table 15. Chi-square Difference of PI and WTPM

	Chi-square	DF	Diff	P
Unconstrained	1254.720	433		
PI2WTPM	1980.307	434	725.587@1	<.0001

Table 16 reveals the correlations among all measurement items of ecological consciousness and social consciousness. As shown in Table 16, the following pairs of items are moderately correlated: EC3 with SC1 (r = 0.628) and EC3 with SC1 (r = 0.625). Ecological

consciousness and social consciousness are different constructs according to the literature. Social consciousness is consciousness shared within a society and indicates awareness of social situations (Cooley, 1992). On the other hand, consumers who are ecologically conscious want to help the environment and reduce their products' environmental impact (Lin & Chang, 2012). Therefore, the researcher determined it was necessary to test whether ecological consciousness and social consciousness are the same or different constructs by using a chi-square difference test.

Table 16. Correlation of Ecological Consciousness and Social Consciousness

Construct	1	2	3	4	5	6	7
1. EC1	1.000						
2. EC2	0.722	1.000					
3. EC3	0.809	0.788	1.000				
4. EC4	0.667	0.848	0.776	1.000			
5. SC1	0.563	0.672	0.628	0.642	1.000		
6. SC2	0.542	0.663	0.625	0.648	0.749	1.000	
7. SC3	0.464	0.538	0.525	0.519	0.653	0.668	1.000

For ecological consciousness and social consciousness, the researcher treated ecological consciousness and social consciousness as the same construct by assigning the correlation between ecological consciousness and social consciousness as one and then compared the unconstrained measurement model with the constrained measurement mode (EC2SC). As shown in Tables 17 and 18, model EC2SC is statistically and practically different from the unconstrained model. That is, ecological consciousness and social consciousness are different

constructs, and then the researcher linked the error variance between them to solve the high correlation problem.

Table 17. Model Comparison of EC2SC

Model	NPAR	CMIN	DF	P	CMIN/DF
Unconstrained	95	1254.720	433	.000	2.898
EC2SC	94	1543.965	434	.000	3.558

Table 18. Chi-square Difference of EC and SC

	Chi-square	DF	Diff	P
Unconstrained	1254.720	433		
EC2SC	1543.965	434	289.245@1	<.0001

CFA was conducted for the measurement model and the fit statistics of the initial measurement model are shown in Table 19, which includes eight constructs. All eight latent variables were allowed to inter-correlate freely without attribution of a causal order. The covariance matrix of the measurement model is positive definite, indicating that multicollinearity is not a concern in evaluating the model. As an indicator of good model fit to the data, Kline's (1998) criteria are used (i.e., CFI $\geq$ .90, GFI $\geq$ .90, RMSEA $\leq$ .08). The fit statistics of the initial measurement model are: χ^2 (467) = 2098.304; χ^2/df = 4.493; CFI = .935; TLI = .926; and RMSEA = .073 (See Table 19). The ratio of chi-square to degrees of freedom indicates the acceptable fit level, which means the model can be further improved.

Model Improvement

Standardized regression weights, standardized residual covariance, and modification indices (MIs) can be used to improve measurement model. To improve the model fit, measurement items with significant standardized regression weights less than 0.4, standardized

Table 19. Fit Statistics of the Measurement Model – Initial Model

Construct	$\chi 2$ (df)	$\chi 2$ /df	CFI	TLI	RMSEA
Initial Measurement Model	2098.304(467)	4.493	0.935	0.926	0.073
Final Measurement Model	1661.995(464)	3.581	0.952	0.946	0.063

$2<\chi^2/df$: < 5 indicates acceptable fit level, < 2 good fit (Hair et al., 1998)

CFI: ≥ 0.80 acceptable fit, ≥ 0.90 good fit

TLI: ≥ 0.80 acceptable fit, ≥ 0.90 good fit

RMSEA: < 0.05 very good, < 0.08 acceptable, < 0.10 mediocre, ≥ 0.10 poor errors of approximation (Byrne, 2001).

residual covariance greater than 2.58, and having high modification indices will be deleted (Bryne, 2013; Joreskog & Sorbom, 1988; Singh, 1995).

Three pairs of error variance showed high modification indices: EC1 and EC3 (92.328), and CR2 and CR5 (38.890). Then, the researcher decided to correlate the error of EC1 and EC3, and CR2 and CR5. The CFA was run again on the model and the improved model fit is indicated in Table 19.

Reliability

In this study, composite reliability was used to report reliability of measurement model. The final measurement model comprises 8 constructs measured by 33 items. Factor loadings of all items range from 0.692 to 0.965, and all paths are significant (p < 0.001). The composite reliability of each construct ranges from 0.87083 to 0.966, meeting the minimum criterion of 0.70 (Nunnally & Bernstein, 1994). The model fits the data very well and all measures are reliable. Factor loadings and composite reliabilities of the final measurement model are provided in Table 20.

Table 20. The Final Measurement Model: Factor Loadings and Composite Reliability

Variable	Scale Item		Factor Loading	Composite Reliability
Need for Variety	NFV1	I enjoy taking chances in buying unfamiliar brands just to get some variety in my purchases.	0.694	0.916
	NFV2	I like to experience novelty and change in my daily routine.	0.841	
	NFV3	I like a job that offers change, variety, and travel, even if it involves some danger.	0.692	
	NFV4	I am continually seeking new ideas and experiences.	0.871	
	NFV5	I like continually changing activities.	0.903	
	NFV6	When things get boring, I like to find some new and unfamiliar experiences.	0.800	
Fashion Interest	FI1	Fashion clothing means a lot to me.	0.949	0.965
	FI 2	I am very interested in fashion clothing.	0.961	
	FI 3	I am very much involved in/with fashion clothing.	0.940	
Ecological Consciousness	EC1	When I have a choice between two equal products, I always purchase the one less harmful to other people and the environment.	0.765	0.923
	EC2	It is important to take care of the environment.	0.928	
	EC3	I try to make environmentally sustainable choices.	0.858	
	EC4	Everyone should make an effort to conserve our natural resources.	0.907	
Social Consciousness	SC1	I am a socially responsible person.	0.859	0.870
	SC2	I am concerned to improve the well-being of society.	0.883	
	SC3	I follow high ethical standards.	0.747	
Affective Responses	AR1	Eco-fashion is comfortable.	0.861	0.949
	AR 2	Eco-fashion is good.	0.923	
	AR 3	Eco-fashion is likable	0.938	
	AR 4	Eco-fashion is enjoyable	0.907	
Cognitive Responses	CR 1	Eco-fashion is beneficial.	0.917	0.966
	CR 2	Eco-fashion is a wise choice.	0.941	
	CR3	Eco-fashion is useful.	0.934	
	CR4	Eco-fashion is valuable.	0.907	
	CR5	Eco-fashion is positive.	0.928	
	CR6	Eco-fashion is original.	0.821	
Purchase intention	PI1	I would like to make a purchase toward eco-fashion	0.934	0.954
	PI2	I would like to have more information about eco-fashion	0.903	
	PI3	I'm interested in buying eco-fashion	0.965	
Willingness to Pay More	WTPM1	I am willing to pay a premium for eco-fashion.	0.920	0.920
	WTPM2	It is still worthwhile to support eco-friendly apparel	0.716	
	WTPM3	I would rather spend my money on eco-fashion clothes more than anything else.	0.855	
	WTPM4	I prefer to purchase eco-fashion clothing even if it is somewhat more expensive.	0.943	

Validity

Once reliability has been established, convergent and discriminant validity should be assessed; and convergent validity is supported by the factor loadings, the composite reliability, and average variance extracted values (Hair et al, 2010). In this study, factor loadings of all items range from 0.692 to 0.965, and all paths are significant ($p < 0.001$). The composite reliability for each construct exceeds the recommended level of .70. The AVE values, ranging from 0.604 to 0.903, are greater than the recommended threshold value of .50. Therefore, all measures are convergent.

The discriminant validity can be tested by examining whether the values of average variances extracted (AVE) exceed the squared correlation coefficients (i.e., shared variance) between all possible pairs of constructs (Fornell & Larcker, 1981). Table 21 indicates that values in the diagonal entry (square-root of AVE) are greater than values in the particular row and column (square correlation between constructs), confirming discriminant validity. Hence, the model fits the data very well and all the measures employed in this study are valid.

Table 21. Construct Validity of the Final Measurement Model (AVE)

Construct	1	2	3	4	5	6	7	8
1. Need for Variety	**0.804**							
2. Fashion Interest	0.391	**0.950**						
3. Ecologically Consciousness	0.297	0.136	**0.841**					
4. Social Consciousness	0.419	0.233	0.663	**0.832**				
5. Affective Responses	0.252	0.158	0.497	0.387	**0.882**			
6. Cognitive Responses	0.243	0.158	0.513	0.433	0.865	**0.909**		
7. Willingness to Pay More	0.349	0.354	0.342	0.375	0.342	0.354	**0.959**	
8. Purchase Intention	0.318	0.265	0.430	0.420	0.450	0.483	0.684	**0.934**

Diagonal entries show the square-root of average variance extracted by the construct. Off-diagonal entries represent the variance shared (squared correlation) between constructs.

The measurement model fits the data very well and all measures are reliable and valid. The fit statistics of the final measurement model are: $\chi 2$ (464) = 1661.995; $\chi 2$ /df = 3.581; CFI = 0.952; TLI = 0.946; and RMSEA = .063 (See Table 22).

Structural Model

A structural model was used to examine the causal relationships among fashion interest, need for variety, ecological consciousness, social consciousness, cognitive responses, affective responses, purchase intention, and willingness to pay more. The structural model was assessed by using AMOS 20 with the maximum likelihood method. The model fits of the estimated models are assessed by chi-square ($\chi 2$) tests, the ratio of chi-square to degrees of freedom, the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square error of approximation (RMSEA).

Hypotheses Testing

The hypothesized relationships among variables were tested in the structural model. The structural model fits the data very well and all hypotheses are supported except H1b. The fit indices of the structural model are: $\chi 2$ (479) = 1964.016, $\chi 2$/df = 4.100, CFI = 0.941, TLI = 0.935, and RMSEA = 0.069. Table 22 presents the results of the hypothesis testing including the standardized regression weights, standard errors, and critical ratios.

H1: Emotion-Driven Disposition -> Responses

The path between need for variety and affective responses toward eco-fashion clothing (β = 0.058, p = 0.029) is significant. However, the path between fashion interest and affective responses toward eco-fashion clothing is not significant (β = 0.0151, p = 0.546). Hence, H1a is supported, while H1b is not.

Table 22. Structural Model: The Hypothesis Testing and Fit Statistics

Hypothesis	Structural Path	Standardized Regression Weight	Standard Error	Critical Ratio	Result
H1a	Need for Variety --> Affective Responses	0.058	.027	2.188**	supported
H1b	Fashion Interest --> Affective Responses	0.015	.025	0.604	not supported
H2a	Ecological Consciousness --> Cognitive Responses	0.471	.065	7.812***	supported
H2b	Social Consciousness --> Cognitive Responses	0.244	.065	4.025***	supported
H3	Cognitive Responses --> Affective Responses	0.891	.026	31.737 ***	supported
H4a	Affective Responses --> Purchase Intention	0.202	.137	2.160**	supported
H4b	Affective Responses --> Willingness To Pay More	0.274	.165	2.627**	supported
H5a	Cognitive Responses --> Purchase Intention	0.485	.128	5.203***	supported
H5b	Cognitive Responses --> Willingness To Pay More	0.316	.153	3.057**	supported

*** p-value < 0.001
** p-value between 0.001 and 0.1
* p-value between 0.1 and 0.5

H2: Logic-Driven Disposition --> Responses

The path between ecological consciousness and cognitive responses toward eco-fashion clothing ($\beta = 0.471$, $p < 0.001$) and between social consciousness and cognitive responses toward eco-fashion clothing ($\beta = 0.244$, $p < 0.001$) are significant. Thus, H2a and H2b are supported.

H3: Cognitive Responses --> Affective Responses

The path from cognitive responses to affective responses toward eco-fashion clothing ($\beta = 0.891$, $p < 0.001$) is significant. Therefore, H3 is supported.

H4: Affective Responses --> Consumer Behavioral Tendencies

The path between affective responses and purchase intention toward eco-fashion clothing

($\beta = 0.202$, p = 0.031) and between affective responses and willingness to pay more toward eco-

fashion clothing ($\beta = 0.274$, p = 0.009) are significant. Therefore, H4a and H4b are supported.

H5: Cognitive Responses --> Consumer Behavioral Tendencies

The path between cognitive responses and purchase intention toward eco-fashion clothing

($\beta = 0.485$, p < 0.001) and between affective responses and willingness to pay more toward eco-

fashion clothing ($\beta = 0.316$, p = 0.002) are significant. Consequently, H5a and H5b are

supported.

Chapter 5

Discussion of Findings and Implications

The research model developed for this study aimed to provide suggestions on how to effectively promote eco-fashion. Employing the simple information processing model (Bettman, 1979) and cognitive-experiential self-theory (Epstein, 1998), the model in this study explains the relationships among the individual differences (need for variety, fashion interest, ecological consciousness, and social consciousness), responses (affective and cognitive responses toward eco-fashion), and consumer behavior tendencies (purchase intention and willingness to pay more). The findings indicate that consumers' emotion-driven dispositions (need for variety) and logic-driven dispositions (ecological consciousness and social consciousness) positively influence their responses (affective and cognitive responses toward eco-fashion) and eventually their behavior tendencies (purchase intention and willingness to pay more) toward eco-fashion. In addition, cognitive responses have a strong effect on affective responses, and humans' analytical-rational system is more important than their intuitive-experiential system in the eco-fashion context. This chapter discusses the theoretical and implications and ends with a discussion of the study's limitations and future research directions.

Discussion of Findings

Research Model

The specific research objectives of this study were to (1) investigate the effects of consumers' emotion-driven dispositions (fashion interest and need for variety) on their affective responses toward eco-fashion; (2) investigate the effects of consumers' logic-driven dispositions (ecological consciousness and social consciousness) on their cognitive responses toward eco-fashion; (3) explore the effects of consumers' cognitive responses on their affective responses

toward eco-fashion; and (4) explore the effects of consumers' cognitive and affective responses on eco-fashion consumption behavior tendencies (purchase intention and willingness to pay more).
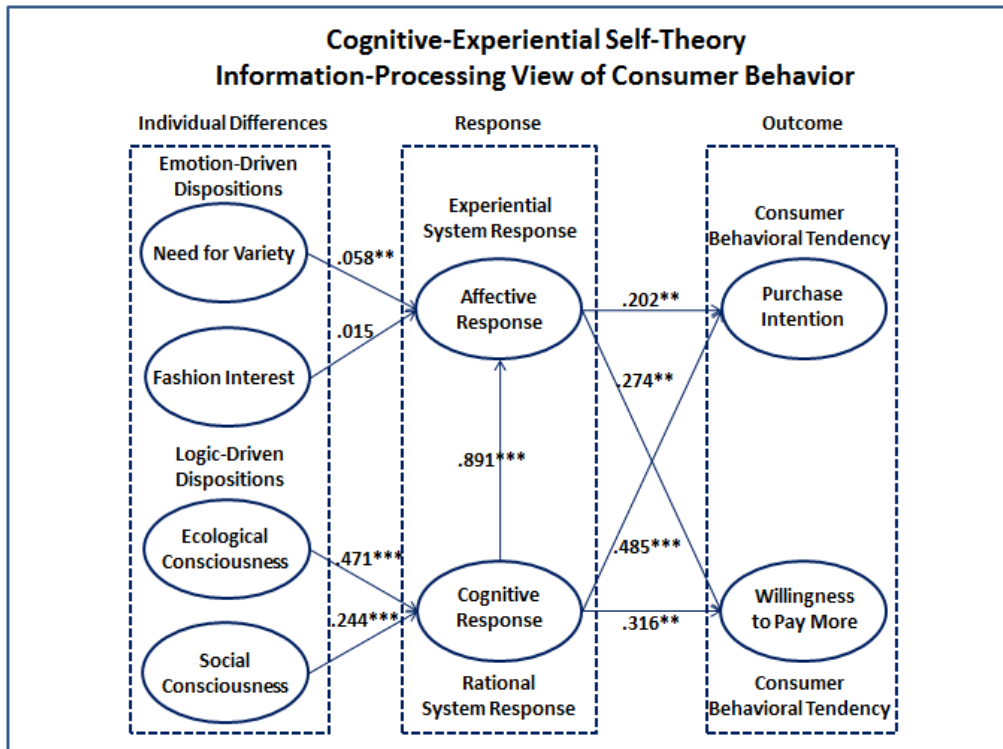
Figure 6. Structure Equation Model of Eco-Fashion Consumption

The Effect of Emotion-Driven Dispositions on Affective Responses

The results shown in Figure 6 indicate that need for variety positively influences consumers' affective responses. Interestingly, consumers' need for variety is an important predictor of their affective responses toward eco-fashion; however, the results do not support the existence of a relationship between consumers' fashion interest and affective responses. Limited

variety in styles and fewer choices with regard to eco-fashion could explain why consumers' fashion interest had no significant impact on their affective responses.

The findings support the conclusion that consumers having a strong need for variety get more pleasure from switching to a new product than from repeating their choices, viewing "different" as "good" and considering "the same" as "bad" (Maimaran & Wheeler, 2008; Ratner, Kahn, & Kahneman, 1999). The variety-seeking behavior is a result of the need for uniqueness, for change and novelty, for resolving the boredom associated with daily routines, for achieving the optional stimulation level, and for maximizing the utility of a product (Ariely & Levav, 2000; Coombs & Avrunin, 1977; Ehrenbur, 1982; Farquhar & Rao, 1976; Faison, 1977; Van-Trijp, Hoyer, & Inman, 1996; Venkatesan, 1973). Therefore, consumers may buy eco-fashion products to satisfy the desire for a change, and need for variety.

The Effect of Logic-Driven Dispositions on Cognitive Responses

The results shown in Figure 6 indicate that ecological consciousness and social consciousness positively influence cognitive responses. Further, ecological consciousness has a stronger impact on cognitive responses than social consciousness does, which indicates that consumers' ecological consciousness is a particularly important predictor of their cognitive responses. The finding that ecological consciousness positively influences cognitive responses supports the notion that a concern for ecology in production enables ecologically conscious consumers to maintain the integrity of their basic beliefs about helping the environment and reducing the environmental impact of production (Epstein, 1998).

The findings also support the conclusion that socially conscious consumers are more likely to respond to products produced in an ethical production system that causes positive impacts on the society (Robert, 1995). The result is also consistent with the findings that socially

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conscious consumers are more likely to respond to eco-fashion positively and elaborate their

cognition as they consider the social benefits of eco-fashion (Robert, 1995). As such, logic-

driven individuals such as ecologically conscious and socially conscious individuals are willing

to engage in conscious processing when they buy eco-products. The cognitive responses toward

eco-products certainly translate into improving the quality of life in society and enhancing

others' lives.

The Effects of Cognitive Responses on Affective Responses

Interestingly, consumers' cognitive responses toward eco-fashion have a very strong

effect on their affective responses. Further, consumers' logic-driven dispositions (ecological

consciousness and social consciousness) have stronger effects on their cognitive responses and

eventually their behavior outcome (purchase intention and willingness to pay more) than the

effect that their emotional-driven dispositions have on their affective responses and behavior

outcome (purchase intention and willingness to pay more). The results imply that humans'

analytical-rational system is more important than the intuitive-experiential system. Moreover,

only emphasizing affective responses to eco-fashion is not enough because emotion-driven

behaviors are typically short in duration (Cohen, Pham, & Andrade, 2008), and individuals

cannot have an emotional reaction to a stimulus without some sort of cognitive appraisal (Yap &

Tong, 2009). In other words, the cognitive-affective response approach is strongly supported.

The finding supports the conclusion individuals develop both cognitive and affective

evaluations in relation to a particular environment (Proshansky, Fabian, & Kaminoff, 1983).

Cognitive responses are produced by logical information processing in response to a stimulus

(Fishbein & Azjen, 1975), whereas affective responses are related to psychologically-

experienced emotional states (Gross, 2013). Moreover, when consumers engage in a cognitive-

affective response approach, their cognitive responses toward eco-fashion can lead to their affective responses of eco-fashion.

The Effects of Affective Responses and Cognitive Responses on Consumer Behavior Tendencies

The results shown in Figure 6 demonstrate that consumers' affective responses and cognitive responses can positively influence their purchase intention toward and willingness to pay more for eco-fashion. Moreover, the cognitive responses represent individuals' thoughts, and consumers' cognitive responses toward eco-fashion have a very strong effect on purchase intention. When consumers make purchase decisions, they are likely to make choices based on cognitive elaboration of information (Epstein, 1993; Leventhal, 1994). For example, environmentally significant information has a positive impact on consumer purchase behavior such as purchase intention and willingness to pay more (Thogersen, 2000).

Individuals differ in their responses to situations such as eco-fashion purchasing, and their behaviors are the result of an interaction between the rational and experiential processing systems (Epstein, 1994). Some consumers engage in intuitive-experiential processes and base their responses on their feelings and affect. Others engage in analytical-rational thinking processes and base their responses on their thoughts and cognition. In other words, the analytical-rational style has a cognitive basis and the intuitive-experiential style has an affective basis (Epstein, 2003). This study proposes that both experiential and rational responses can positively influence their behavioral tendencies for eco-fashion.

Implications

Theoretical Implications

This study integrates the simple information-processing model (Bettman, 1979) and cognitive-experiential self-theory (Epstein, 1998) to delineate the hierarchical structure of individual differences, responses, and consumer behavioral tendencies toward eco-fashion. In the eco-fashion context, an individual is emotionally driven by her need for variety and fashion interests, while she is logically driven by her concerns about environmental and social impacts that are caused by the fashion production process (Bagozzi, Gopinath, and Nyer, 1999). The individual receives a large amount of information daily from the marketer and uses simplifying strategies such as focusing on ethical attributes to process information. The information flows from input to storage and then output (Bettman, 1979). Moreover, the individual's emotions are cognitively based, and her positive feeling of eco-fashion can be encourage by emphasizing cognitive responses of eco-fashion (Compeau, Grewal, and Monroe, 1998; Lazarus, 1991; Lin, 2004).

The model developed for this study has broadened the application of Bettman's simple information processing model and cognitive-affective self-theory. First, the results reveal that affective responses and cognitive responses to eco-fashion are determined by individual differences in need for variety, ecological consciousness, and social consciousness. The results give empirical support for the hypotheses that consumers' need for variety generates affective responses and eventually purchase intention and willingness to pay more for eco-fashion. Further, consumers' ecological consciousness and social consciousness generate cognitive responses and, eventually, purchase intention and willingness to pay more for eco-fashion. Consumers' cognitive responses positively influence their affective responses.

Second, the results provide empirical evidence of the cognitive-affective response approach in an eco-fashion context. In an eco-fashion consumption context, emphasizing the affective responses of eco-fashion is not enough because emotion-driven behaviors are typically short in duration (Cohen, Pham, & Andrade, 2008) and emphasizing the cognitive responses is very important because the cognitive responses toward eco-fashion can lead to positive affective responses.

Moreover, when consumers doubt about the ecological and social benefits of eco-fashion, when they view the eco-fashion as pricy, and when they consider that eco-fashion products do not meet their aesthetic needs, they may feel cognitive dissonance that is the discomfort caused by contradictory beliefs or ideas and relates to a situation involving conflicting attitudes, beliefs, or behaviors (Armstrong & Kotler, 2013). However, when consumers' behaviors are driven by logic thinking, their cognitive dissonance can be reduced because consumers' logic thinking can lead to their favorable feelings toward eco-fashion and reduce their discomfort about eco-fashion's high price and the lack of aesthetic design.

In summary, the IPO and CEST provide strong explanations for eco-fashion consumption behavior and fill a gap in the literature by applying the information-processing model to the eco-fashion consumption context. Specifically, this study examines how an individual responds to eco-fashion information by applying the IPO and CEST to achieve an understanding of the hierarchical relationships among individual differences, experiential and rational system responses, and consumer behavior tendencies.

Practical Implications

This study has offered several contributions that can benefit eco-fashion designers and manufacturers who want to design and produce the right products for consumers as well as

marketers that want to promote eco-fashion effectively. To effectively promote eco-fashion, marketers can encourage consumers' desire for variety by emphasizing the innovative attributes of eco-fashion offerings and diversifying the styles and designs of eco-fashion to enhance consumers' affective responses. Because consumers' ecological consciousness is a particularly important predictor of their cognitive responses, marketers can advertise ecological attributes of eco-fashion such as low impact dyes to enhance consumers' cognitive responses. Because consumers' rational system is more important than their experiential system in the eco-fashion context, marketers can engage consumers to think about ways to improve the quality of life in society, to enhance others' lives, and to encourage consumers to carefully process eco-fashion information. The positive cognitive responses can eventually enhance their affective responses because consumers' cognitive responses have a very strong effect on their affective responses.

Practical Implications: From Emotion-Driven Dispositions to Affective Responses

Individuals' need for variety motivates them to make choices different from those of others (Ariely & Levav, 2000). Specifically, innovative attributes of eco-fashion such as corn fiber, biodegradable or renewable materials, and vegetable tanned organic leather can meet consumers' needs to try out new or different products.

Designers must understand consumers' need for variety in relation to eco-fashion and use innovative and environmental friendly materials to design clothing and to satisfy consumers' variety needs. For example, Mademoiselle Chi Chi is a fashion clothing line made with Qmilch that is a 100% natural and renewable fiber created from milk protein. The innovative features of eco-fashion can satisfy consumers' need for uniqueness and their need for change, and consumers believe that they can get more pleasure by wearing eco-fashion products (Abraham, 2011).

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Also, designers can use disposed products to design a new product to satisfy consumers' need for novelty. For example, Teijin, a Japanese polyester supplier, offers Ecocycle chemical recycling program for apparel and uses worn and unfashionable clothes to make fashion apparel (NordicFashionAssociation, 2016). This innovative way of combining fashion apparel and a solution to the growing problem of disposing worn and unfashionable clothes makes Teijin Ecocyle a green fashion and meets consumers' desire for variety and curiosity to experience the unknown. When consumers buy eco-fashion made from Teijin's polyester, they support the meaningful environmental program and fulfill their desire for a variety of new life experiences.

In addition, designers and manufacturers can engage consumers to learn what innovative attributes they expect from eco-fashion. For example, designers and manufacturers can consider holding eco-fashion story telling contests in virtual communities. Virtual communities on social networks are the best place for consumers to interact with designers. By learning stories about the features that consumers desire in eco-fashion, designers and manufacturers can diversify the designs and styles of eco-fashion to satisfy consumers' curiosity and reduce their boredom associated with daily routines or a well-known product or brand (Chua, 2013).

Practical Implications: From Logic-Driven Dispositions to Cognitive Responses

Consumers' logic-driven dispositions have stronger effects on their cognitive responses and eventually their behavior outcome compared to the effects that their emotional-driven disposition have on their affective responses. The results imply that humans' rational system is more important than the emotional system. Some consumers care about the environment, and they buy eco-products, based upon their personal consumption decisions on the product's sustainability, and alter their behaviors in accordance with their green beliefs (Cho, Thyroff, Rapert, Part, & Lee, 2013). Others care about social problems such as forced labor, low wages,

excessive hours of work, discrimination, and health and safety hazards in the workplace and take active roles within their communities for social, political, and charitable causes (Kozer & Connel, 2012). Thus, manufactures, designers, and retailers must understand and satisfy consumers' ecological and social concerns regarding eco-fashion to encourage their cognitive responses. For example, Gaia Conceptions in Greensboro, NC produces and sells women's clothing dyed with natural materials or with less water and having a lower impact on the environment (Busfield, 2014). The ecological and social attributes of eco-fashion such as being made in USA and having less environmental impact can satisfy consumers' ecological and social concerns to provide better living conditions for other people, to support local business, and to live up to their altruistic values of equality and social justice (Jägel et al., 2012). In other words, eco-minded consumers have green beliefs and are willing to follow ethical standards. They like to consume products and services that have a positive impact on the environment and the society.

Designers, manufactures, and retailers can help consumers to recognize the raw materials, to understand the production processes of eco-fashion, and to engage consumers' consciousness processing to think about ways to improve the quality of life in society and others' lives. Specifically, an online video developed by a manufacturer and containing information on the production processes of eco-fashion can be placed on a manufacturer's or retailer's website or on YouTube so that the company can interact with consumers and share product messages with consumers. For example, to help consumers to learn about the environmental and social benefits of eco-fashion, Patagonia, a retailer with a long history of being eco-friendly, recently posted a men's eco-fashion video, which introduces information about the materials and the production processes used for men's eco-fashion, on YouTube (YouTube, 2014). Further, retailers can use flyers with inspiring messages highlighting the ethical features of their products, and

manufacturers can use social advertising highlighting their policies such as no use of child labor, no wasteful consumption, or no water pollution to attract ecological and social consumers' attention and interest.

Practical Implications: From Cognitive Responses to Affective Responses

Individuals develop both cognitive and affective evaluations in relation to a particular environment (Proshansky, Fabian, & Kaminoff, 1983). Some researchers have argued that cognition precedes affective reactions (Lazarus, 1984; Oliver, 1980, 1981; Compeau, Grewal, & Monroe; 1998). To effectively promote eco-fashion, marketers should encourage consumers' cognitive responses toward eco-fashion by demonstrating the social benefits and ethical attributes of eco-fashion because consumers' cognitive responses have a very strong effect on their affective responses.

A practical solution to enhance consumers' cognitive responses is to encourage social gatherings such as clubs or social organizations where manufacturers and retailers can interact with consumers, tell them about the ethical attributes of eco-fashion such as made in USA, and develop product connections with them. This is a way to create a place for consumers to gather together, to share information about the environmental and social benefits of eco-fashion, and to discuss their experiences with eco-fashion. For example, Nike has developed local running clubs, online memberships, and online communities to introduce its Flyknit technology, which is a sustainable innovation used in its shoes (NIKE news, 2012). Nike seeks to influence consumers' responses toward its eco-products through its running clubs, the company's website, or social media sites.

Also, retailers can encourage their sales associates in brick and mortar stores to actively introduce the eco-fashion items carried in the store along with the ethical and social benefits to

consumers to enhance their cognitive responses. In this way, consumers may develop an interest in knowing more about eco-fashion and may become involved in eco-fashion.

Moreover, manufactures and retailers can publicize different eco-fashion items with symbols indicating features such as the use of fair trade certified cotton or certified organic cotton, being made in the USA, or using low impact dyes in magazines and on websites or social media to help consumers identify the eco-symbols and to inform them about the benefits and the variety choices available in eco-fashion. In addition, retailers and manufacturers can engage in public relation efforts such as eco-fashion shows on television or in shopping malls and eco-fashion conferences or events to effectively inform consumers about eco-fashion and its benefits.

Advertising, sales promotion, personal selling, public relation, and direct and digital marketing are five major promotion tools and can be used separately or mixed to promote eco-fashion. In other words, marketers can use traditional media (TV, radio, and magazines), new media (internet and social network), sales promotion, personal selling, and public relationships (at conferences and events) to generate strong positive affective responses and to effectively promote eco-fashion purchasing. This may be a particularly effective way because promoting products on traditional media such as TV and radio is expensive and a large amount of advertising information clusters together on TV and radio.

For example, retailers, manufacturers, or designers can sign up on Instagram or register on Flickr to post new eco-fashion pictures with brief information on their products' ecological and social attributes. Ecouterre, a website devoted to the sustainable design of fashion products, publishes photo essays on Instagram to emphasize innovative features of products and to encourage consumers to share their stories and experiences about eco-fashion (Chua, 2016). When consumers participate in web communication and learn about the variety of styles, the raw

materials, and the production processes involved in eco-fashion, their cognitive responses toward eco-fashion can lead to their positive feeling toward eco-fashion. Specifically, consumers' cognitive-experiential responses may be generated as they process "word of web" (word of mouth on the web) and become aware of the varied features of eco-fashion.

Limitations and Future Research

This study has some limitations that lead to recommendations for future studies. First, the focus group interview participants were nine undergraduate students in the Department of Retail, Hospitality, and Tourism Management at the University of Tennessee. All nine participants were females. The responses are gender biased. Although the researcher asked all nine participants to think from the perspectives of male members in the family such as their brothers, fathers, grandfathers, or boyfriends, the gender-based biases may still exist. Second, the CEST was applied to the current study through the incorporation of individual differences as consumer inputs. However, consumer inputs such as search activity and environmental inputs may have led to particular kinds of responses. Thus, conductors of future studies may wish to employ different consumer inputs such as search activity or type of involvement and environmental inputs such as advertising. Third, the proposed model was tested in the eco-fashion context. Caution must be exercised when generalizing these findings to other types of eco-products such office supplies or accessories.

Future studies can consider other retail categories such as consumer products (laundry detergents or soaps) and sustainable packaging of luxury goods (Tiffany or Gucci) that may entail responses different from those related to eco-fashion. Further, the lack of support for one of the proposed hypotheses suggests a direction for future research. In particular, this study failed to find a relationship between fashion interest and affective responses. The absence of a

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relationship between fashion interest and affective responses may be explained by the lack of fashion sense in relation to eco-fashion. Future investigation should include a large number of fashion oriented clothing pictures as visual stimuli.

Fourth, this study employed a self-report survey method whereby respondents were asked to look at stimuli (eight eco-fashion pictures) and answer survey questions, based on the limited number of eco-fashion pictures. To allow participants to have a comprehensive view of eco-fashion, future research could show a short video with audio and visual images of different companies' eco-fashion product lines.

Conclusions

The findings demonstrate that the model developed for this study can broaden the application of the IOP model and CEST by revealing the hierarchical relationship among individual differences and responses and consumer behavioral tendencies in the eco-fashion context. The results indicate that consumers' need for variety is an important predictor of their affective responses toward eco-fashion and consumers' ecological consciousness has a stronger impact on cognitive responses than social consciousness does. Interestingly, the analytical-rational system is more important than the intuitive-experiential system in the eco-fashion context, and the cognitive-affective response approach is strongly supported in the eco-fashion context. When consumers engage in a cognitive-affective response approach, their cognitive dissonance is reconciled because consumers' cognitive responses have a very strong effect on their affective responses. Further, consumers' affective responses and cognitive responses positively influence their purchase intention toward and willingness to pay more for eco-fashion. Based on the results obtained in the study, ways used to effectively promote eco-fashion have been

suggested for designers who want to design the right products for consumers as well as

manufacturers and retailers who want to promote eco-fashion effectively.

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Appendices

Appendix I Questions for the Focus Group

Questions for a Focus Group on eco-fashion:

Process

By displaying male and female eco-fashion images with different styles such as shirt, T-shirt, sweater, fleece, jacket, and jeans to participants, they are asked following exploration questions. (Eco-fashion images with are from Patagonia, People Tree, Loomstate, and Soul Flower.)

Exploration Questions:

1. What eco-fashion mean to you?

2. What do you think about those eco-fashion images?

3. What do you feel about those eco-fashion images?

4. Which images could better describe/represent female eco-fashion?

5. Which images could better describe/represent male eco-fashion?

6. What do you notice when you look at those eco-fashion images?

7. Which products could be frequently purchased female eco-fashion? Why?

8. Which products could be frequently purchased male eco-fashion? Why?

9. Which age ranges would fit those female and male eco-fashions?

Extra Question

1. Is there anything else you would like to say about eco-fashion?

Eco-fashion images (eight female images and eight make images)

Appendix II Questions Used to Verify Responses toward Visual Stimuli

Eco-fashion refers to clothing designed for long lifetime use and produced in an ethical production system and causes little or no environmental impact. It is made with biodegradable or recycled materials such as corn fiber and environmentally responsible processes such as dyed in the natural dyes. Please look at pictures and then answer following questions.

	Question
1	Eco-fashion is comfortable.
2	Eco-fashion is good.
3	Eco-fashion is likable.
4	Eco-fashion is enjoyable.
5	Eco-fashion is nice-looking.
6	Eco-fashion is pleasing.
7	Eco-fashion is attractive.
8	Eco-fashion is beneficial.
9	Eco-fashion is a wise choice.
10	Eco-fashion is useful.
11	Eco-fashion is valuable.
12	Eco-fashion is fresh.
13	Eco-fashion is positive.
14	Eco-fashion is nice.
15	Eco-fashion is original.
16	Eco-fashion is high quality.
17	Eco-fashion is refreshing.

Appendix III Original Scale Items and Modified Scale Items for Pretest

Variables	Original Scale Items	Reliability / Factor Loading	Source	Modified (Pretest) Scale Items
Need for variety	When things get boring, I like to find some new and unfamiliar experience.	0.79	Baumgarner & Steenkamp (1996); Trijp, Hoyer, Inman (1996); Desai & Trivedi (2014)	When things get boring, I like to find some new and unfamiliar experience.
	I would rather stick with a brand I usually buy than try something I am not very sure of. ®			I would rather stick with a brand I usually buy than try something I am not very sure of. ®
	If I like a brand, I rarely switch from it just to try something different. ®			If I like a brand, I rarely switch from it just to try something different. ®
	I am very cautious in trying new or different products			I am very curious in trying new or different products.
Fashion clothing involvement	Fashion Clothing means a lot to me	Factor loading between 0.81 and 0.92	O'Cass (2000, 2001)	Fashion Clothing means a lot to me
	Fashion Clothing is a significant part of my life			Fashion Clothing is a significant part of my life
	I am very interested in Fashion Clothing.			I am very interested in Fashion Clothing.
	Fashion Clothing is important to me			I think about fashion clothing a lot.
	I am very much involved in/with Fashion Clothing.			I am very much involved in/with Fashion Clothing.
	Fashion Clothing is an important part of my life.			
Ecological Consciousness	To what degree do you value taking care of the environment?	0.89	Peloza, White, & Shang (2013)	It is important to take care of the environment
	How much do you value making environmentally sustainable choices?			I try to make environmentally sustainable choices.
	To what degree do you value conserving your natural resources?			Everyone should make an effort to conserve our natural resources.
	To what degree do you think it is important to consider our impact on the environment?			I often consider the impact we make on the environment.
Social Consciousness	___is a socially responsible person	0.88/0.9	Wagner, Lutz, and Weitz (2009)	I am a socially responsible person
	___is concerned to improve the well-being of society			I am concerned to improve the well-being of society
	___follows high ethical standards			I follow high ethical standards
Affective Responses	Comfortable	0.72/0.89	Moorman, Neijens, & Smit (2002); Zhou & Somn (2003)	Eco-fashion is comfortable
	Feeling good			Eco-fashion is good
	Happy			Eco-fashion is likable
	Very little pleasure / a lot of pleasure			Eco-fashion is enjoyable
	Very little joy / a lot of joy			Eco-fashion is nice-looking
	Very little delight / a lot of delight			Eco-fashion is pleasing
	Very little ecstasy / a lot of ecstasy			Eco-fashion is attractive

	Harmful/beneficial		Shiv & Fedorikhin (1988); Wilcox, Kramer, & Sen (2011)	Eco-fashion is beneficial
Cognitive Responses	Not good/good	0.88/0.93		Eco-fashion is nice
	A foolish choice/a wise choice			Eco-fashion is positive
	Useless/useful			Eco-fashion is high quality
	Easy to comprehend / Difficult to comprehend			Eco-fashion is a wise choice
	Not easy to imagine / Easy to imagine			Eco-fashion is useful
	Required little attention / Required a lot of attention			Eco-fashion is valuable
Willingness to pay a premium	I am willing to pay a premium for clothing that is produced in accordance with the sustainable garment production standard	Factor loading between 0.76 and 0.90	D'Souza, Gilmore, Hartmann, Ibanez, & Sullivan-Mort (2014); Shen, Wang, Lo, & Shum (2012)	I am willing to pay a premium for clothing that is produced in accordance with the sustainable garment production standard
	It is still worthwhile to support eco-friendly apparel even if I have to forgo some clothing options			It is still worthwhile to support eco-friendly apparel even if I have to forgo some clothing options
	I would rather spend my money on sustainable clothes more than anything else			I would rather spend my money on sustainable clothes more than anything else
	I prefer to purchase eco-clothing even if it is somewhat more expensive			I prefer to purchase eco-clothing even if it is somewhat more expensive
	I would pay a premium for certified sustainable clothing			I would pay a premium for certified sustainable clothing
Purchase intention	I'm likely to make a purchase	0.73	Rodgers (2004)	I would like to make a purchase toward eco-fashion
	I would like to have more information			I would like to have more information about eco-fashion
	I'm interested in ___			I'm interested in eco-fashion

Vita

Wei Fu was born in Kunming, which is located in southwest of China and is also called the Spring City because of its weather. She graduated from Kunming University of Science and Technology in 1998. She received a Bachelor of Sciences in Computer Engineering and Application from the Kunming University of Science and Technology. After she graduated, Wei worked in Kunming for four years. Then she went to United States with her husband and received a Master of Sciences degree in Accounting from East Tennessee State University (ETSU), Johnson City. She began her doctoral degree studies at the University of Tennessee in 2011. In the course of her doctoral studies, she was awarded the ESPN Award, the Dean's Graduate Research Award, and the Ida A. Anders Scholarship in addition to a graduate teaching assistantship from the College of Education, Health, and Human Sciences. She received the Paper of Distinction Award at the International Textile and Apparel Association conference. Her research interests include information process systems, Chinese-inspired products, societal marketing, and hedonic consumption experiences. She has published her research in several peer-reviewed journals including the Journal of Product and Brand Management (JPBM), the International Marketing Review (IMR), and the International Journal of Marketing Studies (IJMS).