

The Influence of Product-brand Fit and Product-category Fit on Product Attitude and Purchase Intention: The Role of Brand Strength and Processing Fluency

by

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Abstract

Brand extension is a common branding strategy employed by many companies to apply an established strong brand name to a newly developed product in the hope of transferring the affect associated with the strong brand image to the new product. However, brand extension may not always result in favorable outcomes for the parent brand. This study investigates the influence of two critical components of brand extension strategy, product-brand fit (i.e. the extent to which a product design is congruent with the brand image) and product-category fit (i.e. the degree to which a product is prototypical of a product category) on the formation of consumers' product attitudes and purchase intentions. The study importantly examines the underlying mechanisms for attitude formation toward new products through the mediation of processing fluency (including conceptual fluency and perceptual fluency) and the moderation of brand strength. ANCOVA and SEM were used to test the hypotheses. Results show that product-brand fit and product-category fit exert positive effects on extension product attitude, which in turn, positively influence purchase intention for the extension product. The measures of processing fluency did not mediate the impacts of product-brand fit and product-category fit on extension product attitude in the current study. Results also show that the influence of product-category fit on extension product attitude is greater for weak brand than for strong brand. The study offers important theoretical, methodological, and marketing insights. Limitation and suggestions for future research are also discussed.

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CHAPTER 1. INTRODUCTION

Brand extension is a common branding strategy employed by many companies (Hoffman, 2006) to apply an established strong brand name to a newly developed product or service in the hope of transferring the affect associated with the strong brand image to the new product (Keller, 1993). The perceived similarity of the parent brand and the extension product influences the evaluation of the extension product (Feldman & Lynch, 1988). Consistent with the affect transfer model (Fiske, 1982), when the perceived similarity of the parent brand and the extension is high, consumers are more likely to evaluate the extension based on their attitudes toward the parent brand. These evaluations in relation to core brand associations may be based on intrinsic attributes such as product color, shape, texture, and fashionability as well as extrinsic attributes such as price, product packaging, brand, and user imagery (Olson & Jacoby, 1972).

Brand extension researchers have focused on consumers' evaluation of extensions based on perceived fit between parent brand and extension (Aaker & Keller, 1990), feedback effect of the extension brand toward the parent brand (Thorbjørnsen, 2005), dilution effect (Loken & John, 1993), cultural differences in brand extension (Monga & John, 2007), and the relatively new phenomenon of co-branding (Walchli, 2007). Aaker and Keller (1990) addressed the fit between the original product category and the extension product category. Thorbjørnsen (2005) examined the effect of congruent and incongruent brand extensions on consumers' evaluation of the extension product and the parent brand (feedback effect) and found that consumer's response to the parent brand after (versus before) the extension is more positive when the extension has a

congruent concept with the parent brand. When the attributes of the brand extension are inconsistent with those of the parent brand, parent brand equity will be diluted (Loken & John, 1993). The effect of concept congruity between brand partners on consumer's product evaluation was studied by Walchli (2007) and consumer's involvement was found to moderate the effect of between partners congruity on product evaluation.

Idea generation is crucial in product design and new product marketing (Toubia, 2006). Product designers crave creativity in the idea generation stage of their design process. However, placing an over-emphasis on product creativity and/or innovation, and overlooking the consistency of the new innovation with the brand's image may adversely influence the ease of relating the new product to the existing brand and cause confusion in the consumer's mind (Gray, 2006). In addition to the consistency between the new innovation and the brand's image, the prototypicality of a product to its category also influences the ease of identifying a product (Nedungadi & Hutchinson, 1985). Confusion generated from difficulty in identifying an extension product may adversely influence consumer's attitude toward the product. Therefore, it is important that the innovation and design of the extension stay within the framework of the brand image and/or product category to enhance congruency with brand image and prototypicality to product category. Processing fluency theory postulates that a person's attitude toward a product is influenced by the ease with which he or she identifies and recognizes the product. The more fluently the consumers process an object, the more positive their aesthetic pleasure will be. The ease of processing a product will lead to faster processing time and this should positively influence consumer's attitude toward the product and behavioral intention with respect to the product.

Problem Statement

Despite the prevalent utilization of brand extension in marketing strategy and brand extension research, the domain of product-brand fit and product-category fit has been left largely unexamined. Product-brand fit is defined in this research as the extent to which product design of an extension product is congruent with the parent brand image. This construct is different from the perceived fit between parent brand and extension explored by Aaker and Keller (1990) who investigated the fit between the original product category and the extension product category. Fit between the extension product image and the parent brand image, the topic of the current investigation, is an important construct because it is found to impact parent brand belief (Loken & John, 1993) and has been advanced as an important factor influencing consumer responses toward the extension (Keller & Aaker, 1992; Feldman & Lynch, 1988; Fiske, 1982; Park, Milberg, & Lawson, 1991).

Product-category fit is defined in the present research as the degree to which an extension product is prototypical of its category exemplar. Prototypicality is an important construct to study because aesthetic researchers have found that a product or shape will be liked more if it is prototypical to its category (Nedungadi & Hutchinson, 1985; Veryzer & Hutchinson, 1998). But, none of the published brand extension research has explored the prototypicality of an extension product to the extension product category. This study proposes to extend this stream of research to examine whether the effect of prototypicality on consumers' favorability occurs in the context of brand extension.

Purpose

Clearly, research on product-brand fit and product-category fit is lacking in brand extension literature. This study attempts to address this void and contribute to the literature investigating the impact of product-brand fit and product-category fit on consumer's product attitude and behavioral intention, as well as provide insight regarding the underlying mechanism for these effects. In addition, this study takes a further step to include brand strength as a moderating variable to address the differential effects that product-brand fit and product-category fit assert on strong versus weak brands. Hence, the overarching purpose of this study is to systematically examine the roles of product-brand fit and product-category fit on consumer's product attitude and purchase intention for the brand extension. As part of this goal, this study attempts to answer the following research questions: (1) What are the impacts of product-brand fit and product-category fit on consumers' attitudes and purchase intentions for an extension product? (2) Is processing fluency the underlying mechanism for the effects of product-brand fit and product-category fit on consumer's attitude and purchase intention? (3) Does brand strength moderate the impacts of product-brand fit and product-category fit on consumer's product attitude and purchase intention?

This study utilizes processing fluency theory to investigate the mechanism through which the fit variables influence consumer's product attitude and purchase intention. Processing fluency theory is an emerging theory that has captured attention in the area of aesthetics research (Reber, Schwarz, & Winkielman, 2004) and advertising research (Lee & Labroo, 2004; Labroo & Lee, 2006). The theory postulates that the more fluently a person identifies and recognizes an object, the more positive his or her attitude toward the product (Jacoby & Dallas, 1981). Processing fluency includes conceptual fluency and perceptual fluency. Conceptual fluency is the ease with

which a person mentally processes the meaning of a stimulus (Whittlesea, 1993; Winkielman, Schwarz, Fazendeiro, & Reber, 2003). Perceptual fluency is related to an object's perceptual features and is influenced by physical attributes (Jacoby & Dallas, 1981). Product attitude elicits a favorable or unfavorable evaluation of a given object (Fishbein & Ajzen, 1975) and serves as a major determinant of a person's intention to perform behavior with respect to the object (Ajzen & Fishbein, 1980). Purchase intention is one of the most important variables for marketers (Berkowitz, 1987) because it is predictive of a person's actual behavior (e.g. purchase, usage). Therefore, purchase intention will be measured in the current study as an outcome variable. So, this research will examine the direct impact of product-brand fit and product-category fit on consumer's product attitude, which in turn influences purchase intention, as well as the mediating effect of processing fluency, and the moderating effect of brand strength (see Figure 1.1 for the conceptual model of the study).

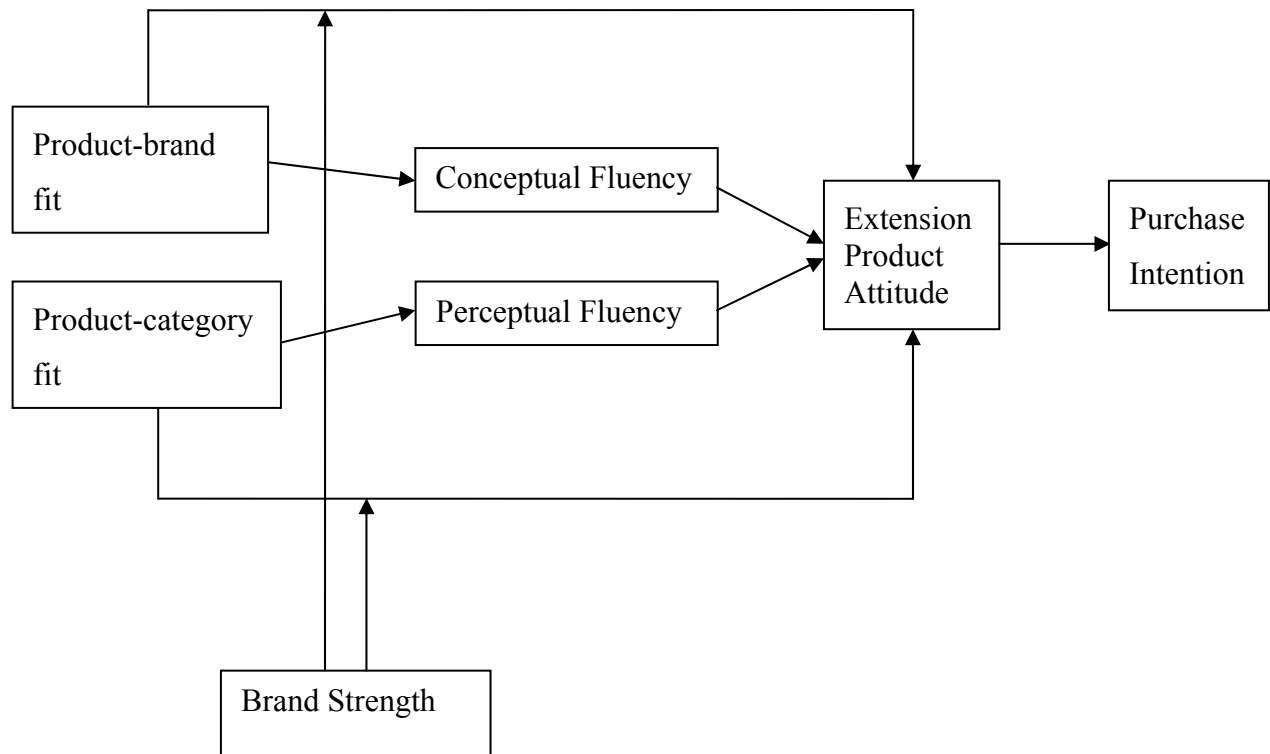


Figure 1.1. The impact of product-brand fit and product-category fit on product attitude through the mediating effect of processing fluency and the moderating role of brand strength.

Significance of the Study

The impact of product-brand fit (the fit between the extension product design and the parent brand image) and product-category fit (the fit between the extension product and its category exemplar) on consumer's processing fluency and product attitude has not been explored in the literature. This research provides theoretical implications for the literature in branding, product design, and marketing by examining the impact of product-brand fit and product-category fit on product attitude and purchase intention. In particular, this study extends processing fluency theory to the brand extension context and contributes to the knowledge of

how product design shapes consumers' purchase intentions. Furthermore, current study utilized visual stimuli as opposed to verbal stimuli that have been used in the majority of the brand extension research. In order to accomplish the goal of this study, it is essential to use visual stimuli in the experiment because product-brand fit and product-category fit entail both conceptual and perceptual components and pictorial stimuli represent a better mimicry of real life situations where consumers encounter a product in stores or through advertisements and provide necessary information for both conceptual and perceptual processing. Moreover, the process of transformation of verbal cues into visual representation in the mind of the consumer may introduce error in processing and influence the outcome. Thus, the use of visual stimuli eliminates this potential confound and results in a more accurate outcome of the experimental manipulations.

The findings from this study can provide managerial implications for marketers and brand managers in terms of their brand and product extension decisions and provide designers with greater insight into how product design influences evaluation of extension products in a brand extension strategy. For example, can an extension be congruent with the core brand image but incongruent with new product category? If so, how does this impact product attitude and purchase intention? Also, the findings of this research may provide implications to different brands. For instance, does the fit between the extension product and its product category have a greater impact on consumers' product attitudes for weak brands than for strong brands? If so, product designers and brand managers for weak brands (versus strong brands) may implement different criteria in designing and selecting their extension products.

Conceptual Definition of Constructs

Brand extension: A strategy that applies an established strong brand name to a newly developed product or service in the hope of transferring the affect associated with the strong brand image to the new product (Keller, 1993) in order to increase consumers' acceptance of the new product.

Brand strength: The strength of associations and awareness that a brand has in the consumer's mind and the attitude a consumer holds in regard to the brand (Aaker, 1996; Page & Herr, 2002).

Conceptual fluency: The ease with which an object comes to mind and pertains to the processing of meanings (Hamann, 1990).

Perceptual fluency: The ease with which consumers identify an object on subsequent encounters and involves the processing of physical features (Jacoby & Dallas, 1981).

Processing fluency: The ease with which consumers process an object and recognize it (Jacoby & Dallas, 1981; Reber, et al., 2004).

Product attitude: "A learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (Fishbein & Ajzen, 1975, p. 6).

Product-brand fit: The extent to which an extension product design is congruent with the parent brand image. That is, the level of prototypicality of the design to its brand image.

Product-category fit: The degree to which an extension product resembles its category exemplar. That is, the level of prototypicality of the design to its product category.

Purchase intention: A person's conscious plan to exert effort to purchase a product (Spears & Singh, 2004).

CHAPTER 2. LITERATURE REVIEW

This chapter presents a review of literature that is related to the present study and a conceptual background of the study. The chapter starts with a review of the existing literature on brand and brand extension, followed by a discussion on brand and product categorization and prototypicality literature where product-brand fit and product-category fit will be introduced. Next, the effect of product-brand fit on product attitude and the effect of product-category fit on product attitude will be discussed. The moderating role of brand strength will then be brought in the discussion, followed by the mediating effect of processing fluency. Finally, the impact of product attitude on purchase intention will be addressed. The hypotheses will be presented within the literature review after the discussion of related constructs.

Brand

A brand is “a name, term, sign, symbol, or design, or a combination of them which is intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitors” (Kotler, 1991, p. 442). This classic definition of brand suggests that a brand is a separate component of the product or service (Aaker, 1991; Kotler, 1991). One can measure the effect of a brand when comparing the added value of a branded product with an unbranded product, and this procedure is widely used in measuring brand equity for managerial purposes (Vazquez, del Rio, & Iglesias, 2002).

The brand name, logo, and symbol constitute brand identities (Keller, 1993). These brand identities and the brand’s product or service can also be viewed as a whole that forms

consumers' overall perceptions of a brand. From this holistic view of brand, researchers argue that a brand is perceived as a whole in which both the brand and its product or service forms the consumers' overall impression of the brand (Dichter, 1985; Keller, 1993). In other words, the total impression of the brand in one's mind stems from his or her overall experience with the brand's product or service. Consistent with the holistic view of brand, the present study conceptualizes brand and product as inseparable because it is difficult for consumers to distinguish product attributes from brand attributes given that both jointly influence consumer's experience and perception of the branded product.

According to Keller (1993), brand knowledge consists of brand awareness (consumer's ability to recall and recognize the brand) and brand image (influenced by the favorability, strength, and uniqueness of the brand associations in consumer memory). To better understand consumers' brand knowledge, it is necessary to understand memory formation. According to the "associative network memory model", memory is formed by links and nodes. Nodes are "stored information connected by links that vary in strength" (Keller, 1993, p. 2). When a node is activated either from an external source or internal source, the other nodes that link to the activated node might also be retrieved. The extent of nodes activation or the amount of nodes that are retrieved depends on the strength of the source. The quality and amount of the information processed during encoding may influence the strength of brand associations (Keller, 1993). If the retrieval source is strong, then an extensive amount of nodes linked to it will be retrieved from the memory.

In the branding context, brand knowledge can be thought of as a brand node that is linked with a variety of association nodes in the memory. These association nodes underlie the formation of brand awareness and brand image which affect consumer responses to a particular

brand. Brand awareness and brand image are affected by relationships among and characteristics of the associations of that particular brand as well as other related associations such as contextual associations. For example, for a strong brand such as Coca-Cola, the memory nodes that might be retrieved are soft drink, sugar, caffeine, cool, thirst quencher, classic and diet. One may also recall advertisements or past product experiences (Keller, 1993). A consumer may retrieve memory nodes of drinking a can of cold Coca-cola on a hot summer day. All these associations with Coca-Cola will affect consumer responses toward the brand.

Building strong brands is a long term endeavor for most marketers. A strong brand is characterized by high level of brand awareness among its target market, high perceived quality, loyal customers, and strong, favorable, and unique brand associations (Aaker, 1996). Brand strength is defined in the present study as the strength of associations and awareness that a brand has in the consumer's mind and the attitude a consumer holds toward the brand (Aaker, 1996; Page & Herr, 2002). Brand awareness, the consumer's ability to recall and recognize the brand (Keller, 1993), is highly related to consumers' familiarity with the brand. The favorability, strength, and uniqueness of the brand associations in consumer memory influence brand image. Therefore, a strong brand has strong, unique, and favorable brand image and enjoys high level of brand awareness among consumers. On the contrary, a weak brand does not have a well established brand image in the consumer's mind, thus consumers' brand awareness is lower, and brand associations are less favorable and less unique compared to those of a strong brand.

Marketers often use existing brand names for the introduction of new product lines in another category with the hope of leveraging the familiarity and image of the strong brand name to increase consumers' acceptance of new product lines. This strategy, referred to as brand extension, is widely used by marketers in a variety of consumer products. For examples, Arm

and Hammer, a brand that is well known for baking soda, introduced toothpaste under the same brand name; Victoria's Secret, a brand famous for lingerie, introduced beauty products such as cosmetics, body care and hair care products under its brand label.

Brand Extension

Brand extension may be defined as attaching a newly developed product or service to an established strong brand name in the hope of transferring the affect associated with the strong brand image to the new product (Boush & Loken, 1991; Keller, 1993). Brand extensions may include new product concept extension and product category extension (Sheinin & Schmitt, 1994). Product concept extension involves new product concept development (i.e. develop products that incorporate new attributes that are not previously associated with the category) in order to achieve an attribute-based competitive advantage in the extension category (Sheinin & Schmitt, 1994). Product category extension, which is the focus of this study, involves extending to a new product category that fits the characteristics of the core brand (Aaker & Keller, 1990). 'Fit' in the context of brand extension refers to "the degree of membership of the extension in the product category implied by the core brand" (Hadjicharalambous, 2006, p. 376). As an example of a product category extension, a product line of coffee mugs will fit Starbucks core brand image because Starbucks sells coffee.

Brand extension can facilitate acceptance of new products by generating greater brand awareness due to the existence of brand nodes in consumers' memories. Consumers need only to establish the link between the brand node and the new product extension. Favorable brand image can be used as a heuristic cue indicating quality of the new product in a buying decision

(Wernerfelt, 1988) and this favorable quality inference reduces the perceived risk and increases advertising efficiency (Smith & Park, 1992).

Despite the various advantages of brand extension for marketers, caution is necessary as brand extensions may not always be successful. For example, Levi's, a jeans brand, attempted to introduce business suits in the 80's. However, since suit is not consistent with the jeans image, the brand extension resulted in big loss for the company. If the brand extension is not well managed, it may also harm the core brand image (Ries & Trout, 1986). This weakening effect of the existing brand associations, the dilution effect (Aaker, 1990), may occur when there is inconsistency between the attributes of the brand extension and those of the parent brand. In this case, parent brand equity will be 'diluted' (Loken & John, 1993). When there is too much difference between the parent brand image and the extension product, for example, a symbolic brand extends to functional product, cognitive dissonance may occur. Thorbjørnsen (2005) observed negative feedback effects for incongruent extensions. Thorbjørnsen (2005) operationalized brand concept congruency by introducing a symbolic and a functional product (i.e. ring and calculator, respectively) as the extensions of symbolic (e.g. Rolex) and functional (e.g. Timex) brands. In the study, incongruent extensions (i.e. functional brand and symbolic product; symbolic brand and functional product) were found to result in lower consumers' attitudes towards parent brand, whereas congruent extensions (i.e. functional brand and functional product; symbolic brand and symbolic product) resulted in positive attitudes towards parent brands.

Keller and Aaker (1992) studied how consumers evaluate a proposed extension for a brand that has (and has not) already extended into other categories. They found that successful intervening extensions (i.e. introduction sequential brand extensions) increase consumers'

evaluation of the extension product. They argue that the salience of the core brand associations in the brand extension context will affect the evaluations of the extension. The salience of the core brand associations lies in the strength of these associations in consumers' memory (Keller, 1993), and on their perceived similarity to the extension product (Feldman & Lynch, 1988). When overall similarity is high, consumers are more likely to evaluate the extension based on their evaluation of the core brand (Fiske, 1982). When overall similarity is not high, then specific attributes and benefits are more likely to be considered in evaluations. If overall similarity is very low, consumer evaluations of the extension will be very low too.

The similarity evaluations between the extension and the core brand could be based on product feature similarity and/or brand concept consistency (Park et al., 1991). Product feature similarity is the extent of fit between the extension product and the brand's existing products, whereas brand concept consistency is the fit between the extension product and the brand concept (Park et al., 1991). Product attributes used in the evaluation of fit include intrinsic attributes such as color, shape, texture, and fashionability as well as extrinsic attributes such as price, packaging, brand, and user imagery (Olson & Jacoby, 1972). Furthermore, some associations may be generic to a certain product category whereas others may be brand-specific (Chakravarti, MacInnis, & Nakamoto, 1990). For example, Sony brand concept contains both general knowledge about the generic computer and design knowledge about Sony computers.

Product and Brand Categorization

When consumers encounter a new product, they are likely to evaluate and categorize it. Fiske and Pavelchak (1986) contend that when an individual encounters a new stimulus, he or she first undergoes a categorization process to facilitate understanding the stimulus. When a

product fits within a category, consumers will instantly understand what the stimulus is. In contrast, if the product does not fit within any existing categories in the mind, consumers may be confused. Rosch, Mervis, Gray, Johnson, and Boyes-Braem (1976) showed that category members in the basic level (most fundamental level of categorization) have similar overall shapes and people form a mental image to reflect the entire category. Note that products as well as brands can be categorized to facilitate consumers' responses (Boush & Loken, 1991).

Product design is one of the major tools that marketers can use to facilitate product and brand categorization (Berkowitz, 1987; Bloch, 1995; Kotler & Rath, 1984). The congruity between the new stimulus and its category schema will influence the individual's perceptions of that stimulus (Sujan & Bettman, 1989; Meyers-Levy & Tybout, 1989). Here, category schema means the knowledge structure of a category in a person's mind representing expectation about the properties, usage situation, and evaluations for that category (Sujan, 1985; Marks & Olson, 1981; Bettman, 1979).

Product Categorization

Consumers form category schema and categorize objects based on their perceptual similarity to the schema (Neisser, 1976). DeLong, Minshall, and Larntz (1986) examined the categorization process that consumers used in evaluating an apparel product (i.e. sweaters). Free association task was given to respondents over a period of 15 months and results showed that properties in a sweaters schema were stable across participants and time. These researchers also found that consumers based their schema of an object on property configurations of the category exemplar and use the schema to guide subsequent evaluation of similar objects. Specifically, consumers evaluated sweaters that showed high resemblance to the category schema more favorably than those that showed low resemblance. Objects that show high resemblance to a

category schema are considered as prototypical of a category and the concept of prototypicality is discussed further in the section of “Product and Brand Prototypicality”.

Objects in a category may share some attributes with other objects within the category as well as having distinct attributes that are unique. That is, certain attributes may be considered prototypical and are common to all products in the category while other attributes may be unique to the particular product. For example, Kreuzbauer and Malter (2005) illustrated that consumers perceived motorcycles as either off-road or street motorbikes based on subtle changes in perceptual design attributes such as tire thread and the distance between wheel and fender.

Theories of embodied cognition (Barsalou, 1999; Glenberg, 1997; see also Zaltman, 1997) argue that objects or brands are represented in human’s mind perceptually. Barsalou’s (1999) theory of perceptual symbol system (PSS) maintained that a perceptual symbol retains the original modality of an object because encoding a perceptual symbol does not require transformation to semantic mode. In this view, the categorization process of a product is based on the perceived fit of its perceptual symbol to a category as represented perceptually in the consumer’s mind.

Brand Categorization

Consumers form category schema for brands and categorize products of brands based on the consistency between the design of the brand’s products and the brand image. If the design is consistent with the brand image, then consumers will find it easy to attribute the product to its brand.

Kreuzbauer and Malter (2007) proposed four bases of brand categorization as influenced by product design: (1) product affordance; (2) brand-product categorization; (3) brand-sign categorization; and (4) brand-style categorization. Product affordance is the visual representation

of a product's functional properties. For example, the handle of a mug affords the message of "grasping" to the observer. Brand-product categorization is a classification process based on associations that are generic to a certain product category. For instance, Sony computer will be categorized in the general category of computer because it has a screen, a central processing unit, a keyboard, and a mouse. Brand-sign categorization is a classification process based on brand specific design attributes. For example, Sony computer will also be categorized under the brand of Sony because it has certain brand specific design attributes such as refined lines (surface edges), fine design, and sleek shapes which are typical of a Sony product. Brand-style categorization employs a combination of design attributes that make up the brand image. That is, when a brand conveys a style or an image, consumers may base their classification of the brand on its style. For examples, Sony will be categorized as a sophisticated and design savvy brand because it has design attributes such as chrome, and textured or sand blasting metallic surface, and Mercedes will be categorized as a luxury brand because it has design attributes such as shiny, chrome, and ornaments. Of particular interest in the present research are the latter three types of categorization (i.e. brand-product, brand-sign, and brand-style).

Product and Brand Prototypicality

Prototypicality is an important determinant of fit between a product and its category in the categorization process in that it represents the associative strength between the image of a category and its members (Nedungadi & Hutchinson, 1985). Nedungadi and Hutchinson (1985) explored prototypicality using levels of abstractions of product classes. Three levels of abstractions manipulated in their study were superordinate, subordinate, and brand level. In the study, they chose two superordinate product categories, magazines and beverages, and two

subordinate categories for each (i.e. news magazine and business magazine, beer and soft drinks). They selected a set of brands for each of the subordinate categories and asked the respondents to rate the prototypicality of each brand (e.g. Newsweek) to its superordinate (i.e. magazine) and subordinate categories (i.e. news magazine). These researchers found that brands can be categorized into product category based on the prototypicality of the brand to the levels of abstractions of product category. Park et al. (1991) identified product feature similarity (to the brand's existing products) and brand concept consistency in the brand extension context. However, they did not take into account the fit between the extension product and the product category. Both studies from Nedungadi and Hutchinson (1985) and Park et al. (1991) did not examine the prototypicality of a product to a brand based on the similarity of the product design to the brand image and the prototypicality of an extension product to its product category.

In the current research, the author distinguishes two constructs of prototypicality. First, prototypicality of the product design to its brand image, that is, the extent to which a product design is congruent with the brand image, termed product-brand fit. Second, prototypicality of the design to its product category, that is, the degree to which a product design resembles its category exemplar, termed product-category fit. These two distinct constructs warrant further research because prototypicality influences speed of processing and response time, and highly correlates with liking (Mervis, Catlin, & Rosch, 1976; Nedungadi & Hutchinson, 1985). One of the distinctions between these two constructs is the differences in their frame of reference. The frame of reference of product-brand fit is the brand image and the frame of reference of product-category fit is product category. For example, dress may not be categorized in the same category as pajamas (product-category fit) but when both of them bear the same brand name (e.g. Ralph

Lauren) and have the same brand image, they may be categorized together under the brand name of Ralph Lauren (product-brand fit).

Product Prototypicality

Product-category fit is determined mainly by perceptual factors. The determinant of product-category fit is family resemblance where attributes of a product are considered in relation to the attributes of the category exemplar and/or other products in the same category (Mervis & Rosch, 1981). According to Rosch et al. (1976), prototypical members of a product category have similar overall appearance, and people form mental images of category exemplars to facilitate understanding of various stimuli in the environment.

Veryzer and Hutchinson (1998) demonstrated that prototypicality of product design to the product category has a positive effect on consumer's response to a product. In their experiments with appliance designs, Veryzer and Hutchinson (1998) operationalized the level of prototypicality using line drawings of appliances (e.g. telephone and refrigerator) that have different levels of shape distortion. For example, shape distortion of a telephone ranged from typical shape (e.g. smooth curves with rounded edges) to non-typical shape (e.g. concave shape with sharp edges). Prototypicality is found to have a positive linear (i.e. additive) relationship with consumer's favorability to the product (Veryzer & Hutchinson, 1998). Linear (or additive) relationship means that higher amount of distortion (based on the number of elements that are distorted, e.g. handset, or handset plus telephone base) within a product leads to lower consumers' perceived typicality.

Brand Prototypicality

In the present study, product-brand fit is conceptualized as having both conceptual and perceptual determinants. However, the conceptual determinant of typicality for product-brand fit

differs from those of Barsalou's goal-derived categories. Barsalou (1983) studied typicality using goal-derived categories such as "things to take on a camping trip" and found that determinants of typicality for this type of category are based on cognition about the product concept or the goal that the product can help us achieving. Products that are categorized into the same category based on goals do not necessarily have similar product attributes.

Instead, perceived product-brand fit is driven by brand image. Note that brand image is an overall perception of a brand in the consumer's mind and includes the brand meaning the consumer assigns (Keller, 1993). Thus, the meaning of the brand is at the core of determining product-brand fit. Product-brand fit is also perceptually related in that the image of the brand is communicated through its product attributes perceived through the product's physical features.

Prototypicality of a brand to its category has been found to correlate highly with liking (Nedungadi & Hutchinson, 1985). Nedungadi and Hutchinson (1985) took Cohen's (1982) view which stated that affect resides in categories and explained that consumers are frequently exposed to marketing messages which communicate benefits of the brands, leading to favorable or unfavorable attitudes toward the brand categories. These researchers also argued that consumer's attitude toward a brand is affected by personal experience and the subjective meaning given to the brand and, therefore, the role of affect in artificial objects such as product brands weighs more than in other natural categories.

Product-Brand Fit and Product Attitude

Perceived fit, an important factor in brand extension evaluations, has been studied by various researchers (Aaker & Keller, 1990; Boush & Loken, 1991; Park, Milberg, & Lawson, 1991). Despite the prevalence of the concept of perceived fit, there is no common definition used

throughout the literature (Bridges, Keller, & Sood, 2000). Bridges, Keller, and Sood, (2000) suggest that “any parent brand association, including category, brand concept, or brand-specific associations, can connect the parent brand with an extension and serve as the basis for perceived fit” (p. 2), so perceived fit may be defined as the extent to which the observer perceives parent brand associations, including category, brand concept, or brand-specific associations, to connect with an extension. Among these brand associations, the association between the core brand image and the extension image is at the heart of product-brand fit. It is the extent to which the image of the extension (conveyed through product design) is consistent with the brand image of the core (parent) brand.

Loken and John (1993) found that when brand extension attributes are inconsistent with the parent brand beliefs, dilution effects occur. In the brand extension context, the dilution effect refers to the negative effect that an unsuccessful brand extension has on the parent brand in which the parent brand image is ‘diluted’ (Loken & John, 1993). Consumers react most favorably when the extension has high brand concept consistency and high product feature similarity to the core brand (Park, Milberg, & Lawson, 1991). Loken and John (1993) examined the effect of consistency between the parent brand beliefs (e.g. “gentle”) and the extension product attributes, whereas, Park, Milberg, and Lawson (1991) investigated the roles of brand concept consistency (e.g. function-oriented brand concept and function-oriented product) and product feature similarity (e.g. wristwatch and stopwatch) between the parent brand and the extension product. Kalamas, Cleveland, Laroche, and Laufer (2006) examined congruent, moderately congruent, and incongruent brand extensions for six well-known brands (Xerox, Kleenex, Band-Aid, Scotch Tape, Coke, and Sony Walkman) and found that perceived fit (measured by dimensions such as global fit, substitute, complement, and manufacturing

transferability) strongly and positively influenced consumers' evaluations of extension success (measured by dimensions such as attitude toward extension attributes, perceived overall quality of the brand extension, and purchase intention for the brand extension). Based on the above literature, it is reasonable to conjecture that a good fit between the brand image and the extension product design will result in a more positive attitude toward the extension product.

H1a: High product-brand fit will result in more positive extension product attitudes than low product-brand fit.

Product-Category Fit and Product Attitude

The perceived fit between the extension product design and its product category is at the core of product-category fit. However, the issue of perceived fit in extant brand extension research has merely focused on the relationship between the core brand and the extension. The fit of the extension product to its product category has been studied in aesthetic research and has been shown to be an important factor in influencing consumer's product attitude (Nedungadi & Hutchinson, 1985; Veryzer & Hutchinson, 1998). However, it has not been examined in the brand extension research.

Prototypicality of a product to its product category has a positive effect on consumer's favorability of the product (Veryzer & Hutchinson, 1998). For instance, using sweater as an example in their study, DeLong, Minshall, and Larntz (1986) found that when a product's attributes closely resembles the attributes in the category schema, the consumer will evaluate the product positively. Nedungadi and Hutchinson (1985) studied the prototypicality of brands to superordinate and subordinate abstraction level of product categories and found that

prototypicality of a brand to a product category, both superordinate and subordinate, highly correlates with liking.

A brand may more successfully extend to a new category by developing products that share high resemblance to the target category exemplar. In this way, consumers will find the new product easy to fit in within their existing product category schema. Based on the above discussion, it is possible to predict that the ease of perceiving the fit between the brand extension and its product category will likely lead to positive product attitude.

H1b: High product-category fit will result in more positive extension product attitudes than low product-category fit.

Moderating Role of Brand Strength

The current study proposes that the effect of product-brand fit and product-category fit on consumer's product attitude is moderated by brand strength. The favorability, strength, and uniqueness of the brand associations in consumer memory influence brand image. A strong brand has a strong, unique, and favorable brand image in addition to a high level of brand awareness. On the contrary, a weak brand does not have a well established brand image in the consumer's mind. A weak brand may also have a lower level of brand awareness as compared to that of a strong brand. Brand strength has been found to have differential effects on consumer responses in advertising context (Dahlen & Lange, 2005), product quality judgment (Page & Herr, 2002), retailing context (Woodside & Walser, 2007), brand extension pricing strategy (DeIvecchio & Smith, 2005), and country-of-origin perception (Jo, Nakamoto, & Nelson, 2003).

Brand strength is likely to moderate the impact of product-brand fit on attitude because consumers' evaluations of the extension product will depend on the accessibility of the parent brand associations (Keller & Aaker, 1992). This study proposes that product-brand fit has a larger effect on product attitude for a strong brand than for a weak brand because the brand image of a strong brand is well established and holds a strong presence in the consumer's cognition about the brand. When incongruence occurs between the design of the new product and the existing strong brand image, consumers will experience cognitive dissonance (Festinger, 1957), which will lead to less favorable product attitude.

On the contrary, the fit between the parent brand image and the extension product of a weak brand is not as salient as that of a strong brand because consumers have established little, if any brand knowledge about the weak brand. By the same token, the level of incongruence between the design of the new product and the existing brand image of a weak brand will be lower. In this case, cognitive dissonance is less likely to occur because consumer's cognition about the brand is low. Therefore, product attitude for a weak brand will not be as significantly affected by the incongruence between the design of the new product and existing brand image as that for a strong brand.

Furthermore, it may be argued that the fit between the product and its category (product-category fit) is more important for weak brand as compare to strong brand. The elaboration likelihood model (ELM) can be used to explain the interaction effect of brand strength and product-category fit on product attitude. The theory was first developed in the advertising domain by Petty and Cacioppo in the early 1980s to examine the effectiveness of advertising effectiveness. According to ELM, an individual's processing of an advertising message is determined by his or her level of involvement with the task. Two types of processing are

suggested by ELM: central and peripheral processing. In the central route, the individual pays careful attention and integrates information relevant to the attitude object to form his or her attitude toward the target. Central processing is assumed to occur when an individual is motivated and has the ability to process the information (e.g. at high-involvement level). On the other hand, consumers form attitudes using some cognitive “short cuts” such as heuristic cues without actively thinking about the object and its attributes in the peripheral processing route.

Brand is found to be a heuristic cue (Maheswaran, Mackie, & Chaiken, 1992) that can be used as a cognitive “short cut” in forming product attitudes. When a heuristic cue is available, consumers are more likely to take the peripheral route and use the heuristic cue to form attitudes, which is likely to happen in strong brand condition. However, since a weak brand is less established and consumers do not have adequate brand knowledge to use the brand as a heuristic cue, they are likely to expend more cognitive resources to scrutinize the product and use product-category fit rather than product-brand fit as the source of judgment for the weak brand’s extension product. As a consequence, the relative impact of product-category fit on product attitude is expected to be higher for a weak brand than for a strong brand.

H2a: Product-brand fit will have greater impact on extension product attitude for strong brands than for weak brands.

H2b: Product-category fit will have greater impact on extension product attitude for weak brands than for strong brands.

The Mediating Role of Processing Fluency

Reber, Schwarz, and Winkielman (2004) put forth the processing fluency theory, which asserts that “aesthetic pleasure is a function of the perceiver’s processing dynamics” (p. 364). They argue that the more fluently consumers process an object, the more positive their aesthetic pleasure will be. The researchers identified several variables known to influence aesthetic judgments: figural goodness, figure-ground contrast, stimulus repetition, symmetry, and prototypicality. These features were believed to facilitate the processing of stimuli. They proposed that stimuli with less perceptual information (e.g. more prototypical stimuli) are easier to process and thus result in a more pleasing evaluation (higher figural goodness). For example, Reber et al. found that objects presented in high figure-ground contrast were judged as prettier than those in low figure-ground contrast, reasoning that high figure-ground contrast facilitate processing ease. Mere exposure effect addressed by Zajonc (1968) proposed that repeated exposure to stimuli results in more favorable evaluations. This effect can be attributed to the increased ease of stimuli processing through repeated exposure, and in turn, this ease of processing leads to increased liking.

Processing fluency theory postulates that a person’s attitude toward a product is influenced by the ease with which s/he identifies and recognizes the product (see Jacoby & Dallas, 1981; Reber, Winkielman, & Schwarz, 1998; Anand & Sternthal, 1991). That is, when a person experiences fluent processing, the person’s attitude toward the object becomes more favorable (Janiszewski, 1993; Lee, 2001; Reber, Winkielman, & Schwarz, 1998). Ease of processing may be measured through response latency -- the time lapse from the onset of seeing the object or stimulus to the moment the response is made. Prototypicality has been found to influence speed of processing and the response time (Mervis, Catlin, & Rosch, 1976). For

example, in a free elicitation task setting, prototypicality was found to highly correlate with frequency of recall and order of recall (Mervis, Catlin, & Rosch, 1976).

Conceptual Fluency

Processing fluency includes both conceptual and perceptual fluency. Conceptual fluency is associated with meaning or knowledge structure a person has about an object or brand. It is the ease with which a person mentally processes the meaning of a stimulus (Whittlesea, 1993; Winkielman, Schwarz, Fazendeiro, & Reber, 2003). Whittlesea (1993) examined conceptual fluency through a series of sentences where the context leading to the last word of the sentence was either semantically predictive or neutral. He found that participants evaluated the target word more positively when it was presented in the semantically predictive context, supporting the notion that conceptual fluency leads to more favorable attitudes toward the target. In a similar setting, Lee and Labroo (2004) used predictive context of the sentence and semantic association between the last word of the sentence and the target word to measure conceptual fluency. Specifically, they examined the context of the sentence, whether it is predictive or neutral, on subsequent affective response to the target word, and whether the last word of the sentence has a strong semantic association with the target word on the affective response to the target word. They found that participants rated the target word (on a pleasantness scale) in the predictive (versus neutral) context and the target word that was semantically related (versus unrelated) to the last word of the preceding sentence more favorably. Another study conducted by Berger and Fitzsimons (2008) operationalized conceptual fluency by exposing consumers to conceptually related images. Specifically, the researchers manipulated the numbers of exposure to dog photos and examined this conceptual priming effect on the Puma brand. They found that exposure to dog photos enhanced Puma product accessibility (measured by response latency). Participants

exposed to dog photos identify Puma stimuli more quickly than those that were not exposed to dog images. Their reasoning for dog images priming Puma brand was that Puma is a member of the cat category, and the retrieval of the cat category is expected to be activated when the dog category is cued, or primed.

In the current research, product-brand fit is conceptualized to influence conceptual fluency, which in turn influences product attitude. Product-brand fit is the extent to which the extension product design and the core brand image are congruent. Brand image is a person's "perceptions about a brand as reflected by the brand associations held in [his/her] memory" (Keller, 1993, p. 3), or the person's perceived meaning of a brand. The associative network memory model conceptualizes that a brand is reflected in a person's semantic memory as a network of associated nodes (Keller, 1993; Raaijmakers & Shiffrin, 1981). Aaker (1996) demonstrated the semantic memory structure of a brand (e.g. McDonald) through the use of brand concept map where brand associations structure is delineated through the use of semantically related words (e.g. service, value, and meals).

When a person is aware of a brand from a previous encounter with the brand, then he or she has cognition of the brand; if he or she sees another product of that brand, he or she will assess this product based on the similarity or fit of that product to the existing brand image. If the product fits with the perceived meaning of the brand, the resulting conceptual fluency will lead to a more favorable attitude toward the product. On the contrary, if the product does not fit with the existing brand image, conflict occurs and the mental processing is not fluent, resulting in a less favorable attitude and less positive evaluation of the product.

Based upon the discussion of the mediating role of conceptual fluency on the impact of product-brand fit on product attitude, the following hypothesis is proposed:

H3a: Conceptual fluency will mediate the influence of perceived product-brand fit on product attitude.

Perceptual Fluency

In contrast to conceptual fluency, perceptual fluency is related to an object's perceptual features and is influenced by physical attributes. Lee and Labroo (2004) operationalized perceptual fluency by manipulating prior exposure to the target product (i.e. Kraft ketchup). An image of the product featured in a storyboard was shown to some participants. They found that participants who had prior exposure to the product (i.e. saw the image of Kraft ketchup in the storyboard) evaluated the product (Kraft ketchup) more favorably than those who had not been exposed to the product. Berger and Fitzsimons (2008) examined perceptual fluency by examining the accessibility of products that possess a certain perceptual attribute (color orange) due to environmental cues during Halloween (where there are plenty of orange colored cues in the environment). They found that significantly greater number of participants recalled orange-colored products (e.g. Sunkist) and products that have mainly orange in the packaging (e.g. Reese's) when the environment contains more orange colored cues (the day before Halloween) than when the environment contains less orange colored cues (a week after Halloween). In another study, Berger and Fitzsimons (2008) examined the effect of perceptually related environmental cues on participants' product choice. They operationalized perceptual fluency by the color of the pen that participants used to answer the questionnaires. Results showed that participants who used orange pen were more likely to select orange products and those who used green pen were more likely to select green products.

In the current research, product-category fit, how typical the example is of the category, is conceptualized to impact perceptual fluency, which in turn influences product attitude. Many researchers in cognitive psychology report that prototypical stimuli are easier to process and thus are evaluated more positively compared to non-prototypical stimuli (see Posner & Keele, 1968; Reber, Schwarz, & Winkielman, 2004). Martindale and Moore (1988) examined prototypicality of color primes (manipulated by saturation and brightness) on color preferences. They found that prototypical primes resulted in higher preferences for target colors in the experiment. Studies also found that prototypical faces are judged more favorably than non-prototypical faces (Langlois & Roggman, 1990; Rhodes & Tremewan, 1996). Prototypical animals (e.g. dogs and birds) and products (e.g. watches) are preferred over non-prototypical counterparts (Halberstadt & Rhodes, 2000, 2003).

Reber, Winkielman, and Schwarz (1998) operationalized perceptual fluency by priming the participants with highly degraded contour of a picture. They found that target pictures that were primed by matching contours were liked more and recognized faster than pictures that were primed by mismatching contours. Participants in another study were asked to judge the attractiveness of dot patterns (composed of black dots on white background) that have different prototypicality (or distortion) levels and to classify the patterns into categories (Winkielman, Halberstadt, Fazendeiro, & Catty, 2006). Results showed that more prototypical patterns were categorized faster than less prototypical patterns, indicating that prototypical patterns were processed more fluently by the participants. Furthermore, more prototypical patterns were judged as more attractive than less prototypical patterns.

In a person's mind, there is a mental image for each product category pertaining to perceptual features. When the person encounters a product, s/he will judge the prototypicality of

the product to the category. If perceptual attributes of the product lend an easy fit into a certain category, then it will be processed more fluently and lead to a more favorable attitude. However, when the product cannot automatically be fitted into a certain category, the processing will not be fluent and will result in a less favorable attitude toward the product. Based upon the discussion of the mediating role of perceptual fluency on the impact of product-category fit on product attitude, current study proposed that:

H3b: Perceptual fluency will mediate the influence of perceived product-category fit on product attitude.

Product Attitude and Purchase Intention

According to the theory of reasoned action (TRA) (Ajzen & Fishbein, 1980), a person's overall attitude toward an object is a major determinant of his or her intention to perform a behavior with respect to the object. Fishbein and Ajzen (1975) defined attitude as "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (p. 6) and proposed measuring attitude on bipolar affective dimension such as "like/dislike", "favorable/unfavorable", and "good/bad" (p. 56). They claimed that "whenever this bipolar dimension can be shown to be affective in nature, the judgment can be viewed as indicative of attitude" (p. 56).

An important indicator of a person's intention to perform a behavior with respect to a product is purchase intention. It is a variable that is most important for marketers (Berkowitz, 1987) because it is predictive of a person's actual behavior (e.g. purchase, usage). In line with TRA, the author postulates that a positive product attitude leads to a higher purchase intention

whereas a negative product attitude leads to a lower purchase intention. That is, a person's purchase intention is positively related to his or her attitude toward the product.

H4: Product attitude will be positively related to purchase intention. That is, more positive product attitude to the brand extension will result in greater intention to purchase the extension and vice versa.

The discussion above is summarized in a schematic layout (see Figure 2.1) depicting the relationships between each variable.

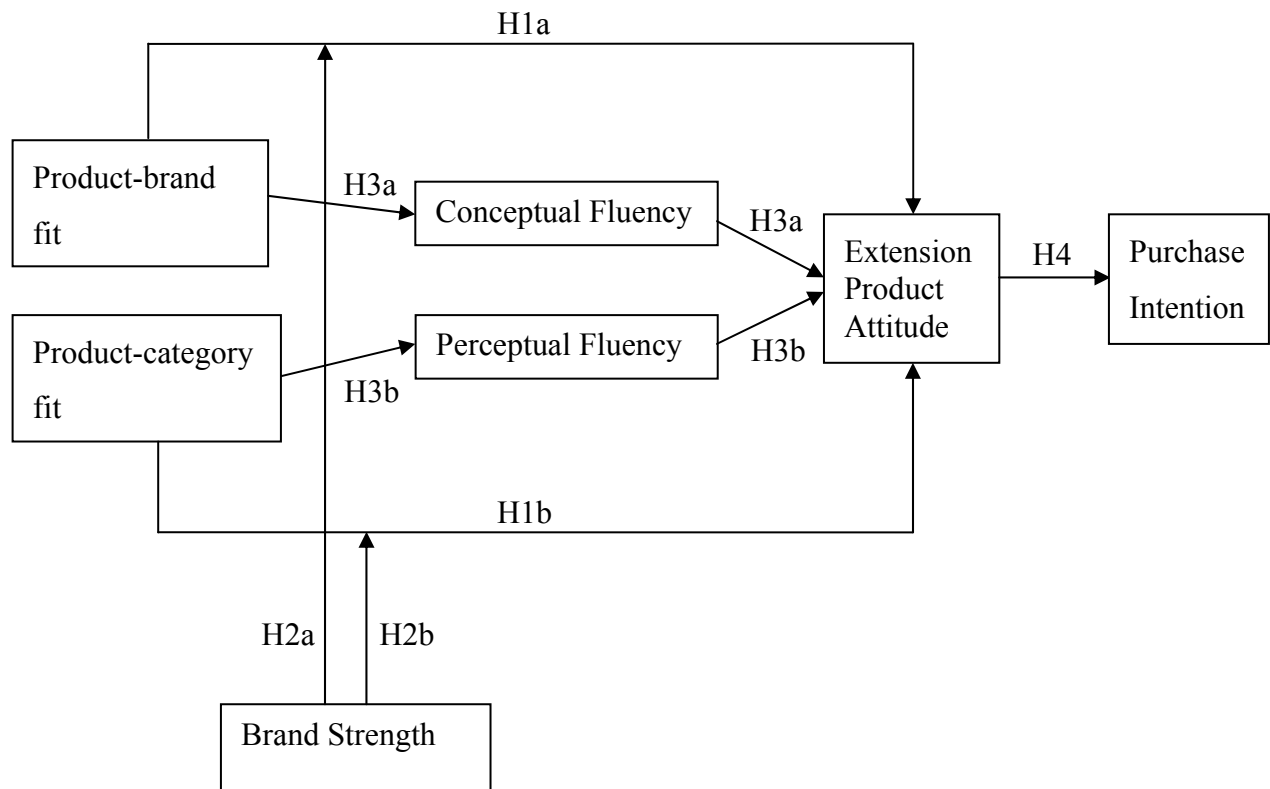


Figure 2.1. The impact of product-brand fit and product-category fit on extension product attitude through the mediating effect of processing fluency and the moderating role of brand strength (with hypotheses).

CHAPTER 3. METHOD

An overview of the research design is provided at the beginning of this chapter, followed by descriptions of three pretests for stimulus development and the main study. The purposes of the first pretest were to select a strong brand and a weak brand from an apparel sector (i.e. footwear) and to obtain a list of product attributes that are associated with each brand. The second pretest was to obtain a list of product attributes that are typical of the product category for the hypothetical brand extension (i.e. active/sport watch). Based on the first two pretests, stimuli were developed by the researcher, and the third pretest was conducted to confirm the intended level of product-brand fit and product-category fit in the stimuli developed for each experimental condition. The main study was conducted to empirically test the hypotheses proposed in Chapter 2. Figure 3.1 provides a schematic view of the methodology and process used in the study.

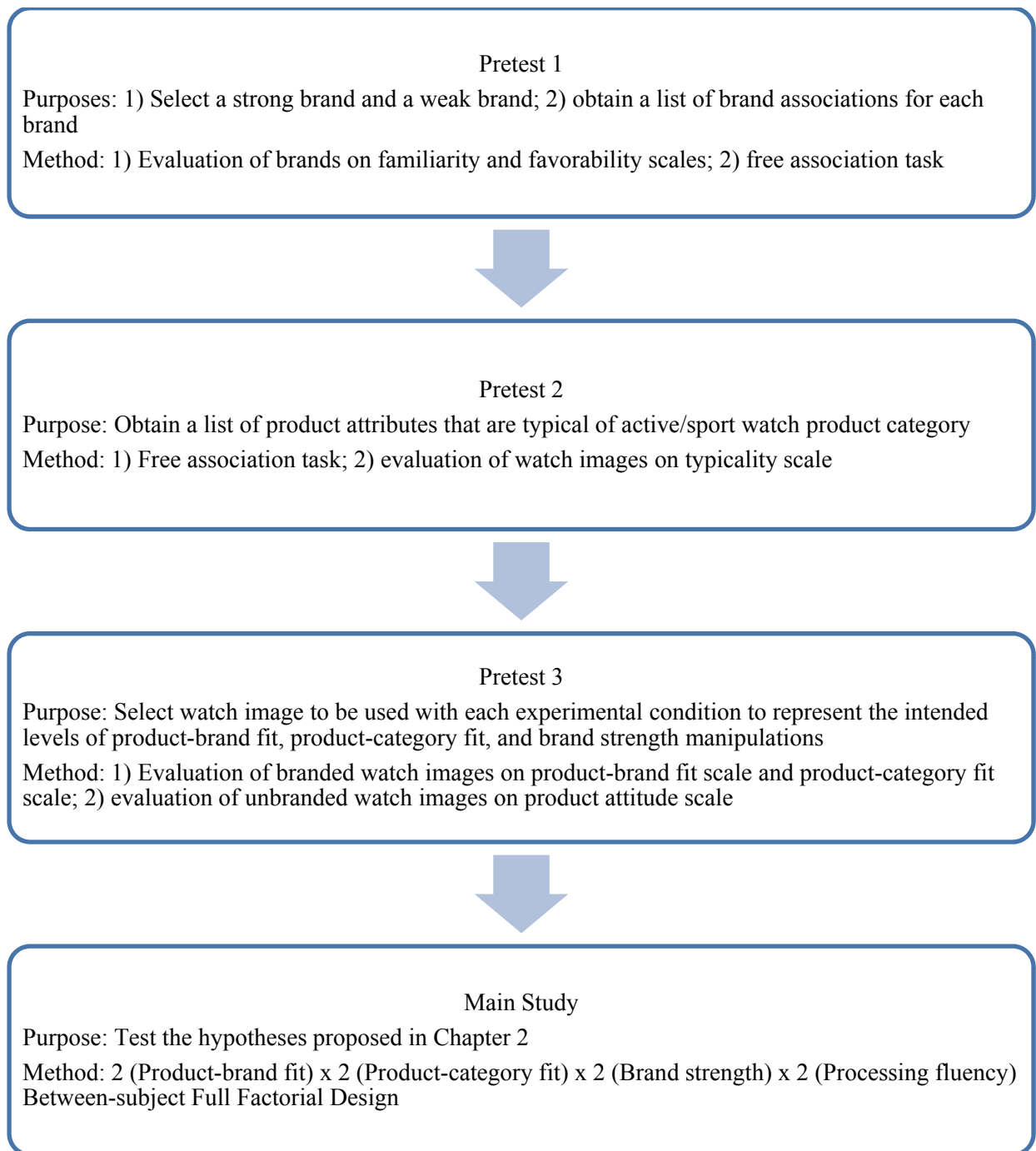


Figure 3.1. Flow chart of the methodology and process used in the study.

Research Design

An experimental research design with a 2 (product-brand fit: high vs. low) x 2 (product-category fit: high vs. low) x 2 (brand strength: strong vs. weak) x 2 (processing fluency: conceptual vs. perceptual) between subjects, full factorial design was utilized in the main study to test the proposed hypotheses. The independent variables were product-brand fit, product-category fit, and brand strength. All three independent variables were manipulated. Processing fluency was a mediating variable (measured by response latency and a pleasantness scale), and participants were randomly assigned to either a conceptual or perceptual fluency measurement condition. This research design resulted in 16 experimental groups representing each possible combination of independent variables and mediating variable. The dependent variables were product attitude and purchase intention. Three pretests were conducted prior to the main experimental study to develop the stimuli for the main study. Approval with protocol #09-122 EX 0904 from the Institutional Review Board (IRB) was obtained (see Appendix A) prior to recruiting participants for the pretests and main study.

Stimulus Development

Pretest 1

The purposes of this pretest were to select a strong brand and a weak brand in the footwear category and to obtain a list of product attributes and images that are associated with each brand. The selected brands and the list of product attributes and images associated with each brand were used in stimuli development for Pretest 3. The two selected brands were also used as the manipulation of brand strength in the main study.

Sample and Data Collection Procedure. Pretest respondents were drawn from the same sample pool as the main study respondents. The sample was a non-probabilistic convenience sample consisting of 30 college students, age 19 or above. Respondents were recruited from an engineering class offered on the campus of Auburn University. Respondents who were recruited from class received extra credit for the class from which they were recruited. Brief instructions were given to the pretest participants. After reading the information letter (see Appendix B) and agreeing to participate in the study, the respondents were asked to rate the brand strength of the eight given brands and to list the product attributes and images that they associated with each of the eight brands in a free association task.

Stimuli. Eight footwear brands were presented in a questionnaire (see Appendix C for questionnaire). The following criteria were used for brand selection: 1) brands in the same product category (i.e. footwear); 2) similar brand concept (e.g. active, outdoor, sport); 3) similar brand breadth and without an offering in the watch category; and 4) no gender-specific associations. The reason for these criteria was to minimize the differences between the strong and weak brands except for the variable of interest, brand strength, so that the confounding effects of other factors were minimized.

Measures. Brand strength was measured through the dimensions of brand awareness and brand favorability. Brand awareness is strongly related to brand familiarity (Keller, 1993), thus, respondent's awareness with the selected brands was measured using three 10-point semantic differential scales measuring brand familiarity. The measurement items included "no information/a great deal of information", and "no previous experience/a lot of previous experience" (Laroche, Kim, & Zhou, 1996, p. 117), and "very unfamiliar/very familiar" (Park, Milberg, & Lawson, 1991, p. 189) (see Appendix C for questionnaire). The reliability reported in

the literature of the first two items was 0.83 (Laroche, Kim, & Zhou, 1996). Strong and weak brands also differ in terms of favorability (Farquhar, 1989; Aaker, 1991). Thus, brand favorability was measured using a 10-point scale ranging from 1 “dislike a great deal” to 10 “like a great deal” (Page & Herr, 2002) for each given brand.

Data Analysis and Results. Interval level data (using 10-point semantic differential scales) were collected for familiarity and favorability of stimuli brands. The three items in the brand familiarity scale demonstrated high reliability (Cronbach’s $\alpha = .95$). Thus, items were combined and the mean score was used for further analysis. Descriptive statistics of the brand familiarity and favorability ratings of each brand are presented in Table 3.1. Columbia and Sperry were rated highest in brand familiarity and brand favorability. However, Columbia was eliminated because it currently has watch products marketed under its brand name. Paired t-test between Columbia and Sperry revealed the two brands were equivalent ($p > .05$); therefore Sperry was chosen as the stimuli brand for the strong brand condition.

SafeTstep, Gola, Simple, and Koolaburra were rated lowest in brand familiarity and brand favorability. Repeated measures ANOVA revealed no significant differences between the four brands ($p > .05$). Gola was selected as the stimuli brand for the weak brand condition because its products (shoes) showed distinct style and was feasible to transfer to a sport watch design.

Paired t-test further validates that Sperry (strong brand) and Gola (weak brand) were significantly different in terms of brand familiarity and favorability. Results show that Gola was rated significantly lower than Sperry in brand familiarity ($M_{\text{Gola}} = 1.43$, $M_{\text{Sperry}} = 7.29$, $t = 11.43$, $p < .001$) and favorability ($M_{\text{Gola}} = 4.27$, $M_{\text{Sperry}} = 7.07$, $t = 4.73$, $p < .001$).

Table 3.1. Pretest 1 Brand Familiarity and Brand Favorability Statistics for each Stimulus Brand

Brand	<u>Brand Familiarity</u>		<u>Brand Favorability</u>	
	Mean	SD	Mean	SD
SafeTstep	1.16	0.65	4.47	1.93
Columbia	7.33	2.50	7.83	1.90
Gola	1.43	1.26	4.27	1.70
Merrell	4.29	2.90	5.50	2.10
Simple	1.37	0.93	4.43	1.87
Koolaburra	1.31	0.95	4.30	1.73
Ugg	3.89	2.88	4.43	2.76
Sperry	7.29	2.66	7.07	2.55

The data collected for each of the eight given brands on the free association task were in the form of qualitative data as subjects were asked to list any brand associations that come into their mind. Content analysis was utilized to analyze the qualitative data from the free association task in brand association. A coding scheme was developed from the attributes listed by the respondents using word or phrase as the analysis unit. Seven themes emerged for the Sperry brand: usage image (e.g. boating), quality (e.g. durable), user image (e.g. frat boys), style/design (e.g. stylish), material (e.g. leather), popularity and accessibility (e.g. popular), and price (e.g. expensive). Two themes emerged for the Gola brand: usage image (e.g. soccer) and style/design (e.g. looks nice). Two independent coders were trained to code each analysis unit into a category based on the coding scheme. Inter-coder reliability, measured by calculating the percentage of the agreed upon judgments out of total judgments, was 84% for Sperry (56 analysis unit in total) and 100% for Gola (5 analysis unit in total). Disagreements were resolved through discussions between the two coders. Most listed associations with Sperry brand were boating, high quality (comfortable and durable), and fratly, whereas Gola brand was associated with soccer and nice design.

Pretest 2

The purpose of this pretest was to generate a list of product attributes that are typical of active/sport watch product category using two methods of elicitation. Most of the mentioned product attributes were used for subsequent stimuli development for Pretest 3.

Sample and Data Collection Procedure. The sample and sampling procedure was similar to the one used in Pretest 1. The sample was a non-probabilistic convenience sample consisting of 60 college students, age 19 or above. Respondents were recruited from a design class offered on the campus of Auburn University. Students in the class were given the information letter (see Appendix B) and only those who volunteered to participate were recruited. Participants in pretest 2 were asked to list the product attributes and features that they associate with the active/sport watch category. Then, a set of watch images were presented and respondents were asked to rate the level of product-category fit (i.e. prototypicality to an active/sport watch) for each watch image (see Appendix D and E for questionnaires).

Stimuli. The active/sport watch category was selected for hypothetical extension based on the criterion that the hypothetical extension category and the existing brand category (i.e. footwear) should not be ostensibly related but has the probability of extending from one to the other. The active/sport watch category also provided design and innovation possibilities that were needed for manipulation of product-brand fit and product-category fit. In order to generate a list of product attributes that are typical to the active/sport watch category, two methods of elicitation were used – image rating and free association. Forty six watch images were collected from online watch retailers using “active” and “sport” as keywords in their websites. In order to avoid participant fatigue, two versions of the questionnaire were created; each contained 23 watch images. First, respondents were asked to list all attributes of a typical active/sport watch

that they had in mind (free association task). Then, they rated the given 23 watch images on the product-category fit (prototypicality) scale item (image rating task).

Measures. Product-category fit was measured using a 10-point semantic differential scale anchored by “Not at all typical/Very typical of an active/sport watch” (adapted from Loken & Ward, 1990, p. 118). An extra anchor of “Not an active/sport watch” was added to the scale to more accurately capture the range of possible ratings of the watch images as some watches may not be perceived as an active/sport watch, thus resulting in an 11-point scale.

Data Analysis and Results. Six watch images were rated as the typical active/sport watches ($M > 7.0$ on an 11-point scale) (see Figure 3.2a for these watch images); the attributes of these watches provide an image of typical active/sport watch designs. Five additional active/sport watch images ($M < 1.25$ on an 11-point scale) represented atypical active/sport watch designs (see Figure 3.2b for these watch images).

Qualitative data from the free association task of an active/sport watch were analyzed using content analysis. The analysis process was the same as the qualitative analysis in Pretest 1. Ten themes emerged: size/weight, shape, material and finishes, functions/features, display, wrist band, colors, wearability, style/design, and battery. Two independent coders coded each analysis unit into a category based on the coding scheme. Inter-coder reliability, measured by calculating the percentage of the agreed upon judgments out of total judgments, was 78% (401 analysis unit in total). Disagreements were resolved through discussions between the two coders.

Based on an assessment of both the qualitative and quantitative data, a typical active/sport watch was described as having a digital display, sleek and round shape, rubber/plastic material, and multi-functional with functions such as water resistance, stopwatch/timer, and backlight. An atypical active/sport watch was described as having an

analog display, square shape, and metal material. Based on the findings from pretests one and two, 16 watch images were professionally designed using *Adobe Illustrator* and *Photoshop* to reflect high and low levels of product-brand fit and product-category fit for the selected brands, *Sperry*[®] and *Gola*[®].



Figure 3.2. Pretest 2 (a) High and (b) Low Product-Category Fit Watch Images and Their Means

Pretest 3

Sixteen watch images (two images for each of the eight experimental conditions) were developed based on the data collected from Pretest 1 and Pretest 2. The purpose of the third pretest was to select a watch image for each experimental condition (high product-brand fit/high product-category fit, low product-brand fit/high product-category fit, high product-brand fit/low

product-category fit, and low product-brand fit/low product-category fit for each of the two brands, *Sperry*[®] and *Gola*[®]). This pretest included two sections. The first section was to measure product attitude for each watch and the second section was to select the watch that best represents the intended product-brand fit and product-category fit levels for each experimental condition. Each watch selected through this pretest (eight in total) served as the stimulus for one of the eight experimental groups in the main study.

Sample and Data Collection Procedure. Twenty nine students from two design classes were recruited for Pretest 3. Upon reading the information letter (see Appendix B) and agreeing to participate in the study, brief instructions were given and respondents were first asked to rate each stimulus watch (without brand information) on product attitude scale. Next, they were asked to rate each stimulus watch (with brand information) on the degree of product-brand fit and product-category fit (see Appendix F for questionnaire).

Stimuli. Sixteen watch images were professionally designed using computer aided design software such as Adobe Illustrator and Photoshop based on the two identified attribute lists (the list of product attributes and images that are associated with each brand from Pretest 1 and the list of product attributes that are typical of active/sport watch product category from Pretest 2). Two watch designs were created for each experimental condition to increase the likelihood that the selected watch image for each condition well represents the intended level of product-brand fit and product-category fit. The design of the watches was guided and validated by an expert in Industrial Design (see Figure 3.3 for the 16 watch images).



Figure 3.3. Watches Developed for Pretest 3 Representing Different Levels of Product-Brand Fit, Product-Category Fit, and Brand Strength

Respondents were first presented with 12 watch images in which brand logos were eliminated. There were 12 (vs. 16) in the first part of the questionnaire because the four low product-brand fit watches were the same for both the strong and weak brands. Respondents were asked to rate their attitudes toward each watch. Next, a picture that conveyed the brand's image and some exemplar product offerings of the strong brand (i.e. *Sperry*[®], see Appendix G) was presented followed by the eight stimulus watch images (with brand logo) developed for that brand. The respondents were told that the brand was planning to enter the active/sport watch market and the designers would like to know their opinion about the active/sport watch designs. They rated product-brand fit and product-category fit for each watch image. Then, respondents viewed a picture that conveyed the brand's image and some exemplar product offerings of the weak brand (i.e. *Gola*[®], see Appendix H) and rated eight watch images.

Measures. The attitude scale developed by Spears and Singh (2004) for measuring attitude toward brand was adopted because all items were well suited to measure attitude toward product. The scale included five 7-point semantic differential scale items:

“Appealing/unappealing”, “good/bad”, “pleasant/unpleasant”, “favorable/unfavorable”, and “likable/unlikable” (Spears & Singh, 2004). Note that the suffix “un” was replaced by “not” in the present study to make the negative valence word easier to read and comprehend. The composite reliability for the scale was reported as 0.97 by Spears and Singh (2004).

Product-brand fit was measured using the brand extension typicality scale developed by Loken and John (1993). The scale consists of four semantic differential items; the anchors are “not similar/similar to [Brand] image”, “not consistent/consistent with [Brand] image”, “not typical/typical to [Brand] image”, and “not representative/representative of [Brand] image” (Loken & John, 1993). The reliability for the measures was 0.98 (Loken & John, 1993). The

items were originally measured using 7-point scales; however, to maintain consistency throughout the survey, the present research used 10-point scales consistently. Product-category fit was measured by four 10-point semantic differential scale items: “poor/good example of an active/sport watch”, “not representative/representative of an active/sport watch”, “not typical/typical of an active/sport watch” (Loken & Ward, 1990), and “doesn’t look like/looks like an active/sport watch”. The reliability of the first three items was 0.82 (Loken & Ward, 1990).

Data Analysis and Results. The items in each scale demonstrate high reliabilities (Cronbach’s $\alpha = .97, .99, .99$ for product attitude, product-brand fit, and product-category fit, respectively). Thus, items in each scale were combined for further analysis. Mean and standard deviation of each scale are listed in Table 3.2. In order to select watch images that well represent the intended level of product-brand fit, that is, to confirm that watches designed for high product-brand fit are indeed higher (in terms of product-brand fit measures) than watches designed for low product-brand fit, and high product-brand fit watches are in the higher than neutral direction (in terms of product-brand fit measures), and low product-brand fit watches are in the lower than neutral direction, two criteria were applied to choosing watch images for the main study: a) the product-brand fit means of the watches designed for high product-brand fit should be significantly higher than the means of the watches designed for low product-brand fit; b) the product-brand fit means of the watches designed for high product-brand fit should be greater than the midpoint of the scale (5.5) whereas means of the watches designed for low product-brand fit should be lower than 5.5. The same two criteria were applied to product-category fit and finally, the selected watches should have product attitude ratings that were in the middle range (between 4 and 7) on a 10-point scale. Too high (> 7) or too low (< 4) product attitude

ratings may have indicated some underlying confounds in the design, and confounding variables may introduce unpredicted variance in the hypotheses testing results.

Results from paired t-test with modified significance level (to control type I error) using Bonferroni method ($p = .05/16 = .003$, where 16 was the number of comparisons) revealed that all watch images designed for the high product-brand fit condition were significantly different ($p < 0.001$) from all watch images designed for low product-brand fit condition in terms of product-brand fit means. The product-brand fit means of the watches designed for high product-brand fit were greater than the midpoint of the scale (5.5) whereas means of the watches designed for low product-brand fit were lower than 5.5 (see Table 3.2). Similarly, all watch images designed for the high product-category fit condition were significantly different ($p < 0.001$) from all watch images designed for low product-category fit condition in terms of product-category fit means. The product-category fit means of the watches designed for high product-category fit were greater than the midpoint of the scale (5.5) whereas means of the watches designed for low product-category fit were lower than 5.5. Moreover, all watches had product attitude ratings that were in the middle range (between 4 and 7) on a 10-point scale. As a result, all watches met the specified criteria and were deemed successful in achieving the intended level of product-brand fit and product-category fit. Therefore, eight watch images with equivalent design attributes across the two brands were selected to serve as the stimuli for the eight experimental groups (see Figure 3.4).

Table 3.2. Pretest 3 Product Attitude, Product-Brand Fit, and Product-Category Fit Statistics for each Stimulus Watch

Watch	<u>Product Attitude</u>		<u>Product-Brand Fit</u>		<u>Product-Category Fit</u>	
	Mean	SD	Mean	SD	Mean	SD
SperryA	5.02	2.14	6.28	1.87	6.69	1.74
SperryB	6.91	1.42	2.94	1.53	2.10	1.11
SperryC	4.98	2.03	5.97	1.76	2.92	1.45
SperryD	5.14	1.92	3.16	1.82	8.03	1.52
SperryE	4.64	2.10	5.96	2.03	2.92	1.56
SperryF	6.13	2.04	3.86	1.70	2.83	1.75
SperryG	5.14	2.15	7.03	1.55	7.56	1.50
SperryH	4.74	1.14	3.17	1.62	7.96	1.33
GolaA	4.00	2.29	7.39	1.84	7.31	2.14
GolaB	6.13	2.04	2.56	1.43	2.34	1.37
GolaC	4.78	2.19	6.39	2.02	3.09	1.76
GolaD	4.74	1.14	3.25	1.84	7.60	1.72
GolaE	5.96	2.04	6.92	1.77	3.00	1.61
GolaF	5.14	1.92	3.88	2.04	7.85	1.50
GolaG	4.51	2.04	7.88	1.73	7.84	2.02
GolaH	6.91	1.42	2.59	1.42	2.29	1.32

Notes: SperryA, C, E, G and GolaA, C, E, G were watches designed for high product-brand fit condition. SperryA, D, G, H and GolaA, D, F, G were watches designed for high product-category fit condition.



Figure 3.4. Stimuli Watch Images Selected for Main Study from Pretest 3

Main Study

The purpose of the main study was to collect data to test the hypotheses proposed in Chapter 2. The questionnaire consisted of five sections. Sixteen versions of questionnaire were developed to depict two product-brand fit levels, two product-category fit levels, two brand strength levels, and two processing fluency measurements (see Appendix I). The 16 versions of the questionnaire were identical except for the image used to measure processing fluency and the experimental stimuli (brand and watch) used to manipulate the three independent variables: product-brand fit, product-category fit, and brand strength (see Appendix J). The mediating

variable was processing fluency (measured by response latency and a pleasantness scale) and the dependent variables were product attitude and purchase intention.

The first section of the questionnaire measured product attitude. This measure provided the baseline product attitude prior to introducing the brand information and served as a benchmark for product attitude change after the brand extension context was introduced. The second section contained a hypothetical vignette of the brand extension, one of the eight watch images selected from Pretest 3, and the processing fluency measures. The third section consisted of extension product attitude and purchase intention measures. The fourth section contained manipulation check items, and the last section contained demographic items.

Sample and Data Collection Procedure. The Auburn University student populations who were 19 or above were identified and a random sample of 12000 students were drawn through the Office of Institutional Research (OIR) for the main study. An email was sent to the student sample inviting them to complete an online questionnaire at the link provided for a chance to win an iPod Touch (see Appendix K for email recruitment script). The link embedded in the email linked the students to an information page (see Appendix L). If they decided to participate in the study after reading the information page, they clicked on a button which led them to the online questionnaire which contained a randomly assigned image for a processing fluency measure and the experimental stimuli (brand and watch), dependent measures, manipulation check items, demographic items. Random assignment increases the likelihood that the characteristics of the sample in each group are equal, and any underlying confounding variables are equivalent among all groups.

Due to a low initial response rate of 3.2% (379 respondents), a reminder email was sent to the same students 12 days after the first email (a week of spring break intervened). As a result

of the reminder email, the response rate increased to 5.5% with a total of 661 students completing the online questionnaire. The entire data collection process (including the first and the reminder email) lasted for two weeks. Two cases were determined unusable and thus deleted because more than 20% of the questionnaire were left unanswered. Nine cases were deleted due to respondents answering all same answers to the positive and negative valence items (e.g. all 1's for the purchase intention measure in which some items were reversed). The data was further checked by an item at the end of the questionnaire that asked "have you completed this questionnaire before?" Six respondents clicked "yes" and were therefore eliminated. Two outliers in the response latency measure were identified. The response latency measure for these two cases was more than 1 minute, where the mean and median were 7.18 and 6.04 seconds, respectively, thus these two outliers were deleted. After the data cleaning process, the usable sample size was 642.

Stimuli. The first section of the questionnaire contained a product attitude measure which served as baseline product attitude before introducing experimental manipulation. In the next section, a hypothetical vignette describing intent to extend into the watch product category for the selected footwear brand (i.e. *Sperry*[®] or *Gola*[®]) and an image of the brand along with its exemplar product offerings were presented to help create a scenario in the mind of the consumer so that they can visualize the brand (see Appendix G for *Sperry*[®] and Appendix H for *Gola*[®]). The content of the vignette was identical across experimental groups except for the brand image and exemplar product offerings shown in the vignette. An image of the stimulus watch was shown on the page that followed the vignette. The reason to present the watch image separately after the brand image was to minimize the effect of the brand image and maximize the effect of the watch on the processing fluency measure that appeared next. If the watch image and the

brand were shown on the same page, followed by the processing fluency measure, then the brand image would confound the effect of the watch on processing fluency (especially conceptual fluency). Since the interest of this study was to examine the effect of the watch (manipulated with different levels of product-brand fit and product-category fit) on processing fluency, it was important to separate the effect of the brand and the watch by showing the watch immediately prior to the fluency measure.

After the respondents viewed the watch image and clicked the “View Image” button on the page, an image representing either conceptual or perceptual fluency (see Figure 3.5) appeared, along with the pleasantness scale. Three black and white line drawings were developed based on the results from the free association task in Pretest 1. These drawings avoided the confounding effect of color on perceptions of fluency. The image that was used to measure conceptual fluency for the Sperry brand condition was a boat because boating was the most listed Sperry brand association. The image that was used to measure conceptual fluency for the Gola brand condition was a soccer goal because soccer was the Gola brand association listed by the respondents. The image that was used to measure perceptual fluency (for both brands) was a contour drawing of an active/sport watch. Each participant saw only one of the three images. For example, if the participant was assigned to the perceptual fluency group, s/he saw the contour drawing of an active/sport watch; if the participant was assigned to the conceptual fluency group, depending on which brand s/he was assigned to for the stimulus watch, s/he saw either the boat (Sperry) or the goal (Gola). That means, if the participant saw a Sperry watch earlier in the questionnaire, s/he saw a boat on this page and if the participant saw a Gola watch earlier, s/he saw a goal on this page.

After the participants responded to the pleasantness scale, they were directed to the third section, which contained extension product attitude and purchase intention measures. The fourth section contained manipulation check measures for product-brand fit, product-category fit, and brand strength. Demographic information was obtained in the last section of the questionnaire.

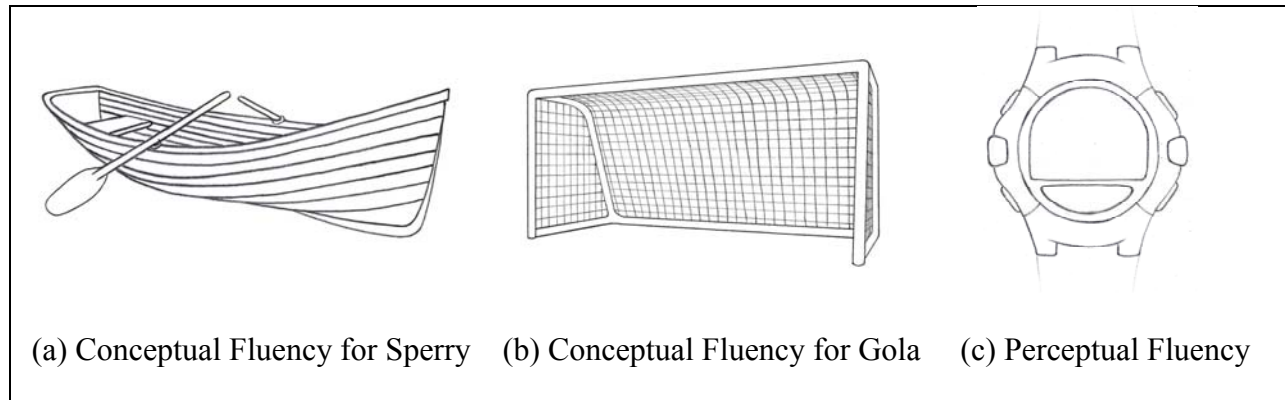


Figure 3.5. Images for Conceptual Fluency and Perceptual Fluency Measures

Measures. Processing fluency was measured by response latency and a 7-point pleasantness scale (from -3 “Unpleasant” to 3 “Pleasant”) (Lee & Labroo, 2004). Response latency was measured by capturing the elapsed time between the presentation of the image (representing either conceptual or perceptual fluency) (see Figure 3.5) and completing the pleasantness response to that image. Specifically, the timer started once the “View Image” button on the previous page was clicked and stopped after the pleasantness scale was answered and the “Continue” button was clicked.

The product attitude scale was adopted from Spears and Singh (2004)’s attitude toward brand scale. The same scale items were used in pretest 3. Main study participants responded to the product attitude scale twice, once in the first section measuring baseline product attitude and once in the third section measuring attitude toward the product after the experimental

manipulation. In order to avoid participants noticing duplicate scale items, the order of the items presented was changed in section three.

Respondents' intentions to purchase the stimulus watch was measured by five 5-point Likert-type items adapted from Spears and Singh (2004)'s purchase intention scale. The original items were in semantic differential scale format. They were changed to Likert-type format to avoid confusion as Likert-type format is a more straightforward representation of intention. Items included "I definitely intend to buy this active/sport watch", "I have low interest in purchasing this active/sport watch", "I will definitely buy this active/sport watch", "I will probably not buy this active/sport watch" and "I will never buy this active/sport watch". Note that the second, fourth, fifth items were reversed. Composite reliability for the scale was reported by Spear and Singh (2004) as 0.97.

The validity of the scales measuring attitude toward brand and purchase intention was assessed through convergent validity and discriminant validity (Spear & Singh, 2004). A model containing related constructs such as attitude toward brand, purchase intention, and attitude toward advertisement were assessed. The reported model fit was acceptable (GFI = .85, TLI = .95, CFI = .96, RMSEA = .04). Items loaded highly on their respective factor (factor loadings $> .9$, $p < .001$), composite reliabilities were .97 for both brand attitude and purchase intention, and average variance explained (AVE) for both constructs were 86%, confirming convergent validity and reliability. Discriminant validity was examined in three steps. First, the two-factor model (with brand attitude and purchase intention as two distinct constructs) was compared with a one-factor model (with brand attitude and purchase intention combined to one construct). Comparison between the two models gave a significant chi-square difference indicating that the two-factor model was superior. Second, the confidence interval (± 2 standard error) around the

factor correlation was assessed, and results showed that the confidence interval around the correlation between the two factors did not contain 1.0, thus validating the model. Finally, additional evidence of discriminant validity was shown by ϕ^2 (squared correlations between the constructs), which was less than the AVE by the factors.

Demographic questions included age, gender, class standing, educational major, annual family household income, and ethnicity. These questions were used to confirm the equality of groups.

Manipulation Check. Brand strength was measured through the dimensions of brand familiarity, brand favorability, and perceived brand strength. Scales utilized to measure brand familiarity and brand favorability were the same as those used in Pretest 1. Items included “no information/a great deal of information”, “no previous experience/a lot of previous experience” (Laroche, Kim, & Zhou, 1996, p. 117), and “very unfamiliar/very familiar” (Park, Milberg, & Lawson, 1991, p. 189), and “dislike a great deal/like a great deal” (Page & Herr, 2002). Since no existing scale was found to measure brand strength, an expert in branding was consulted in order to determine if the above four items sufficiently capture the construct of brand strength. Two items were added based on the feedback from the expert. These two items were “weak brand/strong brand” and “mediocre brand/leading brand”, comprising the perceived brand strength dimensions of the brand strength construct.

Manipulation checks for product-brand fit and product-category fit utilized the same items as employed in the Pretest 3 to measure product-brand fit and product-category fit of the watch images. Specifically, product-brand fit measures included “not similar/similar to [Brand] image”, “not consistent/consistent with [Brand] image”, “not typical/typical to [Brand] image”, and “not representative/representative of [Brand] image” ($\alpha = .98$) (Loken & John, 1993).

Product-category fit measures included “poor/good example of an active/sport watch”, “not representative/representative of an active/sport watch”, “not typical/typical of an active/sport watch” ($\alpha = .82$) (Loken & Ward, 1990), and “doesn’t look like/looks like an active/sport watch”.

All manipulation check items in the main study were measured using a 7-point scale (from -3 to 3). The reason for changing from 10-point (in pretest 3) to 7-point scale was to maintain the scale consistency within the main study questionnaire in order to avoid confusion.

CHAPTER 4. RESULTS

This chapter includes results from the main study testing the hypothesis put forward in Chapter 2, results from the manipulation checks, scale reliability checks, and sample demographics.

Sample Description

The sample was 44.4% female and 55.6% male, with majors from across campus, representing 70 departments and 12 colleges. The largest number of students were from the college of engineering (30.7%), liberal arts (15.2%), and business (11.0%). The sample consisted of students between 19 and 56 years (Mean = 23.8, Median = 22). Continuous age data were categorized into four groups in Table 4.1 to simplify the presentation. Participants were between 19 and 22 (57%), followed by 23-30 age group (33.5%), 31-40 (6.9%), and 41-56 (2.6%). The respondents were from all class standings, including freshman (10.4%), sophomore (13.7%), junior (16.7%), senior (21.3%), and graduate (37.9%). The majority of the respondents were Caucasian/White (77.1%), followed by other (8.3%), Asian American (5.9%), African American/Black (5.6%), Hispanic (2.2%), and Native American (.9%). The annual family household income breakdown was 40.2% less than \$50,000, 26.8% \$50,000-\$99,999, 20.1% \$100,000-\$149,999, and 12.9% \$150,000 or more. Low income levels are probably due to the large number of graduate students (37.9%) in the sample.

Table 4.1. Demographic Characteristics of each Experimental Group of the Main Study Sample

Categories	Group 1		Group 2		Group 3		Group 4		Group 5		Group 6		Group 7		Group 8	
	CF	SbC	CF	SbC	CF	SbC	CF	SbC	CF	GbC	CF	GbC	CF	GbC	CF	Gbc
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
<u>Gender</u>																
Female	14	36.8	18	45	11	40.7	22	44	18	46.2	17	42.5	11	35.5	19	52.8
Male	24	63.2	22	55	16	59.3	28	56	21	53.8	23	57.5	20	64.5	17	47.2
<i>n</i>	38		40		27		50		39		40		31		36	
<u>Age</u>																
19-22	23	60.5	25	62.5	10	37	30	60	21	53.8	19	47.5	22	71	23	63.9
23-30	12	31.6	11	27.5	15	55.6	15	30	14	35.9	14	35	7	22.6	8	22.2
31-40	2	5.3	3	7.5	2	7.4	3	6	2	5.1	7	17.5			3	8.3
41-56	1	2.6	1	2.5			2	4	2	5.1			2	6.5	2	5.6
<i>n</i>	38		40		27		50		39		40		31		36	
<u>Class Standing</u>																
Freshman	8	21.1	4	10	2	7.4	4	8	4	10.3	5	12.5	3	9.7	5	13.9
Sophomore	6	15.8	4	10	2	7.4	3	6	6	15.4	3	7.5	7	22.6	7	19.4
Junior	3	7.9	8	20	5	18.5	8	16	6	15.4	7	17.5	5	16.1	6	16.7
Senior	9	23.7	8	20	4	14.8	15	30	9	23	6	15	8	25.8	7	19.4
Graduate	12	31.6	16	40	14	51.9	20	40	14	35.9	19	47.5	8	25.8	11	30.6
<i>n</i>	38		40		27		50		39		40		31		36	
<u>Major</u>																
Agriculture	2	5.3	1	2.5	1	3.7	3	6	2	5.1	3	7.5	1	3.2		
Arch. & Design	3	7.9	1	2.5	4	14.8	4	8	4	10.3	6	15	3	9.7	3	8.3
Engineering	12	31.6	15	37.5	9	33.3	12	24	11	28.2	12	30	9	29	11	30.6
Education	4	10.5	5	12.5			4	8	5	12.8	3	7.5	2	6.5	3	8.3
Business	8	21.1	2	5	1	3.7	6	12	4	10.3	3	7.5	2	6.5	3	8.3
Forestry/Wildlife					1	3.7			1	2.6	1	2.5				
Nursing			1	2.5	1	3.7										

Note: CF = Conceptual Fluency, PF = Perceptual Fluency, S = Sperry, G = Gola, B = High Product-Brand Fit, b = Low Product-Brand Fit, C = High Product-Category Fit, c = Low Product-Category Fit

(Continued)

Table 4.1. (Continued)

Categories	Group 9		Group 10		Group 11		Group 12		Group 13		Group 14		Group 15		Group 16		Total	
	PF	SBC	PF	SbC	PF	SBC	PF	Sbc	PF	GBC	PF	GbC	PF	GBc	PF	Gbc	f	%
<u>Gender</u>																		
Female	25	51	20	37	18	52.9	14	42.4	25	51	21	45.7	17	41.5	15	42.9	285	44.4
Male	24	49	34	63	16	47.1	19	37.6	24	49	25	54.3	24	58.5	20	57.1	357	55.6
<i>n</i>	49		54		34		33		49		46		41		35		642	
<u>Age</u>																		
19-22	28	57.1	34	63	22	64.7	23	69.7	28	57.1	20	43.5	21	51.2	17	48.6	366	57
23-30	16	32.7	15	27.8	10	29.4	8	24.2	15	30.6	24	52.2	17	41.5	14	40	215	33.5
31-40	4	8.2	3	5.6	2	5.9	1	3	6	12.2	2	4.3	1	2.4	3	8.6	44	6.9
41-56	1	2	2	3.7			1	3					2	4.9	1	2.9	17	2.6
<i>n</i>	49		54		34		33		49		46		41		35		642	
<u>Class Standing</u>																		
Freshman	3	6.1	7	13	6	17.6	3	9.1	5	10.2	5	10.9	3	7.3			67	10.4
Sophomore	8	16.3	10	18.5	6	17.6	6	18.2	6	12.2	5	10.9	4	9.8	5	14.3	88	13.7
Junior	9	18.4	6	11.1	3	8.8	10	30.3	8	16.3	9	19.6	8	19.5	6	17.1	107	16.7
Senior	12	24.5	11	20.4	7	20.6	3	9.1	11	22.4	8	17.4	9	22	10	28.6	137	21.3
Graduate	17	34.7	20	37	12	35.3	11	33.3	19	38.8	19	41.3	17	41.5	14	40	243	37.9
<i>n</i>	49		54		34		33		49		46		41		35		642	
<u>Major</u>																		
Agriculture	1	2	2	3.7					2	4.1	3	6.5	3	7.3	1	2.9	25	3.9
Arch. & Design	2	4.1	7	13	1	2.9	3	9.1	4	8.2	3	6.5	2	4.9	2	5.7	52	8.1
Engineering	19	38.8	17	31.5	14	41.2	10	30.3	11	22.4	12	26.1	11	26.8	11	31.4	196	30.5
Education	2	4.1	3	5.6	2	5.9	2	6.1	6	12.2	4	8.7	4	9.8	1	2.9	50	7.8
Business	9	18.4	3	5.6	1	2.9	4	12.1	5	10.2	10	21.7	4	9.8	5	14.3	70	10.9
Forestry/Wildlife	1	2	1	1.9			2	6.1									7	1.1
Nursing	2	4.1	2	3.7			1	3	1	2							8	1.2

Note: CF = Conceptual Fluency, PF = Perceptual Fluency, S = Sperry, G = Gola, B = High Product-Brand Fit, b = Low Product-Brand Fit, C = High Product-Category Fit, c = Low Product-Category Fit

(Continued)

Table 4.1. (Continued)

Categories	Group 1		Group 2		Group 3		Group 4		Group 5		Group 6		Group 7		Group 8	
	CF	SbC	CF	SbC	CF	SbC	CF	Sbc	CF	GBC	CF	GbC	CF	GBc	CF	Gbc
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Pharmacy							1	2					1	3.2	1	2.8
Human Sciences	4	10.5	2	5	4	14.8	2	4	4	10.3	2	5	1	3.2	5	13.9
Liberal Arts	1	2.6	8	20	6	22.2	11	22	5	12.8	6	15	7	22.6	3	8.3
Vet. Medicine	2	5.3					1	2			1	2.5				
Science & Math	2	5.3	5	12.5			6	12	3	7.7	3	7.5	5	16.1	6	16.7
<i>n</i>	38		40		27		50		39		40		31		36	
<u>Ethnicity</u>																
African																
American/Black	2	5.3	4	10	1	3.7	4	8	4	10.3	3	7.5			2	5.6
Asian American	2	5.3	1	2.5	2	7.4	2	4	2	5.1	3	7.5	2	6.5	2	5.6
Caucasian/White	32	84.2	28	70	21	77.8	40	80	27	69.2	31	77.5	23	74.2	30	83.3
Hispanic			1	2.5			2	4	2	5.1			2	6.5		
Native American									1	2.6			1	3.2	1	2.8
Other	2	5.3	6	15	3	11.1	2	4	3	7.7	3	7.5	3	9.7	1	2.8
<i>n</i>	38		40		27		50		39		40		31		36	
<u>Annual family household income</u>																
< \$50,000	11	28.9	15	37.5	6	22.2	25	50	17	43.6	17	42.5	12	38.7	12	33.3
\$50,000-\$99,999	12	31.6	12	30	10	37	9	18	8	20.5	10	25	11	35.5	6	16.7
\$100,000-\$149,999	11	28.9	6	15	4	14.8	7	14	11	28.2	5	12.5	5	16.1	9	25
> \$150,000	4	10.5	7	17.5	7	25.9	9	18	3	7.7	8	20	3	9.7	9	25
<i>n</i>	38		40		27		50		39		40		31		36	

Note: CF = Conceptual Fluency, PF = Perceptual Fluency, S = Sperry, G = Gola, B = High Product-Brand Fit, b = Low Product-Brand Fit, C = High Product-Category Fit, c = Low Product-Category Fit

(Continued)

Table 4.1. (Continued)

Categories	Group 9		Group 10		Group 11		Group 12		Group 13		Group 14		Group 15		Group 16		Total	
	PF	SBC	PF	SbC	PF	SBc	PF	Sbc	PF	GBC	PF	GbC	PF	GBc	PF	Gbc	f	%
Pharmacy					1	2.9							1	2.4	1	2.9	6	.9
Human Sciences	6	12.2	5	9.3	4	11.8	2	6.1	7	14.3	4	8.7	3	7.3	3	8.6	58	9
Liberal Arts	5	10.2	5	9.3	7	20.6	7	21.2	8	16.3	8	17.4	5	12.2	5	14.3	97	15.1
Vet. Medicine			1	1.9									1	2.4			6	.9
Science & Math	2	4.1	8	14.8	3	8.8	2	6.1	5	10.2	2	4.3	7	17.1	5	14.3	64	10
<i>n</i> ^a	49		54		33		33		49		46		41		34		639	
<u>Ethnicity</u>																		
African																		
American/Black	2	4.1	2	3.7	4	11.8			3	6.1			4	9.8	1	2.9	36	5.6
Asian American	2	4.1	4	7.4			1	3	4	8.2	4	8.7	6	14.6	1	2.9	38	5.9
Caucasian/White	39	79.6	43	79.6	24	70.6	28	84.8	37	75.5	36	78.3	27	65.9	29	82.9	495	77.1
Hispanic	1	2			1	2.9	1	3	3	6.1	1	2.2					14	2.2
Native American			1	1.9							2	4.3					6	.9
Other	5	10.2	4	7.4	5	14.7	3	9.1	2	4.1	3	6.5	4	9.8	4	11.4	53	8.3
<i>n</i>	49		54		34		33		49		46		41		35		642	
<u>Annual family household income</u>																		
< \$50,000	16	32.7	24	44.4	13	38.2	15	45.5	21	42.9	21	45.7	16	39	17	48.6	258	40.2
\$50,000-\$99,999	14	28.6	13	24.1	14	41.2	5	15.2	12	24.5	16	34.8	12	29.3	8	22.9	172	26.8
\$100,000-\$149,999	15	30.6	12	22.2	3	8.8	9	27.3	11	22.4	9	19.6	6	14.6	6	17.1	129	20.1
> \$150,000	4	8.2	5	9.3	4	11.8	4	12.1	5	10.2			7	17.1	4	11.4	83	12.9
<i>n</i>	49		54		34		33		49		46		41		35		642	

a. Cases with missing values not included

Note: CF = Conceptual Fluency, PF = Perceptual Fluency, S = Sperry, G = Gola, B = High Product-Brand Fit, b = Low Product-Brand Fit, C = High Product-Category Fit, c = Low Product-Category Fit

Manipulation Checks

Manipulation checks were conducted for each of the independent variables (product-brand fit, product-category fit, and brand strength). Before conducting *t*-tests to determine the differences between the two levels of each independent variable, the unidimensionality of the scale was checked using principle component analysis with varimax rotation and reliability was checked using Cronbach's α . Principle component analysis confirmed that the product-brand fit scale was unidimensional (see Table 4.2). The scale also demonstrated high reliability (Cronbach's $\alpha = .98$). Items were combined and the mean score was used for further analysis. Results from *t*-tests showed that the mean score of the product-brand fit scale in the high product-brand fit condition was greater than that in the low product-brand fit condition ($M_{\text{high}} = .89$, $M_{\text{low}} = -.56$, $t = 10.18$, $p < .001$), and the mean scores were significantly different from the mid-point of the scale (0 on a -3 to 3 scale) ($t_{\text{high}} = 8.6$, $p < .001$, $t_{\text{low}} = -5.7$, $p < .001$), indicating that the product-brand fit manipulation was successful.

Table 4.2. Factors Loadings for Unidimensionality of the Product-Brand Fit Construct

Product-Brand Fit Scale Item	Factor Loadings
Similar/not similar to [Brand] image	.97
Consistent/not consistent with [Brand] image	.97
Typical/not typical to [Brand] image	.97
Representative/not representative of [Brand] image	.97
Eigenvalue	3.74
Variance Explained	93.43%

Principle component analysis confirmed that the product-category fit scale was also unidimensional (see Table 4.3). The Cronbach's α of the scale was .97, indicating high reliability. Items were combined and the mean score was used for further analysis. Results from *t*-tests showed that the mean score of the product-category fit scale in the high product-category fit

condition was greater than that in the low product-category fit condition ($M_{\text{high}} = 1.4$, $M_{\text{low}} = -1.4$, $t = 34.1$, $p < .001$), and the mean scores were significantly different from the mid-point of the scale (0 on a -3 to 3 scale) ($t_{\text{high}} = 17.8$, $p < .001$, $t_{\text{low}} = -15.2$, $p < .001$), indicating that the product- category fit manipulation was successful.

Table 4.3. Factors Loadings for Unidimensionality of the Product-Category Fit Construct

Product-Category Fit Scale Item	Factor Loadings
Poor/good example of an active/sport watch	.96
Not representative/representative of an active/sport watch	.97
Not typical/typical of an active/sport watch	.97
Doesn't look like/looks like an active/sport watch	.95
Eigenvalue	3.69
Variance Explained	92.30%

The Cronbach's α of the brand strength scale was .92, indicating high reliability. However, principle component analysis with varimax rotation revealed that the scale had two components (see Table 4.4). Based on the factor loadings, the first three items were combined to form the first component, named brand familiarity. The last three items were combined to form the second component, named perceived brand strength. Results from t -tests showed that the mean score of the brand familiarity measure in the strong brand condition was greater than that in the weak brand condition ($M_{\text{strong}} = -.37$, $M_{\text{weak}} = -2.58$, $t = 18.4$, $p < .001$), and the mean score of the perceived brand strength measure in the strong brand condition was greater than that in the weak brand condition ($M_{\text{high}} = .70$, $M_{\text{low}} = -.52$, $t = 11.9$, $p < .001$), confirming that the brand strength manipulation was successful.

Table 4.4. Factors Loadings of the Two Components of the Brand Strength Construct

Brand Strength Scale Item	Factor Loadings	
	Component 1 (Familiarity)	Component 2 (Strength)
No information/a great deal of information	.93	
No previous experience/a lot of previous experience	.91	
Very unfamiliar/very familiar	.93	
Dislike a great deal/like a great deal		.84
Weak brand/strong brand		.87
Mediocre brand/leading brand		.86
Eigenvalue	4.23	1.06
Variance Explained	70.54%	17.73%
Cumulative Variance Explained	88.27%	

Table 4.5. Factors Loadings for Unidimensionality of the Product Attitude Construct

Product Attitude Scale Item	Factor Loadings	
	Baseline	Post
Not pleasant/pleasant	.94	.95
Not likeable/likeable	.95	.96
Not favorable/favorable	.94	.96
Bad/good	.91	.94
Not appealing/appealing	.91	.94
Eigenvalue	4.31	4.52
Variance Explained	86.29%	90.42%

Table 4.6. Factors Loadings for Unidimensionality of the Purchase Intention Construct

Purchase Scale Item	Factor Loadings
I definitely intend to buy this active/sport watch	.89
I have low interest in purchasing this active/sport watch	.80
I will definitely buy this active/sport watch	.87
I will probably not buy this active/sport watch	.90
I will never buy this active/sport watch	.84
Eigenvalue	3.70
Variance Explained	73.96%

Hypotheses Testing Results

Prior to conducting hypotheses testing, the unidimensionality of the scale for each dependent variable was checked by principle component analysis with varimax rotation and reliability was checked using Cronbach's α . Results from principle component analysis confirmed that product attitude scale (measured twice: 1. prior to experimental manipulation – baseline, and 2. after experimental manipulation – post) was unidimensional (see Table 4.5). Cronbach's α of the scale was .96 (baseline) and .97 (post), indicating high reliability. The purchase intention scale was treated similarly. Results from principle component analysis confirmed that purchase intention scale was unidimensional (see Table 4.6) and Cronbach's α confirmed high reliability (.91). Items within the product attitude and purchase intention scales were combined to test H1a, H1b, H2a, and H2b using Analysis of Covariance (ANCOVA), whereas each respective item was entered as an indicator for the baseline product attitude, extension product attitude, and purchase intention latent variables to test H3a, H3b, and H4 using Structural Equation Modeling (SEM).

H1a and H1b hypothesizing the direct effects of product-brand fit and product-category fit on product attitude, and H2a and H2b hypothesizing the moderation effect of brand strength in these two relationships were tested using ANCOVA. The dependent variable was the extension product attitude measure, and the independent variables were product-brand fit, product-category fit, and brand strength (see Figure 4.1). Baseline product attitude was treated as a covariate in order to control for prior product attitude based on variability in innate consumer preferences. The Levene's Test of Equality of Error Variances output was not statistically significant, $F(7,634) = 1.80, p = .08$, indicating homogeneity of variances among the dependent variable groups. Thus, analysis proceeded with ANCOVA (see Table 4.7). Results showed that after

controlling for baseline product attitude ($F(1,633) = 484.03, p < .000, \eta^2 = .43$) the main effects of product-brand fit and product-category fit on product attitude were significant ($F(1,633) = 7.93, p = .005, \eta^2 = .01$; $F(1,633) = 78.74, p < .001, \eta^2 = .11$, respectively). Specifically, the high product-brand fit group ($M_{Adj} = .06, SE = .07$) yielded significantly more positive extension product attitude ratings than the low product-brand fit group ($M_{Adj} = -.20, SE = .06; M_{diff} = .26, SE_{diff} = .09, p = .005$), and high product-category fit group ($M_{Adj} = .34, SE = .06$) yielded more positive extension product attitude ratings than low product-category fit group ($M_{Adj} = -.48, SE = .07; M_{diff} = .82, SE_{diff} = .09, p < .001$). Thus, H1a and H1b were supported. Raw (unadjusted) and adjusted means, along with standard deviations for the raw means and standard errors for the adjusted means are presented in Table 4.8.

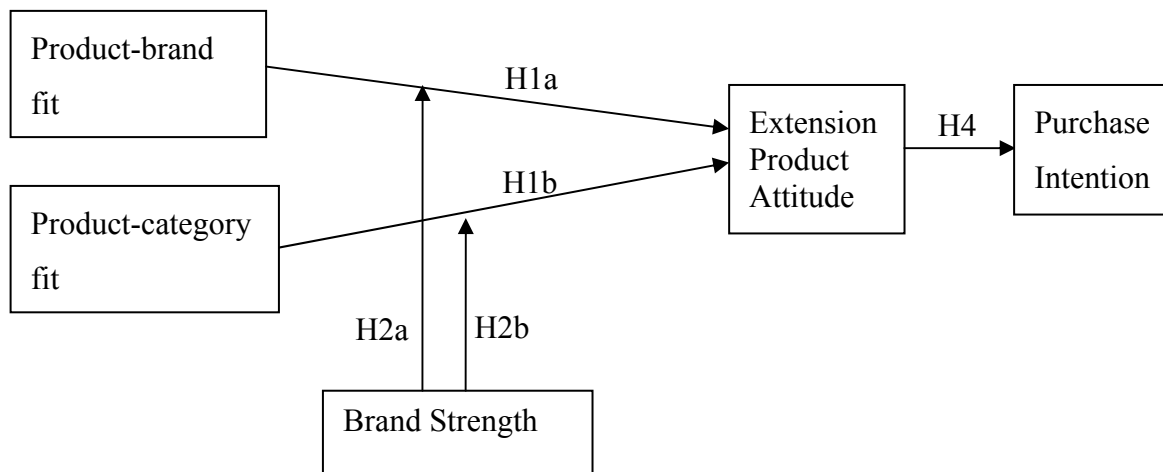


Figure 4.1. The impact of product-brand fit and product-category fit on extension product attitude and the moderating effect of brand strength.

Table 4.7. Results from ANCOVA for Extension Product Attitude

Source	MS	$F(1, 633)$	p	Partial η^2
Product Attitude – Baseline	655.61	484.03	.000***	.433
Product-Brand Fit (A)	10.74	7.93	.005**	.012
Product-Category Fit (B)	106.64	78.74	.000***	.111
Brand Strength (C)	1.87	1.38	.240	.002
(A) x (B)	7.96	5.88	.016*	.009
(A) x (C)	1.24	.91	.340	.001
(B) x (C)	27.36	20.20	.000***	.031
(A) x (B) x (C)	.05	.04	.851	.000
Error	1.35			

*** $p < 0.001$, ** $p < .01$, * $p < .05$

Table 4.8. Statistics for Baseline and Extension Product Attitude across Experimental Conditions

Experimental Groups	Baseline Product Attitude		Extension Product Attitude			
	M	SD	M	SD	M_{Adj}^a	SE
SBC	-.47	1.42	.01	1.55	.24	.13
SbC	.17	1.43	.33	1.53	.13	.12
SBc	-.06	1.64	.13	1.57	.08	.15
Sbc	.27	1.39	-.24	1.55	-.52	.13
GBC	-.27	1.74	.39	1.64	.48	.12
GbC	-.23	1.45	.44	1.25	.51	.13
GBc	-.63	1.56	-.89	1.72	-.55	.14
Gbc	.17	1.38	-.74	1.54	-.94	.14

Note: S = Sperry, G = Gola, B = High Product-Brand Fit, b = Low Product-Brand Fit, C = High Product-Category Fit, c = Low Product-Category Fit

a. Adjusted means after controlling for the effects of the covariate

H2a hypothesized that product-brand fit will have greater impact on extension product attitude for strong brands than for weak brands. The interaction effect between product-brand fit and brand strength was not statistically significant ($F(1,633) = .91, p = .34$) although it was in the hypothesized direction. Thus, H2a was not supported. The difference in the adjusted means

of the extension product attitude in high and low product-brand fit conditions was larger in the strong brand than in the weak brand condition. The adjusted mean of extension product attitude ratings for the strong brand (*Sperry*[®]) in the high and low product-brand fit condition were .16 and -.19, respectively, and the extension product attitude adjusted means for the weak brand (*Gola*[®]) were -.04 and -.21 for high and low product-brand fit conditions, respectively. Although the hypothesis was not supported, Figure 4.2 and Figure 4.3 are included here to provide a sense of the trend observed.

		<u>Brand Strength</u>		Mean Differences	Overall Means
		Weak (<i>Gola</i> [®])	Strong (<i>Sperry</i> [®])		
<u>Product- Brand Fit</u> (PBF)	Low	-0.21	-0.19	$M_{diff} = .02$ $SE = .13$ $p = .87$	$M_{Lo-PBF} = -.20$
	High	-0.04	.16	$M_{diff} = .20$ $SE = .13$ $p = .14$	$M_{Hi-PBF} = .06$
Mean Differences		$M_{diff} = .18$ $SE = .13$ $p = .18$	$M_{diff} = .35$ $SE = .13$ $p = .008$		
Overall Means		$M_{Gola} = -.13$	$M_{Sperry} = -.02$		

Figure 4.2. Simple Effects Statistics for Product-Brand Fit x Brand Strength Interaction

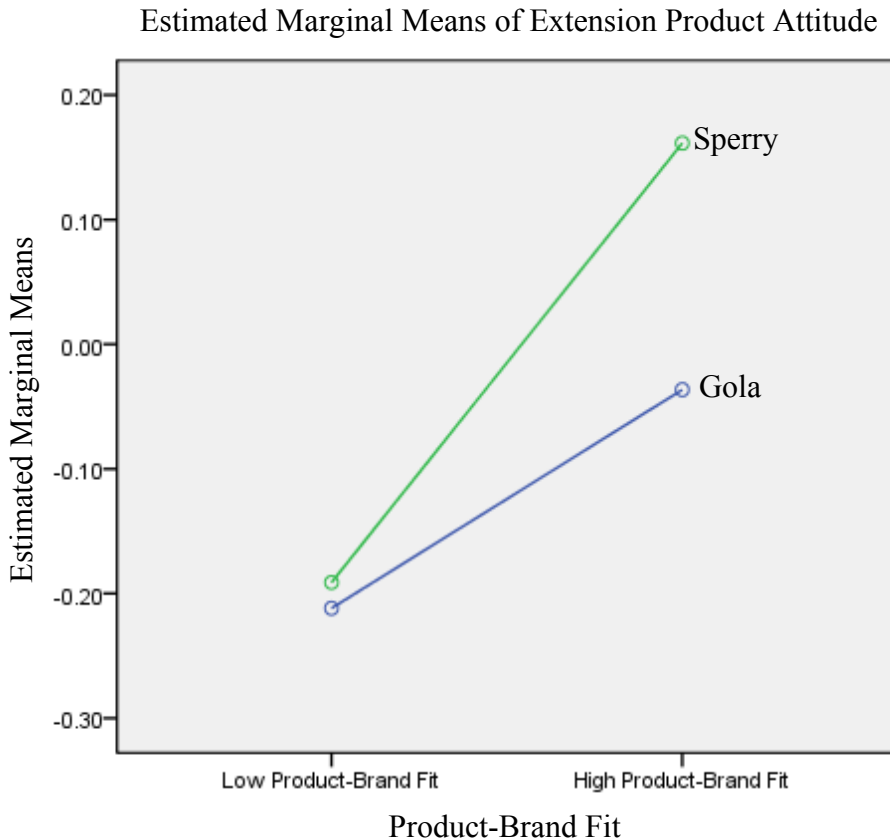


Figure 4.3. Graph for Product-Brand Fit x Brand Strength Interaction

The interaction effect between product-category fit and brand strength (H2b) was significant ($F(1,633) = 20.20, p < .001, \eta^2 = .03$). The adjusted means of the extension product attitude for the strong brand (*Sperry*[®]) in the high and low product-category fit conditions were .19 and -.22, respectively ($M_{\text{diff}} = .41, SE = .13, p = .002$) and the extension product attitude adjusted means for the weak brand (*Gola*[®]) were .50 and -.74 for high and low product-category fit conditions, respectively ($M_{\text{diff}} = 1.24, SE = .13, p < .001$) (see Figure 4.4), thus, supporting H2b that product-category fit has greater impact on extension product attitude for weak brands than for strong brands (see Figure 4.5).

		Brand Strength		Mean Differences	Overall Means
		Weak (Gola [®])	Strong (Sperry [®])		
Product- Category Fit (PCF)	Low	-0.74	-0.22	$M_{diff} = .53$ $SE = .14$ $p < .001$	$M_{Lo-PCF} = -.48$
	High	.50	.19	$M_{diff} = .31$ $SE = .12$ $p = .013$	$M_{Hi-PCF} = .35$
Mean Differences		$M_{diff} = 1.24$ $SE = .13$ $p < .001$	$M_{diff} = .41$ $SE = .13$ $p = .002$		
Overall Means		$M_{Gola} = -.12$	$M_{Sperry} = -.02$		

Figure 4.4. Simple Effects Statistics for Product-Category Fit x Brand Strength Interaction

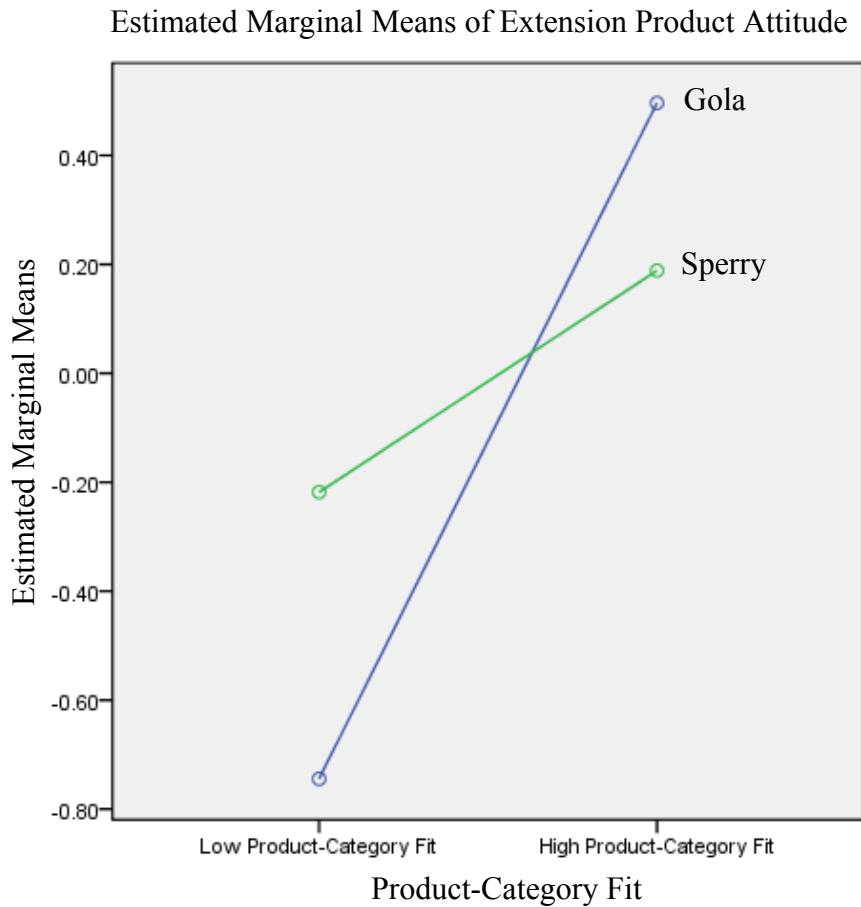


Figure 4.5. Graph for Product-Category Fit x Brand Strength Interaction

This study hypothesized that conceptual fluency mediates the effect of product-brand fit on extension product attitude (H3a), perceptual fluency mediates the effect of product-category fit on extension product attitude (H3b), and extension product attitude in turn positively influences purchase intention for the extension product (H4). Structural equation modeling (SEM) with maximum likelihood estimation was conducted to test these hypotheses. Perceived product-brand fit and product-category fit (rather than manipulated fit) were used in the SEM because continuous data provides more information and variation in the constructs.

Prior to conducting analysis, data were split into conceptual and perceptual fluency groups because participants in the two groups received a different image to measure either conceptual fluency or perceptual fluency. Therefore, separate SEM models were used to test the mediating effects of conceptual fluency (H3a, using the conceptual fluency group) and perceptual fluency (H3b, using the perceptual fluency group).

Conceptual Fluency

The model consisted of perceived product-brand fit and baseline product attitude as exogenous variables, conceptual fluency, extension product attitude, and purchase intention as endogenous variables. The fit indices (IFI = .97, NFI = .95, CFI = .97, RMSEA = .06) suggest a good fit of the model. The hypothesized model accounted for 48% of the variance for extension product attitude and 54% of the variance for purchase intention. However, examination of the standardized factor loadings revealed that response latency did not load significantly on the fluency construct; its loading was less than .65 ($\beta^* = .20, p = .55$). This may have resulted from an uncontrolled environment while conducting the experiment. Since processing fluency occurs swiftly (in milliseconds) and implicitly in consumer's mind, lack of experimental control may

have introduced error variances that caused the response latency to be inaccurate. Therefore, response latency was dropped from further analysis. The pleasantness measure of conceptually associated image served as a measured variable representing conceptual fluency in the new model (see Figure 4.6).

The fit indices of the new model suggest a good fit to the data (IFI = .97, NFI = .95, CFI = .97, RMSEA = .07). The model accounted for 47% of the variance for extension product attitude and 54% of the variance for purchase intention. The regression coefficients indicated that perceived product-brand fit ($\beta = .30, p < .001$) and baseline product attitude ($\beta = .57, p < .001$) positively influence extension product attitude. Results also show that extension product attitude ($\beta = .74, p < .001$) positively influences purchase intention of the extension product. Thus, H4 was supported. However, perceived product-brand fit did not significantly influence the pleasantness measure of the conceptual fluency related image ($\beta = .05, p = .36$), indicating that the pleasantness of the conceptual fluency image was not a mediator in the relationship between perceived product-brand fit and extension product attitude. Therefore, H3a was not supported. Table 4.9 provides a summary of the standardized regression coefficients and fit statistics for the structural model.

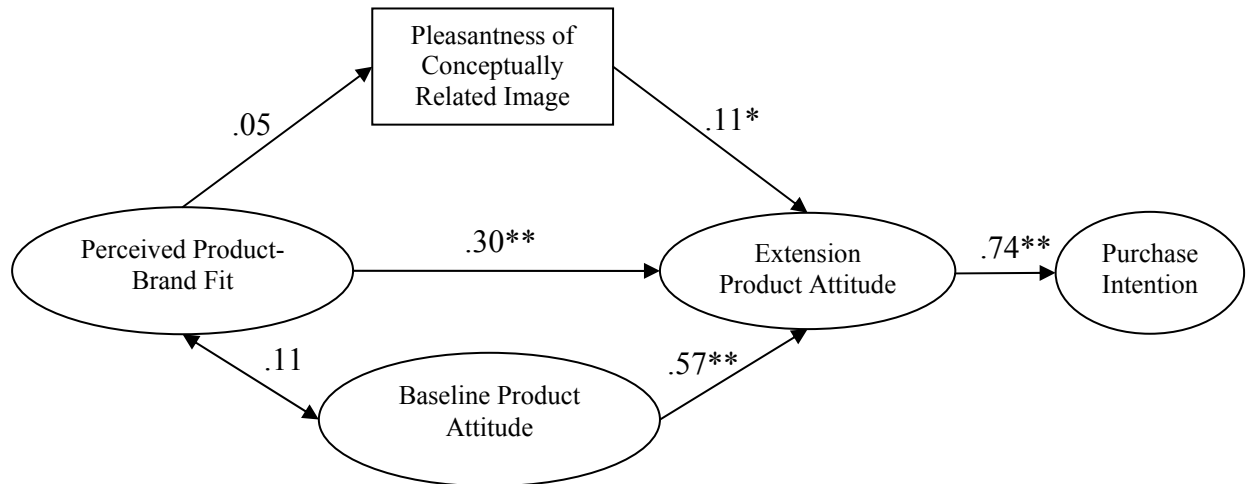


Figure 4.6. Relationships among perceived product-brand fit, pleasantness of conceptually related image, baseline product attitude, extension product attitude, and purchase intention. Note: * $p < .05$, ** $p < .01$

Table 4.9. Standardized Regression Coefficients and Fit Statistics for the Structural Model for Testing Conceptual Fluency

Hypothesized paths		Structural coefficients	Critical ratio
H1a	Perceived product-brand fit → Extension product attitude	.30	6.61**
H3a	Perceived product-brand fit → Pleasantness	.05	.91
H3a	Pleasantness → Extension product attitude	.11	2.53*
H4	Product attitude → Purchase intention	.74	14.34 **
Fit statistics			
	<i>df</i>	165	
	Chi-square	373.5	
	IFI	.971	
	NFI	.949	
	CFI	.970	
	RMSEA	.065	90% CI (.056, .074)
Critical ratio ≥ 1.96 is significant at $p = .05$ level			
* $p \leq .05$			
** $p < .01$			

Perceptual Fluency

The model for testing the mediating effect of perceptual fluency consists of perceived product-category fit and baseline product attitude as exogenous variables, measured pleasantness (of the perceptually associated image), extension product attitude, and purchase intention as endogenous variables (see Figure 4.7). The fit indices (IFI = .97, NFI = .95, CFI = .97, RMSEA = .07) suggest a good fit of the model. The hypothesized model accounts for 63% of the variance for extension product attitude and 57% of the variance for purchase intention. The regression coefficients indicate that perceived product-category fit ($\beta = .45, p < .001$) and baseline product attitude ($\beta = .57, p < .001$) positively influence extension product attitude. Perceived product-category fit positively influences the pleasantness measure of the perceptually related image ($\beta = .15, p = .006$). Results again showed that extension product attitude ($\beta = .76, p < .001$) positively influences purchase intention of the extension product, supporting H4. However, pleasantness measure did not significantly influence extension product attitude ($\beta = -.02, p = .55$) indicating that the pleasantness of the perceptually associated image was not a mediator in the relationship between perceived product-category fit and extension product attitude. Therefore, results failed to support H3b. Table 4.10 provides a summary of the standardized regression coefficients and fit statistics for the structural model.

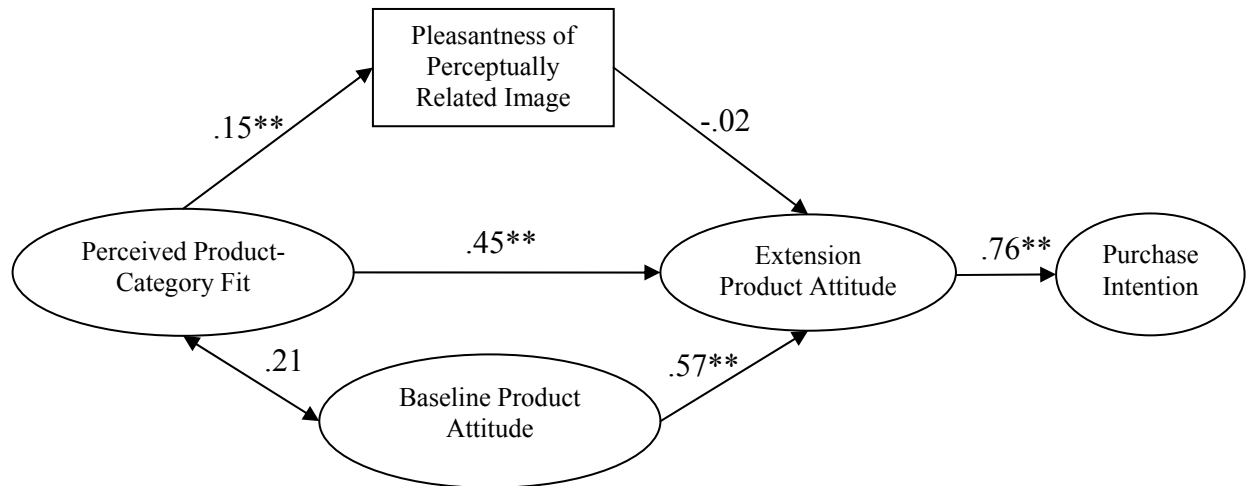


Figure 4.7. Relationships among perceived product-category fit, pleasantness of perceptually related image, baseline product attitude, extension product attitude, and purchase intention. Note: * $p < .05$, ** $p < .01$

Table 4.10. Standardized Regression Coefficients and Fit Statistics for the Structural Model for Testing Perceptual Fluency

Hypothesized paths		Structural coefficients	Critical ratio
H1b	Perceived product-category fit → Extension product attitude	.45	11.90**
H3b	Perceived product-category fit → Pleasantness	.15	2.76 **
	Pleasantness → Extension product attitude	-.02	-.59
H4	Product attitude → Purchase intention	.76	16.22 **
Fit statistics			
	<i>df</i>	165	
	Chi-square	465.76	
	IFI	.965	
	NFI	.947	
	CFI	.965	
	RMSEA	.073	
			90% CI (.065, .081)
Critical ratio ≥ 1.96 is significant at $p = .05$ level			
* $p \leq .05$			
** $p < .01$			

CHAPTER 5. DISCUSSION

This chapter discusses the results of hypotheses testing in light of the previous literature and conceptual background on which this study is based. This chapter addresses the three research questions set forth in the first chapter: (1) what are the impacts of product-brand fit and product-category fit on consumer's attitude and purchase intention for an extension product? (2) Does brand strength moderate the impacts of product-brand fit and product-category fit on consumer's product attitude? (3) Is processing fluency the underlying mechanism for the effects of product-brand fit and product-category fit on consumer's attitude? Each of these is discussed in following sections.

Product-Brand Fit

The results of this study demonstrate the direct effect of product-brand fit on extension product attitude; the greater the product-brand fit, the more positive the evaluation of the extension product. This finding supports the extant literature on the positive effects of perceived fit between the parent brand and the extension on consumer's attitude and purchase intention for the brand extension. Researchers have examined the effects of fit between the brand concept and the extension product, between the parent brand concept (e.g. symbolic, functional) and the extension product (e.g. symbolic, functional), and between the parent brand belief (e.g. mildness, harsh) and the extension product attributes (e.g. mild, strong) on consumers' attitudes toward parent brands (Park et al., 1991; Thorbjørnsen, 2005; Loken & John, 1993). This study extends

this stream of research by examining another dimension of fit – the fit between the product design and the parent brand image. Results of this study not only provide support to the view that fit is a critical factor in brand extension but also extend the existing literature by examining a different dimension of fit (i.e. product-brand fit) that is related to brand extension success.

The finding that high product-brand fit leads to more positive extension product attitudes than low product-brand fit also provides support to the categorization literature which contend that consumers evaluate and categorize a brand when they encounter it (Kreuzbauer & Malter, 2007; Nedungadi & Hutchinson, 1985). Furthermore, this finding supports the notion that consumers use product design as a cue to categorize brands (Kreuzbauer & Malter, 2007). Three bases of brand categorization as influenced by product design proposed by Kreuzbauer and Malter (2007) are brand-product categorization, brand-sign categorization, and brand-style categorization. Although the current study did not distinguish the bases of brand categorization consumers use to categorize the stimuli brand and its product, it appears that respondents based their evaluations of the branded watches (extension product) on the fit between the watch design and the brand image using the brand-sign and brand-style categorization processes. For example, participants experience brand-sign categorization of a Sperry watch through the design of the leather strap (high product-brand fit), typical of the well known Sperry boat shoes.

This study extends the research on categorization of brands to the superordinate and subordinate category (Nedungadi & Hutchinson, 1985) by examining the effect of ease of categorization of product design to brand image. Nedungadi and Hutchinson (1985) examined the level of prototypicality of a given brand (e.g. Newsweek) to the more abstract level of product category such as news magazine (subordinate) and magazine (superordinate). The current study approaches brand categorization the other way around by examining the design of a

product that leads consumers to categorize the product under the parent brand's umbrella category. Results of this study imply that consumers categorize products to its parent brand based on the prototypicality of the product design to the brand image. If the product design shows high similarity (or prototypicality) to the brand image, consumers evaluate the product more positively.

Product-Category Fit

The results of this study also support the direct effect of product-category fit on extension product attitude showing that high product-category fit leads to more positive extension product attitudes than low product-category fit. This study provides support to the categorization literature which states that consumers form category schema and categorize objects based on the similarity of the object to its category schema (Neisser, 1976). Consumers form category schema using attributes that are prototypical of the members within the category and category schema is found to be universal across participants and stable across time (DeLong, Minshall, & Larntz, 1986). The finding is consistent with the literature on product categorization empirically showing that consumers evaluate products based on the perceptual attributes in their category schema (DeLong, Minshall, & Larntz, 1986; Kreuzbauer & Malter, 2005).

Research in prototypicality literature show that prototypical product shapes, faces, and animals are evaluated as more attractive and more favorably than those that are less prototypical (Veryzer & Hutchinson, 1998; Langlois & Roggman, 1990; Rhodes & Tremewan, 1996; Halberstadt & Rhodes, 2000). The current study extends this stream of research by utilizing realistically-rendered product images in the experiment. Results show that consumer evaluations of active sportswear watches is more positive when the product features a greater number of

perceptual attributes that are related to the active sportswear category such as sleek and rounded watch face, multi-functions (e.g. water resistant, stopwatch/timer), and digital display.

Prototypical attributes in a product's design facilitate the categorization process and consumer understanding of the stimulus, leading to a more positive attitude toward the product. This study demonstrates that these findings apply in the brand extension context as well: an extension product that is highly typical of the extension category (product-category fit) will receive more positive product evaluations than those low in typicality.

This study extends the perceived fit dimension examined in the brand extension research. Feature similarity between the brand's existing products and the extension products was found to be an important factor influencing consumers' attitudes toward the extension product (Park et al., 1991). This study examines the fit between the extension product and the extension product category and finds a similar effect of fit on consumers' evaluations, thereby advancing knowledge about the multi-dimensionality of fit and its effect on extension product attitude in the brand extension context.

The findings of this study provide additional insight into the relative impact of product-brand fit and product-category fit on consumer's attitude toward the extension product beyond the existing knowledge from the literature. The effect sizes of the two variables show that product-category fit exerts a greater influence on extension product attitude than product-brand fit. This implies that the previously unexamined domain of product-category fit is a critical variable in the brand extension context, and merits further examination.

Extension Product Attitude and Purchase Intention

The results of this study support the positive influence of extension product attitude on purchase intention. Product attitude was measured twice. First, product attitude measure was obtained prior to introducing experimental manipulations to serve as baseline attitude to control for any individual differences in innate design preferences. Second, product attitude measure was obtained after introducing experimental manipulations to serve as the extension product attitude. The baseline product attitude was used in the analysis as a covariate to statistically control for variances that are not accounted for by the experimental conditions. After controlling for baseline product attitude, the extension product attitude was still significantly influenced by the experimental variables (product-brand fit, product-category fit, and brand strength), demonstrating the effects of these variables in producing significant attitude change. Results also reveal that extension product attitude, which was measured after introducing experimental manipulation, strongly and positively influences purchase intention for the extension product. Consistent with the postulation of the theory of reasoned action (TRA), the finding of the present study supports the positive relationship between product attitude and purchase intention.

Moderating Role of Brand Strength

This study hypothesized that product-brand fit will have a greater impact on extension product attitude for strong brands than for weak brands given that consumers' evaluation of the extension product depend on the accessibility of parent brand associations (Keller & Aaker, 1992). That is, the salience of the brand associations at the time of evaluation will affect consumers' evaluation. When the brand association is salient, as in the strong brand condition, a low product-brand fit extension will cause cognitive dissonance in the consumer's mind and

therefore lead to lower product attitude. On the contrary, the brand association of a weak brand will not be salient because consumers have little, if any, brand knowledge about the weak brand, therefore cognitive dissonance will not occur in low product-brand fit condition. This hypothesis, however, was not supported. Results shows that although the pattern of results were in the predicted direction, the interaction term was not significant, indicating that the findings did not provide support for the predicted interaction effect of brand strength and product-brand fit.

There are several possible reasons for the finding that brand strength did not interact with product-brand fit. An image that conveyed the stimulus brand's image and some exemplar product offerings of the brand were presented to the respondents. This image was shown to respondents prior to extension product evaluation to allow the researcher to examine whether the manipulation is successful. More importantly, it provides greater validity to the real world where consumers encounter a product along with other offerings from the brand. In reality, consumers see images that convey the brand image, such as advertisements or posters, along with the product offerings in the shopping environment (e.g. online, retail shops). Therefore, presenting the image of the brand is justifiable. However, strong brands often have stronger communication of brand image than weak brands in the real world leading to more salient brand images for strong brands. This study provided an equal amount of brand information (an image that communicates the brand's image and a few typical product offerings) for both strong and weak brands. Hence, brand associations of both brands could have been salient, thereby decreasing the differences between strong and weak brand associations, which are the basis for the interaction effect that was proposed.

This study supports the hypothesis that product-category fit will have a stronger impact on extension product attitude for weak brands than for strong brands. The findings of this study

demonstrate a more dramatic influence of product-category fit on product attitude for weak brand than for strong brands in that high product-category fit leads to polarized attitudes (much higher product attitude for high fit and much lower product attitude for low fit) for a weak brand, when compared to a strong brand. Results show that participants in the weak brand's low product-category fit condition rated the extension product significantly lower than participants in the strong brand's low product-category fit condition. Furthermore, participants in the weak brand's high product-category fit condition rated the extension product significantly higher than participants in the strong brand's high product-category fit condition.

This result is consistent with the existing literature on the differential effect of brand strength in other contexts, such as advertising (Dahlen & Lange, 2005) and retailing (Woodside & Walser, 2007). The findings of this study also provide support for the role of ELM in explaining consumers' processing of an extension product. Specifically, since a weak brand does not have a well established brand image in consumers' minds, consumers can not use the brand as a heuristic cue because they do not have adequate knowledge of the brand; therefore, they will expend more cognitive resources in examining the fit between the product's attributes and its category, and form product attitudes based on attribute-level processing as predicted in ELM.

Mediating Effects of Processing Fluency

This study hypothesized that conceptual fluency will mediate the effect of product-brand fit on product attitude, and that perceptual fluency will mediate the effect of product-category fit on product attitude. Response latency and pleasantness of a related image (either conceptual or perceptual) were measured as indicators of processing fluency. However, results failed to support the mediating effects of conceptual and perceptual fluencies on the impact of product-brand fit

and product-category fit on product attitude. Respondents in the present study did not demonstrate faster response latency or more pleasantness in processing the fluency related image when they perceived higher product-brand fit or higher product-category fit from the watch images presented. This result fails to corroborate Mervis, Catlin, and Rosch (1976)'s findings that prototypicality influences speed of processing and response time.

Processing fluency theory postulates that consumers' aesthetic pleasure will be more positive when they experience fluent processing (Reber, Schwarz, & Winkielman, 2004). Although the mediating variables in the current study did not provide support to processing fluency theory, the results showing that consumer attitudes toward the extension product for high product-brand fit and high product-category fit conditions were more positive than participants in the low product-brand fit and low product-category fit conditions, implying the underlying effect of processing fluency. This leads the researcher to question the accuracy of the measure used for assessing processing fluency. The method for assessing processing fluency in previous research was prior exposure to target (image or text), to objects that are closely related to the target, and to prior context (whether it was semantically predictive or neutral) (Lee & Labroo, 2004; Whittlesea, 1993). These researchers manipulated the source of processing fluency and measured the outcome of processing fluency, in terms of consumer's preference or liking of the target. By contrast, the source of processing fluency in the current study is different from that used in previous research. In the current study, sources of conceptual fluency included prior brand knowledge that consumers have in their mind and prior exposure to the image that conveyed the brand's image and its product offerings. The source of perceptual fluency was the product category schema (or mental image of a product category) that consumers may have developed prior to participating in this study. This study measured processing fluency through an image that

is either related to the brand image or the product category schema based on the conceptualization that if the processing is fluent, participants will process a related image fluently and evaluate it positively.

Results suggest response latency and pleasantness rating of the related image used in this study was not an accurate measure of processing fluency. Using an additional image (i.e. conceptually or perceptually related image) to measure processing fluency, instead of using the target object (i.e. extension product) may have introduced additional intervening variance that may have interfered with capturing the processing fluency related to the watch designs.

Furthermore, using pleasantness rating as a measure of processing fluency may not be accurate because pleasantness captures the effect (or result) of processing fluency but not the fluency itself. Also, brand image may have a direct effect on participants' emotion and thus have also influenced the pleasantness rating of the fluency related image. The present study did not effectively tease out the potential effect of brand image from the effect of processing fluency.

Since processing fluency is a process that occurs implicitly in milliseconds of time, it is difficult to measure it explicitly, and the methodology used in this study failed to capture the latency effectively. There are several possible reasons for this. The stimuli (i.e. watch images) in the present study were fairly easy to process, thereby minimizing the difference between the fluent processing and non-fluent processing. Since the exposure time to the stimuli for each participant was not controlled, some participants may have viewed the given watch image very closely and others may have immediately proceeded to the processing fluency measure without paying much attention to the watch image, and this potential variation in response behaviors would certainly affect the impact of the stimuli on the fluency measures. Also, the experimental environment was not controlled (participants answered the questionnaire at times and places of

their own choices, and the computer and internet connection speed may have varied across individual participants) thereby introducing uncontrollable variances in the fluency measures. Recommendations to remedy these measurement issues include conducting the experiment in a controlled environment, using a control group, and/or measuring response time to another control question to adjust for individual and context-specific variations in response time. These recommendations are discussed in greater detail in the next chapter.

CHAPTER 6. CONCLUSIONS AND IMPLICATIONS

Preceding chapters provide valuable insights from this research in terms of understanding the effects of two fit variables, product-brand fit and product-category fit, on consumers' extension product attitude and purchase intention. These chapters also illustrate how consumers evaluate an extension product depending on the brand strength. The findings from this research offer important theoretical, methodological, and practical implications. These implications are provided in the subsequent sections, followed by discussions on the limitations of the study and suggestions for future research.

Theoretical Implications

This research provides valuable insights into the impact of product-brand fit, product-category fit, and brand strength on product attitude, which in turn influences purchase intention for a brand extension. It contributes to the extant literature in categorization, branding, product design, and marketing and provides support for the elaboration likelihood model (ELM) and Bloch's (1995)'s Model of Consumer Response to Product Form. The following paragraphs address these implications.

The most significant contribution of this research is that it ties together the previously seemingly unrelated streams of research from brand extension and aesthetics. Specifically, this study connects the literature from brand extension research regarding the fit between extension product and parent brand and the aesthetics literature regarding categorization and

prototypicality, and sheds some light on processing fluency theory. Thus, this study puts two streams of research into perspective by examining new fit dimensions of brand extension and extends the categorization theory in aesthetics to brand extension context.

The findings demonstrate that product-brand fit and product-category fit are theoretically and practically distinct constructs, and that these constructs are different from the perceived fit dimensions explored in the extant brand extension research. The perceived fit dimensions studied in the current research include the fit of the extension product design with the parent brand image (e. g. boating and leather boat shoes associated brand and casual and leather designed active/sport watch) and the fit of the extension product design with the extension product category (e.g. active/sport watch attributes such as round, plastic/rubber, digital, multi-functional). Therefore, this study advances knowledge about the multi-dimensionality of fit and provides insights into these two new dimensions of fit arising from product aesthetics and their impact on consumer's product attitude and purchase intention.

Furthermore, the results suggest the impact of product-brand fit and product-category fit on product attitude is implicit and persuasive. Product attitude and purchase intention measures were completed prior to introducing product-brand fit and product-category fit measures so that product attitude would not be influenced by drawing attention to product-brand or product-category fit. Nevertheless, the watch images that demonstrate good product-brand and product-category fit also receive the most favorable attitude ratings, demonstrating that even though the fit constructs were not made salient by the experimental procedure, they implicitly affect product attitude. This advances the literature a step closer to real life situations and provides a close representation of how product designs may actually influence consumers' attitudes in the marketplace.

This study supports Bloch's model by showing that product design (through the dimensions of fit) significantly influences consumers' attitudes toward the product and thus their behavioral intentions to approach or avoid the product. Moreover, this research extends Bloch's model by incorporating brand strength as an important moderator of the effects of a product's design and specifically a product's prototypicality on consumer response. The finding that product-category fit interacts with brand strength in influencing consumer's product attitude also provides support to the ELM. Although ELM was developed in the advertising domain, this study extends its applicability to the brand extension context and demonstrates the theory's ability to explain the differential impact of brand strength on the effect of product-category fit on extension product attitude.

Methodological Implications

The fit constructs were manipulated through realistically-rendered visual stimuli, as opposed to verbal stimuli that have been utilized in the majority of extant brand extension studies. Hence, the experiment provides a good imitation of the real world situation where consumers encounter products and brands through advertisements and in retail channels. The use of realistically-rendered visual stimuli also provides necessary information for both conceptual and perceptual processing. This is important because the process of transformation of verbal cues into visual representation in the mind of the consumer may introduce error in processing and influence the outcome. Thus, the use of realistic visual stimuli eliminates this potential for error and results in a more accurate outcome of the experimental manipulations.

The current study's methodology extends previous research examining consumer preferences for product designs (Yoo, 2003; Cox & Cox, 2002; Veryzer & Hutchinson, 1998) in

a number of ways that strengthens the practical implications. Photorealistic images were used in the manipulations of product-category fit, unlike previous studies that have typically used black and white line drawings. Moreover, unlike previous studies, the high and low product-category fit images utilized in our study were realistic in terms of the product design. That is, although the watches in the low product-category fit groups were not very typical active/sport watches, they still look like mass market watches to be worn for all occasions. By contrast, the low typicality drawings used in previous research have much less realistic attributes (see Veryzer & Hutchinson, 1998) that may adversely affect the external validity of the findings. Since the stimuli used in this study create a closer approximation of the real world product offering, these results provide a better understanding of consumers' response to brand extensions in the actual marketplace.

Managerial Implications

Product design has been used by various companies to achieve visual recognition of their brands' core values. Companies such as Nokia and Volvo have developed design philosophies that lead their design endeavor in expressing the core values of the brands (Karjalainen & Snelders, 2010). In line with this stream of research, results from this study provide guidelines to new product development for brand extensions. The significance of this study to practitioners is the provision of new information to help designers and brand managers better understand how product-brand fit and product-category fit influence consumers' extension product attitudes, thereby facilitating the development of more successful designs for brand extension.

This study helps to answer some questions that are crucial to brand managers and designers in making brand extension decisions: Can an extension be congruent with the core

brand image but incongruent with new product category? If so, how does this impact consumers' product attitude and purchase intentions? Also, does the fit between the extension product and its product category have a greater impact on consumers' product attitudes for weak brands than for strong brands?

An extension must be congruent with both the core brand image and the new product category for the extension to be evaluated most positively. In general, designers and marketers should strive to maintain a consistent brand image through product design because extension products that are congruent with the parent brand image will be evaluated more positively, and in turn, elicit greater purchase intentions. As an example, let's take Crocs brand to instantiate the guidelines for product-brand fit in new product development for a brand extension. Crocs is a brand that is well known for shoes made from colorful rubber, and the brand is perceived to be casual and comfortable. If the brand wants to extend to another product category, for example, to bags and accessories, the extension product should also be casual and comfortable, and use colorful rubber materials.

This research provides guidelines for new product development with respect to the fit between the extension product and its product category. Extension products should possess a high level of typicality to the category because high prototypicality enhances consumers' evaluations of the extension products. If a brand plans to extend to the bag category, for example, the extension products should look like a bag, with either shoulder straps or handles, compartments to carry belongings, and fastener or some sort of closure to secure the contents of the bag. A very innovative design such as a bag that has no handles or straps and is designed to be "worn" over the user's body and contains invisible compartments to hold a purse, cell phone, and laptop is unlikely to be preferred by the consumers. This design is less typical of the bag

category and will therefore result in less favorable product attitudes and lower purchase intentions. Results of this study suggest that innovations that are closer to the typical product in the category will elicit more positive attitudes and purchase intentions among consumers because they will process the new products more easily.

Findings also offer additional insights to designers and marketers of weak brands. Specifically, this study found that congruity with new product category is a more critical factor (among the two fit dimensions explored in this study) influencing consumer's evaluation of weak brand's extension. A high product-category fit extension is likely to be evaluated much more positively than low product-category fit, and this effect is more prominent for weak brands than for strong brands. Therefore, when a weak brand plans to extend to a new product category, the designers and brand managers have to strive to maintain the consistency between the new extension product and the new product category to ensure that the new product closely resembles the category exemplar, that is, the extension product should look like a typical product within the category.

The above implications for weak brands is also applicable for young brands. Young brands may not necessarily have weaker brand image; but since the brands are new to the market, consumers' brand associations for the young brand may not be as strong and well-established as for strong brands. The relative effect of product-brand fit and product-category fit on product attitude for young brands are likely be similar to that for weak brands. Therefore, designers and marketers for young brands should also maintain high product-category fit.

These findings offer important insights into the relative impact of product-brand fit and product-category fit on consumers' attitudes toward the extension product. Results from this study showed that product-category fit exerts a greater influence on extension product attitude

than product-brand fit. During brand extension, companies should offer products that possess perceptual attributes similar to other products within the extension category, more so than maintaining consistency between the new extension products with the brand image. If there is difficulty in achieving both high product-category fit and high product-brand fit in the new product development, maintaining high attribute similarity with the extension product category should be the first priority for the designers and brand managers.

Limitations

Despite efforts to ensure the validity of the results; there are several limitations to the current research due largely to methodological issues that may have impacted the fluency measures. The questionnaire completion process was self-paced and the exposure time to the stimuli (i.e. watch images) for each participant was not controlled. Differences in the stimulus exposure time may affect the fluency measures in that some participants may have viewed the given watch image more carefully and others may have proceeded directly to the processing fluency measure without paying much attention to the watch image. This difference in participant response may have introduced undesirable variances in the processing fluency measures (pleasantness in processing the fluency related image). Next, the experiment environment was not controlled. Participants answered the questionnaire in different times and places, and using different computers that had differing connection speed, thereby introducing uncontrollable variances in the fluency measures.

The online questionnaire developed for the main study was compatible with most internet browsers with the exception of some versions of Internet Explorer. Every effort was made to ensure that the online questionnaire was compatible with all internet browsers, however, a few versions of Internet Explorer still generated a viewing issue on the page that measures extension

product attitude and purchase intention. Around 20 participants e-mailed the researcher regarding this issue and they were advised to use another internet browser. Although most participants managed to complete the survey with another internet browser, repeating the sections before extension product attitude measures may have affected the experimental manipulations the experimental manipulations.

The experiment used only one extension product category, one parent brand category, and two brands. Therefore, the ability to generalize findings to other product categories and brands is limited. Furthermore, this study only measured purchase intention rather than actual purchases although purchase intention has been shown to be an accurate indicator of future purchase (Ajzen, 1988; Jamieson & Bass, 1989; Cannière, Pelsmacker, & Geuens, 2010). Future studies may want to measure the actual purchase by offering participants an allotment of money to actually purchase items that they prefer. This may provide a closer examination of consumers' purchase decisions as well as a check on the validity of using purchase intention as a measure of future purchase.

Suggestions for Future Research

Future research attempting to measure processing fluency should carefully manipulate and control the exposure time for the stimuli in order to minimize potential differences in processing fluency due to the length of exposure. It is also suggested that future research be conducted in a controlled environment to minimize issues of confounding variability in response time and pleasantness of processing related image due to respondents using different computers with different internet speeds. Processing fluency occurs implicitly and swiftly in consumers'

minds; therefore, processing fluency measures should be very precise to capture the subtle processing differences (in response latency as well as pleasantness).

The stimuli used in the current study represent average watch designs in order to extract the influence of the variables of interest (product-brand fit and product-category fit) in the study and minimize the influence of other factors such as innovativeness and novelty, so that the results of the study is not confounded by these other variables. Future research can utilize stimuli that have different novelty levels and also take into account individual's innovativeness on the effect of product-brand fit and product-category fit to provide a more comprehensive understanding of how these variables influence extension product attitude.

The relative impact of product-brand fit and product-category fit on extension product attitude warrants further research. This study shows that product-category fit exerts a greater impact on extension product attitude than product-brand fit. Future research can examine this issue further by calibrating the high and low degree of product-category fit and product-brand fit manipulations to be equal. That means, the perceived difference between the high and low levels of product-category fit is the same as the perceived difference between the high and low levels of product-brand fit. In this way, future research can conduct a more stringent examination of the relative impact of the two fit variables.

Research that examines the effect of product-brand fit and product-category fit on feedback effect to the parent brand is also warranted. As suggested in the extant brand extension literature, unsuccessful brand extension may harm or 'dilute' the core brand image (Loken & John, 1993). Therefore examining how different levels of product-brand fit and product-category fit extension products influence parent brand evaluations is a venue for future research.

Future research is also recommended to examine the role of consumers' involvement in the process of evaluating product-brand fit and product-category fit extension products. Previous studies found that task involvement moderates consumers' evaluation of brand extensions (Maoz & Tybout, 2002; Barone, 2005). Extant literature also suggests that product involvement is a motivational construct influencing consumer behavior such as information search and extensiveness of decision-making process (Dholakia, 2000). Therefore, it is important to take into account the effect of involvement (including task involvement and product involvement).

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APPENDIX A

IRB Approval for Protocol #09-122 EX 0904



AUBURN
UNIVERSITY

Office of Human Subjects Research
307 Sanford Hall
Auburn University, AL 36849

Telephone: 334-844-5966
Fax: 334-844-4391
hsubject@auburn.edu

May 13, 2009

MEMORANDUM TO: Yi Sheng Goh
Consumer Affair

PROTOCOL TITLE: "The Influence of Product-Brand Fit and Product-Category Fit on Product Attitude and Purchase Intention: The Role of Brand Strength and Processing Fluency"

IRB FILE NO.: 09-122 EX 0904

APPROVAL DATE: April 26, 2009

EXPIRATION DATE: April 25, 2010

The referenced protocol was approved "Exempt" on April 26, 2009 under 45 CFR 46.101 (b) (2):

"Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:

- (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
- (ii) any disclosure of the human subjects' response outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation."

You should retain this letter in your files, along with a copy of the revised protocol and other pertinent information concerning your study. If you should anticipate a change in any of the procedures authorized in this protocol, you must request and receive IRB approval prior to implementation of any revision. Please reference the above IRB file number in any correspondence regarding this project.

If you will be unable to file a Final Report on your project before April 25, 2010, you must submit a request for an extension of approval to the IRB no later than April 10, 2010. If your IRB authorization expires and/or you have not received written notice that a request for an extension has been approved prior to April 25, 2010 you must suspend the project immediately and contact the Office of Human Subjects Research for assistance.

A Final Report will be required to close your IRB project file. Please note that the approved, stamped version of your information letter should be provided to participants during the consent process.

If you have any questions concerning this Board action, please contact the Office of Human Subjects Research at 844-5966.

Sincerely,

Kathy Jo Ellison, RN, DSN, CIP
Chair of the Institutional Review Board
for the Use of Human Subjects in Research

cc: Dr. Carol Warfield
Dr. Sandra Forsythe and Dr. Veena Chattaraman

AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD for RESEARCH INVOLVING HUMAN SUBJECTS
RESEARCH PROTOCOL REVIEW FORM

APPROVED

For Information or help contact THE OFFICE OF HUMAN SUBJECTS RESEARCH, 307 Samford Hall, Auburn University
 Phone: 334-844-5966 e-mail: hsubject@auburn.edu Web Address: <http://www.auburn.edu/research/vpr/ohs/>

Complete this form using Adobe Acrobat Writer (versions 5.0 and greater). Hand written copies not accepted.

1. PROPOSED START DATE of STUDY: Apr 22, 2009

PROPOSED REVIEW CATEGORY (Check one): FULL BOARD EXPEDITED EXEMPT

2. PROJECT TITLE: The Influence of Product-Brand Fit and Product-Category Fit on Product Attitude and Purchase Intention: The Role of Brand Strength and Processing Fluency

3. Yi Sheng Goh Ph.D. Student Consumer Affair 334-7400450 gohyish@auburn.edu
 PRINCIPAL INVESTIGATOR TITLE DEPT PHONE AU E-MAIL
308 Spidle Hall, Auburn University, Auburn, AL 36849
 MAILING ADDRESS FAX ALTERNATE E-MAIL

4. SOURCE OF FUNDING SUPPORT: Not Applicable Internal External Agency: _____ Pending Received

5. LIST ANY CONTRACTORS, SUB-CONTRACTORS, OTHER ENTITIES OR IRBs ASSOCIATED WITH THIS PROJECT:

6. GENERAL RESEARCH PROJECT CHARACTERISTICS

6A. Mandatory CITI Training	6B. Research Methodology
Names of key personnel who have completed CITI: <u>Yi Sheng Goh</u> <u>Sandra Forsythe</u> <u>Veena Chattaraman</u> CITI group completed for this study: <input checked="" type="checkbox"/> Social/Behavioral <input type="checkbox"/> Biomedical Protocol-Specific modules completed: <input type="checkbox"/> Genetic <input type="checkbox"/> Vet.'s Administration <input type="checkbox"/> International <input type="checkbox"/> Prisoner Research <input type="checkbox"/> Public School Students <input type="checkbox"/> Pregnant Women/Fetuses Other _____ _____ _____	Please check all descriptors that best apply to the research methodology. Data Source(s): <input checked="" type="checkbox"/> New Data <input type="checkbox"/> Existing Data Will data be recorded so that participants can be directly or indirectly identified? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Data collection will involve the use of: <input type="checkbox"/> Educational Tests (cognitive diagnostic, aptitude, etc.) <input type="checkbox"/> Interview / Observation <input checked="" type="checkbox"/> Surveys / Questionnaires <input type="checkbox"/> Physical / Physiological Measures or Specimens (see Section 6E.) <input checked="" type="checkbox"/> Internet / electronic <input type="checkbox"/> Private records or files <input type="checkbox"/> Audio / Video / Photos

The Auburn University Institutional Review Board has approved this document for use from 4/22/09 to 4/22/10 Protocol # 09-122 EX 0904

6C. Participant Information	6D. Risks to Participants
Please check all descriptors that apply to the participant population. <input checked="" type="checkbox"/> Males <input checked="" type="checkbox"/> Females <input checked="" type="checkbox"/> AU students Vulnerable Populations <input type="checkbox"/> Pregnant Women/Fetuses <input type="checkbox"/> Children and/or Adolescents (under age 19 in AL) <input type="checkbox"/> Prisoners Persons with: <input type="checkbox"/> Economic Disadvantages <input type="checkbox"/> Physical Disabilities <input type="checkbox"/> Educational Disadvantages <input type="checkbox"/> Intellectual Disabilities Do you plan to compensate your participants? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Please identify all risks that participants might encounter in this research. <input type="checkbox"/> Breach of Confidentiality* <input type="checkbox"/> Coercion <input type="checkbox"/> Deception <input type="checkbox"/> Physical <input type="checkbox"/> Psychological <input type="checkbox"/> Social <input checked="" type="checkbox"/> None <input type="checkbox"/> Other _____ *Note that if the investigator is using or accessing confidential or identifiable data, breach of confidentiality is always a risk.

RECEIVED
 MAY 2009
 Office of Human Subjects Research
 IRB

6E. Institutional Biosafety Approval
 Do you need IBC Approval for this study? No Yes - BUA # _____ Expiration date _____

FOR OHSR OFFICE USE ONLY

DATE RECEIVED IN OHSR: 5/6/09 by LJD PROTOCOL # 09-122 EX 0904
 DATE OF IRB REVIEW: _____ by _____ APPROVAL CATEGORY: 45 CFR 46.101 (b) (2)
 DATE OF IRB APPROVAL: 4/20/09 by KJE INTERVAL FOR CONTINUING REVIEW: 1 year
 COMMENTS: _____

4/22/09

rew 4/16/09

APPROVED

7. PROJECT ASSURANCES

PROJECT TITLE: The Influence of Product-Brand Fit and Product-Category Fit on Product Attitude and Purchase Intention: The Role of Brand Strength and Processing Fluency

A. PRINCIPAL INVESTIGATOR'S ASSURANCES

1. I certify that all information provided in this application is complete and correct.
2. I understand that, as Principal Investigator, I have ultimate responsibility for the conduct of this study, the ethical performance this project, the protection of the rights and welfare of human subjects, and strict adherence to any stipulations imposed by the Auburn University IRB.
3. I certify that all individuals involved with the conduct of this project are qualified to carry out their specified roles and responsibilities and are in compliance with Auburn University policies regarding the collection and analysis of the research data.
4. I agree to comply with all Auburn policies and procedures, as well as with all applicable federal, state, and local laws regarding the protection of human subjects, including, but not limited to the following:
 - a. Conducting the project by qualified personnel according to the approved protocol
 - b. Implementing no changes in the approved protocol or consent form without prior approval from the Office of Human Subjects Research
 - c. Obtaining the legally effective informed consent from each participant or their legally responsible representative prior to their participation in this project using only the currently approved, stamped consent form
 - d. Promptly reporting significant adverse events and/or effects to the Office of Human Subjects Research in writing within 5 working days of the occurrence.
5. If I will be unavailable to direct this research personally, I will arrange for a co-investigator to assume direct responsibility in my absence. This person has been named as co-investigator in this application, or I will advise OHSR, by letter, in advance of such arrangements.
6. I agree to conduct this study only during the period approved by the Auburn University IRB.
7. I will prepare and submit a renewal request and supply all supporting documents to the Office of Human Subjects Research before the approval period has expired if it is necessary to continue the research project beyond the time period approved by the Auburn University IRB.
8. I will prepare and submit a final report upon completion of this research project.

My signature indicates that I have read, understand and agree to conduct this research project in accordance with the assurances listed above.

Yi Sheng Goh

Printed name of Principal Investigator


Principal Investigator's Signature

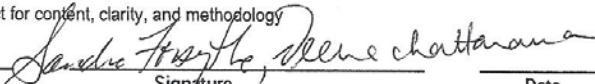
4.16.2009
Date

B. FACULTY ADVISOR/SPONSOR'S ASSURANCES

1. By my signature as faculty advisor/sponsor on this research application, I certify that the student or guest investigator is knowledgeable about the regulations and policies governing research with human subjects and has sufficient training and experience to conduct this particular study in accord with the approved protocol.
2. I certify that the project will be performed by qualified personnel according to the approved protocol using conventional or experimental methodology.
3. I agree to meet with the investigator on a regular basis to monitor study progress.
4. Should problems arise during the course of the study, I agree to be available, personally, to supervise the investigator in solving them.
5. I assure that the investigator will promptly report significant adverse events and/or effects to the OHSR in writing within 5 working days of the occurrence.
6. If I will be unavailable, I will arrange for an alternate faculty sponsor to assume responsibility during my absence, and I will advise the OHSR by letter of such arrangements. If the investigator is unable to fulfill requirements for submission of renewals, modifications or the final report, I will assume that responsibility.
7. I have read the protocol submitted for this project for content, clarity, and methodology

Sandra Forsythe, Veena Chattaraman

Printed name of Faculty Advisor / Sponsor


Signature

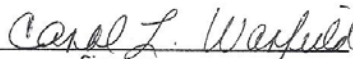
4/17/09
Date

C. DEPARTMENT HEAD'S ASSURANCE

By my signature as department head, I certify that I will cooperate with the administration in the application and enforcement of all Auburn University policies and procedures, as well as all applicable federal, state, and local laws regarding the protection and ethical treatment of human participants by researchers in my department.

Carol Warfield

Printed name of Department Head


Signature

4/16/09
Date

8. **PROJECT OVERVIEW:** Prepare an abstract that includes:

(400 word maximum, in language understandable to someone who is not familiar with your area of study):

- I.) A summary of relevant research findings leading to this research proposal, (Cite sources; include a "Reference List" as Appendix A.)
- II.) A brief description of the methodology,
- III.) Expected and/or possible outcomes, and,
- IV.) A statement regarding the potential significance of this research project.

I. Despite the prevalent utilization of brand extension in marketing strategy and brand extension research, the domain of product-brand fit and product-category fit has been left largely unexamined. Product-brand fit and product-category fit are important constructs to study because they have been implied in the literature that they influence consumer responses toward the product (Keller & Aaker, 1992; Feldman & Lynch, 1988; Fiske, 1982; Park, Milberg, & Lawson, 1991; Nedungadi & Hutchinson, 1985; Veryzer & Hutchinson, 1998). Thus, the purpose of this study is to systematically examine the roles of product-brand fit and product-category fit on consumer's product attitude and purchase intention for the brand extension.

II. An experimental research design with a 2 (product-brand fit: high vs low) x 2 (product-category fit: high vs. low) x 2 (brand strength: strong vs. weak) between subjects factorial design will be utilized in the main study to test the hypotheses. Three pretests will be conducted to develop stimuli for the main study. The purpose of each pretest is as follows: 1) Pretest 1 – to measure brand familiarity and brand favorability of the given brands and to obtain a list of brand associations for each brand; 2) Pretest 2 – to measure typicality of watches to active/sport watch category and to obtain product attributes that are associated with active/sport watch category; 3) Pretest 3 – to measure product-brand fit and product-category fit for the images that are developed based on pretest 1 and pretest 2. The main study will measure response latency, product attitude, and purchase intention for each watch. Participants will be recruited from classes offered on-campus. Only those who are 19 or older and willing to participate in exchange for extra credit will be recruited. Each pretest participant will receive a hard copy of the questionnaire and each participant in the main study will be invited to the designated computer labs to complete questionnaire online. All participants in the main study will be randomly assigned to one of the eight experimental conditions representing each possible combination of independent variables (product-brand fit, product-category fit, and brand strength). Data will be collected anonymously. Students will provide names and contact information in a separate sign-up sheet to receive extra credit. Only researchers involved in this study will have access to the data.

III. We will examine and test the hypothetical influence of product-brand fit, product-category fit, and brand strength on consumer's processing fluency, product attitude, and purchase intention. We expect that high (vs. low) product-brand fit and high (vs. low) product-category fit lead to increased processing fluency, a more positive product attitude, and greater purchase intention, and that the effects of product-brand fit and product-category fit vary by brand strength (strong vs. weak).

IV. This research is conducted to fill in the gap in current literature in brand extension. This study also extends processing fluency theory to the brand extension context and contributes to the knowledge of how product design shapes consumer's purchase intentions. Issues addressed in this study will provide insights to marketers and designers in terms of brand extension decisions and how product design influences evaluation of extension products.

9. **PURPOSE.**

a. Clearly state all of the objectives, goals, or aims of this project.

The overarching purpose of this study is to systematically examine the roles of product-brand fit and product-category fit on consumer's product attitude and purchase intention for brand extension. As part of this goal, this study attempts to answer the following research questions:

- (1) What are the impacts of product-brand fit and product-category fit on consumer's attitude and purchase intention for an extension product?
- (2) Is processing fluency the underlying mechanism for the effects of product-brand fit and product-category fit on consumer's attitude and purchase intention?
- (3) Does brand strength moderate the impacts of product-brand fit and product-category fit on consumer's product attitude and purchase intention?

b. How will the results of this project be used? (e.g., Presentation? Publication? Thesis? Dissertation?)

The results of this study will be used for a student's dissertation with the potential for publication in a peer reviewed journal, proceedings, or presentation at a professional conference.

10a. KEY PERSONNEL. Describe responsibilities. Include information on research training or certifications related to this project. **CITI is required.** Be as specific as possible. (Attach extra page if needed.) *All non AU-affiliated key personnel must attach CITI certificates of completion.*

Yi Sheng Goh Ph.D. Student gohyish@auburn.edu
Principle Investigator _____ Title: _____ E-mail address _____
Dept / Affiliation: Consumer Affairs _____

Roles / Responsibilities:

In this study, Yi Sheng Goh is responsible for reviewing the related literature, developing the research model, discussing the research design and instrument with Dr. Forsythe and Dr. Chattaraman, collect the data and analyze.

Sandra Forsythe Professor forsysa@auburn.edu
Individual: _____ Title: _____ E-mail address _____
Dept / Affiliation: Consumer Affairs _____

Roles / Responsibilities:

Dr. Sandra Forsythe's responsibility is to co-supervise and co-advise during the process.

Veena Chattaraman Assistant Professor vzc0001@auburn.edu
Individual: _____ Title: _____ E-mail address _____
Dept / Affiliation: Consumer Affairs _____

Roles / Responsibilities:

Dr. Veena Chattaraman's responsibility is to co-supervise and co-advise during the process.

Individual: _____ Title: _____ E-mail address _____
Dept / Affiliation: _____

Roles / Responsibilities:

Individual: _____ Title: _____ E-mail address _____
Dept / Affiliation: _____

Roles / Responsibilities:

Individual: _____ Title: _____ E-mail address _____
Dept / Affiliation: _____

Roles / Responsibilities:

11. LOCATION OF RESEARCH. List all locations where data collection will take place. (School systems, organizations, businesses, buildings and room numbers, servers for web surveys, etc.) **Be as specific as possible. Attach permission letters in Appendix E.**

(See sample letters at <http://www.auburn.edu/research/vpr/ohs/sample.htm>)

Data collection will take place in the computer labs and classrooms at Auburn University in building such as Spidle Hall, Wallace Center, etc.

12. PARTICIPANTS.

a. Describe the participant population you have chosen for this project.
(If data are existing, check here and describe the population from whom data were collected.)
Auburn University undergraduate and graduate students who are 19 or older will be recruited as participants in this study.

b. Describe why this participant population is appropriate for inclusion in this research project. (Include criteria for selection.)
A student sample is appropriate for this research project because student samples provide the advantages of homogeneity which help control error while testing a theory (Goldsmith, 2002; Malhotra and King, 2003). Students who volunteer to participate in the study in exchange for extra credit for class will be recruited.

c. Describe, step-by-step, all procedures you will use to recruit participants. Include in *Appendix B* a copy of all e-mails, flyers, advertisements, recruiting scripts, invitations, etc., that will be used to invite people to participate.
(See sample documents at <http://www.auburn.edu/research/vpr/ohs/sample.htm>.)

Pretests:

Respondents will be recruited from classes offered on campus. The instructors of selected classes will announce the opportunity to participate in a survey in exchange for extra credit. Students age 19 or older who volunteer to participate in the study will receive a hard copy of questionnaire. The student can tear off the last page of the questionnaire, sign it and turn it in to the instructor for extra credit. The last page of the questionnaire will not contain any questions so that the student information will remain anonymous. The researcher will collect the questionnaires upon completion.

Main study:

Respondents will be recruited from classes offered on campus. The instructors of the selected classes will announce the opportunity to participate in a survey in exchange for extra credit. Students age 19 or older who are willing to participate in the study will be invited to one of the designated computer labs. Respondents will access the given URL link from the lab where they can read the information letter and proceed to the questionnaire. A separate sign-up sheet will be used to collect students' names and the classes from which they are recruited from. This information will be used solely for the purpose of extra credit and no linkage between this information and the questionnaire will be established.

What is the minimum number of participants you need to validate the study? 480

Is there a limit on the number of participants you will recruit? No Yes - the number is 600

Is there a limit on the number of participants you will include in the study? No Yes - the number is 600

d. Describe the type, amount and method of compensation and/or incentives for participants.
(If no compensation will be given, check here .)

Select the type of compensation: Monetary Incentives
 Raffle or Drawing incentive (Include the chances of winning.)
 Extra Credit (State the value)
 Other

Description:

The amount of extra credit will not exceed 5% of the course grade. Alternative extra credit opportunity of the same amount will be provided. The form of the alternate extra credit is left to the discretion of the instructor.

13. PROJECT DESIGN & METHODS.

a. Describe, step-by-step, all procedures and methods that will be used to consent participants.

(Check here if this is "not applicable"; you are using existing data.)

An information letter will appear on the page prior to the questionnaire. The information letter will provide information about the study and state that having read the information provided, the respondents must decide if they want to participate in this research project. If they decide to participate, the data they provide will serve as their agreement to do so.

b. Describe the procedures you will use in order to address your purpose. Provide a step-by-step description of how you will carry out this research project. Include specific information about the participants' time and effort commitment. (NOTE: Use language that would be understandable to someone who is not familiar with your area of study. Without a complete description of all procedures, the Auburn University IRB will not be able to review this protocol. If additional space is needed for this section, save the information as a .PDF file and insert after page 6 of this form.)

Three pretests will be conducted to develop stimuli for the main study. The methodology for each of the three pretests are the same, a paper-based survey consisting of an information letter and a questionnaire will be given to the participants at the end of class. Students will be asked to complete the questionnaire after class and return the completed questionnaire to the researcher. For those students who prefer to complete the questionnaire at other time can turn in their completed questionnaires to the researcher through the researcher's mailbox in 308 Spidle Hall. The details of the questionnaire for each pretest are as follows:

Pretest 1 -- Respondents will be asked to 1) evaluate the given brands on familiarity and favorability scales, and 2) list product attributes and images associated with each brand. Participant's time commitment for pretest 1 is 10 minutes (see appendix C for pretest 1 scale).

Pretest 2 -- Respondents will be asked to 1) list product attributes that are typical of active/sport watch product category, and 2) evaluate the given watch images on typicality. Participant's time commitment for pretest 2 is 10 minutes (see appendix C for pretest 2 scale).

Pretest 3 -- Respondents will be asked to 1) evaluate given watch-brand pair images on a product-brand fit scale, and 2) evaluate the given watch images on a product-category fit scale and a product attitude scale. Participant's time commitment for pretest 3 is 12 minutes (see appendix C for pretest 3 scale).

Participants of the main study will be invited to complete questionnaire online at the designated computer labs. An URL link will be given to the participants. All participants will be randomly assigned to one of the eight experimental conditions when they assess the given URL link. Respondents will be thanked before they leave the room. The details of the questionnaire for the main study are as follows:

Main study -- Respondents will be asked to 1) evaluate the given watch-brand pair image, 2) indicate their purchase intention for the featured watch, and 3) respond to manipulation check items such as product-brand fit and product-category fit. The questionnaire will be programmed to measure the response time automatically for the processing fluency measure. Participant's time commitment for the main study is 15 minutes.

The data will be downloaded to the principle investigator's personal computer to which only the researchers have access. Surveys will contain no identifying information from the respondents. Only laboratory computers will be used for the experiment, so there is no risk of identifying personal information through IP address. Hence, responses collected will be completely anonymous.

13c. List all data collection instruments used in this project, in the order they appear in Appendix C.

(e.g., surveys and questionnaires in the format that will be presented to participants, educational tests, data collection sheets, interview questions, audio/video taping methods etc.)

Researchers developed a questionnaire for each pretest and the main study (Appendix C).

The questionnaire for pretest 1 will measure brand familiarity and brand favorability, and obtain open-ended data for product attributes and images associated with each given brand.

The questionnaire for pretest 2 will measure product-category fit and obtain open-ended data for product attributes that are typical of active/sport watch product category.

The questionnaire for pretest 3 will measure product-brand fit and product-category fit.

The questionnaire for main study will measure processing fluency, product attitude, purchase intention, product-brand fit, product-category fit, and brand strength. The latter three measures are obtained for manipulation checks. Questionnaires for the eight experimental conditions will be the same except the image shown on the questionnaire.

d. Data analysis: Explain how the data will be analyzed.

The data will be analyzed through SPSS 16.0 using statistical procedures such as MANOVA, ANCOVA, and Regression.

14. RISKS & DISCOMFORTS: List and describe all of the risks that participants might encounter in this research. *If you are using deception in this study, please justify the use of deception and be sure to attach a copy of the debriefing form you plan to use in Appendix D.* (Examples of possible risks are in section #6D on page 1.)

Not applicable. There will be no risk or discomfort. We won't use any type of deception.

15. **PRECAUTIONS.** Identify and describe all precautions you have taken to eliminate or reduce risks as listed in #14. If the participants can be classified as a "vulnerable" population, please describe additional safeguards that you will use to assure the ethical treatment of these individuals. **Provide a copy of any emergency plans/procedures and medical referral lists in Appendix D.**
Not applicable as all respondents are anonymous.

If using the Internet to collect data, what confidentiality or security precautions are in place to protect (or not collect) identifiable data? Include protections used during both the collection and transfer of data.

(These are likely listed on the server's website.)

Computers used to collect data are public computers, and no identifier will be used to link responses to identity. Therefore, data will not be identifiable by all means.

16. **BENEFITS.**

- a. List all realistic direct benefits participants can expect by participating in this specific study.

(Do not include "compensation" listed in #12e.) Check here if there are no direct benefits to participants.

- b. List all realistic benefits for the general population that may be generated from this study.

The general population may benefit from this study as product designers and marketers may produce and sell products that better fit the preferences of their target market.

17. PROTECTION OF DATA.

- a. Will data be collected as anonymous? Yes No *If "YES", skip to part "g".*
(*"Anonymous" means that you will not collect any identifiable data.*)
- b. Will data be collected as confidential? Yes No
(*"Confidential" means that you will collect and protect identifiable data.*)
- c. If data are collected as confidential, will the participants' data be coded or linked to identifying information?
 Yes (If so, describe how linked.) No

d. Justify your need to code participants' data or link the data with identifying information.

e. Where will code lists be stored? (Building, room number?)

f. Will data collected as "confidential" be recorded and analyzed as "anonymous"? Yes No
(If you will maintain identifiable data, protections should have been described in #15.)

g. Describe how and where the data will be stored (e.g., hard copy, audio cassette, electronic data, etc.), and how the location where data is stored will be secured in your absence. For electronic data, describe security. If applicable, state specifically where any IRB-approved and participant-signed consent documents will be kept on campus for 3 years after the study ends.

Data will be stored as an electronic Microsoft Excel file and an electronic SPSS file. Data will be anonymous and will include no identifying information about respondents. The electronic file will be saved on the principle investigator's desktop and laptop, both of which can only be accessed through the personal investigator's unique login

h. Who will have access to participants' data?
(The faculty advisor should have full access and be able to produce the data in the case of a federal or institutional audit.)
Only researchers involved in this study have access to the data.

i. When is the latest date that confidential data will be retained? (Check here if only anonymous data will be retained.)
Since the data is recorded and analyzed as "anonymous" it will be retained indefinitely, or at least until 1 year after this study has been published in a peer-reviewed journal.

j. How will the confidential data be destroyed? (NOTE: Data recorded and analyzed as "anonymous" may be retained indefinitely.)
Data will not be destroyed as only anonymous data will be collected.



AUBURN
UNIVERSITY

Office of Research Compliance
307 Samford Hall
Auburn University, AL 36849

Telephone: 334-844-5966
Fax: 334-844-4391
hsubjec@auburn.edu

March 4, 2010

MEMORANDUM TO: Yi Sheng Goh
Department of Consumer Affairs

PROTOCOL TITLE: "The Influence of Product-Brand Fit and Product-Category Fit on Product Attitude and Purchase Intention"

IRB FILE NUMBER: 09-122 EX 0904

MODIFICATION APPROVAL: March 3, 2010
EXPIRATION: April 25, 2010

The modification for the above referenced protocol was approved by IRB Procedure. The protocol will continue the designation "Exempt" under 45 CFR 46.101 (b) (2):

"Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:

- (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
- (ii) any disclosure of the human subjects' response outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation."

You must report to the IRB any proposed changes in the protocol or procedures and any unanticipated problems involving risk to subjects or others. Please reference the above authorization number in any future correspondence regarding this project.

If you will be unable to file a Final Report on your project before April 25, 2010 you must submit a request for an extension of approval to the IRB no later than April 5, 2010. If your IRB authorization expires and/or you have not received written notice that a request for an extension has been approved prior to April 25, 2010, you must suspend the project immediately and contact the Office of Research Compliance.

A Final Report will be required to close your IRB project file. You are reminded that you must use the IRB-approved information letter when you recruit participants.

If you have any questions concerning this Board action, please contact the Office of Research Compliance.

Sincerely,

Kathy Jo Elhson, RN, DSN, CIP
Chair of the Institutional Review Board
for the Use of Human Subjects in Research

cc: Dr. Carol Warfield

**AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD for RESEARCH INVOLVING HUMAN SUBJECTS
REQUEST for PROTOCOL MODIFICATION**

For Information or help contact **THE OFFICE OF HUMAN SUBJECTS RESEARCH**, 307 Samford Hall, Auburn University
Phone: 334-844-5966 e-mail: hsubjec@auburn.edu Web Address: http://www.auburn.edu/research/vpr/ohs/index.htm

*Complete this form using Adobe Acrobat **Writer** (versions 5.0 and greater). Hand written copies are not accepted.*

1. Protocol Number: Protocol #09-122 EX 0904 2. IRB Approval Dates: From: 04/26/2009 To: 04/25/2010
3. Project Title: The Influence of Product-Brand Fit and Product-Category Fit on Product Attitude and Purchase Intention
4.

<u>Yi Sheng Goh</u>	<u>Consumer Affairs</u>	<u>(334) 5240015</u>	<u>gohyish@auburn.edu</u>
Principal Investigator	Title	Department	Phone
	<u>308 Spidle Hall, Auburn University, AL 36849</u>		
PI Signature	Mailing Address		Alternate E-Mail
<u>Dr. Forsythe, Dr. Chattara</u>	<u>Consumer Affairs</u>		<u>(334) 8446851</u>
Faculty Advisor	FA Signature	Department	Phone
	<u>Carol Warfield</u>		AU E-Mail:
Name of Current Department Head:			
5. Current External Funding Agency: N/A
6. List any contractors, sub-contractors, other entities or IRBs associated with this project: N/A

7. Briefly list (numbered or bulleted) the activities that occurred up to this point, particularly those that involved participants.

- Pretest 1
- Pretest 2
- Pretest 3

8. Describe the requested changes to your research protocol, with an explanation and/or rationale for each.
(Additional pages may be attached if needed to provide a complete response.)

Due to difficulty in finding professors who are willing to provide extra credits and allow the principal investigator to use their students to complete the questionnaire, the means of collecting data has to be changed from offering extra credit to offering a lottery of an iPod Touch. The odds of winning is around 0.2%. Participants will enter their names and e-mail addresses on a separate link. The personal information will be stored in a separate database in which the order of names and e-mail addresses will be randomized, so there is no way to link the questionnaire answers to the personal information. No other identifiers will be obtained.

9. Are there any changes in the "key research personnel" that have access to participants or data? NO YES
(If "YES", identify each individual and explain the reason(s) for each change.) Attach CITI proof of completion for all new key personnel.

10. Identify any changes in the anticipated risks and / or benefits to the participants.

Not applicable

11. Identify any changes in the safeguards or precautions that will be used to address anticipated risks.

Not applicable

12. Attach any additional supporting documentation to assist the IRB in evaluating your request for protocol modifications, including other agency or IRB approvals or renewals.

13. If research is being conducted at sites other than Auburn University or in cooperation with other entities, a letter from the site or program director must be included acknowledging their acceptance of the proposed changes.
(See OHSR website for guidance: <http://www.auburn.edu/research/vpr/ohs/sample.htm>.)

14. Attach a copy of any and all "stamped" IRB-approved forms you are currently using (*information letters, consents, etc.*)

15. Attach a new copy of your consent document(s), including updated information regarding the requested changes.
(Be sure to review the OHSR website for current consent document guidelines and updated contact information.)

When complete, submit hard copy with signatures to the Office of Human Subjects Research,
307 Samford Hall, Auburn University, AL 36849

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APPENDIX B

Information Letter (Pretests)



COLLEGE OF HUMAN SCIENCES

DEPARTMENT OF CONSUMER AFFAIRS

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS AN IRB APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THIS DOCUMENT.)

**INFORMATION LETTER
for a Research Study entitled**

***"Product Attitude and Purchase Intention for Brand Extension"* (pretest)**

You are invited to participate in a study to examine consumers' product attitude and purchase intentions. The study is being conducted by Yi Sheng Goh, Ph.D. student, in the Department of Consumer Affairs, Auburn University under direction of Dr. Sandra Forsythe and Dr. Veena Chattaraman, Professors in the Department of Consumer Affairs. You were selected as a possible participant because you are a student enrolled in Auburn University and are 19 or older.

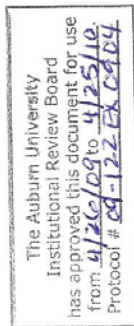
Your participation is voluntary. If you decide to participate in this research study, you will be asked to complete a questionnaire. Your total time commitment will be approximately 15 minutes.

Participation has no physical or psychological risks other than the minimal time commitment to complete the survey. If you would like to receive extra credit for the class from which you are recruited from, you can tear off the last page of the questionnaire, sign it and turn it in to the instructor. Personal information will be used solely for the purpose of extra credit. No identifiers will be used to link your responses to your identity, so your answers will remain completely anonymous.

The general population may benefit from this study as product designers and marketers may produce and sell products that better fit the preferences of their customers.

To thank you for your time you will be offered extra credit for the class from which you are recruited from. If you decide not to participate in this study, please contact your instructor for alternative extra credit opportunity.

If you change your mind about participating, you can withdraw at any time during the study. If you choose to withdraw, you do not have to turn in the questionnaire. Once you've turned in the questionnaire, it cannot be withdrawn since it will be unidentifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University, the Department of Consumer Affairs.



308 SPIDLE HALL
AUBURN, AL 36849-5601

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334-844-4084

FAX:
334-844-1340

www.auburn.edu

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COLLEGE OF HUMAN SCIENCES

DEPARTMENT OF CONSUMER AFFAIRS

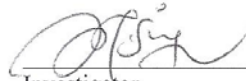
Any data obtained in connection with this study will remain anonymous. Information collected through your participation may be used to fulfill an educational requirement (Doctoral Dissertation), published in a professional journal, and/or presented at a professional meeting.

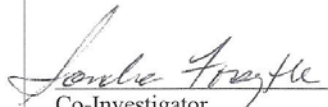
If you have questions about this study, please contact Yi Sheng Goh by email, gohyish@auburn.edu, or telephone, 334-844-1331 or her advisers Dr. Sandra Forsythe by e-mail, forsysa@auburn.edu, or telephone, 334-844-6458 or Dr. Veena Chattaraman by email, vzc0001@auburn.edu, or telephone, 334-844-3258.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334) 844-5966 or e-mail at hsubjec@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

The Auburn University Institutional Review Board has approved this document for use from 4/26/09 to 4/25/10. Protocol # 09-122-EX 0904

 5-5-2009
Investigator Date

 5-6-09
Co-Investigator Date

The Auburn University Institutional Review Board has approved this document for use from 4/26/09 to 4/25/10. Protocol # 09-122-EX 0904

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APPENDIX C

Questionnaire (Pretest 1)

Evaluation of the Brand

A. We would like to know your experience with each of the following brands. Please circle the number that best describes your response to each brand.



1	No information	1	2	3	4	5	6	7	8	9	10	A great deal of information
2	No previous experience	1	2	3	4	5	6	7	8	9	10	A lot of previous experience
3	Very unfamiliar	1	2	3	4	5	6	7	8	9	10	Very familiar
4	Dislike a great deal	1	2	3	4	5	6	7	8	9	10	Like a great deal



5	No information	1	2	3	4	5	6	7	8	9	10	A great deal of information
6	No previous experience	1	2	3	4	5	6	7	8	9	10	A lot of previous experience
7	Very unfamiliar	1	2	3	4	5	6	7	8	9	10	Very familiar
8	Dislike a great deal	1	2	3	4	5	6	7	8	9	10	Like a great deal



9	No information	1	2	3	4	5	6	7	8	9	10	A great deal of information
10	No previous experience	1	2	3	4	5	6	7	8	9	10	A lot of previous experience
11	Very unfamiliar	1	2	3	4	5	6	7	8	9	10	Very familiar
12	Dislike a great deal	1	2	3	4	5	6	7	8	9	10	Like a great deal



13	No information	1	2	3	4	5	6	7	8	9	10	A great deal of information
14	No previous experience	1	2	3	4	5	6	7	8	9	10	A lot of previous experience
15	Very unfamiliar	1	2	3	4	5	6	7	8	9	10	Very familiar
16	Dislike a great deal	1	2	3	4	5	6	7	8	9	10	Like a great deal



17	No information	1	2	3	4	5	6	7	8	9	10	A great deal of information
18	No previous experience	1	2	3	4	5	6	7	8	9	10	A lot of previous experience
19	Very unfamiliar	1	2	3	4	5	6	7	8	9	10	Very familiar
20	Dislike a great deal	1	2	3	4	5	6	7	8	9	10	Like a great deal



21	No information	1	2	3	4	5	6	7	8	9	10	A great deal of information
22	No previous experience	1	2	3	4	5	6	7	8	9	10	A lot of previous experience
23	Very unfamiliar	1	2	3	4	5	6	7	8	9	10	Very familiar
24	Dislike a great deal	1	2	3	4	5	6	7	8	9	10	Like a great deal



25	No information	1	2	3	4	5	6	7	8	9	10	A great deal of information
26	No previous experience	1	2	3	4	5	6	7	8	9	10	A lot of previous experience
27	Very unfamiliar	1	2	3	4	5	6	7	8	9	10	Very familiar
28	Dislike a great deal	1	2	3	4	5	6	7	8	9	10	Like a great deal



29	No information	1	2	3	4	5	6	7	8	9	10	A great deal of information
30	No previous experience	1	2	3	4	5	6	7	8	9	10	A lot of previous experience
31	Very unfamiliar	1	2	3	4	5	6	7	8	9	10	Very familiar
32	Dislike a great deal	1	2	3	4	5	6	7	8	9	10	Like a great deal

- B. What comes to your mind when you think of each of the following brands? Please list all the attributes and brand images that come to mind when you see these brands.
Example: Apple – High-tech, user friendly, colorful, white, innovation, savvy lifestyle, bright, soft finishes, etc.





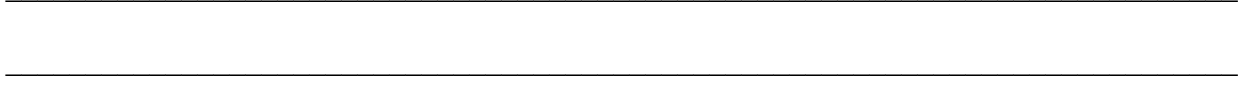












APPENDIX D

Questionnaire (Pretest 2)

Version 1

B. How representative of an active/sport watch is each watch? Evaluate each watch on the 10-point item by circling the number that best describes your response.

WATCH A



Not an active/sport watch ← Not at all typical of an active/sport watch → Very typical of an active/sport watch

1. 0 1 2 3 4 5 6 7 8 9 10

WATCH B



Not an active/sport watch ← Not at all typical of an active/sport watch → Very typical of an active/sport watch

2. 0 1 2 3 4 5 6 7 8 9 10

WATCH C



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

3. 0 1 2 3 4 5 6 7 8 9 10

WATCH D



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

4. 0 1 2 3 4 5 6 7 8 9 10

WATCH E



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

5. 0 1 2 3 4 5 6 7 8 9 10

WATCH F



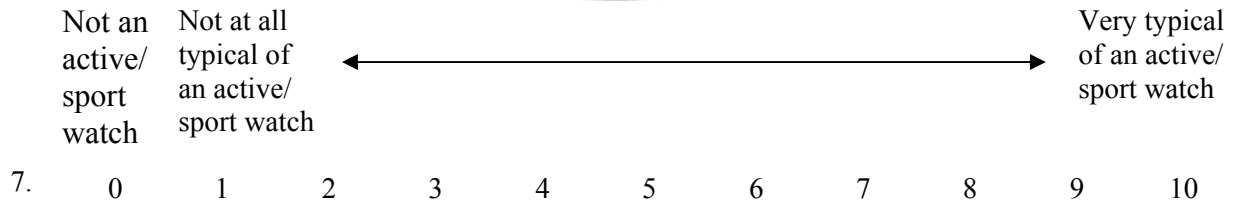
Not an active/sport watch

Not at all typical of an active/sport watch

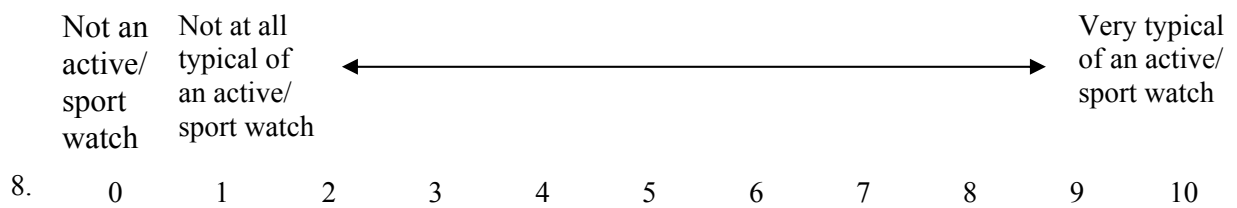
Very typical of an active/sport watch

6. 0 1 2 3 4 5 6 7 8 9 10

WATCH G



WATCH H



WATCH I



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

9. 0 1 2 3 4 5 6 7 8 9 10

WATCH J



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

10. 0 1 2 3 4 5 6 7 8 9 10

WATCH K



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

11. 0 1 2 3 4 5 6 7 8 9 10

WATCH L



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

12. 0 1 2 3 4 5 6 7 8 9 10

WATCH M



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

13. 0 1 2 3 4 5 6 7 8 9 10

WATCH N



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

14. 0 1 2 3 4 5 6 7 8 9 10

WATCH O



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

15. 0 1 2 3 4 5 6 7 8 9 10

WATCH P



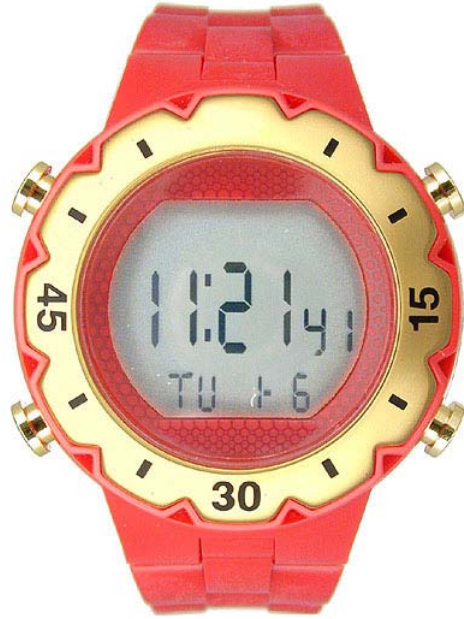
Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

16. 0 1 2 3 4 5 6 7 8 9 10

WATCH Q



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

17. 0 1 2 3 4 5 6 7 8 9 10

WATCH R



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

18. 0 1 2 3 4 5 6 7 8 9 10

WATCH S



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

19. 0 1 2 3 4 5 6 7 8 9 10

WATCH T



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

20. 0 1 2 3 4 5 6 7 8 9 10

WATCH U



Not an active/sport watch Not at all typical of an active/sport watch ← → Very typical of an active/sport watch

21. 0 1 2 3 4 5 6 7 8 9 10

WATCH V



Not an active/sport watch Not at all typical of an active/sport watch ← → Very typical of an active/sport watch

22. 0 1 2 3 4 5 6 7 8 9 10

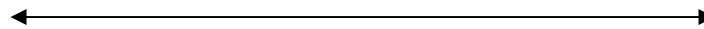
WATCH W



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch



23. 0 1 2 3 4 5 6 7 8 9 10



Name:

Class:

Email address:

APPENDIX E

Questionnaire (Pretest 2)

Version 2

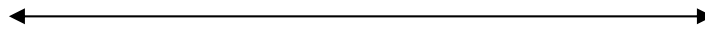
B. How representative of an active/sport watch is each watch? Evaluate each watch on the 10-point item by circling the number that best describes your response.

WATCH A



Not an active/sport watch

Not at all typical of an active/sport watch



Very typical of an active/sport watch

1. 0 1 2 3 4 5 6 7 8 9 10

WATCH B



Not an active/sport watch

Not at all typical of an active/sport watch



Very typical of an active/sport watch

2. 0 1 2 3 4 5 6 7 8 9 10

WATCH C



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

3. 0 1 2 3 4 5 6 7 8 9 10

WATCH D



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

4. 0 1 2 3 4 5 6 7 8 9 10

WATCH E



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

5. 0 1 2 3 4 5 6 7 8 9 10

WATCH F



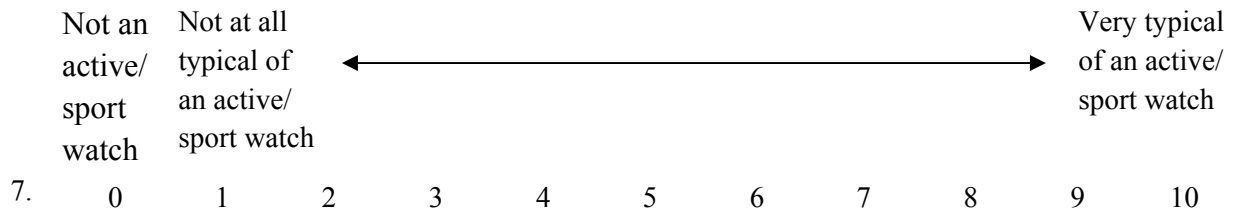
Not an active/sport watch

Not at all typical of an active/sport watch

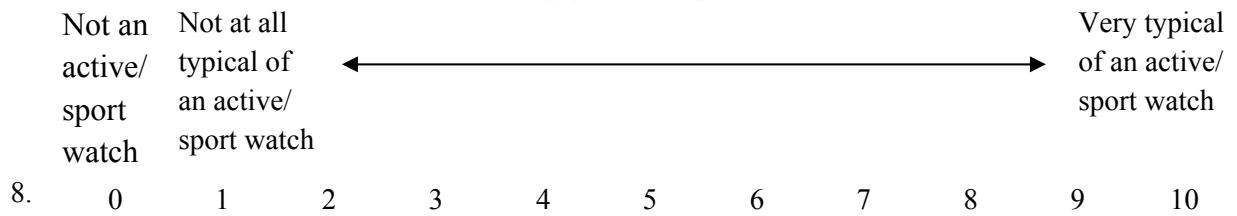
Very typical of an active/sport watch

6. 0 1 2 3 4 5 6 7 8 9 10

WATCH G



WATCH H



WATCH I



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

9. 0 1 2 3 4 5 6 7 8 9 10

WATCH J



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

10. 0 1 2 3 4 5 6 7 8 9 10

WATCH K



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

11. 0 1 2 3 4 5 6 7 8 9 10

WATCH L



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

12. 0 1 2 3 4 5 6 7 8 9 10

WATCH M



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

13. 0 1 2 3 4 5 6 7 8 9 10

WATCH N



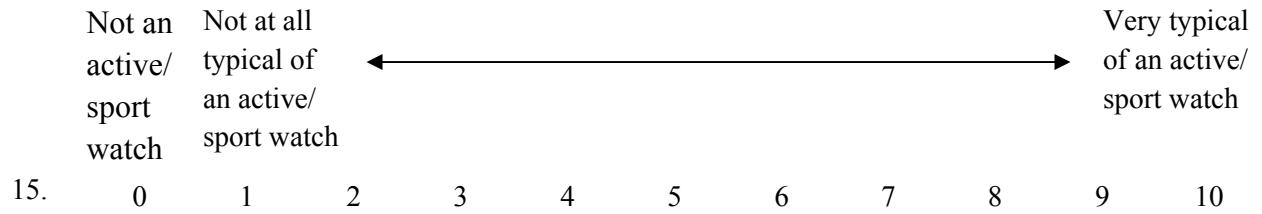
Not an active/sport watch

Not at all typical of an active/sport watch

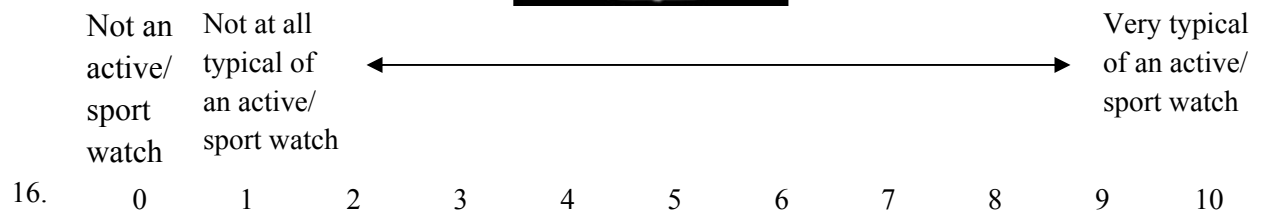
Very typical of an active/sport watch

14. 0 1 2 3 4 5 6 7 8 9 10

WATCH O



WATCH P



WATCH Q



Not an active/sport watch Not at all typical of an active/sport watch ←————→ Very typical of an active/sport watch

17. 0 1 2 3 4 5 6 7 8 9 10

WATCH R



Not an active/sport watch Not at all typical of an active/sport watch ←————→ Very typical of an active/sport watch

18. 0 1 2 3 4 5 6 7 8 9 10

WATCH S



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

19. 0 1 2 3 4 5 6 7 8 9 10

WATCH T



Not an active/sport watch

Not at all typical of an active/sport watch

Very typical of an active/sport watch

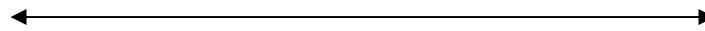
20. 0 1 2 3 4 5 6 7 8 9 10

WATCH U



Not an active/sport watch

Not at all typical of an active/sport watch



Very typical of an active/sport watch

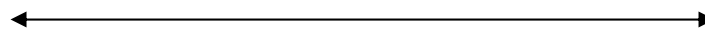
21. 0 1 2 3 4 5 6 7 8 9 10

WATCH V



Not an active/sport watch

Not at all typical of an active/sport watch



Very typical of an active/sport watch

22. 0 1 2 3 4 5 6 7 8 9 10

WATCH W



Not an
active/
sport
watch

Not at all
typical of
an active/
sport watch



Very typical
of an active/
sport watch

23. 0 1 2 3 4 5 6 7 8 9 10



-

Name:

Class:

Email address:

APPENDIX F

Questionnaire (Pretest 3)

PRETEST 3

Section 1

In this section, you will be presented with 12 watch designs. The researcher would first like to know your evaluation of each watch. Please circle the number that best describes your response on the scale next to each watch.



Watch A

Unappealing	1	2	3	4	5	6	7	8	9	10	Appealing
Bad	1	2	3	4	5	6	7	8	9	10	Good
Unpleasant	1	2	3	4	5	6	7	8	9	10	Pleasant
Unfavorable	1	2	3	4	5	6	7	8	9	10	Favorable
Unlikeable	1	2	3	4	5	6	7	8	9	10	Likable



Watch B

Unappealing	1	2	3	4	5	6	7	8	9	10	Appealing
Bad	1	2	3	4	5	6	7	8	9	10	Good
Unpleasant	1	2	3	4	5	6	7	8	9	10	Pleasant
Unfavorable	1	2	3	4	5	6	7	8	9	10	Favorable
Unlikeable	1	2	3	4	5	6	7	8	9	10	Likable



Watch C

Unappealing	1	2	3	4	5	6	7	8	9	10	Appealing
Bad	1	2	3	4	5	6	7	8	9	10	Good
Unpleasant	1	2	3	4	5	6	7	8	9	10	Pleasant
Unfavorable	1	2	3	4	5	6	7	8	9	10	Favorable
Unlikeable	1	2	3	4	5	6	7	8	9	10	Likable



Watch D

Unappealing	1	2	3	4	5	6	7	8	9	10	Appealing
Bad	1	2	3	4	5	6	7	8	9	10	Good
Unpleasant	1	2	3	4	5	6	7	8	9	10	Pleasant
Unfavorable	1	2	3	4	5	6	7	8	9	10	Favorable
Unlikeable	1	2	3	4	5	6	7	8	9	10	Likable



Watch E

Unappealing	1	2	3	4	5	6	7	8	9	10	Appealing
Bad	1	2	3	4	5	6	7	8	9	10	Good
Unpleasant	1	2	3	4	5	6	7	8	9	10	Pleasant
Unfavorable	1	2	3	4	5	6	7	8	9	10	Favorable
Unlikeable	1	2	3	4	5	6	7	8	9	10	Likable



Watch F

Unappealing	1	2	3	4	5	6	7	8	9	10	Appealing
Bad	1	2	3	4	5	6	7	8	9	10	Good
Unpleasant	1	2	3	4	5	6	7	8	9	10	Pleasant
Unfavorable	1	2	3	4	5	6	7	8	9	10	Favorable
Unlikeable	1	2	3	4	5	6	7	8	9	10	Likable



Watch G

Unappealing	1	2	3	4	5	6	7	8	9	10	Appealing
Bad	1	2	3	4	5	6	7	8	9	10	Good
Unpleasant	1	2	3	4	5	6	7	8	9	10	Pleasant
Unfavorable	1	2	3	4	5	6	7	8	9	10	Favorable
Unlikeable	1	2	3	4	5	6	7	8	9	10	Likable



Watch H

Unappealing	1	2	3	4	5	6	7	8	9	10	Appealing
Bad	1	2	3	4	5	6	7	8	9	10	Good
Unpleasant	1	2	3	4	5	6	7	8	9	10	Pleasant
Unfavorable	1	2	3	4	5	6	7	8	9	10	Favorable
Unlikeable	1	2	3	4	5	6	7	8	9	10	Likable



Watch I

Unappealing	1	2	3	4	5	6	7	8	9	10	Appealing
Bad	1	2	3	4	5	6	7	8	9	10	Good
Unpleasant	1	2	3	4	5	6	7	8	9	10	Pleasant
Unfavorable	1	2	3	4	5	6	7	8	9	10	Favorable
Unlikeable	1	2	3	4	5	6	7	8	9	10	Likable



Watch J

Unappealing	1	2	3	4	5	6	7	8	9	10	Appealing
Bad	1	2	3	4	5	6	7	8	9	10	Good
Unpleasant	1	2	3	4	5	6	7	8	9	10	Pleasant
Unfavorable	1	2	3	4	5	6	7	8	9	10	Favorable
Unlikeable	1	2	3	4	5	6	7	8	9	10	Likable



Watch K

Unappealing	1	2	3	4	5	6	7	8	9	10	Appealing
Bad	1	2	3	4	5	6	7	8	9	10	Good
Unpleasant	1	2	3	4	5	6	7	8	9	10	Pleasant
Unfavorable	1	2	3	4	5	6	7	8	9	10	Favorable
Unlikeable	1	2	3	4	5	6	7	8	9	10	Likable



Watch L

Unappealing	1	2	3	4	5	6	7	8	9	10	Appealing
Bad	1	2	3	4	5	6	7	8	9	10	Good
Unpleasant	1	2	3	4	5	6	7	8	9	10	Pleasant
Unfavorable	1	2	3	4	5	6	7	8	9	10	Favorable
Unlikeable	1	2	3	4	5	6	7	8	9	10	Likable

Section 2

SPERRY TOP-SIDER is a footwear brand that is planning to enter the active/sport watch market. The designers in the company came up with eight active/sport watch designs. The company would like to know your opinion for each design to help facilitating the decision making process for final selection. Please view the images of the brand and respond to the questions that follow.

The image shows a screenshot of the Sperry Top-Sider website. At the top left is the Sperry Top-Sider logo. To the right of the logo are navigation links: "Track My Order", "Customer Service", "Find a Store", and "Advanced Search". A search bar contains the text "Enter keyword or item #" and a "SEARCH PRODUCTS" button. Below the logo is a horizontal menu with categories: "MEN", "WOMEN", "GEAR", "KIDS", "COMMUNITY", and "INSIDE SPERRY". To the right of the menu is a "Shop By Size:" section with "Choose category" and "Size/Width" dropdowns, and a "GO" button. Below the menu is a promotional banner: "FREE STANDARD SHIPPING ON ORDERS OVER \$150" with a "DETAILS" link, and "Shopping Cart: 0 items \$0.00". The main banner features a large image of a man and a woman on a boat. The text "A PASSION FOR THE SEA" is overlaid on the image. Below the main banner is a smaller image of a person's feet wearing brown boat shoes on a wooden deck, with the text "BOAT SHOES" overlaid. At the bottom left of the smaller image is the text "SHOP AUTHENTIC PERFORMANCE" with a right-pointing arrow.

Please indicate your opinion of the following watch designs by circling the number that best describes your response.



Watch A from Sperry Top-Sider

Not similar to Sperry image	1	2	3	4	5	6	7	8	9	10	Similar to Sperry image
Not consistent with Sperry image	1	2	3	4	5	6	7	8	9	10	Consistent with Sperry image
Not typical to Sperry image	1	2	3	4	5	6	7	8	9	10	Typical to Sperry image
Not representative of Sperry image	1	2	3	4	5	6	7	8	9	10	Representative of Sperry image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch B from Sperry Top-Sider

Not similar to Sperry image	1	2	3	4	5	6	7	8	9	10	Similar to Sperry image
Not consistent with Sperry image	1	2	3	4	5	6	7	8	9	10	Consistent with Sperry image
Not typical to Sperry image	1	2	3	4	5	6	7	8	9	10	Typical to Sperry image
Not representative of Sperry image	1	2	3	4	5	6	7	8	9	10	Representative of Sperry image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch C from Sperry Top-Sider

Not similar to Sperry image	1	2	3	4	5	6	7	8	9	10	Similar to Sperry image
Not consistent with Sperry image	1	2	3	4	5	6	7	8	9	10	Consistent with Sperry image
Not typical to Sperry image	1	2	3	4	5	6	7	8	9	10	Typical to Sperry image
Not representative of Sperry image	1	2	3	4	5	6	7	8	9	10	Representative of Sperry image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch D from Sperry Top-Sider

Not similar to Sperry image	1	2	3	4	5	6	7	8	9	10	Similar to Sperry image
Not consistent with Sperry image	1	2	3	4	5	6	7	8	9	10	Consistent with Sperry image
Not typical to Sperry image	1	2	3	4	5	6	7	8	9	10	Typical to Sperry image
Not representative of Sperry image	1	2	3	4	5	6	7	8	9	10	Representative of Sperry image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch E from Sperry Top-Sider

Not similar to Sperry image	1	2	3	4	5	6	7	8	9	10	Similar to Sperry image
Not consistent with Sperry image	1	2	3	4	5	6	7	8	9	10	Consistent with Sperry image
Not typical to Sperry image	1	2	3	4	5	6	7	8	9	10	Typical to Sperry image
Not representative of Sperry image	1	2	3	4	5	6	7	8	9	10	Representative of Sperry image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch F from Sperry Top-Sider

Not similar to Sperry image	1	2	3	4	5	6	7	8	9	10	Similar to Sperry image
Not consistent with Sperry image	1	2	3	4	5	6	7	8	9	10	Consistent with Sperry image
Not typical to Sperry image	1	2	3	4	5	6	7	8	9	10	Typical to Sperry image
Not representative of Sperry image	1	2	3	4	5	6	7	8	9	10	Representative of Sperry image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch G from Sperry Top-Sider

Not similar to Sperry image	1	2	3	4	5	6	7	8	9	10	Similar to Sperry image
Not consistent with Sperry image	1	2	3	4	5	6	7	8	9	10	Consistent with Sperry image
Not typical to Sperry image	1	2	3	4	5	6	7	8	9	10	Typical to Sperry image
Not representative of Sperry image	1	2	3	4	5	6	7	8	9	10	Representative of Sperry image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch H from Sperry Top-Sider

Not similar to Sperry image	1	2	3	4	5	6	7	8	9	10	Similar to Sperry image
Not consistent with Sperry image	1	2	3	4	5	6	7	8	9	10	Consistent with Sperry image
Not typical to Sperry image	1	2	3	4	5	6	7	8	9	10	Typical to Sperry image
Not representative of Sperry image	1	2	3	4	5	6	7	8	9	10	Representative of Sperry image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch

Section 3



is another footwear brand that is planning to enter the active/sport watch market. The designers in the company came up with eight active/sport watch designs. The company would like to know your opinion for each design to help facilitating the decision making process for final selection. Please view the images of the brand and respond to the questions that follow.



Please indicate your opinion of the following watch designs by circling the number that best describes your response.



Watch A from Gola

Not similar to Gola image	1	2	3	4	5	6	7	8	9	10	Similar to Gola image
Not consistent with Gola image	1	2	3	4	5	6	7	8	9	10	Consistent with Gola image
Not typical to Gola image	1	2	3	4	5	6	7	8	9	10	Typical to Gola image
Not representative of Gola image	1	2	3	4	5	6	7	8	9	10	Representative of Gola image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch B from Gola

Not similar to Gola image	1	2	3	4	5	6	7	8	9	10	Similar to Gola image
Not consistent with Gola image	1	2	3	4	5	6	7	8	9	10	Consistent with Gola image
Not typical to Gola image	1	2	3	4	5	6	7	8	9	10	Typical to Gola image
Not representative of Gola image	1	2	3	4	5	6	7	8	9	10	Representative of Gola image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch C from Gola

Not similar to Gola image	1	2	3	4	5	6	7	8	9	10	Similar to Gola image
Not consistent with Gola image	1	2	3	4	5	6	7	8	9	10	Consistent with Gola image
Not typical to Gola image	1	2	3	4	5	6	7	8	9	10	Typical to Gola image
Not representative of Gola image	1	2	3	4	5	6	7	8	9	10	Representative of Gola image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch D from Gola

Not similar to Gola image	1	2	3	4	5	6	7	8	9	10	Similar to Gola image
Not consistent with Gola image	1	2	3	4	5	6	7	8	9	10	Consistent with Gola image
Not typical to Gola image	1	2	3	4	5	6	7	8	9	10	Typical to Gola image
Not representative of Gola image	1	2	3	4	5	6	7	8	9	10	Representative of Gola image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch E from Gola

Not similar to Gola image	1	2	3	4	5	6	7	8	9	10	Similar to Gola image
Not consistent with Gola image	1	2	3	4	5	6	7	8	9	10	Consistent with Gola image
Not typical to Gola image	1	2	3	4	5	6	7	8	9	10	Typical to Gola image
Not representative of Gola image	1	2	3	4	5	6	7	8	9	10	Representative of Gola image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch F from Gola

Not similar to Gola image	1	2	3	4	5	6	7	8	9	10	Similar to Gola image
Not consistent with Gola image	1	2	3	4	5	6	7	8	9	10	Consistent with Gola image
Not typical to Gola image	1	2	3	4	5	6	7	8	9	10	Typical to Gola image
Not representative of Gola image	1	2	3	4	5	6	7	8	9	10	Representative of Gola image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch G from Gola

Not similar to Gola image	1	2	3	4	5	6	7	8	9	10	Similar to Gola image
Not consistent with Gola image	1	2	3	4	5	6	7	8	9	10	Consistent with Gola image
Not typical to Gola image	1	2	3	4	5	6	7	8	9	10	Typical to Gola image
Not representative of Gola image	1	2	3	4	5	6	7	8	9	10	Representative of Gola image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch



Watch H from Gola

Not similar to Gola image	1	2	3	4	5	6	7	8	9	10	Similar to Gola image
Not consistent with Gola image	1	2	3	4	5	6	7	8	9	10	Consistent with Gola image
Not typical to Gola image	1	2	3	4	5	6	7	8	9	10	Typical to Gola image
Not representative of Gola image	1	2	3	4	5	6	7	8	9	10	Representative of Gola image
Poor example of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Good example of an active/sport watch
Not representative of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Representative of an active/sport watch
Not typical of an active/sport watch	1	2	3	4	5	6	7	8	9	10	Typical of an active/sport watch
Doesn't look like an active/sport watch	1	2	3	4	5	6	7	8	9	10	Looks like an active/sport watch

APPENDIX G

Sperry Brand Image Presented in Questionnaire (Main Study)



APPENDIX H

Gola Brand Image Presented in Questionnaire (Main Study)



Gola
ONLINE STORE

ABOUT GOLA | DELIVERY | STORES

0 **SPINCE IN BASKET**
View basket



CAPITAL



CHASE



BROWCO



APPENDIX I

Questionnaire (Main Study)

Condition shown in this complete questionnaire is:

Strong Brand (Sperry), Low Product-Brand Fit, High Product-Category Fit, Conceptual Fluency

Survey Progress



Please indicate your opinion of the WATCH on the left.

- Not appealing Appealing
- Bad Good
- Not pleasant Pleasant
- Not favorable Favorable
- Not likeable Likeable

Continue



Please consider the following scenario:

Sperry is a footwear brand that is planning to enter the ACTIVE/SPORT WATCH market. The designers came up with an active/sport watch design. Please view the brand images (below) and the watch (on the next page) and then respond to the questions that follow.



Next Page

Survey Progress

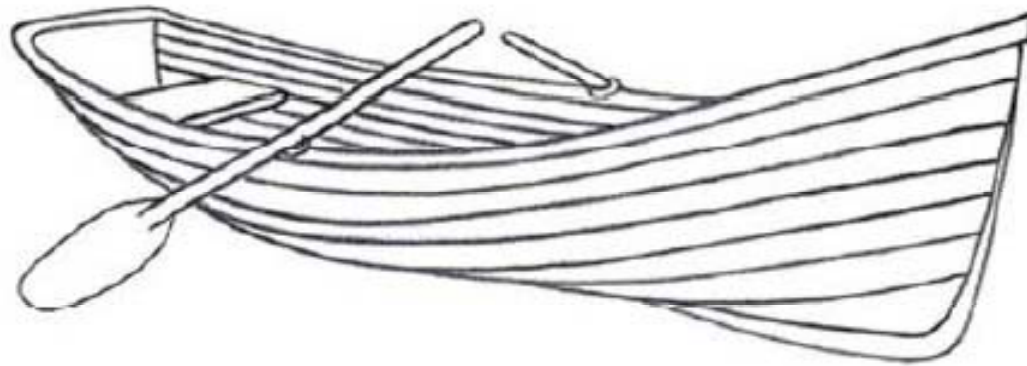
Please view the watch below carefully before proceeding to the next page.



Now click the "View Image" button below and rate the next image.

View Image

Survey Progress



Unpleasant ○ ○ ○ ○ ○ ○ ○ Pleasant

Continue



Assuming you were looking for an ACTIVE/SPORT WATCH, evaluate THIS WATCH that the Sperry brand is planning to sell.

- Not pleasant Pleasant
- Not likeable Likeable
- Not favorable Favorable
- Bad Good
- Not appealing Appealing

If you were in the market for an ACTIVE/SPORT WATCH, indicate your intent to purchase THIS WATCH.



This shoe is an example of a Sperry product.

	STRONGLY DISAGREE		NEITHER		STRONGLY AGREE
I definitely intend to buy this active/sport watch.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have low interest in purchasing this active/sport watch.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will definitely buy this active/sport watch.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will probably not buy this active/sport watch.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will never buy this active/sport watch.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Continue



Is the image of this watch consistent with the image of the SPERRY BRAND?

- Not similar to Sperry image Similar to Sperry image
- Not consistent with Sperry image Consistent with Sperry image
- Not typical to Sperry image Typical to Sperry image
- Not representative of Sperry image Representative of Sperry image

Please indicate how well this watch represents a typical ACTIVE/SPORT WATCH.

- Poor example of an active/sport watch Good example of an active/sport watch
- Not representative of an active/sport watch Representative of an active/sport watch
- Not typical of an active/sport watch Typical of an active/sport watch
- Doesn't look like an active/sport watch Looks like an active/sport watch

Continue



Please rate your familiarity with the brand.

- No information A great deal of information
- No previous experience A lot of previous experience
- Very unfamiliar Very familiar

How much do you like the brand?

- Dislike a great deal Like a great deal

Please rate the brand on the following scale.

- Weak brand Strong brand
- Mediocre brand Leading brand

Continue

Demographic Information

What is your age? years old

What is your gender?
 Male
 Female

What is your class standing?
 Freshman
 Sophomore
 Junior
 Senior
 Graduate

What is your major?

What was your annual family household income in 2009?
 Less Than \$50,000
 \$50,000 - \$99,999
 \$100,000 - \$149,999
 \$150,000 Or More


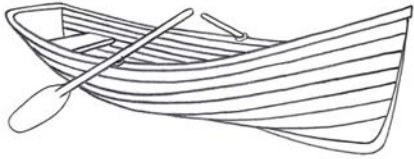

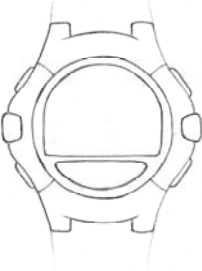

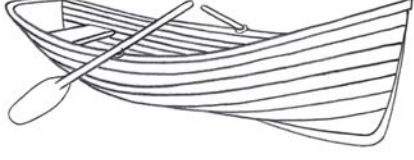

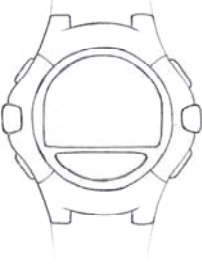
What is your ethnicity?
 African American/Black
 Asian American
 Caucasian/White
 Hispanic
 Native American
 Other


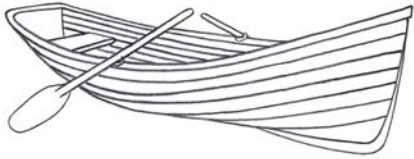

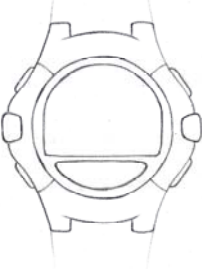

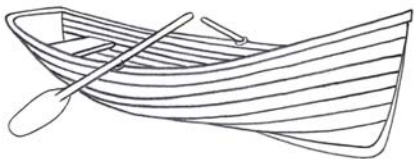

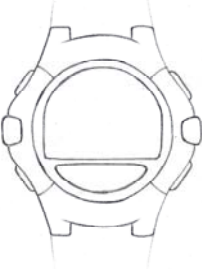
Have you completed this questionnaire before?
 Yes
 No


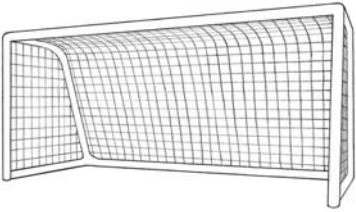

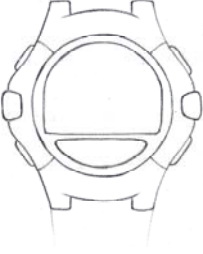

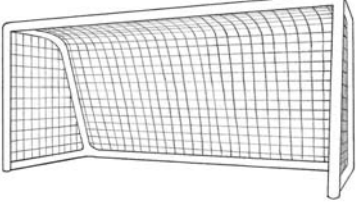

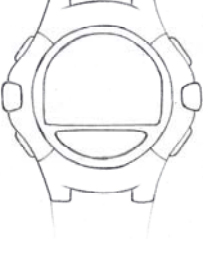
Finish Survey


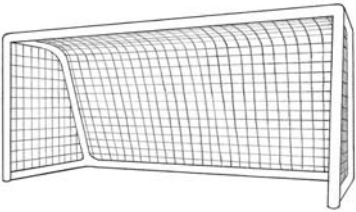

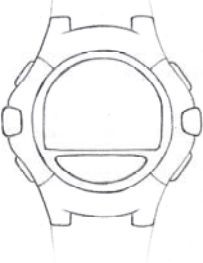

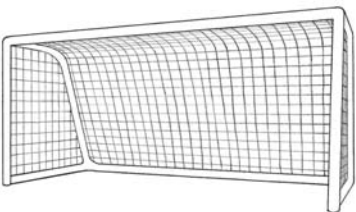

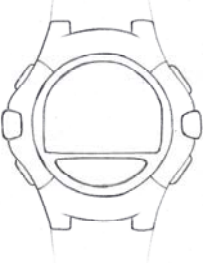
APPENDIX J

Experimental Stimuli and Fluency Related Images Used in Each Experimental Condition

<p><u>Strong Brand</u></p> <p><u>High Product-Brand Fit</u></p> <p><u>High Product-Category Fit</u></p> <p><u>Conceptual Fluency</u></p>		
<p><u>Strong Brand</u></p> <p><u>High Product-Brand Fit</u></p> <p><u>High Product-Category Fit</u></p> <p><u>Perceptual Fluency</u></p>		
<p><u>Strong Brand</u></p> <p><u>Low Product-Brand Fit</u></p> <p><u>High Product-Category Fit</u></p> <p><u>Conceptual Fluency</u></p>		
<p><u>Strong Brand</u></p> <p><u>Low Product-Brand Fit</u></p> <p><u>High Product-Category Fit</u></p> <p><u>Perceptual Fluency</u></p>		

<p><u>Strong Brand</u></p> <p><u>High Product-Brand Fit</u></p> <p><u>Low Product-Category Fit</u></p> <p><u>Conceptual Fluency</u></p>		
<p><u>Strong Brand</u></p> <p><u>High Product-Brand Fit</u></p> <p><u>Low Product-Category Fit</u></p> <p><u>Perceptual Fluency</u></p>		
<p><u>Strong Brand</u></p> <p><u>Low Product-Brand Fit</u></p> <p><u>Low Product-Category Fit</u></p> <p><u>Conceptual Fluency</u></p>		
<p><u>Strong Brand</u></p> <p><u>Low Product-Brand Fit</u></p> <p><u>Low Product-Category Fit</u></p> <p><u>Perceptual Fluency</u></p>		

<p><u>Weak Brand</u></p> <p><u>High Product-Brand Fit</u></p> <p><u>High Product-Category Fit</u></p> <p><u>Conceptual Fluency</u></p>		
<p><u>Weak Brand</u></p> <p><u>High Product-Brand Fit</u></p> <p><u>High Product-Category Fit</u></p> <p><u>Perceptual Fluency</u></p>		
<p><u>Weak Brand</u></p> <p><u>Low Product-Brand Fit</u></p> <p><u>High Product-Category Fit</u></p> <p><u>Conceptual Fluency</u></p>		
<p><u>Weak Brand</u></p> <p><u>Low Product-Brand Fit</u></p> <p><u>High Product-Category Fit</u></p> <p><u>Perceptual Fluency</u></p>		

<p><u>Weak Brand</u></p> <p><u>High Product-Brand Fit</u></p> <p><u>Low Product-Category Fit</u></p> <p><u>Conceptual Fluency</u></p>		
<p><u>Weak Brand</u></p> <p><u>High Product-Brand Fit</u></p> <p><u>Low Product-Category Fit</u></p> <p><u>Perceptual Fluency</u></p>		
<p><u>Weak Brand</u></p> <p><u>Low Product-Brand Fit</u></p> <p><u>Low Product-Category Fit</u></p> <p><u>Conceptual Fluency</u></p>		
<p><u>Weak Brand</u></p> <p><u>Low Product-Brand Fit</u></p> <p><u>Low Product-Category Fit</u></p> <p><u>Perceptual Fluency</u></p>		

APPENDIX K

Email Recruitment Script (Main Study)

Title: Complete a questionnaire and enter a drawing for an iPod Touch

Dear Auburn Student,

I would like to invite you to participate in my research about product attitudes and purchase intentions and an opportunity to win an iPod Touch.

Participants will be asked to complete a 15 minutes on-line questionnaire at the following link:

<http://auburn.edu/~gohyish/>

Your responses to the questionnaire will be completely anonymous.

If you would like to be entered into the drawing for the iPod Touch, follow the link that will be provided upon completion of the online survey.

If you have any questions, please contact me at gohyish@auburn.edu or my advisors Dr. Forsythe at forsysa@auburn.edu, or Dr. Chattaraman at vzc0001@auburn.edu.

Thank you for your consideration,
Yi Sheng Goh
PhD Candidate
Department of Consumer Affairs

APPENDIX L

Information Page (Main Study)

INFORMATION LETTER
for a Research Study entitled
“Product Attitude and Purchase Intention for Brand Extension” (main study)

You are invited to participate in a study about product attitudes and purchase intentions and an opportunity to win an iPod Touch. The study is being conducted by Yi Sheng Goh, Ph.D. student, in the Department of Consumer Affairs, Auburn University under the direction of Dr. Sandra Forsythe and Dr. Veena Chattaraman, Professors in the Department of Consumer Affairs. You were selected because you are a student enrolled in Auburn University and are 19 or older.

Your participation is completely voluntary. If you decide to participate, you will be asked to complete a questionnaire that will take about 15 minutes.

Participation has no physical or psychological risks other than the minimal time commitment to complete the survey.

The general population may benefit from this study as product designers and marketers may produce and sell products that better fit consumers' needs.

To thank you for your time, you will have an opportunity to be entered into a drawing for an iPod Touch. The odds of winning are at least one in 500. If you would like to be entered into the drawing for the iPod Touch, follow the link that will be provided upon completion of the online survey. The link will direct you to a separate web site where you can enter your name and email address for the drawing. This information is in no way linked to your answers to the questionnaire, so your questionnaire answers will remain completely anonymous.

If you change your mind about participating, you can withdraw at any time by closing your browser window and clearing your cookies. If you choose to withdraw, your data can be withdrawn if it is identifiable. Once you've submitted anonymous data, it cannot be withdrawn since it will be unidentifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University, or the Department of Consumer Affairs.

Information collected through your participation may be used to fulfill an educational requirement (Doctoral Dissertation), published in a professional journal, and/or presented at a professional meeting.

If you have questions about this study, please contact Yi Sheng Goh by email, gohyish@auburn.edu, or telephone, 334-844-1331 or her advisers Dr. Sandra Forsythe by

e-mail, forsysa@auburn.edu, or telephone, 334-844-6458 or Dr. Veena Chattaraman by email, vzc0001@auburn.edu, or telephone, 334-844- 3258.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334) 844-5966 or e-mail at hsubjec@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION ABOVE, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, PLEASE CLICK ON THE LINK BELOW. YOU MAY PRINT A COPY OF THIS LETTER TO KEEP.

Yi Sheng Goh 02/14/2010

Investigator	Date
Sandra Forsythe	02/14/2010
Veena Chattaraman	02/14/2010

Co-Investigator	Date
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The Auburn University Institutional Review Board has approved this document for use from March 3, 2010 to April 25, 2010. Protocol #09-122 EX 0904.

Begin Survey
