BELIEF TRANSFERS IN CO-BRANDING AND BRAND EXTENSION

AND THE ROLE OF PERCEPTUAL FIT

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Existing co-branding and brand extension research generally coalesces around two important constructs: perceptual fit and attitude toward the brand. Studies in co-branding and brand extension to date have generally emphasized the transference of affective elements of attitude from parent brand to the extension. Researchers and practitioners clearly need to learn more about the transfer of belief, the cognitive elements of attitude. Too little is currently known about whether and how beliefs are actually transferred in cobranding and brand extension applications, particularly in terms of perceptual fit.

This dissertation investigates belief transfer and the effect of perceptual fit on belief transfer in co-branding and brand extension scenarios and develops answers to the following research questions:

- 1. Are different categories of beliefs transferable from parent brand to the extension?
- 2. How do various sub-dimensions of perceptual fit affect belief transfers from parent brands to the extension?
- 3. How do different categories of beliefs affect consumers' intentions to purchase the extension products?

Categorization Theory was used as the fundamental theory to build the hypotheses.

This dissertation involved qualitative studies, belief scale development, and experimental design studies. The results revealed that aesthetic and functional beliefs are positively transferred from parent brand to the extension. The transfer of aesthetic beliefs is affected

by the level of brand fit while the transfer of functional beliefs is independent upon the level of any perceptual fit construct. Finally, cognitive structure based on the strength of extension beliefs is more predictive upon the purchase intention.

Findings will extend the co-branding and brand extension literature, especially in terms of the pattern of belief transfers that unfold subject to the influence of various perceptual fit constructs. The results will also provide additional insights about the role that perceptual fit plays in influencing categories of consumer beliefs as those beliefs are also influenced by the specific perceptual fits that are presumably transferred to the extension.

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CHAPTER 1

INTRODUCTION

1.1 Overview of Co-Branding

Companies are continuously seeking growth opportunities through new product development. This is a logical but challenging strategy because markets are increasingly cluttered with competing brands. The intrinsic risks associated with developing new brands are also high. Depending on how new product failure is defined, failure rates can be as high as 90 percent (Leuthesser et al., 2003). Probably the most popular strategy for introducing new products entails leveraging family brands' images by launching new products as line or brand extensions. Line extensions occur when the family brand is applied to a new product within the same product category as the parent. Brand extension, by contrast, occurs when the family brand is employed to launch a new product in a different product category.

Co-branding is an alternative approach through which new product introductions can be managed more successfully. Co-branding entails the strategic combining or partnering of two or more well-known brands into a single product (Spethmann and Benezra, 1994; Votolato and Unnava, 2006). Today's markets feature many products that look and feel similar. Consequently, co-branding is often used by companies to distinguish their products from those of their competitors' (Muller, 2005). The increasingly important role played by branding in marketing practice also drives the increased use of co-branding (Spethmann and Benezra, 1994). When the process is properly managed, co-branding has the potential to achieve a "best of all worlds" synergy that capitalizes on the unique strengths of each contributing brand (Rao and Ruekert, 1994; Leuthesser et al., 2003).

Co-branding applications are pervasive. More brands are joining forces to reach relevant consumers with targeted offers. With a growth rate of 40% per year (Blackett and Boad, 1999), co-branding has become increasingly widespread (Keller and Lehmann, 2006). For instance, 43% of the credit cards in circulation are co-branded (Punch, 2001). According to McKinsey & Company in 1994, the number of corporate alliance worldwide, including co-branding applications, was growing at 40% each year and involving millions of dollars in assets. Not only were there more partnerships, but the alliance entities themselves were getting bigger and becoming more central to marketers' overall strategies. In some cases the co-branding practice even redefined entire categories. McKinsey estimated that co-branding applications in the credit card sector accounted for about one-third of the \$473 billion in charge card volume, an increase of 20% over the previous two years.

Manufacturers of consumer products are increasingly interested in co-branding strategies as they attempt to secure more marketplace exposure, ward off the threat of private label brands, or share high promotional costs with partners (Spethmann and Benezra, 1994). Consumer service providers are increasingly applying the same strategy. In the restaurant sector, co-branding applications are also widespread. Examples include the co-branded activities of T.G.I Fridays within Holiday Inn hotels (Hahm and Khan, 2001); Doubletree Hotel Corporation with the New York Restaurant Group, Marriott Hotels with Ruth's Chris and Benihana, and Four Seasons Hotels with Bice Ristorante (Strate and Rappole, 1997).

1.1.1 Benefits and Drawbacks of Co-Branding

As an outgrowth of brand extension, co-branding naturally yields most of the benefits of brand extensions. Brand extensions benefit companies by providing immediate brand name

recognition. The parent brand's brand equity can be used as a basis from which consumers infer the favorable performance of the extension brand.

Table 1

Benefits and Drawbacks of Co-Branding

	Conditions Benefit / Drawback		Author(s)
		co-branding provides additional information to the consumer (signaling)	Rao & Ruekert (1994)
		consumers tend to infer that high-equity brands will only partner with	Rao & Ruekert (1994)
		other high-equity brands	Hillyer and Tikoo (1995)
	General	co-branding yields better evaluation compared to extensions without allies	
	General	co-branding provides development of favorable attitudes / consumer	Simonin & Ruth (1995)
		valuation toward the co-branded product	Washburn et al. (2000)
		co-branding facilitates initial acceptance of expansions	Desai & Keller (2002)
Benefits		consumers infer the performance of the extension brand from the brand equity of the parent brand(s), and in turn the product adoption	Kamins et al. (2005)
В		and diffusion are accelerated	
	Credible signaling partner	when evaluating a product that has an important unobservable attribute, consumers' quality perceptions are enhanced when a brand is allied with a second brand that is perceived to be vulnerable to consumer sanctions	Rao et al. (1999)
	Complementary parent brands	co-branding provides a better attribute profile improves the image of one the partners signals greater product quality	Park et al. (1996)
		co-branding yields higher consumers' quality perceptions of unobservable product attributes of a partner brand	Rao et al. (1999)
		co-branding potentially face the risk of image impairment, when one of the parent encountered quality problems	Simonin & Ruth (1998)
	Problematic partner	negative experience with one of the parent brand may cause consumers to blame the wrong brand for their disappointment	Washburn et al. (2000)
	Brand incongruity	in a situation that involves incongruity between the components or domination of one of the branded component over the other, the branded components may suppress the value of their partners	Venkatesh & Mahajan (1997)
Drawbacks			
		when a lesser-known brand is paired with a well-known brand, the effect of "free rider" may happen although it doesn't negatively affect the image of the well-known brand	Simonin & Ruth (1998)
	Order of exposure	(in ingredient co-branding) association strength can be influenced by the order of exposure to the product cues; when consumers are exposed to the low quality ingredient brand first and then experience the high quality cues from the partner brand, they would tend to value the ingredient brand more	Janiszewski & van Osselaer (2000)

This condition, in turn, accelerates new product adoption and diffusion (Kamins et al., 2005). With co-branding, these benefits are compounded due to additional inferences based on images associated with each of the participating brands. Indeed, the literature suggests the existence of two distinct benefit categories associated with co-branding. The first category reflects the general benefits that firms can gain from most of co-branding applications. The second category consists of benefits associated with particular conditions that are uniquely associated with a given co-branding arrangement. Table 1 summarizes the literature that discusses the potential benefits and drawbacks associated with co-branding applications that based on general and particular (i.e., more specific) conditions.

In terms of general benefits, Washburn et al. (2000) suggest that alliances between brands can increase consumer valuation of each brand. Their research indicated that the combined equity of the brands in a co-branding context increases beyond the sum of their individual brand equity levels. Park et al. (1996) suggest that when two brands with complementary attribute levels are combined, the resulting co-brand will boast a better attribute profile than would a direct extension of a single brand.

The act of co-branding may improve the image of one of the partners and may be used to signal greater product quality. Multiple brand names in a co-brand may provide additional information to consumers about the presence of attributes that makes the co-branded extension product more attractive (Rao and Ruekert, 1994). The act of co-branding may also contribute to the development of favorable attitudes toward the brand combination (Simonin and Ruth, 1995). Co-branding may similarly positively influence consumers' quality perceptions of unobservable product attributes of a partner brand (Rao et al., 1999).

Several other studies suggest the benefits of co-branding associations tend to differentially benefit participating brands that unfortunately already feature lower brand equity or perceived quality. Consumers tend to evaluate unknown brands more favorably when they are paired with a co-branded partner than the same brand without an ally (Rao and Ruekert, 1994; Rao et al., 1999; Simonin and Ruth, 1998). For low-quality brands, forming alliances with other more favorably evaluated brands results in the development of improved attitudes toward the co-branded product (Levin et al., 1996). Another favorable consequence of co-branding: consumers often assume high-quality products will only partner with other high-quality products (Rao and Ruekert, 1994).

In terms of conditional benefits, the most common condition emerges as a function of the degree of complementarity between the partner brands. When partnering brands are complementary in some way, co-branding activities generally yield more desirable attribute profiles, with enhanced images that signal greater product quality for at least one of the partners (Park et al., 1996). Within such complementary condition, co-branding will also yield higher consumers' quality perceptions of unobservable product attributes of a partner brand (Rao et al., 1999).

Co-branding may have some drawbacks. Similar to benefits, most potential drawbacks associated with brand extending also exist with co-branding applications. For example, in the case of spill-over effects, Simonin and Ruth (1998) reported that consumers' negative attitudes toward specific co-brands influenced their subsequent attitudes toward the partnering brands in the alliance. Brands that had previously engaged in numerous co-branding activities are significantly more likely to be affected by the alliance; and consumer attitudes toward the

partnering brands prior to the alliance are more likely to significantly affect their attitudes toward the alliance.

In the co-branding context, circumstances exists that may disadvantage or promote increased risk that must be borne by at least one of the parent brands or by the co-branded extension itself. One of the most significant risks is pairing with a partner brand that can potentially harm the existing product's brand image and, therefore, its equity (Washburn et al., 2000). When consumers have a negative experience with one of the constituent brands, they may generalize negative associations to the other participating brand. In other words, consumers may blame the wrong brand for their disappointment. For example, when Intel encountered quality problems with its Pentium microprocessors, Dell and Gateway as the PC manufacturers each became concerned about negative spillover effects on their own brands (Simonin and Ruth, 1998).

In situation involving unacceptably high levels of incongruity between partnering brands, particularly when one branded partner dominates the other, the dominant partner brand may suppress the value of the less dominant partner (Venkatesh and Mahajan, 1997).

Janiszewski and van Osselaer (2000) suggest that although consumers generally have higher evaluation of co-branded products compared to single-branded products, the strength of association is influenced by the order of exposure to the product cues. In an experimental design related to ingredient branding, they observed that when consumers are exposed to the low quality ingredient brand first and then experience the high quality cues from the partner brand, they tend to value the ingredient brand more.

1.1.2 Marketing Activities of Co-Branding

The term co-branding is relatively new to the business lexicon. In addition to its use in describing the joint-branding of new products, the term "co-branding" has been employed to describe a wide range of marketing activities involving the use of two or more brands (Blacket and Boad, 1999). Co-branding efforts are embedded in a wide variety of marketing activities such as sponsorships (e.g., Marlboro on Ferrari), retail promotions (e.g., BP and Disney), retailing (e.g., Safeway mini-stores in BP forecourts or McDonald restaurant inside the Wal-Mart stores), and manufacturing collaborations (e.g., Mercedes-Swatch Smart car). In addition, elements of co-branding strategies are apparent in marketing activities such as joint promotional or advertising efforts, promotion of complementary use products, and physical product integration (Washburn et al., 2000). Table 2 provides a list of the use of co-branding term and the examples in various marketing activities.

Table 2

Marketing Activities Using the Term of Co-Branding

Terms	Lite rature	Examples
Joint Promotion	Varadarajan (1986), Washburn et al. (2000), Rodrigue & Biswas (2004)	Campbell soup and Nabisco crackers or McDonald offers Disney movie toys while Disney promotes McDonald fast food.
Joint Advertising	Grossman (1997), Rao et al. (1999), Samu et al. (1999), Geuens et al. (2008)	Apple Macbook ad that featured Mission Impposible movie in the storyline
Promotion of Complementary Use ("Product-Bundling")	Guiltinan (1987), Gaeth et al. (1990), Rao & Ruekert (1994), Gans & King (2006)	McDonald featuring french fries with Coca-cola
Physical Product Integration ("Ingredient Co-branding")	Norris (1992), Rao & Ruekert (1994), Levin & Levin (2000)	Frito-Lay integrated the unique flavoring of K.C. Masterpiece barbeque sauce into Ruffles potato chips.
Dual Branding	Levin et al. (1996), Levin & Levin (2000)	Tim Horton dual brands with Wendy's or with KFC, Pizza-Hut, etc.

Joint promotions represent an attempt by one or both brands to secure corporate endorsements that improve their market positions. For example, joint promotion occurs when McDonald's offers Disney movie toys at the same time Disney is promoting McDonald's as a fast food destination, or when Tiger Woods is participating in a special tour to promote Nike golf balls. On the other hand, joint advertising is a special promotional technique that features multiple brands simultaneously in a single ad.

In joint advertising, partner brands are generally positioned as complementing each other in image, function, or form (Rao et al., 1999). Examples include the Apple Macintosh PowerBook campaign that featured the movie Mission Impossible in its storyline (Grossman, 1997), or when Smirnoff Vodka "partnered with" Ocean Spray Cranberry Juice. The promotion of complementary use or consumption of products is illustrated by the campaign employed by McDonald's featuring their French fries and Coca-Cola; or through endorsements, of a sort, that suggested Bacardi Rum and Coca-Cola go well together (Rao and Ruekert, 1994). Physical product integration, also called "ingredient branding," involves attempting to inseparably join the physical aspects of two or more branded products (Rao and Ruekert, 1994; Levin and Levin, 2000) in which a branded ingredient is promoted by another brand (Norris, 1992). Perhaps the most popular example ensues from the various PCs brands that notably featured "Intel Inside." Another example includes Kellogg's integrated Sunmaid Raisins into its Raisin Bran brand. Frito-Lay similarly integrated the unique flavoring of K.C. Masterpiece barbeque sauce into its Ruffles brand of potato chips. Another form of co-branding is dual branding, which is usually manifested in situations where two or more branding entities share the same physical or mental space (Levin and Levin, 2000). This strategy is frequently observed in situations where two or

more restaurants share the same physical space (e.g., Tim Horton's and Wendy's, or KFC, Taco Bell and Pizza Hut).

1.1.3 Defining Co-Branding

Similar to how an obviously wide range of possible forms are represented by the term "co-branding" in the actual marketplace, widely disparate definitions of co-branding also exist across the literature. There is no universal consensus on the definition of co-branding. Boone (1997) offers a general definition of co-branding as "the pairing of two or more recognized brands within one space" (p. 34). This definition is broad enough to include any pairing in a single space and is not necessarily limited to a single product category. For example, this definition would encompass partnering between a hotel and restaurant. Park et al. (1996) uses the term "composite brand extension" to describe the pairing of two or more branded products (constituent brands) to form a separate and unique product (composite brand). A more general definition is provided by Blacket and Boad (1999). It posits co-branding entails a co-operative venture between two or more brands, intended to achieve significant customer recognition, in which all participants' brand names are retained. This latter definition is highly similar in scope to the term "brand alliance" that is frequently used to describe general cooperative marketing activities involving short or long-term associations or combinations of two or more individual brands (Rao and Ruekert, 1994; Simonin and Ruth, 1998; Washburn et al., 2004).

In a brand alliance "... two or more brand names are presented jointly to the consumer" (Rao et al., 1999 p. 259). A brand alliance can be created by combining a wide range of brand identifiers on the physical product, packaging, or promotional material. These identifiers include brand names, logos, brand marks, slogans, or other proprietary assets of the contributing brands

(Rao and Ruekert, 1994). Monga and Lau-Gesk (2007) define co-branding as a strategy involving two parent brands that join forces to launch a new product. Grossman (1997) defines co-branding as a strategy in which "two brands are deliberately paired with one another in a marketing context such as in advertisements, products, product placements, and distribution outlets" (p. 191). Additional definitions of co-branding offered in the literature are summarized in Table 3.

1.2 The Scope and Definition of Co-Branding in This Study

As noted no universal consensus existing regarding how to define the term co-branding. In the marketing literature, the term "co-brand" is often used interchangeably with labels such as "brand alliance," "composite branding," "composite brand extension," "brand ally," and "brand partnership." In a broader context, co-branding has been used to define any pairing of two brands within a marketing context, whereas in the marketing-specific context co-branding can involve advertisements, products, product placements and distribution channels (Grossman, 1997). In a narrower context, co-branding represents the combination of two or more brands to create a single, unique product (Levin et al., 1996; Park et al., 1996; Washburn et al., 2000).

As shown in Table 3, four criteria define a "co-branding" partnership. The first criterion is the most general one in which there must be two or more brands in the partnership. This criterion is universally adopted across the literature. The second criterion is that the brand names of the participating brands are retained and presented jointly to the consumer on a single product. The last two criteria provide more specific nature of co-branding. Criterion three suggests that the nature or expectation of a co-branding activity is that a synergistic alliance on the co-branded extension is formed.

Table 3

Terms and Definitions of Co-Branding in the Literature

Author(s)	Terms Used	Definition of Co-branding	Combined Brands on a Single Product	Retained Brand Names	Synergy	New Product	Examples
Rao & Ruekert (1994)	Brand Alliance, Joint Branding	" they (brands) can be combined with other brand names to form a synergistic alliance in which the sume is greater than the parts" combining a wide range of brand identifiers on the physical product, packaging, or promotional material. Such identifiers can include brand names, logos, brand marks, slogans, or other proprietary assets of the contributing brands.	v	v	v		Physical integration of Diet Coke and NutraSweet, Frito-Lay chips integrates the flavor of KC Masterpiece barbecue sauce.
Park, Jun, Shocker (1996)	Composite Brand Extension, Brand Alliances	" combining two existing brand names to create a composite brand name for a new product The two firms (brands) ally themselves to enter a new product-market by sharing manufacturing and marketing expertise."	v	v	v	v	Slim-Fast chocolate cakemix by Godiva, Healthy Coice cereal by Kellogg's.
Boone (1997)	Co-branding	" the pairing of two or more recognized brands within one space"	v	v			T.G.I Fridays within Holiday Inn
Grossman (1997)	Co-branding	"two brands are deliberately paired with another in a marketing context such as in advertisements, products, product placements, and distribution outlets"; co-branding represents the combination of two or more brands to crate a single, unique product.	v	v		v	No specific example was given.
Simonin & Ruth (1998)	Brand Alliances, Co- branding, Cross- promotion, Joint-branding, Joint-promotion, Co- marketing	" brand alliances involve the short- or long-term association or combination of two or more individual brands, products, and/or other distinctive proprietary assets."	v	v	v		Northwest and Visa
Blacket & Boad (1999)	Co-branding	"Co-branding is a form of co-operation between two or more brands with significant customer recognition, in which all the participants' brand names are retained."	v	v			General and various examples were given.

(table continues)

Table 3 (continued).

Author(s)	Terms Used	Definition of Co-branding	Combined Brands on a Single Product	Retained Brand Names	Synergy	New Product	Examples
Rao, Qu & Ruekert (1999)	Brand Alliances, Joint Promotion	" to include all circumstances in which two or more brand names are presented jointly to the consumer."	v	v			Personal computers featuring Intel chips with tagline "Intel Inside".
McCarthy & Norris (1999)	Brand Alliances, Co- branding, Composite Branding, Ingredient Branding	" a marketing strategy wherein two brands join together in the marketing of a product."	v	v		v	Kellogg's Pop-Tarts with Smucker's preserves.
Samu, Krishnan & Smith (1999)	Horizontal Advertising Alliances	" two brands from different product categories are featured together in an advertisement."	v	v			Joint promotion between Kellogg and Tropicana.
Voss & Tansuhaj (1999)	Brand Alliances	" As the appearance of a well-known and reputable brand name in the promotional messages and product packaging of another brand."	v	v			Joint promotion between Fuji and Xerox
Washburn, Till & Priluck (2000)	Co-branding	" pairing two or more branded products (constituent brands) to form a separate and unique product (composite brand)"	v	v	v	V	Ruffles potato chips with K.C. Masterpiece barbecue sauce flavoring.
Levin & Levin (2000)	Dual-branding	" in which they [the two brand names] shared the same location, and customers could order from both restaurants at the same counter."	v	v			No specific example was given.
Vaidyanathan & Aggarwal (2000)	Ingredient Branding	" whereby private label brands use national brand ingredients and also prominently display this association in their promotions as well as on product packaging."	v	v			Safeway Select chocolate chip cookies with Hershey's chocolate chips.
Desai & Keller (2002)	Co-branded Ingredient	"Ingredient branding, in which key attributes of one brand are incorporated into another brands as ingredients"	v	v			Beechnut baby foods with Chiquita banana.
Monga & Lau-Gesk (2007)	Co-branding	"co-branding is a strategy involving two parent brands that join forces to launch a new product."	V	v	v	V	No specific example was given.

While some researchers have formally cited this criterion in the definition (i.e., Rao and Ruekert, 1994, Park et al., 1996, Simonin and Ruth, 1998, Washburn et al., 2000), most definitions imply a synergy between the participating brands in a co-branding. The fourth criterion is that co-branding deals with creation of a new product as the extension of the participating brand(s). A final, fifth, criterion is implied. But it has not been formally posited as a necessary condition for defining a co-brand is the duration of the partnership. Perhaps it should. This is because when a partnership involves the creation of new products, co-branding usually signals to customers that the partner brands are committed to a long-term relationship. In contrast, alliances geared to joint promotions or product bundling are less likely to be viewed as permanent arrangements.

For the purpose of this research, co-branding is defined as combining and retaining two or more brands on a single extension product. There are three rationales for using this definition. First, despite various different available definitions in the literature, there is general agreement that co-branding involves the creation of a single product using two brands (Shocker, 1995; Levin et al., 1996; Washburn et al., 2000). Moreover, co-branded extension products need not be new for both parent brands (i.e., the fourth criterion). Instead of a brand extension, the product may be merely a multi-brand or line extension for one of the partnering brands (e.g., Dell co-brands with OPI nail polish introduce its Dell-OPI computer). Second, the definition offers an alternative to line and brand extensions as an attempt to achieve growth through new product development, and is therefore an alternative "new product" introduction strategy for marketing managers. Third, several different strategic objectives may provide the impetus to form a co-branding alliance. These include arrangements such as joint ventures, joint promotions, or sponsorships. As long as the alliance products retain the corporate participants' brand names, the arrangement is treated as a co-branded extension product in the context of this study.

1.3 The Research Questions

Scholarly research on co-branding topic remains in its infancy. The existing co-branding literature typically has focused on the ability of brand alliances to improve perceptions of new products bearing both participating brand names. Co-branding is a special case of brand extension in which two brands are extended to a new product. Accordingly, co-branding and brand extensions would naturally give rise to similar basic issues; those being, (1) if and how brand beliefs/attitudes transfer to the new extension product, or co-branded product, (2) how this transferred beliefs/attitudes impacts consumers' responses to the new brand extension, or co-branded extension, and (3) how the new product may, in turn, impact the beliefs/attitudes of the constituent parent brands.

Research in brand extension and co-branding generally coalesce around two important constructs. Each construct is presumed to contribute to the success of both branding strategies (Gammoh et al., 2006). The constructs are perceptual fit and attitude toward the brand.

With respect to research into brand extending, perceptual fit is generally the fit between the parent brand and the product category in which the new extension brand is to be launched. Fit is typically defined as the association overlap between the current product category of a parent brand and the extension product (Aaker and Keller, 1990). In the co-branding literature perceptual fit is conceptualized somewhat differently. It has typically been defined as the consumer perception of the compatibility between the partnering (parent) brands (Gammoh, 2006; Bouten et al., 2011). In the current study, fit between two parent-brands is termed as "parent-parent fit" (shortened as "P-P fit"). However, perceptual fit is viewed as more complex in this study. In a co-branding context, perceptual fit is better viewed as a multi-dimensional construct consisting of P-P fit (between both parent brands), plus an additional source of "parent-

extension fit" (shortened as "P-E fit") between partner brand and the extension. Specifically, these later sources of fit consist of both "host fit" (i.e., the fit between the host brand and the extension product) and the "partner fit" (i.e., the fit between the partner brand and the extension product). The terms "host fit" and "partner fit" are employed here because this study differentiates the parent brands as host-brand and partner-brand. Thus, perceptual fit in cobranding applications examined in this study is viewed as multiple sub-constructs consisting of: (1) P-P fit, or fit between both parent brands; (2) P-E product-fit, or fit between the category of parent brand and the new co-branded extension product category; and, (3) P-E brand-fit or fit between parent brand and the new co-branded extension product.

Few co-branding studies have suggested that perceptual fit should be viewed as the multiple sub-constructs defined above. Indeed, the relative importance or contribution of each different sub-dimension or component of perceptual fit likely varies with strategic intention. For example, a recent study by Thompson and Strutton (2012) suggests that when the strategic direction is to help a host brand possessing little fit with the product category to which the cobrand will be targeted, P-P fit takes a back seat. Instead, host brands should focus on allying with partner brands that possess a better fit with the new product category (i.e., focus should be on selecting a partner brand with a high degree of partner-extension fit).

To further complicate the issue, "P-P fit" is better viewed as multi-dimensional, consisting of product category fit (or "P-P product-fit") and brand image fit (or "P-P brand-fit"). P-P product-fit refers to consumer perception of the compatibility between the two brands' product categories while P-P brand-fit refers to perceived brand image cohesiveness and consistency between partnering brands (Gammoh, 2006; Helmig et al., 2007; Bouten et al., 2011). Each component of P-P fit may play major roles in the success of co-branding. Attitude

toward the co-branded extension should be more positive when host brands or products fit well as opposed to fitting poorly (Aaker and Keller, 1990; Park et al., 1991; Simonin and Ruth, 1998). There is disagreement over the extent to which these two dimensions of P-P fit contribute to the success of a given co-branding effort. Keller (2008) argued product category fit and brand image fit are equally important to successfully launch a new co-branded product. In contrast, Park et al. (1996) argued product-category fit is the most important driver of co-branding effectiveness. Other scholars contend brand image fit is more important (Simonin and Ruth, 1998; Baumgarth, 2004; Pruppers et al., 2007).

The extant literature in brand extension and co-branding has investigated the transfer of attitudes from parent to extension brands. Most prior studies from the brand extension literature have focused on the transfer of affective attitudinal elements from hosts to extensions (Aaker and Keller, 1990; Boush and Loken, 1991; Park et al., 1991; Simonin and Ruth, 1995; Park et al., 1996; Bottomley and Holden 2001; Nkwocha et al., 2005; Lanseng and Olsen 2012; Thompson, 1988). Studies relevant to co-branding tend to emphasize the transference of affective elements (Simonin and Ruth, 1998; James 2005; Votolato and Unnava 2006; Gammoh et al., 2006; Monga and Lau-Gesk 2007; Thompson and Strutton, 2012). Despite the importance of understanding brand beliefs as the underlying elements of attitudes, little is known about how beliefs are transferred in co-branding applications. As importantly, answers to the questions of what are the specific dimensions or elements of beliefs that are predominantly transferred from each of the parent brands to the extension product, and what is the net impact on how consumers evaluate co-brands have not yet been answered? An array of different types of beliefs exist that may prove important as determinants both of what information transfers to co-branded products and how these beliefs are employed in evaluation. This study focuses on the dichotomy between

aesthetic/symbolic beliefs (which are more abstract and associated with the brand in general) and functional beliefs (which are more concrete and associated with specific attributes, benefits or functions of the product categories). This was done with the goal of seeing how each element of beliefs may be transferred from the parent brands in mind.

These gaps in the literature provide the impetus for this study. To that end, this study focuses on investigating the process of belief transfer from the parent brands to the extension or co-branded extension product. In addition, the roles of the sub-constructs of perceptual fit as they affect belief transfer are examined. A theoretical framework is developed that examines the complex relationships between elements of brand attitudes (beliefs) and the different sub-constructs of perceptual fit as they affect consumer responses to co-branded extension products.

Specific research questions focusing on these gaps in knowledge concerning the role of beliefs and perceptual fit in co-branding applications are:

- Q1: Are different categories of beliefs transferable from parent brand to the extension?
- Q2: How do various sub-dimensions of perceptual fit affect belief transfers from parent brands to the extension?
- Q3: How do different categories of beliefs affect consumers' intentions to purchase the extension products?

1.4 Modeling the Relationships between Belief Transfer and Perceptual Fit

The model in Figure 1 encapsulates the research questions posed above. This dissertation was structured to address each of these questions by bringing together the parent-extension fit as the focus of brand extension studies and the P-P fit as the focus of co-branding studies in a single model to explain the belief transfer. The set of principal variables involved in this study as described in Figure 1 is used as the basis for building the theoretical framework in the next chapter.

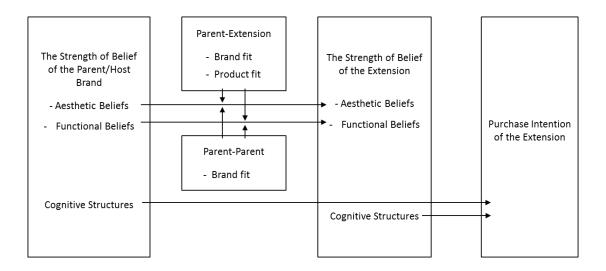


Figure 1. Principal variables discussed in this study.

Two main concepts integrated into the model are consumers' beliefs and the perceptual fit. Different categories of beliefs contributed by the parent brand were investigated to understand its ability to affect consumer's perception of the extension. When beliefs from the parent brand are transferred to the extension (or to the co-branded extension), the moderating role of the perceptual fit constructs (P-E brand-fit, P-E product-fit and P-P brand-fit) were investigated. Finally, the effects of the cognitive structures developed from each type of beliefs on the behavioral intention are examined.

1.5 Contributions of the Study

The results of this study should contribute to the literature in several ways. First, the study is the first to examine belief transfers in brand extension and co-branding studies in the light of different category of beliefs (aesthetic and functional beliefs) that constitute a brand or product. Accordingly, this study will contribute to a better understanding of how consumers evaluate co-brands from cognitive aspect of attitude, and not just from a generalization process from attitude toward the parent brands. Second, the current study investigates the roles of

perceptual fit constructs in the transfer of beliefs from parent to the co-branded extension and sheds a light as to which perceptual fit constructs may affect different category of beliefs. Third, the current study will add to the extant literature about which category of beliefs are predominantly transferred under different conditions of parent-extension fit as well as parent-parent fit. Fourth, this study investigates the pattern of belief transfers in co-branding under the influence of different degree of perceptual fit in two circumstances; without and with consumer exposures to different positioning cues (functional and prestige/symbolic positioning cues).

This research should assist marketing practitioners generally and brand managers by permitting them to harness more the potential of co-branding and brand extension as a strategy at least two organization levels. First, at the corporate level, this study will help firms' decision makers to determine best brand-alliance partners that will potentially contribute best brand resources to create synergy with the firms' brand on the co-branded extension product. The aspects of different categories of beliefs associated with a partner brand and the various perceptual fit concepts that interrelate in influencing the belief transfers may become the strong criteria for partner brand selection. Second, at a functional or marketing level, the findings may assist marketing or brand managers in their efforts to decide on the extension category that would have highest relevance and thus delivering best marketing result. Based on the understanding about belief transfer and the effect of relevant perceptual fits on the belief transfer process, marketing practitioners would also have more detailed insight into how attitude transfer processes unfold in co-branding and brand extension applications. Once the process is better understood, the positioning and promotion of extension products can be managed more strategically.

1.6 Organization of the Dissertation

The remainder of this dissertation is organized as follows. In Chapter 2, the extant literature regarding perceptual fit in co-branding and belief/attitude toward the brand are reviewed in-depth. Building upon the extant research from categorization, a conceptual framework is developed to bring together the hypothesized relationships among the various constructs of perceptual fits and brand attitudes. In Chapters 3 and 4, a series of empirical studies to test the model is elaborated and analyzed. Finally, the major findings, conclusions and suggestions for future research are discussed in Chapter 5.

CHAPTER 2

REVIEW OF LITERATURE, THEORETICAL DEVELOPMENT

This chapter provides an overview of co-branding and establishes the theoretical context of the current study that elaborates THE expectations or motivations of the partnering brands under certain conditions. The certain condition considered here is one in which a host brand is extended to an unrelated product category and is thus partnering with another brand that has higher categorical relatedness with the intended extension product. This chapter also reviews two different streams of literature. The first stream relates to the role of perceptual fit in brand extension and co-branding. The second relates to the role of evaluative measures (attitude/belief) used in the extant literature of co-branding. Based on the review, a theoretical gap is identified. Finally, based on categorization theory, a model is proposed and hypotheses are developed.

2.1 Motivations and Pattern of Ideal Co-Branding

One primary goal of co-branding is to leverage the equity or value of each partnering brand. These combined values are expected to enhance the consumer's evaluation of the co-branded extension and/or the evaluation of the parent brands themselves. A variety of motivations become the basis of co-branding applications. These can range from the desire to exploit mutual access to proprietary markets (e.g., Northwest Airlines and KLM) to the effort to foster affect transferal (e.g., Ford and Eddie Bauer). Specifically, the primary strategic motivations underlying most co-branding applications are twofold. First, there is motivation - or desire - to improve the image of a host brand by pairing with a partner brand that has relatively higher brand equity in a particular market segment or across market segments. Second, in the case of a host-brand, there is the motivation to provide additional, presumably attractive

information to consumers about the co-branded extension by pairing it with a partner brand that enjoys a more desirable position in the product category.

In the first case (i.e., partner brand), various reasons exist that might encourage firms to seek to improve the images of their own brands by pairing with partner brands that already enjoy greater brand equity. Reasons include: improving the image (Rao and Ruekert, 1994; Hillyer and Tikoo, 1995; Park et al., 1996; Washburn et al., 2000; Kamins et al., 2005), gaining awareness (Simonin and Ruth 1998), and signaling greater product quality (Park et al., 1996; Rao et al., 1999) for co-branded extension products. In the second case, the goal is to leverage the image consumers have already acquired about the partner brand as a means of upgrading the appeal of the co-branded extension in the new product category.

Table 4

Potential Complementary Benefits Shared by Parent Brands in Co-Branding

	Host Brand	Partner Brand
Functional Benefits	Create a stronger association with quality	Extend to new categories
	Capitalize on brand awareness	Extend brand territory through indirect extension
	Create more usage	Reinforce and endorse an isolated attribute and benefit
	Expand the customer base	Leverage channel equity
Symbolic / Emotional	Reinforce emotional benefits thorugh image transfer of functional benefits	Image transfer of end-user and usage imagery from the host brand customer base
Benefits	Image transfer of design and self-expression Act as a silver bullet brand	Create a deeper brand personality Extend the value proposition

Note: adapted from Uggla (2004), The Brand Association Base: A Conceptual Model for Strategically Leveraging Partner Brand Equity, Brand Management, 12 (2), 105-124

These two main motivations for co-branding can be viewed from each of the collaborating brands' perspectives. The host brand and partner brand contribute to the alliance differently based on each firm's positioning objectives. Each brand introduces different resources or potential values to the alliance in terms of the differing functional and emotional/symbolic benefits that each can deliver (Uggla, 2004). Table 4 summarizes different potential benefits that

may be associated with the host and partner brands, and does so based on the functional and symbolic/emotional benefits contributed to the alliance.

The two primary motivations of co-branding, as discussed above, are consistent with the strategic positioning literature. Fundamentally, such motivations are derived from the general strategic intentions that are usually pursued whenever brands are positioned. In a study that explores the congruence between positioning and brand advertising, Blankson and Kalafatis (2007) indicate that three primary phases are typically associated with the strategic positioning process: (1) setting the positioning aim, (2) developing positioning objectives, and (3) managing communication implementation. Their study suggests three primary positioning aims usually prevail across firms, including: (1) profit and market share, (2) profit and status, and (3) profit and co-branding intentions. Note that profit is common to all three positioning aim. Therefore, the uniqueness of each positioning aim derives from the targeting of either market share, status, or co-branding.

Their study also points toward three primary positioning objectives: functional, symbolic, and experiential. The first two objectives (i.e., functional and symbolic) dominate. Symbolism and functionality are two distinct concepts – and two ends of one brand concept continuum (Bhat and Reddy 1998). Perhaps the most important finding associated with Blankson and Kalafatis' (2007) study was that the positioning aim of market share was primarily achieved through the functional positioning objective. By contrast, the positioning aim of status was achieved primarily through the symbolic positioning objective. This observation implies that the two main motivations derived from the expected benefits of co-branding; i.e., brand image and brand presence, are consistent with the strategic intentions in the brand positioning.

From a branding perspective, consumers usually operate; i.e., evaluate and perceive brands, from a state of imperfect information - primarily because the relevant marketing environment is perpetually changing. Often, the brand associations that actually prevail within consumers' minds are in some way deficient. In turn, this shortfall introduces the need for secondary brand associations in order to support brand image (Keller, 2003a, b). Keller suggests a brand can gain secondary associations through linkages to information relating to other "entities" (e.g. other brands, products, persons, or places) not directly related to the original brand. Consumers then may infer shared associations between the brand and the information associated with the paired entity. This process ultimately may lead to a transfer of the associations related to the original brand (Keller, 2003a, b), both in symbolic/aesthetic associations and functional attributes or associations.

In business practice, alliances frequently pair two brands in order to simultaneously achieve two discrete co-branding objectives. In some extreme cases, each party merely relies on the other to secure the faculty for one party to bolster its brand image while the other party secures the opportunity to enter a new product category. Mattel (Barbie) and Fiat, for example, joined forces to create the "500 Barbie" car that comes in nail-polish-pink and features lip gloss in the glove compartment. Mattel expected to exploit the Fiat's brand presence in the market of car product category, since the Barbie brand is perceived as having a great distance from car as product category. On the other hand, Fiat expected to exploit the Barbie brand image to reach the Barbie "parental" market via the partnership. Similar cases of such pairings include Mercedes and Swatch. The firms, or brands, collaborated to create the "Smart" car. Another example entails the partnership of Dell computer and nail polish maker OPI. Dell introduced 26 choices of nail polish themed colors that were available in the Dell Design Studio, a site that concurrently

permits consumers to purchase customized laptops. Here, Dell secures the advantage of reaching out subtly and effectively to style and fashion conscious female consumers. Meanwhile, OPI, which clearly is a brand that features few associations with computers, benefits from its association with Dell and the opportunity to penetrate a previously unrelated product category.

In other such pairings, actual alliances may not feature such extreme examples of divergent expectations. However, the patterns of reciprocal expectations remain the same. Additional examples of co-branding applications that involve similar pairing patterns are presented in Table 5.

In Table 5, various co-branding examples that represent some archetypal pairings in co-branding applications are featured. One key pairing characteristics is brand presence (BP). BP represents the proximate general association of the brand with the co-branded extension product category. A rating of "high (H)" on this criterion means that the brand is highly visible in the particular product category, and vice versa. The other key characteristic is brand equity (BE). BE represents the equity level of a particular brand (i.e., awareness, perceived quality, market share, distribution coverage, perceived fit, etc.) in a particular market segment(s).

As noted, one particular pairing pattern that combines host brands that feature high BE and low BP and/or partner brands that feature low BE and high BP is pervasive. This specific pairing pattern was used as the scenario in the current study. The current study, therefore, will involve a host brand that manifests high brand equity but low perceptual fit with the product category in which the brand is being extended, and a partner brand that is characterized by a high perceptual fit with the extension category but relatively low brand equity as compared to the host brand.

Table 5 Examples of Co-Branding Pairs based on Brand Equity and Brand Presence

Host Brand		ВP	Partner Brand BE BP		Extension Product Category	
Mattel/Barbie	Н	L	Fiat	L	Н	Car ("500")
Swatch	Н	L	Mercedez	L	Н	Car ("Smart")
OPI nail polish	Н	L	Dell laptop	L	Н	Laptop
Virgin Airlines	Н	L	Mastercard	L	Н	Credit Card
Adidas	Η	L	Polar Electro	L	Н	Electronic Heart Rate
Google	Н	L	Asus	L	Н	Tablet PC
Hershey	Η	L	Betty Crocker	L	Н	Brownie
Sea World	Η	L	Southwest	L	Н	Flight
Rocky Mountain Chocolate Factory	Η	L	Cold Stone	L	Н	Ice Cream
Eddie Bauer	Η	L	Ford	L	Н	SUV
Healthy Choice (raisin)	Н	L	Kellog's (cereal)	L	Н	Cereal
Sony	Η	L	Ericsson	L	Н	Cellphone
Nike	Η	L	Apple	L	Н	Wireless System Sports Kit
Michael Jordan	Η	Н	Nike	Н	Н	Shoes and athletic apparel
LG	Н	Н	Philips	Н	Н	LCD Display
Northwest	Η	Н	KLM	Н	Н	Airline services
Martini	Н	L	Dolce & Gabbana	Н	Н	Boutique
HP	Н	Н	Canon	Н	Н	Managed Printer Services
Intel	Н	L	IBM	Н	Н	PC

Notes BE: Brand Equity in a particular/wider market(s)

BP: Brand Presence in a particular product category

H: Perceived as High

L: Perceived as Low

The co-branding literature provides ample support for just this sort of pairing between a host brand and a partner brand. Park et al. (1996) use a scenario that describes co-branding between two parent brands; i.e., Slim-Fast and Godiva, in which one brand (Godiva as the host brand) becomes a "modifier" of the "header" brand (Slim-Fast as the partner brand). Following their scenario, the dimensions and degrees of perceptual fit between the parent brands and the cobranded extension (cake mix) are given. Godiva is a chocolate maker. Slim-Fast is a producer of shakes, bars, snacks, packaged meals, and other dietary supplement foods. Consequently, Godiva has lower product-level similarity with the planned extension product as compared to Slim-Fast. However, in their scenario, Park et al. (1996) establish a relatively equivalent degree of

familiarity with both brands. They do this despite the fact that in real business practice equal degrees of familiarity in co-branding is rare. Thompson and Strutton (2012) use a similar scenario. In their study, one brand (i.e., the host brand), featuring a low degree of fit with the extension, is paired with a partner brand that manifests a higher degree of fit. Their study involves several sub-scenarios with several different partner brands paired with the same host brand for the purpose to manipulate the degree of fit between the partner brand(s) and the extension.

Concluding from the points above, the use of such scenario in the current study - that is a host brand and a parent brand that have such complementary benefits - is based on factual business practices as well as the existing literature.

2.2 Perceptual Fit

Two critical factors generally exercise a determinant influence on the success of new brand extension or co-branding product launch. The two factors are beliefs/attitudes associated with the parent brand(s) and a concept called perceived fit. Perceived fit captures consumers' perception about the fit (i.e. consistency) between brand or product entities in a particular brand extension or co-branding context. Perceived fit is thought to be the most important factor in influencing attitude transfer and acceptance of brand extensions or co-branded extensions.

Basically, there are two reasons why fit is so important in brand extension and co-branding. The first is that the degree of fit itself is positively associated with the extension attitude. The second is that the degree of fit enhances the transfer of perceived quality and attitude from parent brand(s) to the extension product (Aaker and Keller, 1990). Consumers' responses to extensions are more positive when they have strong positive beliefs and attitudes toward the parent brand(s).

Consumers' responses to extensions are also more positive when a high degree of perceptual fit exists between parent brand and the extension (Nkwocha et al., 2005) and/or between parent brands (James, 2006; Bouten et al., 2011).

Figure 2 presents a model of various perceptual fit measures used across several prominent studies in the co-branding literature. In this model, each parent brands is presented in terms of the strategic outcome that each firm was seeking to secure through the alliance. Host brand represents the brand that seeks to enter a new product category in which the brand has low presence. A partner brand that has a superior fit with the new product category is sought in order to help leverage the acceptance of the extension product in what for it is a new market. Host category and partner category represent the categories in which host brand's and partner brand's products are perceived. The fit between each parent brand and the extension product consists of host and partner brand-fit (i.e., the fit between the brand image of each parent brand and the extension product; A and B) and host and partner product-fit (i.e., the fit between the product categories of each parent brand and the extension product; C and D). The fit between host and partner brand also consists of P-P brand-fit (i.e., the fit between the brand images of both parent brand; E) and P-P product-fit (i.e., the fit between the product categories of both parent brands;

In the current study, parent-extension product-fit is conceptualized as the association overlap between the current product categories of the parent brands and the extension product (Aaker and Keller, 1990). Parent-extension brand-fit refers to congruence between the parent brand concepts and the extension product. Parent-extension product-fit depends on identifying the relationship between the extension and the parent brand, which might entail either a concrete relationship (e.g., similar attribute, correlated feature) or an abstract relationship (e.g., common

usage situation). Parent-extension brand-fit relies on the extension's ability to accommodate the parent brand's concept - or context (Park et al., 1991). P-P brand-fit relates to the congruence between the parent brands' concepts (Simonin and Ruth, 1998), such as "functional" or "prestigious" brand concepts (Park et al., 1991). P-P product-fit refers to the congruence (complementary, substitutability) between the current product categories of both parent brands (Simonin and Ruth, 1998).

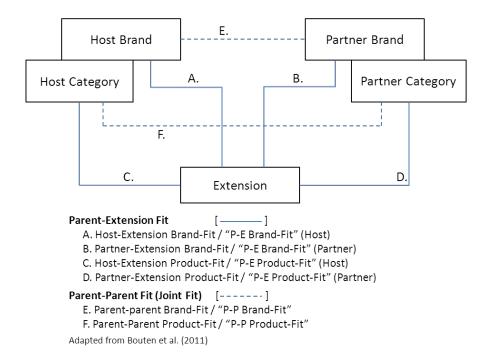


Figure 2. Model of fit measures in co-branding.

2.2.1 Perceptual Fit in Brand Extension Research

The conceptualization of perceptual fit used in brand extension research was initially related to the parent-extension product-fit (fit between parent product category and the extension product). Another conceptualization of parent-extension brand-fit (fit between parent brand concept and extension product) was later introduced (Park et al., 1991). Fit was initially labeled as "consistency" and treated as one of major conditions that are necessary for successful brand

extension to occur. "Consumer(s) should perceive the new item" as "consistent with the parent brand name...," according to Tauber (1981, p. 38). Another term used later in the literature was "logical consistency." This term was used to describe the idea of consumers' perceptions of "how much sense it makes" for a firm to market the extension product (Duncan and Nelson 1986, Thompson et al., 1987). In their conceptual paper, fit or logical consistency was considered as a major moderator amplifying the positive relationship between parent brand attitudes and extension product attitudes. In other words, fit directly influenced the degree of meaning transfer from parent brand to extension product (Thompson et al., 1987). Table 6 summarizes the literature in brand extension research and shows the different roles of perceptual fit along with each study's major constructs.

Aaker and Keller (1990) offered the measurement of the concept of "fit" using three dimensions; namely, complementarity, substitutability and transferability. Complementarity and substitutability are conditions viewed from the demand side perspective. Complementarity refers to a condition in which a particular need can be satisfied by a joint consumption or usage of two products in different categories.

Substitutability references a condition in which replacement of one product by the other would fulfill the same desire or function. From the supply-side view, transfer reflects the "perceived ability of any firm operating in the first product class to make a product in the second product class" (Aaker and Keller 1990, p. 30). Perceived fit was then used to examine brand extension in terms of the relationship between the parent brand and the extended product. Their study indicates that a better perceived fit between parent brands and extensions lead to enhanced consumers' attitudes toward the extension.

Table 6

Literature in Brand Extension Related to the Roles of Perceptual Fit Involved

Author(s)	T/E	Type of Fit	Role of Fit	$Independent\ Variable(s)$	Dependent Variable(s)	Major Finding
Tauber (1981)	T	Consistency / Overal Fit	Factor	Consistency	Extension evaluation	"Consumer should perceive the new item to be consistent with the parent brand name" (pp. 38).
Thompson et al. (1988)	T	Logical Consistency / Overal Fit	Moderator	Parent brand attitude	Extension product attitude	Logical consistency between parent and extension directly influences the degree of meaning transfer from parent to extension.
Park et al. (1989)	Е	Categorization judgement / Product Fit	Factor	Nature of memory structure associated with brand names (Symbolic, Functional, Usage)	Transfer of brand name memory association to extension product	The nature of memory structure associated with brand names affects categorization judgment which in turn will influence the transfer of association from parent brand to extension product.
Aaker & Keller (1990)	Е	Parent-Extension Product- Fit	Factor	Product Fit, Quality Perception, Difficulty of making the extension product class	Extension attitude	Factors that can enhance attitude toward the extension: (1) high perception of "fit" between the two product classes on along one of three dimensions (substitutability, complementarity, transferability), (2) high quality perception of the original brand, and (3) the extension product class is not considered as too easy to make.
Chakravarti et al. (1990)	Е	Similarity in product category / Parent-Extension Fit	Mediator	Salient similarities in features, benefit, usage	Extension evaluation	Salient similarities in features, benefit, usage will affect parent-extension fit which in turn influence the brand extension evaluation
Park et al. (1991) 1	E	Parent-Extension Product- Fit (Product Feature Similarity)	Factor	Product Feature Similarity	Extension attitude	Consumers evaluate brand extension based on information about the product-level feature similarity (between the parent and the extension) and concept consistency (between the brand concept and the extension). For both function- and prestige-oriented brand names, the most favorable reactions occur when brand concept consistence and product feature similarity are high. The relative impact of the two factors differs depending on the nature of the brand-name concept. When a brand's concept is consistent, the prestige brands have greater extendibility to products with low feature similarity compared to the functional brand.
	E	Parent-Extension Brand-Fit (Brand Concept Consistency)	Moderator	Branding Concept (prestige/functional)	Brand extendibility	
Smith & Andrews (1995)	Е	Parent-Extension Product- Fit	Factor	Parent-Extension Product-Fit	Customer certainty, New (industrial) product evaluation	Perceived fit has a positive effect on evaluation of industrial product. The effect of fit on new product evaluations (previously considered to be direct) is fully mediated by customer certainty.
Klink & Smith (2001)	Е	Parent-Extension Product- Fit	Mediator	Level of exposure to brand extension	Extension evaluation (favorability)	The effects of fit disappear when attribute or product related information is added to extension stimuli and are applicable only for later product adopters or consumers who have low innovativeness level. Perceived fit increases when consumers are repeatedly exposed to the extension product.
Nkwocha et al. (2005)	Е	Overal Fit (substitutability, Complementarity, Transferability)	Factor	Overal Fit	Extension attitude	When product involvement is low, the positive effect of substitutability, complementarity, and transferability on extension evaluation is stronger than when product involvement is high. There is stronger interaction between product involvement and product fit when consumers have high need for cognition (NFC) than low NFC.
Milberg et al. (2010)	Е	Parent-Extension Product- Fit	Factor	Parent-Extension Product-Fit	Extension (1) Favorability, (2) Positive/negative evaluation	Competition positively influence evaluation for brand extension with low fit competing with less familiar competitor brands, and negatively influence the perceived risk of purchase for the same scenario. Perceived risk mediates the effects of fit on extension evaluation in noncompetitive settings.

Notes: T/E: Theoretical / Empirical Paper

In brand extension literature, pertaining to attitude transfer, perceptual fit generally occupies the role of either a factor that directly influences extension evaluation or as a moderator of relationships between other factors and the extension evaluation. Park et al. (1991) introduced the dual concept of parent-extension fit. Consumers evaluate brand extensions based not only on information about product-level feature similarity or "product-fit" (between parent and extension) but also on brand concept consistency or "brand-fit" (between parent's brand concept and the extension). Consumers tend to be more favorable predisposed toward extensions that belong to the same concept (consistent) as the parent brands as opposed those that belong to a different concept (inconsistent). Their study indicates that the most favorable reactions occur when brand concept consistency and product feature similarity are high. This argument appears valid for both function-oriented and prestige-oriented brand names. The relative impact of the two fit factors differs depending on the nature of the brand-name concept. When a brand's concept is consistent, a prestige brand has a greater extendibility to products with low feature similarity compared to the functional brand.

In terms of the possible role of perceptual fit as a factor that positively influences extension attitude, other brand extension studies are consistent in their findings. They also feature further specific contributions. These contributions primarily include adding the notion of another factor that mediates or moderates the relationship between perceptual fit and extension attitude. Smith and Andrews (1995) studied the perceptual fit in industrial product context. Their study indicates that even by itself, perceptual fit can have a positive impact on industrial product valuations. However, the effect of perceptual fit on product evaluation is not direct but is instead mediated by customer certainty. When the effect of customer certainty is taken into account, the direct effect of perceptual fit disappears.

Several moderators are thought to affect the relationship between perceptual fit and extension attitude. The effects of three elements of perceptual fit, namely complementarity, substitutability and transferability on extension attitude have been investigated (Aaker and Keller, 1990). These three elements' effects are moderated by product involvement and need for cognition amongst consumers (Nkwocha et al., 2005). When product involvement is low, the positive effect of substitutability, complementarity, and transferability on extension evaluation is stronger than when product involvement is high. There is stronger interaction between product involvement and product-fit when consumers have high need for cognition than low need for cognition. Milberg et al. (2010) indicates that the level of competition moderates the effect of perceptual fit on extension favorability. They find support that competition positively influence evaluation for brand extension with low fit competing with less familiar competitor brands, and negatively influence the perceived risk of purchase for the same scenario. Their study also suggests that perceived risk mediates the effects of perceptual fit on extension evaluation in noncompetitive settings.

2.2.2 Perceptual Fit in Co-Branding Research

In co-branding research, perceptual fit and attitude toward the brand are major constructs that influence the effectiveness of a brand alliance (Gammoh et al., 2006). (This is similar to brand extension research.) However, the two literatures diverge in terms of how they conceptualize and understand perceptual fit. In co-branding applications, perceptual fit is typically conceptualized as the fit between the brands participating in the alliance themselves. In the brand extension literature, perceptual fit is commonly conceptualized as the fit between each parent brand and the new extension product. However, the parent-extension fit conceptualization is still widely used in the co-branding literature. There are studies investigating both

conceptualizations of perceptual fit in the co-branding literature. These studies generally combine parent-extension fit and parent-parent fit (Simonin and Ruth 1988, James 2006, Pruppers et al., 2007, Bouten et al., 2011). Some literatures only include parent-extension fit in their models (Simonin and Ruth 1995, Park et al., 1996, Desai and Keller 2002, Thompson and Strutton 2012). Table 7 summarizes the co-branding literature and reveals the different roles of perceptual fit along with each study's major constructs.

Simonin and Ruth (1995) were the first to use the term "fit" in co-branding research.

Their study addressed product bundling and investigated the effects of bundling on consumers' reservation prices for the bundled products. Using a quasi-experimental design on bundles of personal care products, the authors found that prior attitudes toward the component brands significantly affect the evaluation of the bundle. This evaluation, in turn, mediates the effect of prior component attitudes on consumer reservation prices for the bundle itself as well as for both the new product and the tie-in individually. In their study, fit (P-P product-fit) plays a moderating role in amplifying the effect of prior attitude toward the component brands on bundle attitude and reservation price.

Park et al. (1996) pioneered use of the term of attribute complementarity (i.e., P-P product-fit). Their study defined the term "complementarity" between the partnering brands as having several conditions. First, both partnering brands have a set of relevant attributes (e.g., good-taste and low-calories). Second, the two brands differ in attribute salience such that an attribute, not salient to one, is salient to the other (e.g., one brand is salient in good-taste and the other brand is salient in low-calories). Third, the brand for which such attribute is salient has a higher perceived performance level on that particular attribute (e.g., one brand has a higher level on good-taste and the other brand has a higher performance level on low-calories). Their study

indicated that co-branding with a higher P-P product-fit (i.e., attribute complementarity) should yield a positive effect on consumer attitudes toward the co-branded extension.

In joint-advertising context, Samu et al. (1999) indicated that the degree of complementarity between products of partnering brands (P-P product-fit), the type of differentiation strategy used (using common or unique attributes), and the design of ad processing (top-down or bottom-up) are each the significant factors in determining joint-advertising effectiveness. Their study reported that joint-advertising with high level of complementary between brands can quickly gain consumers' recognitions of the co-branded product. Similar findings were observed in the study of Ashton and Scott (2012), who investigated co-branding processes and outcomes in the context of hotel-restaurant alliance. The complementary fit was significant in its ability to positively influencing intention to purchase.

Simonin and Ruth's study (1998) indicated that, along with impact of product-fit between the partnering brands (P-P product-fit), the consistency of brand images between the parents (P-P brand-fit) proved to have a significant positive influence on the attitudes toward the co-branded extension product. Product-fit (P-P product-fit) was defined as the correlation between the perceived product categories of partnering brands. They also found that the degree of brand familiarity moderates each of the parent brand's contribution to the extension attitude.

Baumgarth (2004) replicates Simonin and Ruth's (1998) model, and further bolstered the argument that the positive effect of a high P-P brand-fit is also present in joint-advertising contexts.

Building upon studies of Simonin and Ruth (1998) and Baumgarth (2004), Bouten (2006) executed an empirical study, and concluded that high P-P brand-fit is the key determinant of the evaluation of the co-branded extension.

Table 7

Literature in Co-branding Related to the Roles of Perceptual Fit Involved

Author(s)	T/E	E Type of Fit	Role of Fit	Independent Variable(s)	Dependent Variable(s)	Major Finding
Simonin & Ruth (1995)	Е	Parent-Parent Product-Fit	Factor, Moderator	(1) Parent-Parent Product-Fit, (2) Prior attitude toward the brand	Extension's (1) attitude, (2) reservation price	Joint product-fit amplifies the effect of prior attitude on (a) attitude toward the extension, and on (b) reservation price for the extension.
Park et al. (1996)	Е	Attribute Complementarity / Parent-Parent Product-Fit	Factor	Attribute Complementarity / Parent- Parent Product-Fit	Extension attitude	A higher product fit (i.e., attribute complementarity) yields a positive effect on consumer attitudes toward the extension.
Simonin & Ruth (1998)	Е	(1) Parent-Parent Product- Fit, (2) Parent-Parent Brand- Fit	Factor	(1) Parent brands' pre-attitude, (2) Parent Parent Product-Fit, (3) Parent-Parent Brand-Fit	(1) Extension attitude, (2) (1) Parent brands' post-attitudes	A high brand fit (brand image consistency) or product fit (relatedness of product categories) between the two parent brands has a positive effect on the attitudes toward the extension. The post-exposure attitudes are affected by the spillover effects from the extension attitudes. Brand familiarity moderates the parent brands' contributions to the extension attitude and the post-exposure attitude toward each of the parent brands.
Samu et al. (1999)	Е	Parent-Parent Fit / Complementarity	Moderator	Type of advertising: (1) Top-down / Bottom-up, (2) Differentiated / Undifferentiated	(1) Extension: (a) awareness, (b) belief, (c) accessibility, (d) belief accessibility; (2) Attitude of: (a) Parent brand, (b) Extension	In the joint-advertising setting, a high level of complementary between the parent brands can yield rapid consumers' recognitions of the co-branded product and maximize the awareness of and and the attitude toward the extension.
Desai & Keller (2002)	Е	Perceived Distance / Overal Parent-Extension Fit	Factor	Parent-Extension Fit	Extension attitude	A higher perceived distance (fit) of the new product extension from the host brand yields lower attitudinal favorability of a co-branded ingredient.
James (2006)	Е	(1) Host or Partner Product- Fit, (2) Parent-Parent Product-Fit, (3) Parent- Parent Brand Fit	Factor, Moderator	(1) Difficulty of making, (2) Quality of partner brand, (3) Fit, (4) Alliance quality, (5) Purchase likelihood	(1) Extension Attitude, (2) Transfer of parent brands' perceived quality	This study is an extension of the framework of Aaker and Keller (1990) to examine whether the dimensions used in brand extension model can be applied in co-branding context. In terms of perceptual fit, the findings in this study confirmed the role of parent-extension product fit and joint brand-fit on the co-branded extension evaluation and the transfer of parent brands' perceived qualities.
		(1) Parent-Parent Brand-Fit, (2) Parent-Parent Product-	Factor	(1) Parent-Parent Brand-Fit, (2) Parent- Parent Product-Fit	Extension evaluation	Brand fit has a stronger effect on extension evaluations than product fit.
Pruppers et al. (2007)	Е	(1) Parent-Extension Product Fit, (2) Parent- Parent Brand-Fit	Moderator	Presence of Parent-Parent Brand-Fit	Partner or Host Fit	In the presence of brand fit, the effect of host product fit will be more pronounced when the partners product fit is low. In the absence of brand fit information, consumers rely more on product fit information. The second product fit thus becomes more diagnostic, and therefore when brand fit is absent, the effect of host product fit will be more pronounced when the parent product fit is high.
Walchli (2007)	Е	Between-Parent Congruity / Parent-Parent Brand-Fit	Factor	Between-Parent Congruity / Parent- Parent Brand-Fit	Extension evaluation	In high involvement processing condition, extension attitude tend to be higher if the parent brands are perceived to be moderately incongruent.
Bouten et al. (2011)	Е	(1) Parent-Parent Product- Fit, (2) Parent-Parent Brand- Fit, (3) Parent-Extension Product-Fit, (4) Parent- Extension Brand-Fit	Factor	Parent-Parent Fits, Parent-Extension Fits	Extension attitude	Co-brandings with high product-product fit, brand-brand fit, and new-product-brand fit produce significantly positive impact on the evaluation of the extension product. New-product-product fit was found not significant to influence consumer evaluations. Consumers prefer extensions that can be clearly associated with one of the brands in the partnership in order to obtain unambiguous categorization.
Thompson & Strutton (2012)	Е	(1) Host Fit, (2) Partner Fit	Mediator	(1) Host brand attitude, (2) Partner brand attitude	Extension brand attitude (overall quality)	Partnering with brands possessing higher parent-extension fit (co-brand fit) in the extension category can benefit host firms' brands to achieve more favorable positions for their extensions. Co-brand fit is more influential on extension attitude than parent fit and thus making it important for partnering consideration. Joint fit may take a back seat when forming alliances.
Ashton & Scott (2012)	Е	(1) Overall Fit, (2) Complementary / Parent- Parent Fit on: (a) Product- Usage, (b) Product-Goal	Factor	(1) Overal Fit, (2) Complementary Fits	Purchase intention	Perceived fit (overall) and complementary fit (in terms of product usage and product goals) are statistically significant and positively related to intention to purchase.

Notes: T/E: Theoretical / Empirical Paper

Her study also indicated that good fit between the parent brands' images and the co-branded extension can enhance the extension evaluation. In a subsequent study, Bouten et al. (2011) investigated perceptual fit through a more comprehensive model that entailed four different conceptualization of fit. These fit conceptualizations were: product-product fit (P-P brand-fit), brand-brand fit (P-P brand-fit), new-product-product fit (parent-extension product-fit) and new-product-brand fit (parent-extension product-fit). The researchers found that high degree in each product-product fit, brand-brand fit, and new-product-brand fit each produce a significantly positive impact on the evaluation of the extension product. New-product-product fit (parent-extension product-fit) did not influence consumer evaluations of the extension. In addition, they argued that consumers prefer extensions that can be clearly associated with one of the brands in the alliance in order to obtain unambiguous categorization.

Walchli (2007) defined perceived fit as the degree of congruence between the brands and investigated how congruency between parent brands can affect evaluations of co-branded offerings. Findings indicated that, under a high involvement processing condition, consumers usually to have more favorable attitudes toward the extension when the partnering brands are perceived as moderately incongruent (i.e., a moderate P-P brand-fit). In contrast, when highly similar or dissimilar brand concepts (i.e., a poor P-P brand-fit) exist between parent brands, consumers usually had less favorable attitudes toward the extension.

James (2006) extended the framework of Aaker and Keller (1990) to examine whether the dimensions used in brand extension model can be applied in co-branding contexts. Each conceptualization of perceptual fit (P-E fit and P-P fit) was investigated in this study. Findings confirmed the role of P-E product-fit and P-P brand-fit on the co-branded extension evaluation and the transfer of parent brands' perceived qualities to the extension product. James (2006)

generally confirmed that the framework of brand extension can be applied to a co-branding context, an argument strengthened by the fact that the use of parent-extension fit, which was originated in brand extension literature, is still extensive in co-branding literature.

Apart from studies that used either the conceptualization of fit between the partnering brands (P-P fit) or a combination of P-P fit and P-E fit as discussed above, there were studies that employed only parent-extension fit conceptualization. Consistent results found in the studies that involved only parent-extension fit in co-branding. In the study of Desai and Keller (2002) that investigated the effect of ingredient branding on the extendibility of the host brand, one of the findings confirmed the consistency. Their study indicated that a higher perceived distance (fit) of the new product extension from the host brand yields lower attitudinal favorability of a cobranded ingredient. Another current study by Thompson and Strutton (2012) also employed only parent-extension fit in the model explaining attitude transfer in the co-branding application. The argument was that if the co-branding purpose is to improve its ability to penetrate an untested new product category, parent-extension fit is more relevant than P-P fit in explaining the attitude transfer. The findings of their study suggested that partnering with brands possessing higher parent-extension fit (partner fit) with the extension product category can benefit host firms' brands to achieve more favorable positions for their extensions. Partner product-fit is more influential on extension attitude than host product-fit and thus making it important for partnering consideration.

As discussed, an extensive set of studies exists that discusses the role of perceptual fit. In both the brand extension and co-branding literatures perceptual fit has generally been investigated either as a factor of attitude or as a moderator affecting the attitude transfer.

However, only a few researchers have examined the role that perceptual fit may play in belief

transfers. Research suggests perceptual fit may become a predictive factor when the dependent variables are general evaluations, attitudes, or perceived quality of the extension. The current study focuses on belief transfer. And because beliefs are specifically related to the product or the brand of interest, perceptual fit, as relevant construct, is treated as moderator rather than a predictive factor.

2.3 Attitude / Belief Transfer in Co-Branding

2.3.1 Consumers' Attitudes/Beliefs

The relevant literature offers myriad definitions of attitude. The definition used most frequently, however, is that attitude represents "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (Fishbein and Ajzen, 1975, p. 6). With regard to branding, attitude toward the brand is generally thought to capture consumers' tendencies to evaluate brands in a consistently favorable or unfavorable way (Assael, 1994). Fishbein and Ajzen (1975) argue that attitude is and should be considered as separate from belief. Most readers are familiar with age-old trilogy, in which Fishbein and Ajzen argue that the three elements of attitude are affect, cognition and conation. Affect (feeling, evaluation) refers to an individual's feelings toward and evaluation of some object, person, issue, or event. There is a general agreement that affect is the most essential part of the attitude concept (Fishbein and Ajzen, 1975). Cognition (opinion, belief) represents an individual's knowledge, opinions, beliefs and thoughts about a particular object. Finally, conation (behavioral intention) denotes an individual's behavioral intentions and her/his actions with respect to or in the presence of the object (Fishbein and Ajzen 1975). However, no small level of confusion exists regarding exactly what these three terms means and how they should be used. For example,

sometimes the term "attitude" is used as a synonym for the term "affect." At other times, "belief" is used as a proxy for the second element, "cognition." Finally, "intention" is often used in lieu of third element, "conation." However, this study consistently uses the popular terms to characterize each element of attitude. These are, in turn: (1) "attitude" for "affect," (2) "belief" for "cognition," and (3) "intention" for "behavioral intention."

While attitude relates to one's feelings about or evaluation of a particular object, belief basically links an object to a specific attribute(s) since belief represents the information an individual has about an object. Regarding the possible association between object and attribute(s), differences can arise in terms of belief strength across different individuals. People may differ in terms of their perceptions of the likelihood that the same object is associated with the particular attribute(s) in question. Intention can be viewed as a special case of belief, one in which the object is the individual and the attribute is a behavior. Similar to belief, the strength of individuals' intentionality is indicated by individuals' subjective probability - or estimate - that they will perform the behavior in question.

The use of attitude element terms should relate to the actual measure. Fishbein and Ajzen (1975) argue that the term "attitude" should only be used when strong evidence exists suggesting that the measure being used is a bipolar affective dimension. When the measure used relates to a dimension of subjective probability that relates an object to an attribute, the term "belief" should be employed. When the probability dimension links the person to a behavior, the concept "behavioral intention" should be used.

When the notion of brand as object comes into play, belief is embodied within the characteristics that consumers ascribe to the brand (Assael, 1994). Belief about brand can be classified into two types: (1) informational belief and (2) evaluative belief. Informational belief

is associated with product attributes (e.g., for energy drink products; such as caloric content, vitamin content, sweetness, etc.). By contrast, evaluative belief is associated with product benefits (e.g., restoring energy, thirst quenching, refreshing, etc.). Beliefs about any brand are generally multidimensional insofar as beliefs capture the entire universe of brand attributes that are being perceived by consumers. In contrast to belief, attitude toward any brand is uni-dimensional as insofar as attitude captures and represents consumers' overall evaluation of a brand. This is because attitudes are comprised of consumers' evaluations of bundles of attributes (that are associated with the brand) as being either more or less favorable or, say, poor to excellent. Since the multi-attribute model was introduced, the role and influence of belief has been elevated to more important status in attitude research (Assael, 1994).

When brand beliefs are considered, three alternative belief measures should come into play. The first measure uses the basis of probability to evaluate the likelihood that a given brand will possess or feature a certain attribute. Usually, a 7-point-scale anchored from improbable to probable is used to conduct this measurement. The second measure uses semantic differential scales that feature bipolar (opposite) adjectives on a 7-point scale (e.g., low calorie to high calorie). The third measure uses the basis of accuracy of the descriptions. This measure is usually assessed through a 7-point scale anchored by "does not describe the brand at all" to "describe the brand very well" to rate brand attributes (Assael, 1994).

2.3.2 Attitude / Belief in Brand Extension and Co-Branding Research

Past research in brand extension and co-branding actually has extensively employed various attitudinal measures to assess consumer perceptions of parent brands and their branded or co-branded extensions. Most measures assessed affective dimensions of attitude and/or quality

perceptions. Affective measures used in the literature include items that measure desirability and favorability of the brand or product (Boush and Loken, 1991). These affective measures also capture perceptions of goodness, likability, and pleasability (Park et al., 1991).

Despite the importance of belief as a cognitive element of attitude, more emphasis has been allocated toward the affective element and the perceived qualities in brand extension and co-branding studies. Attitude/affect has almost always been used to measures consumers' responses to brands extensions. Beliefs have rarely been used. Table 8 shows the evaluative measures used in previous brand extension and co-branding research.

Table 8

Evaluative Measures Used in Brand Extension and Co-Branding Research

Author(s)	Author(s) Term Used Type		Scale	Measurement	
A -1 0 IZ -11 (1000)	Entropies Autorita	Perceived Quality	7 point, bipolar	inferior - superior	
Aaker & Keller (1990)	Extension Attitude	Intention (of Trial)	7 point, bipolar	not at all likely - very likely	
Chakravarti et al. (1990)	Extension Evaluation	Perceived Quality	7 point, bipolar	high - low	
		Affect	7 point, bipolar	bad - good	
Park et al. (1991)	Evaluative Judgment	Perceived Quality	7 point, bipolar	not important - important (upon: reliability, durability, luxury, status	
Smith & Andrews (1995)	Product Evaluation	Affect	10 point, bipolar	not very interested - very interested	
EEE 1 0 G 24 (2001)	P P. 1 .:	Affect	7 point, bipolar	not very favorable - very favorable	
Klink & Smith (2001)	Extension Evaluation	Intention (to Purchase)	7 point, bipolar	not very likely - very likely	
N.T	Entropies Authority	Perceived Quality	7 point, bipolar	very low - very high	
Nikwocha et al. (2005)	Extension Attitude	Affect	7 point, bipolar	very unlikely - very likely	
Milberg et al. (2010)	Extension Evaluation	Affect	7 point, bipolar	not at all favorable - extremely favorable, extremely negative - extremely positive	
		Belief (salient attribute)	7 point, unipolar	good taste, low calorie, low fat, etc.	
Park et al. (1996)	Extension Attitude	Belief (performance)	7 point, unipolar	how well the brand perform on the attribute	
		Affect, Intention	7 point, unipolar	liking, favorableness, likelihood of purchase	
Simonin & Ruth (1998)	Brand Attitude	Affect	9 point, bipolar	negative - positive, unfavorable - favorable, bad - good	
Samu et al. (1999)	Brand Belief	Belief	7 point, unipolar	strongly disagree - strongly agree (upon: brand-attribute link)	
Desai & Keller (2002)	Extension Evaluation	Affect	9 point, bipolar	bad - good, dislike - like, unappealing - appealing	
James (2006)	Attitude	Perceived Quality	7 point, bipolar	low - high, inferior - superior	
Walchli (2007)	Attitude	Affect	10 point, bipolar	not at all apealing - extremely appealing	
	Attitude	Perceived Quality	10 point, bipolar	very low quality - very high quality	
Bouten et al. (2011)	Extension Evaluation	Affect	9 point, unipolar	don't agree at all - totally agree (upon: good, pleasant, interesting, nice, positive, favorable)	
Thompson & Strutton (2012) Attitude Percei		Perceived Quality	7 point, unipolar	strongly disagree - strongly agree (upon: quality, superiority, value, long lasting, well-made)	

Table 8 demonstrates that affect is the most frequently used measure for extension evaluation. These affect measures are consistent with Fishbein and Ajzen's (1975) use of bipolar measures. The only notable variation relates to the numbers of scale points used. Belief and intention are used far less frequently as the extension evaluation measures. This is especially true

for belief; indeed, while some literature use the multi-attribute model to develop attitude measure from salient beliefs (e.g., Park et al. 1996) others use agreement or disagreement about related brand-attribute associations (e.g., Samu et al., 1999). Perceived quality is another measure that is frequently used. Perceived quality is essentially a belief measure, but one that relates to overall levels of quality presumed to be associated with a given brand. However, in terms of measurement and scale, perceived quality is treated as an affect given that it employs bipolar scales (e.g., Aaker and Keller, 1990; Chakravarti et al., 1990; Park et al., 1991; Klink and Smith, 2001; James, 2006; Thompson and Strutton 2012).

This study focuses on belief measures and investigates the transfer of beliefs instead of attitude/affect due to several reasons. First, as explained, belief transfer has been under studied in the co-branding application. Most of literature in brand extension and co-branding investigated attitude/affect transfer. Second, since consumers are exposed to multiple brands in co-branding, they may utilize more cognitive resource in evaluating co-brand. This, of course, increases the importance of investigating the transfer of brand beliefs. Third, more cognitive resource used in brand evaluation leads to a central route processing in which cognition plays a separate role from affect and directly influences the attitude formation and change (Voss et al., 2003). Fourth, in an advertising context, brand belief is one of important mediators of brand attitude (Mittal, 1990; Mitchell and Olson, 1981). Finally, as compared to affect, cognition plays a more dominant role in attitude formation process for familiar brands (Homer, 2006). As this point, it is important to underscore that well-known brands are much more likely to actually engage in co-branding applications.

2.3.3 Aesthetic and Functional Beliefs

Brand beliefs are obtained from the way consumers develop associations or perceived

benefits about the brands. Brand association refers to any information linked to the brand node in memory, such as product category, usage situation or evaluation of the brand (Keller, 1993). These associations vary in the extent to which they are abstract or concrete. Park et al. (1991; 1996) used the term "functional-oriented" or "symbolic/prestige-oriented" brand concepts. Functional belief is related with the functional benefits that motivate the search for products to solve consumption-related problem (Park et al, 1986; Fennell, 1978). Aesthetic/symbolic belief is related to symbolic need, the internally generated need for self-enhancement, role position, group membership, or ego-identification (Park et al., 1986).

The nature of aesthetic beliefs is relatively more abstract and context independent.

Consumers develop aesthetic beliefs about particular brands through their exposure to prior marketing promotion, product experiences, or word-of-mouth communications. Consumers then aggregate information across numerous communications events or purchasing contexts to cultivate their aesthetic beliefs. Functional belief is more concrete. Functional belief also includes more contextual features about the product and benefits of the product which normally are developed prior to purchase, during consumption or after usage of given products.

In the current study, functional beliefs are defined as beliefs that are associated with features and utilitarian benefits of the product under the particular brand to be extended. These beliefs are usually more concrete and attached to the specific attributes of the product category under the brand. On the other hand, aesthetic are defined as beliefs associated with the hedonic aspects of the brand. Such beliefs are generally more abstract and not attached to specific product category. Both of these dimensions of beliefs are potentially transferred from parent brand to the co-branded extension under a particular pattern.

Our argument is the propensity of the transfer of these beliefs depends on the degree of fit

between parent brands and extension (parent-extension fit) and also on the degree of fit between both the partnering brands (P-P fit). For example, Nike originally sold only athletic shoes, so naturally the Nike brand may be associated with aesthetic belief as good look, attractive, etc. Meanwhile, the functional belief (of Nike sport shoes) may be anti-slip, a good shoe for exercise, etc. When Nike extends its brand to dress shorts (i.e., an apparel item), a category which is relatively distant from the original Nike brand category (shoes), thus having low degree of product-fit, the aesthetic belief of good look is potentially transferred to the Nike dress shorts, whereas the functional belief of anti-slip is less likely to be transferred. The scenario may differ when Nike extends the brand to hiking boots product which is a relatively closer category to Nike's original branding touchstone (i.e., athletic shoes) and thus having high degree of product-fit, with respect to both the aesthetic/symbolic belief and functional belief that each potentially could be transferred to the Nike casual shoes product.

2.4 Theory

Co-branding and brand extension have been studied through several theoretical baselines. Relevant theories include: categorization theory (Aaker and Keller, 1990; Thompson and Strutton, 2012), information integration theory (Simonin and Ruth, 1998), signaling theory/information asymmetry (Rao and Ruekert, 1994; Rao et al., 1999), concept combination theory (Park et al., 1996; Levin, 2002), social judgment theory (Levin and Levin, 2000), associative learning (Washburn et al., 2000; Washburn et al., 2004), associative network memory models (Samu et al., 1999; James, 2005), and schema incongruity model (Desai and Keller, 2002). Table 9 depicts the myriad theories that have been employed to study co-branding (and

brand extension), summarizes the main concepts that drive or undergird each theory, and lists the specific studies that applied the respective theories.

The use of various theoretical approaches in co-branding research has significantly strengthened our understanding of how co-branding practices affect consumers. These varying theoretical approaches have also identified major factors that influence co-branding success.

Over time, however, categorization theory appears to have emerged as the richest theoretical basis from which working hypotheses in co-branding research might be derived.

Table 9

Examples of Various Theories Used in Co-Branding Literature

Theory	Concept Summary	Literatures
Categorization Theory	A brand constitutes a category to which its branded extensions belong to (Boush and Loken, 1991). Category is activated when consumers are exposed to a brand extension bearing the same brand. Cognitions and affective judgments associated with the parent brand will then function as a baseline from which consumers develop judgments (Cohen and Basu, 1987).	Aaker and Keller (1990), Klink and Smith (2001), Samu et al. (1999), Walchli (2007), Bouten et al. (2011), Thompson and Strutton (2012)
Information Integration Theory	Attitudes or beliefs are formed and modified as people receive, interpret, evaluate, and then integrate stimulus information with existing beliefs or attitudes (Anderson 1981).	Simonin and Ruth (1998), Gammoh and Voss (2003), Rodrigue and Biswas (2004), Bouten et al. (2011), Desai and Keller (2002), Saqib and Manchanda (2008), Geylani & Inman (2008), Arnet et al. (2010), Chan and Cheng (2012)
Signaling Theory	Signaling theory involves the study of information economics under conditions in which buyers and sellers possess asymmetric information when facing a market interaction (Akerlof 1970; Spence 1974). One solution to this information problem is for firms to send signals about their quality.	Rao and Ruekert (1994), Rao et al. (1999), Voss and Tansuhaj (1999), Fang and Mishra (2002), Gammoh and Voss (2003), Voss and Gammoh (2004), Jones (2004), Gammoh et al. (2006), Houston (2003)
Concept Combination Theory	How a person process existing concepts when they are combined to form a new composite concept.	Park et al. (1996), Vaidyanathan and Aggarwal (2000), Levin (2002)
Social Judgment Theory	People evaluate objectives/situations differently depending on contextual factors.	Levin and Levin (2000), Levin (2002)
Associative Learning	The cases when people make connections between various stimuli that take place in their environment.	Washburn et al. (2000), Washburn et al. (2004)
Associative Network Memory Model	The structure and process by which concepts or entities become linked in a person's mind.	Samu et al. (1999), James (2005)
Schema Incongruity Model	How the congruity of the new information can effect the knowledge structure of a schema. A schema is a cognitive structure that represents organized knowledge about a concept or object.	Desai and Keller (2002)

Categorization is the process through which objects, ideas, or actions are recognized, differentiated and understood (Cohen and Lefebvre, 2005). The concept of categorization implies objects are classified into categories for some specific purpose. Categorization is one of most

essential cognitive activities of human beings. When individuals engage in activities such as naming, describing, recognizing patterns of objects, they activate categorization processes (Harnad, 1987). Individuals use categorization processes as they administer and manage information, perceive and semantically analyze stimuli, organize knowledge and memory, in addition to retrieve, classify and organize the information in various activated categories (Medin and Barsalou, 1987). Using the process of categorization, individuals can avoid the burden of grappling with a large numbers of entities in the world by reducing it to manageable numbers, communicating economically using category labels, and maintaining consistency across their own innumerable views of the world (Cantor and Mischel, 1979; Mervis and Rosch, 1981; Tversky and Hemenway, 1984).

The basic platform of categorization theory is the concept of *category*. According to Medin and Barsalou (1987), there are four functions of category: (1) classification, (2) inference and prediction, (3) generation, and (4) productivity. Classification is a process in which individuals assign new exemplars to an appropriate category. Individuals may be exposed to various stimuli that are different in nature. However, such individuals may not consider each stimulus as unique. People do not respond to different new stimuli based on unique characteristics. Instead, they tend to perceive new stimuli in terms of particular category membership (Cohen and Basu, 1987) based on the perceived presence of resemblance or perceived similarity among stimuli (Ozanne et al., 1992). The second function, inference and prediction, is the process of retrieving information from memory contained in activated categories that are thought to be associated with the new stimulus or exemplar. Through this process, individuals make predictions about the relationships among members within the same category, infer the properties of the members based on the knowledge they possess about a

category, and match the new stimulus with an existing particular category based on their similarities (Cohen and Basu, 1987; Murphy and Medin, 1985; Tversky and Hemenway, 1984; Wyer and Srull, 1980).

The third function, generation, is the process through which various exemplars are evoked from the categories as individuals are exposed to a new stimulus. Through this process, differing exemplars categories, especially those deemed most relevant, are retrieved. The degree of similarity between the new stimulus and the categorical exemplars provides the basis through which the most relevant categories are determined. For example, if a person is thinking about what meal to order in a restaurant, the evoked categories could include taste, cost, calorie content, etc. The final function, productivity, is the cognitive capability of forming higher-order categories based on already existing basic categories. When individuals accumulate categorical knowledge, they can utilize existing categories to develop more complex, more abstract or higher-order categories (Medin and Barsalou, 1987). Individuals differ in their capability to form higher-order categories. Compared to novices, experts are generally more skillful in their ability to abstract categories (Adelson, 1984; Alba and Hutchinson, 1987; Murphy and Wright, 1984; Schoenfeld and Herrmann, 1982; Sujan, 1985).

There are four discrete views regarding how the category membership of an object is determined. The first three are more basic: classification by rules (the classical view), classification by prototypes (the probabilistic view), and classification by exemplars (the exemplar view). The last type is the contingency-based, mixed model view (Cohen and Basu, 1987). The first view, classification by rules, involves particular defining rules or criteria to define a category. This view suggests that individuals will treat a stimulus as a member of a particular category whenever the stimulus fulfills all characteristic required by the defining

criteria of that category. Individuals acquire concepts through the search for necessary and sufficient attributes that jointly determine category membership.

The second view, classification by prototypes, involves a particular prototype that represents a category. A prototype is assumed to possess a set of features that is commonly associated with members of a particular category. Each feature is assigned a weight according to the degree of association with the category. Unlike the classical view, the prototype view suggests instances of a category are not rigid. Under this view, instances of a category may vary in the degree to which they share certain categorical characteristics. One key concept that is associated with this view is the notion that there is recognition of continuum, or fuzzy sets, in which instances of a category represent the concept only in probabilistic terms. Goodness of membership or typicality determines to which category an object belongs.

The third view, classification by exemplar, does not accommodate the notion of rule or prototype. This view involves an individual's perception of similarity between the new stimuli and the category members retrieved from a person's memory to determine category memberships of various stimuli. Objects are categorized by cuing retrieval of particular category exemplars. The more an object is similar to a certain exemplar of a category, the higher the likelihood is that the object will be perceived as a member of this category.

The fourth view, the contingency-based mixed model view, was proposed by Cohen and Basu (1987) to reconcile the first three different views. Cohen and Basu (1987) argued that individuals can in fact operate using any of the three different classification processes while categorizing stimuli. Individuals may even use a blend of three classification processes (Cohen and Basu, 1987; Medin and Barsalou, 1987; Smith and Medin, 1981).

The exemplar view is adopted in the current study as it resolves various weaknesses associated with the first two views and thus featuring the fewest potential flaws or shortcomings. Classification by rules is generally limited to categorization that involves explicit and easily defined characteristics of a category. This view is meant for an identification strategy that maximizes information gained and minimizes error and cognitive strain, accordingly this view is more appropriately applied in research that investigates natural objects as opposed to artificial stimuli. Clearly, the classical view probably will not accurately explain the categorization process in many consumer behavior contexts (Cohen and Basu, 1987). Classification by prototype, which overcomes the weaknesses of classification by rules by de-emphasizing the need to the search for necessary and significant features, emphasizes goodness of membership with the prototypical archetype. However, little agreement exists regarding the meaning and implication of the concept of prototype. This is because the degree of prototypicality depends upon individuals' judgments of how well various objects fit the concepts that are implied by the category label. Therefore, no clear understanding exists regarding how an existing prototype, one that would represent an existing category, and a new prototype that would represent the modified category, could be linked to a new stimulus that features a high degree of what is described as "goodness of memberships" (i.e., in the categorization literature) to both prototypes/categories (Cohen and Basu, 1987).

When the question of how attitudes are transferred arises, categorization theory (Cohen and Basu, 1987; Fiske, 1982; Fiske and Pavelchak 1986; Sujan, 1985) suggests consumers evaluate brand extensions in one of two ways. First, attitudinal transfer may occur via piecemeal processing in which the process of extension evaluation is "built-up" as a combinatorial function of perceived brand attribute beliefs and the evaluative importance of these beliefs. Second,

consumers can also evaluate the brand extension using more holistic category-based processing. In this context, the evaluation processes would unfold as a function of the overall attitude consumers hold toward the parent brands. When consumers perceive a high degree of fit or similarity between parent and extension product categories, using category-based processing, quality and other evaluative judgments/perceptions would be transferred to the extension.

Two characteristics of categories appear likely to prove crucial in any effort to understand consumers' responses in brand extension and co-branding contexts. The first characteristic relates to the role of graded structure in categories. Categories are presumed to feature graded structures for which exemplars of a particular category vary in the degree to which they accurately represent the category (Barsalou, 1985). Graded structure implies that category members may differ in the degree to which they represent the category (Alba and Hutchinson, 1987; Mervis and Rosch, 1981). With regard to the existence of graded structure, individuals may consider some members of a category more representative of the category than others. Accordingly, different individuals may vary in the speed at which they are able to categorize different stimuli, in their development of exemplars, and in their ability to learn and create new categories (Mervis and Rosch, 1981).

The concept of 'typicality,' drawn from extant co-branding research (also called 'prototypicality') correlates directly with the concept "goodness of membership" describing graded category structures (Cohen and Basu, 1987). Typicality is determined by the strength of association that exists between an exemplar and the category. Members of a category that share the same features and evaluative judgments associated with the category are considered to be "typical" of that category (Cohen and Basu, 1987; Fiske, 1982).

The second important characteristic is the hierarchy of categories. Unlike the graded structure that represents the horizontal structure of categories, the *hierarchy* of categories relates to a categories vertical structure. Hierarchical structures of categories are developed in consumers' memories and generally adhere to a certain configuration. There exist categories at basic, subordinate, and superordinate levels. Categories at a basic level are acquired before other categories at higher hierarchical levels. Superordinate categories reside above basic level categories, while subordinate categories reside below the basic level. Superordinate categories are more abstract, qualitative, general and less concrete than basic categories (Alba and Hutchinson, 1987; Murphy and Smith, 1982; Tversky and Hemenway, 1984). Subordinate categories are more concrete and specific than basic categories. People develop superordinate and subordinate category levels through experience and increased familiarity with that particular (i.e. one and only) category (Mervis and Rosch, 1981).

With regard to linguistic and psychological concerns, basic level categories are more primary (i.e., fundamental, in the context of linguistics) as compared to categories arrayed at higher or lower hierarchical levels (Alba and Hutchinson, 1987; Mervis and Rosch, 1981; Rosch et al., 1976, Tversky and Hemenway, 1984). Similarities in features prove dominant in the formation of this basic level of categories (Alba and Hutchinson, 1987; Tversky and Hemenway, 1984). The attributes of basic level categories are commonly shared by different individuals, and therefore, are easiest to retrieve and have more distinctive and perceptual attributes compared to other levels of categories (Murphy and Smith, 1982). In basic level categories, as compared to between-category similarity, within-category similarity is maximized (Alba and Hutchinson, 1987; Mervis and Rosch, 1981; Murphy and Smith, 1982). For example, "shoes" is considered as a basic level category as compared to "clothing" (the superordinate level) or "sport shoes" (the

subordinate level). The higher the level of category, the lower the number of similar attributes that are likely to be recognized (lower within-category similarities). Cohesiveness in the superordinate category is determined by more abstract relationships or subjective concepts as opposed to perceptual features (Alba and Hutchinson, 1987; Murphy and Medin, 1985; Tversky and Hemenway, 1984). For example, shoes, shirt, skirt, hat or scarf, as members of a clothing category, may display limited feature similarity, but may be unified and brought-together by a functional concept such as the fact that each covers body parts. On the other hand, in lower category levels, within-category similarity may be higher while between-category similarities are relatively much higher still (e.g., from the basic category of "shoes," the lower category levels are "sport shoes," "casual shoes" and "formal shoes" which have higher within-category similarities while also have high between-category similarities).

2.5 Model and Hypotheses Development

The philosophy behind co-branding applications arises from marketers' expectations that positive perceived attributes and beliefs associated with parent brands will transfer to the co-branded extension product, such that the new product will be perceived to perform well on the same attributes or beliefs (Park et al., 1996). Park et al. (1996) demonstrate that co-branding efforts which involve two complementary brands yield a better attribute profile in consumers' minds as compared to direct extensions of the dominant brand or a co-branding effort that involves two highly favorable but less complementary brands. But their study did not demonstrate any evidence suggesting how "a better attribute profile" might be developed from the two complementary brands.

The hypotheses tested in this study are grouped in three sets. The first set of hypotheses relates to belief transfer from each parent brand to the extension, with consideration also being given to the possible moderating role of parent-extension product-fit (P-E product-fit) and brandfit (P-E brand-fit). The next set of hypotheses involves combinations of two brands that are complementary, but differ with respect to their functional – aesthetic/symbolic orientations, as was explained above. Here, a brand (host brand) is extended to a different product category in which it does not possess a high degree of perceptual fit and is thus seeking a partner brand (functional) that does offer a good fit with the targeted product category. In contrast, the partner brand, which already enjoys a high degree of product-fit with the targeted product category, seeks to partner with a host brand that can offer high brand-fit (symbolic). The last set of hypotheses relates how the cognitive structure that is based on the sets of beliefs of the host brand (aesthetic and functional beliefs) affects consumers' purchase intention of the co-branded extension product. The cognitive structure is the average of product between the strength of each belief item (measured in host brand and in extension product) and the good-bad evaluative judgment about each belief items. These hypotheses delve deeper into finding out which cognitive structure (whether the cognitive structure in the host brand or that of the co-branded extension) predominantly affect the purchase intention of co-branded extension.

2.5.1 Belief Transfer in Brand Extension

Consistent with categorization theory, consumers' reactions to an extension appear more likely to involve a categorization process in which the extension is judged according to the degree of membership in a category (i.e., perceived fit with the category). Such a category should contain a set of products and should relate to a particular brand name as its identifiable

label. The cognitive structure (i.e., beliefs or associations and affect) associated with the brand (parent brand) category may transfer to the extension. The transfer is more likely to happen when consumers perceive the extension as fitting within a relevant brand category (Cohen and Basu, 1987; Fiske, 1982; Levy and Tybout, 1989; Sujan, 1985). Beliefs that are successfully transferred to the extension may in turn influence the consumers' evaluations of the extension through the process of category-based or piecemeal-based evaluation (Fiske and Pavelchak, 1986; Sujan, 1985).

With regards to the process through which beliefs transfer from parent to extension, two dimensions of perceptual fit are involved; namely, product-fit (product-feature similarity) and brand-fit (brand concept consistency). Each dimension of perceptual fit should yield differing impacts on the transfer of beliefs in terms of functional beliefs and aesthetic beliefs from parent to extension.

2.5.1.1 Product-Fit

In terms of parent-extension perceptual fit, early research in brand extension has conceptualized and measured perceived fit as a function of similarity judgments between the product categories represented by the parent and extension. In the current conceptualization, consumers compare some aspects of the existing set of products from the parent brand's category with those of the extension. Aaker and Keller (1990) identified three bases of perceptual fit between the parent brand and extension product. They were (1) complementarity, or sharing the common usage context, (2) substitutability, or the extent to which one product can be a substitute of the other in satisfying the same need, and (3) transferability, or the degree to which the skill required to produce the extension is perceived as overlapping with the firm's existing skill. Other

researchers have examined how the "relatedness" (i.e., similarity) of the product category associated with an existing brand and its brand extensions has a positive relationship with consumers' evaluations of the extension (Baumgarth, 2004; Chakravarti et al., 1990).

2.5.1.2 Brand-Fit

With regards to determining the perceived product-fit between the parent brand and the extension, product-based similarities are an important, but it is not the only basis for determining perceived fit. Different objects with low product-based similarities can still "hang together" because they share some other common concept (Barsalou, 1983). For example, objects such as music CDs, pillows, and snacks are not seen as similar at the product-category level. But they may be viewed as fitting together logically under a conceptual label such as "things to bring in a long distance driving trip." Individuals may possess their own theories or concepts about why objects are member of a category, other than just about the relationship under object-to-object similarities (Murphy and Medin, 1985).

A particular brand concept can yield desirable product positioning and differentiation outcomes within the same product category (Park et al., 1986). Brand concepts are abstract meanings unique to the brand that may originate from a particular configuration of product features and marketing communications to create meanings from these arrangements (Park et al., 1991). Accordingly, along with the concept of object similarity, brand concept consistency (brand-fit) must be considered when efforts are initiated to better understand categorization phenomena and belief transfer (Park et al., 1991).

There are two ways in which the concept of "distinguishing between functional beliefs and aesthetic beliefs associated with a brand and product category" is similar to the concept of

"distinguishing between product features and brand concepts." First, functional and product features are each related to concrete or physical characteristics of a product under a particular brand, whereas aesthetic beliefs and brand concepts are both related to the abstract domain of consumers' perceptions. Second, in terms of the categorization process, functional beliefs and product features are both related to basic level categories as opposed to higher abstraction or higher level (superordinate) categories in which aesthetic belief and brand concepts are nested.

The consequences of such concept similarities in the distinction between functional-beliefs/aesthetic-beliefs and product-features/brand-concept are twofold. The degree of fit between product categories of parent brand and extension (product-fit) should impose greater impact on the transfer of functional beliefs from parent to extension than the degree of consistency between brand concept of the parent and extension (brand-fit or brand concept consistency). But product-fit should exercise higher impact on the transfer of functional beliefs from parent to extension than brand-fit does. For example, consumers can easily believe that the slip resistant attribute of Nike shoes exists in Nike formal shoes. Formal shoe has a high similarity in product category with athletic shoes but it may not have a good consistency with Nike's brand concept (i.e. sporty, exercise, fitness, etc.). On the other hand, consumers might easily believe the sporty attribute of Nike would be present in Nike pullovers (low similarity in product category but high consistency in 'sporty' brand concept).

Product-fit depends on the relationships that exist between a brand's existing products and its extension product. Those relationships might be concrete (e.g., feature correlations, attribute matching) or abstract (e.g., shared-usage situations). Meanwhile, brand concept consistency perceptions rely on consumers' perception of the extension product's ability to accommodate the parent brand's concept (Park et al., 1991). Accordingly, the two perceptual fits

(brand-fit and product-fit) may have different impact on the transfer of different belief types (aesthetic belief and functional belief). Since product-fit relates to perception of similarity in the product features, it tends to exercise impact on the transfer of functional beliefs from parent to extension. Similarly, since brand-fit relates to the perception of concept consistency of abstract features, it tends to have impact on the transfer of aesthetic beliefs.

- H1: Aesthetic belief strength associated with the parent brand (ABIV) is positively related to the same aesthetic belief strength associated with the extension brand (ABDV).
- H2: Parent-extension brand-fit (BFIT) moderates the effect of parent brand's aesthetic belief (ABIV) on extension's aesthetic belief (ABDV) such that its positive effect is stronger when the parent-extension brand-fit (BFIT) is high than when it is low.
- H3: Functional belief strength associated with the parent brand (FBIV) is positively related to the same functional belief strength associated with the extension brand (FBDV).
- H4: Parent-extension product-fit (PFIT) moderates the effect of parent brand's functional belief (FBIV) on extension's functional belief (FBDV) such that its positive effect is stronger when the parent-extension product-fit (PFIT) is high than when it is low.

2.5.2 Belief Transfers in Co-Branding

As explained, the second set of hypotheses operates under a scenario or circumstance in which an ideal and logical pattern of co-branding exists and a parent brand (host brand) is seeking to extend to a new product category. Thus the marketer seeks to establish an alliance with a partner brand that has a higher degree of fit. In this case, the host brand offers high brand equity in return. In co-branding context, there are two perceptual fit constructs that may have effects on belief transfers, P-P product-fit and P-P brand-fit. The current study focuses on the P-P brand-fit. In cases where a moderate effect of P-P product-fit may still exist, it should be suppressed by the effect of P-P brand-fit. This is because P-P brand-fit has a stronger effect on the extension evaluations than does the P-P product-fit (Pruppers et al., 2007). Accordingly, in

such a scenario, the degree of P-P product-fit is given (low). Consequently, the P-P brand-fit will play most of the moderating role. The scenario of this study is extended from Thompson and Strutton's study (2012). They argued that in such a scenario, P-P fit (P-P product-fit) should take the back seat and instead, the degree of parent-extension fit (especially the partner fit) will play a more dominant role. The current study takes a further step to include P-P brand-fit (instead of P-P product-fit) under similar scenario for purposes of investigating how beliefs (aesthetic or functional beliefs) are transferred from the parent brand to the co-branded extension.

Parent-parent brand-fit offers insights and information about complementarity of the parent brands (Pruppers et al. 2007) as well as the rationale behind the brands' alliance (Simonin and Ruth, 1998). Pruppers et al. (2007) suggest that when degree of P-P brand-fit is high, the effect of the parent brand with low product-fit (host product-fit) will be more pronounced when the other brand (partner product-fit) is low. In the current study's scenario of low host product-fit and high partner product-fit, one can infer that the effect of both host brand and partner brand on the extension evaluation would be high when the P-P brand-fit is high. Pruppers et al. (2007) also suggests that in low degree of P-P brand-fit, consumers would rely more extensively on product-fit information. Consequently, information from the parent brand with high product-fit should prove more diagnostic. In the current study's scenario, the partner brand (high product-fit) has a higher effect on the extension evaluation.

Important points about transfer of beliefs in general can be inferred by using the same logic with the effect of perceptual fit on the extension evaluation. High degree of P-P brand-fit tends to balance the role and impact of information (i.e., beliefs) emanating from the host brand and the partner brand. Low degree of P-P brand-fit tends to push consumers toward a greater focus on information from the partner brand (which features a low degree of product-fit with the

extension). This condition, in turn, might generally increase the sense of separation between information from host brand and partner brand. In other words, high degree of P-P brand-fit should generally produce an amalgamation of information from both parent brands. Yet low degree of P-P brand-fit might tend to differentiate the information in consumers' minds.

Under conditions of high degree of P-P brand-fit, consumers perceive the brand concepts between both parent brands as related or consistent. Naturally, this circumstance makes it easier for beliefs of both parent brands to be transferred to the extension. However, under conditions of low degree of P-P brand-fit, consumers are more likely to perceive that the brand concepts between both parent brands are not consistent, thus exposing them to more separate brand entities that may transfer the beliefs from.

In a study involving four perceptual fit constructs (parent-extension product-fit, parent-extension brand-fit, P-P brand-fit and P-P product-fit), Bouten et al. (2011) suggests that co-branding efforts that feature high degree of parent-extension brand-fit, P-P brand-fit and P-P product-fit produce significantly positive impact on the extension evaluation. One especially interesting finding from their study was that consumers prefer co-branded extensions to be clearly associated with one of the brands in the alliance in order to obtain an unambiguous categorization. Such preference (of having extension that is clearly associated with one of the brand) would be stronger in concrete beliefs than in abstract ones.

Research on categorization concepts indicates that a set of core associations or beliefs of a parent brand's concept constitutes the definition of the parent brand's concept and becomes the most essential and salient set of beliefs for understanding the parent brand's concept (Eysenck and Keanne, 1990; Miller and Johnson-Laird, 1976; Park et al., 1996). Core associations or beliefs are difficult to change and thus are more likely to be transferred to the extension. The

core beliefs of a parent brand are highly influential in changing the meaning of the other brand's concept when both brands are combined. This is the case in co-branding, especially in the scenario featured in the current study. When the P-P brand-fit is high, the abstract beliefs (aesthetic beliefs) of the host brand will change those of the partner brand by either reducing their belief strength or by dominating beliefs associated with the partner brand after they are transferred to the extension. However, the concrete beliefs (functional beliefs) of the partner brand tend to dominate or reduce the strength of those beliefs associated with the host brand that is being transferred to the extension.

In summary, in terms of functional beliefs, when the P-P brand-fit is high, consumers are more likely to access the dominant beliefs of each parent brands. In the current study, because of the high partner brand product-fit, the beliefs associated with the partner brand should be more accessible and diagnostic, and accordingly the beliefs of host brand will have a lower chance to be transferred to the extension. Consequently, when the P-P brand-fit is low, the functional beliefs of the host brand will have a higher chance to be transferred. By contrast, in terms of aesthetic beliefs, when the P-P brand-fit is high, consumer can more easily comprehend the mixture of beliefs that are abstract. Accordingly, the aesthetic belief of the host brand will have more chance to be transferred. When the P-P brand-fit is low, consumer will be more confused in combining diverse abstract beliefs and accordingly the chance of the host brand's abstract belief to be transferred is lower.

- H5: In a co-branding context, aesthetic belief strength associated with the host brand (ABIV) is positively related to the same aesthetic belief strength associated with the extension brand (ABDV).
- H6: Parent-parent brand-fit (PPBFIT) moderates the effect of parent brand's aesthetic belief (ABIV) on extension's aesthetic belief (ABDV) such that its positive effect is stronger when the parent-extension brand-fit (PPBFIT) is high than when it is low.

- H7: In a co-branding context, functional belief strength associated with the parent brand (FBIV) is positively related to the same functional belief strength associated with the extension brand (FBDV).
- H8: Parent-parent brand-fit (PPBFIT) moderates the effect of parent brand's functional belief (FBIV) on extension's functional belief (FBDV) such that its positive effect is stronger when the parent-extension brand-fit (PPBFIT) is low than when it is high.

2.5.3 Behavioral Effect of Belief Transfer

The third set of hypotheses is related to the predictability of the belief sets (both aesthetic and functional beliefs) on the behavior, in this case consumer's purchase intention. Referring to Expectancy Value model (Fishbein and Ajzen, 1975), the overall attitude toward an object can be formed by multiplying the strength of the belief (whether an object has a certain attribute) and the evaluation (good or bad) of the attribute existing in the object.

When an individual comes across an extension of a brand, the affect toward the parent brand is transferred to the extension through a process of affect transfer to a new category member. Theorists argue that there is a more complex processing mechanism, other than a simple affect transfer, in assessing new members of a category. Based on the knowledge of a particular category, individuals tend to infer the non-perceptible attribute of the new members of the category (Smith and Medin, 1981). When consumers encounter the new extension for the first time, the attributes of the parent brand may be recalled or evoked in the consumers' mind. The evoked attributes may in turn be inferred in the new extension of the brand Aaker and Keller, 1990; Broniarczyk and Alba 1994).

Evaluation of a new extension involves a more complex process than just a simple affect transfer. The more complex evaluation process involves assessing the associations related to the parent brand and the evaluation of the attribute. It is considered that consumers weigh each association or attribute inferred from the parent brand into the extension (bi) by their subjective

evaluation (good/bad) of the attribute (ei) to arrive at a cognitive evaluation (bi x ei) of the association for the extension. These cognitive evaluations for the various attributes would sum into a cognitive structure for the extension ($\sum bi$ x ei). Such mechanism is explained in the compensatory model of attitude formation toward an object, the cognitive structure will then take part in the formation of affect and the intention to purchase toward the extension (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980). According to this expectancy value model, affect formation would follow the formation of a belief or a cognitive structure. Such affect would in turn lead to the formation of behavioral intentions.

The formation process of attitude and behavioral intention has been investigated in the brand extension and co-branding context. Studies suggest that the more elaborate the consumer's knowledge on the extension, the more likely the consumer is to purchase the extension. Extant literature argues that positive affect leads to higher purchase intentions for the extension (Bhat and Reddy, 2001; Lane, 2000). There is rare empirical evidence on the role of extension knowledge structures in the extension attitude—behavior relationship. A study showed that symbolic associations of the brand have a positive effect on the extension's market share (Reddy et al., 1994). The consumer's experience with the parent brand has an impact to increase probability of extension trial (Swaminathan et al., 2001).

In their study, Bhat and Reddy (2001) found support that the parent brand attributes positively impact the extension's cognitive structure ($\sum bi \ x \ ei$). The extension's cognitive structure ($\sum bi \ x \ ei$) would lead to the formation of the extension's affect which in turn impact the purchase intention of the extension. The current study argues that the cognitive structure measured in the extension should produce more significant behavioral effect than that is measured in the parent brand. When consumers are exposed to the new the extension, the cognitive structure using the strength of the beliefs (bi_{ext}) measured in the extension should be more relevant than that of using the strength of beliefs measured in the parent brand (bi_{parent}) in predicting the purchase intention. The argument is applicable in both types of belief transferred (aesthetic beliefs and functional beliefs).

- H9: The cognitive structure (based on aesthetic beliefs) of the extension (ABDV*ABEva) is positively related to the trial intention.
- H10: On predicting the purchase intention, the cognitive structure (based on aesthetic beliefs) of the extension (ABDV*ABEva) is stronger than that of the host brand (ABIV*ABEva).
- H11: The cognitive structure (based on functional beliefs) of the extension (FBDV*FBEva) is positively related to the trial intention.
- H12: On predicting the purchase intention, the cognitive structure (based on functional beliefs) of the extension (FBDV*FBEva) is stronger than that of the host brand (FBIV*FBEva).

CHAPTER 3

METHODOLOGY

This chapter outlines and explains the research methodology used to answer the research questions and test the proposed hypotheses. More precisely, a set of pretests and two experimental studies were designed to achieve the objectives of this research. Figure 3 presents the workflow of the studies. The detail procedure of the preliminary studies is described in the next section.

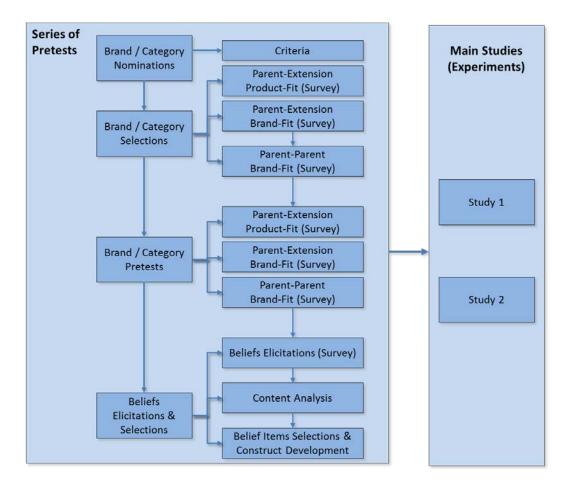


Figure 3. Workflow of the studies.

The first main study (Study I) examines the main effect of the strength of salient beliefs (the primary independent variable) associated with the parent brand on the related strength of salient beliefs associated with the extension product (the dependent variable) as well as the

moderating roles of parent-extension product-fit (P-E product-fit) and parent-extension brand-fit (P-E brand-fit).

The second main study (Study II) examines the moderating effect of parent-parent brandfit (P-P brand-fit) on belief transfer from the parent to the co-branded extension under
circumstances in which consumers are only exposed to the retained brand names of the parent
brands on the extension product. These studies are described in more detail and the procedures,
as well as the measures, are explained in the following sections.

3.1 The Series of Pretests

Three sets of pretests were conducted to prepare for the main experimental studies. The first set of pretests was designed to rank product categories and brands based on the degree to which: (1) the brand makes sense or appropriate to have an extension, either in a regular brand extension or in a co-branding extension (Study I), (2) the introduction of extension product categories that are appropriate as the extension of the parent brand (Study I), and (3) the introduction of partner brands that are appropriate according to the planned study scenario (Study II).

The second set of pretests was designed to reconfirm the selected parent brands and the extension categories in terms of the expected level of parent-extension brand-fit (BFIT) and parent-extension product-fit (PFIT) that would be used in Study I, as well as in terms of parent-parent brand-fit (PPBFIT) that would be used in Study II. The third set of pretests started with a qualitative study designed to elicit the salient beliefs of the parent brand that was selected in the first set of pretest. The qualitative study was then followed by a quantitative study to develop the belief scales.

3.1.1 Parent Brand and Product Category Nomination

Prior to the pretests, a procedure was performed to determine an appropriate brand to be used as the focal parent brand as well as to determine appropriate product categories to be used as the extension in the final studies. The selection followed several criteria or guidelines as suggested in the existing literature as well as some more criteria that were specifically relevant for the current study. The first three criteria were related to the selection of the brand as suggested by Aaker and Keller (1990). The brand should (1) have a favorable overall quality image, (2) elicit relatively specific associations, and (3) not have already been broadly extended. Two other criteria adopted from James (2005) were related to the selection of extension categories. The criteria were that (1) the categories have to be relevant to the participants, and (2) the categories need to have logical degrees of fit. In other words, the categories should have neither extreme nearness nor extreme distance with the selected parent brand.

Apart from the adopted criteria, two more criteria were added in the current study in the attempt to achieve a higher validity. First additional criterion was related to the brand selection in which the brand should have not been deeply associated with a specific product category. This criterion was imposed to avoid the perception inertia of the participants to creatively visualize the manipulated scenario in the current study. The second additional criterion was related to the category selection in which the extensions should be in categories that were new for the selected parent brand. In other words, in the real life, the selected brand should have not been extended into the selected product categories. Such criterion was enforced to minimize the confounding effect of the participants' existing perceptions about the extension of the brand.

Based on the level of fulfillment of the imposed criteria, out of three candidates of shoe brands (Nike, Adidas, and New Balance), the New Balance brand was considered most

appropriate and thus selected as the fixed focal parent/host brand in both main studies (Study I and Study II). A preliminary study was conducted to investigate one of the alternative brands (Nike). The study showed that Nike was not suitable for the purpose of this research. The reason was that Nike brand had been widely extended into too broad categories. When tested, Nike seemed to fit with most of the selected categories and thus making it difficult to obtain perceptual fit variance using Nike brand.

As for the extension categories, fifteen categories were nominated for further investigation in the pretest stage. They were bottle spring/artesian water, fitness/vitamin water, energy drink, health foods, formal shoes, casual shoes, fruit juices, vegetable juices, protein/supplement drinks, specialty coffee, natural tea, soft drinks, sports drink, beer, and distilled spirits.

3.1.2 Pretest 1 - Parent Brand and Product Category Selections

Forty-nine students participated in this pretest. The pretest asked the participants to answer several lists of questions. The first list consisted of the fifteen pre-selected product categories about which participants were asked to rate on a 1 to 7 scale (1 = makes no sense, 7 = makes a lot of sense) with respect to the degree to which it makes sense for a producer (of any brand) that makes athletic shoes and sportswear to market a new product into (see Appendix B). The second list consisted of the same fifteen pre-selected product categories about which participants were asked to rate on a 1 to 7 scale (1 = makes no sense, 7 = makes a lot of sense) with respect to the degree to which it makes sense for "New Balance" that makes athletic shoes and sportswear to market a new product into (see Appendix B). These first two lists of questions were designed to identify the product categories that possessed relatively high and low degrees in

product-fit and brand-fit, respectively, with the selected parent brand ("New Balance"). Based on the rank obtained from the first and second list of questions, four out of fifteen categories were selected with the fit degree as presented in Table 10. The four categories selected were: vitamin/fitness water, fruit drink, soft drink, spring water. Two more product categories (smart phone and laptop) are later introduced in the final study in order to potentially add variance in both product-fit levels and brand-fit levels.

Table 10

Means of Product-Fit and Brand-Fit of the Extension Product Categories

	Means of Product-Fit	Means of Brand-Fit
Fitness/Vitamin Water	5.3	4.8
Spring/Artesian Water	3.8	3.2
Fruit Drink	3.1	2.7
Soft Drink	1.5	1.5

The third list presented the respondents with potential partner brands that were to be rated with respect to the degree to which they possessed 'concept similarities' with the selected host brand. As before, respondents rated these brands on a 1-7 scale, with 1 representing brands possessing few and 7 representing many concept similarities with the host (Appendix B). The selected partner brands were "V Water" (fitness/vitamin water) and "Minute Maid" (fruit juice/drink) that represent high and low parent-parent brand-fit (PPBFIT) with "New Balance" (the host brand) respectively. The means of the combination of brands based on such degree (third list) were compared with T-test (p < 0.001). The average PPBFIT score for combination of "New Balance" and "V Water" was 4.76 while the score of PPBFIT for the combination of "New Balance" and "Minute Maid" was 2.79. The final selection of the parent brands (host brand and partner brands) and extension categories used for the manipulations in the Study I and Study II are illustrated in Figure 4 and Figure 5 respectively.

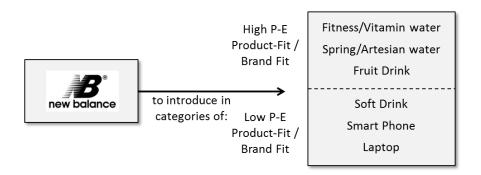


Figure 4. Parent brand and extension categories manipulations for Study I.

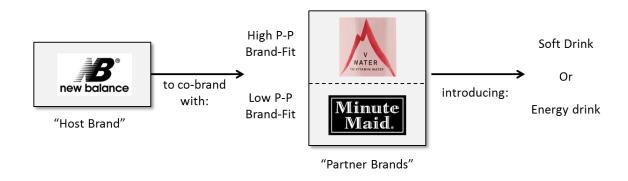


Figure 5. Host brand and partner brands manipulations for Study II.

3.1.3 Pretest 2 - Parent Brand and Extension Category Pretests

This set of pretests was designed to reconfirm the brands and extension categories selected in the previous set of pretest that was based on the explored ranks or levels of product-fit, brand-fit, and *Parent-parent* brand-fit. The brands and product categories represented by these brands (as determined from the previous pre-tests) were next employed to select specific items that scale the dimensions of perceptual fit.

This pretest was conducted simultaneously for Study I and Study II since the focal parent brand used in both studies was same. "New Balance" was fixed to be the parent brand in Study I and to be the host brand in Study II. A sample consisting of 154 students was selected based on

convenience. In Study I pretest, participants responded to a number of items intended to assess the degree to which they perceived there exists a 'fit' between athletic shoe as the parent category and the extension categories (product-fit), and between "New Balance" as the parent brand and the extension categories (brand-fit). In Study II pretest, 120 participants responded to a number of items intended to assess the degree to which they perceived there exists a 'fit' (parent-parent brand-fit) between "New Balance" as the host brand and "V Water" (or "Minute Maid") as the partner brand, given a scenario that the pairing brands were introducing a new product in the stated extension category (soft drink or energy drink). Two additional perceptual fits are measured in the pretest for Study II. Product-fit and brand-fit between the parent brands ("New Balance," "V Water" and "Minute Maid") and energy drink as extension category were measured. These additional fits would be used to ensure that the scenario of the study is fulfilled. The items used to measure product-fit, brand-fit and the P-P brand-fit are listed in Appendix C. The results of the pretests are summarized in Table 11 and Table 12 for Study I and Table 13 for Study II.

Table 11

Comparison of Means (PFIT) with Post Hoc Analysis for Study I

		Subset for $\alpha = 0.05$				
Category	N	1	2	3		
Fitness/Vitamin Water	38			4.041		
Spring Water	37			3.345		
Fruit Drink	40		2.568			
Soft Drink	39	1.7				
Significance:		1.000	1.000	0.064		

Table 12

Comparison of Means (BFIT) with Post Hoc Analysis for Study I

		Subset for $\alpha = 0.0$		
Category	N	1	2	
Fitness/Vitamin Water	38		3.825	
Spring Water	37		3.767	
Fruit Drink	40	2.869		
Soft Drink	39	2.715		
Significance:		0.963	0.998	

Table 13

Comparison of Means (PFIT, BFIT and PPBFIT) for Study II

	BFIT	p	PFIT	p	
New Balance	2.49	< 0.001	2.57	< 0.001	
V Water	3.84	< 0.001	4.68	< 0.001	
New Balance	2.32	< 0.001	2.14	< 0.001	
Minute Maid	4.63	< 0.001	4.82	< 0.001	

	PPBFIT	p
New Balance - V Water (Fitness Water)	3.54	< 0.001
New Balance - Minute Maid (Fruit Drink)	2.3	< 0.001

For Study I purpose, PFIT and BFIT means of the categories were compared using one way ANOVA and the results showed that the four groups of categories had significantly different means (p < 0.01). Table 11 and Table 12 present the summary of *Tukey* Post Hoc analyses for PFIT and BFIT respectively to show how the four groups differ to each other. In Table 11, the Post Hoc summary showed that Soft Drink ($M_{SoftDrink} = 1.7$) had significantly lower PFIT mean compared to that of other three categories, followed by Fruit Drink ($M_{Fruit} = 2.568$), Spring Water ($M_{Spring} = 3.345$) and finally Fitness/Vitamin Water with the highest PFIT mean ($M_{FitnessWater} = 4.041$). M_{Spring} and $M_{FitnessWater}$ were not significantly different (p = 0.064). However, both of them had significantly different higher PFIT means compared to two other lower mean groups. Similarly, in Table 12, the Post Hoc summary showed that Soft Drink

 $(M_{SoftDrink}=2.715)$ had significantly lower PFIT mean compared to that of other three categories, followed by Fruit Drink ($M_{Fruit}=2.869$), Spring Water ($M_{Spring}=3.767$) and finally Fitness/Vitamin Water with the highest PFIT mean ($M_{FitnessWater}=3.825$). M_{Spring} and $M_{FitnessWater}$ were not significantly different (p=0.998) as well as $M_{SoftDrink}$ and M_{Fruit} (p=0.963). However, there was a significant means difference between both subsets. The results present the evidence that the four categories provide sufficient variances in both BFIT and PFIT for Study I purpose.

For Study II purpose, the manipulation was designed to create two levels (high and low) PPBFIT. The first scenario pairing "New Balance" and "V Water" to introduce a co-branded soft drink product was expected to result in high level of PPBFIT, while the second scenario pairing "New Balance" and "Minute Maid" was expected to produce low PPBFIT. Table 13 presents the comparisons of: (1) means of BFIT within two scenarios, (2) means of PFIT within two scenarios, as well as (3) means of PPBFIT between two scenarios. In the first scenario, BFIT between "New Balance" and soft drink product (BFIT_{NewBalance} = 2.49) was significantly lower (p < 0.001) than the BFIT between "V Water" and soft drink (BFIT_{VWater} = 3.84). PFIT between "New Balance" and soft drink product (PFIT_{NewBalance} = 2.57) was also significantly lower (p <0.001) than the PFIT between "V Water" and soft drink (PFIT_{VWater} = 4.68). In the second scenario, BFIT between "New Balance" and soft drink product (BFIT_{NewBalance} = 2.32) was significantly lower (p < 0.001) than the BFIT between "V Water" and soft drink (BFIT_{VWater} = 4.63). Similarly, PFIT between "New Balance" and soft drink product (PFIT_{NewBalance} = 2.14) was significantly lower (p < 0.001) than the PFIT between "V Water" and soft drink (PFIT_{VWater} = 4.82). As designed, the scenario of this study entails a host brand that possesses low fit with the extension category is allying with partner brand that possesses a better fit with the extension category. Therefore, such scenario necessitates "New Balance" (the host brand) to have a lower

BFIT/PFIT than both the partner brands (V Water and Minute Maid). The results provide evidences that in both manipulations cells, the expected level of fits were achieved to fulfill the scenario of the study. Still referring to Table 13, PPBFIT between New Balance and V Water (PPBFIT_{NewBalance-VWater} = 3.54) was significantly higher (p < 0.001) than PPBFIT between New Balance and Minute Maid (PPBFIT_{NewBalance-MinuteMaid} = 2.3). This result provides confirmation that the manipulation required for Study II was fulfilled.

3.1.4 Pretest 3 - Beliefs Elicitations and Belief Scale Development

For the purpose of obtaining salient beliefs of the brands, beliefs elicitations were conducted using the procedure as suggested by Sutton et al. (2003) and Middlestadt (2011). The questions asked to the participants started with "what comes to our mind when you think of this brand/product." The most effective questions which yield the highest number of salient beliefs elicited from the participants are questions related to the "advantages" and "like or enjoy" (Sutton et al., 2003). More precisely the typical questions asked in this study were "what do you expect to be the advantages or disadvantages of (using) this brand/product" and "what would you enjoy or hate about this brand/product." Similar question was suggested by Middlestadt (2011) to elicit salient outcomes or consequences by framing questions such as "what are the advantages or good things might happen if you use this brand/product?" Using these questions (see Appendix D), survey was administered to acquire the salient beliefs of the focal brand and product ("New Balance" shoe).

There were 123 students participating in the survey. Respondents were exposed to the brand name "New Balance," the brand logo, the short descriptions about the products under the brand, and several pictures of the products. The typical open ended questions as previously

explained were presented. Participants were then asked to write down thoughts about the brand/product, about what they believed to be the advantages/disadvantages, and about what they believed they would enjoy or hate about using the brand/product. Responses were written in terms of words, keywords, phrases or sentences. Responses in the form of phrases or sentences that exerted multiple ideas were dismantled into single idea responses.

In total, 1,172 single-idea responses were collected from the participants. This means, on average, each participant wrote 9.5 responses related to the beliefs and associations they derived from the brand exposed to them in the survey. Using content analysis method, responses of the surveys were summarized into a list of salient beliefs themes and ranked based on the number of participants who mentioned the same belief themes.

Table 14
Selected Themes of the Elicited Beliefs

Themes	Belief Type*	Frequency
It is comfortable	F	76
It is colorful	A	53
It is a shoe for running	F	49
It is worn by older people	A	36
The price is inexpensive	F	33
It provides plenty of variety/options	F	30
It reminds me of exercise	F	26
It is sporty	A	26
It is a good quality shoe	F	25
It is attractive	A	23
It is durable	F	22
It is supportive (provides foot support)	F	21
It is stylish	A	21
It is fashionable	A	15
It is good for walking	F	15
It looks casual	A	13
It looks outdated	A	9
It makes me feel active if I wear it	A	6
It is sturdy/strong	F	5
It provides balance	F	3

^{*} A: aesthetic belief; F: functional belief

Twenty most frequently asserted themes were then selected as the items to be analyzed. About half the selected themes were predicted to represent the aesthetic belief items and the rest half were those predicted to represent the functional belief items. The selected themes are presented in Table 14.

The next step was the scale development stage of the salient beliefs adopting a procedure as suggested by Churchill (1979) for the pretest stage which would then be followed with an adoption of procedure suggested by Gerbing and Anderson (1988) in the final studies. An exploratory factor analysis (EFA) was performed to explore the loadings of each belief items (see Table 14). Some items were removed from the scales to satisfy the purification criteria (Churchill, 1979; Nunnally, 1978, Hair et al., 2006).

Four constructs were developed in this step. They were aesthetic belief of the parent brand (ABIV), functional belief of the parent brand (FBIV), aesthetic belief of the extension (ABDV) and functional belief of the extension (FBDV). In order to satisfy the purpose of this study, the pair of related constructs (ABIV and ABDV, or FBIV and FBDV) must possess identical items. Accordingly, the EFAs were performed in a parallel process for each pair to ensure identical final items between the pairs. Items that had low loading or cross loading in the pair of constructs were removed. Items that were qualitatively judged as out of the belief type (i.e. aesthetic belief or functional belief) in the respective factors were also removed.

There were two steps of analyses conducted on the factors obtained from the EFA. First, the coding of the belief items was performed to differentiate between aesthetic/symbolic beliefs and functional beliefs. The items were presented to a panel of three professors as the judges to determine whether the items would fall into either type of beliefs (aesthetic or functional beliefs). Items that happened to be in the same factor but were judged to be of different belief types would

be removed. In this study, it happened that all items were judge to be in their relevant belief types. The final set of factors therefore consisted of items that loaded well to the factors and were categorized into the relevant belief type (either aesthetic or functional beliefs). Second, reliability was analyzed based on the final set of factors. Construct that had reliability score of 0.70 or higher were considered sufficiently reliable (Nunnally, 1967; Hair et al., 2006). All constructs in this study had acceptable Cronbach alpha (> 0.7). Table 15 and Table 16 present the factors and the belief categories in which the items loaded to for Study I and Study II respectively.

Table 15
Scale Reliabilities and Convergent Validity Pretest of Study I

Constructs and Items	Factor Loadings	% of Variance	Crobach's α
Aesthetic Belief on Parent Brand (Independent Variable)		22.01	0.93
The New Balance shoe is stylish	0.94		
The New Balance shoe is fashionable	0.94		
The New Balance shoe is attractive	0.88		
Functional Belief on Parent Brand (Independent Variable)		17.47	0.77
The New Balance is a shoe for running	0.91		
The New Balance shoe is good for walking	0.74		
The New Balance shoe reminds me of exercise	0.87		
Aesthetic Belief of Brand Extension (Dependent Variable)		19.85	0.89
The New Balance xxx (the extension product) is stylish	0.89		
The New Balance xxx (the extension product) is fashionable	0.85		
The New Balance xxx (the extension product) is attractive	0.81		
Functional Belief on Brand Extension (Dependent Variable)		15.70	0.66
The New Balance xxx (the extension product) is a drink for running	0.77		
The New Balance xxx (the extension product) is good for walking activities	0.74		
The New Balance xxx (the extension product) reminds me of exercise	0.69		

Table 16
Scale Reliabilities and Convergent Validity Pretest of Study II

Constructs and Items	Factor Loadings	% of Variance	Crobach's α
Aesthetic Belief on Host Brand (Independent Variable)		21.88	0.93
The New Balance shoe is stylish	0.89		
The New Balance shoe is fashionable	0.92		
The New Balance shoe is attractive	0.89		
Functional Belief on Parent Brand (Independent Variable)		18.62	0.80
The New Balance is a shoe for running	0.80		
The New Balance shoe is good for walking	0.80		
The New Balance shoe reminds me of exercise	0.87		
Aesthetic Belief of Brand Extension (Dependent Variable)		20.17	0.88
The New Balance xxx (the extension product) is stylish	0.89		
The New Balance xxx (the extension product) is fashionable	0.89		
The New Balance xxx (the extension product) is attractive	0.74		
Functional Belief on the Co-branded Extension (Dependent Variable)		20.74	0.89
The New Balance xxx (the extension product) is a drink for running	0.88		
The New Balance xxx (the extension product) is good for walking activities	0.86		
The New Balance xxx (the extension product) reminds me of exercise	0.82		

As for assessing the discriminant and convergent validity, inter-item correlation was performed. For the most part, items within constructs had higher correlations among them compared to items across constructs. Therefore, the items in this study had acceptable discriminant and convergent validity. The construct correlation demonstrated that factors are not correlated above the score of 0.70 (Hair et al., 2006). Factor correlations above 0.70 would mean that the constructs overlap each other and do not capture distinct areas. Table 17 and Table 18 present the item correlations and the construct correlations respectively for Study I, and Table 19 and Table 20 present the item correlations and the construct correlations respectively for Study II.

Table 17

Correlation Matrix of the Belief Items of Study I

Items	ABIV1	ABIV2	ABIV3	FBIV1	FBIV2	FBIV3	ABDV1	ABDV2	ABDV3	FBDV1	FBDV2	FBDV3
ABIV 1 - stylish												
ABIV 2 - fashionable	0.88**											
ABIV 3 - attractive	0.78**	0.78**										
FBIV 1 - running	0.22**	0.18*	0.16*									
FBIV 2 - walking	0.34**	0.30**	0.22**	0.47**								
FBIV 3 - exercise	0.23**	0.20*	0.28**	0.72**	0.39**							
ABDV 1 - stylish	0.11	0.14	0.17*	0.14	0.21**	0.14						
ABDV 2 - fashionable	0.10	0.16	0.17**	0.12	0.15	0.11	0.86**					
ABDV 3 - attractive	0.19*	0.19*	0.21**	0.14	0.18		0.69**	0.64**				
FBDV 1 - running	0.02	0.07	0.00	0.06	0.07	0.07	0.42**	0.48**	0.33**			
FBDV 2 - walking	0.01	0.03	-0.02	0.08	0.14	0.04	0.40**	0.38**	0.42**	0.43**		
FBDV 3 - exercise	0.04	0.08	0.01	0.15	0.12	0.14	0.44**	0.40**	0.37**	0.36**	0.39**	

Table 18

Mean, Standard Deviation, Correlation Matrix of Belief Constructs of Study I

Items	Mean	SD	ABIV	FBIV	ABDV	FBDV
ABIV	3.80	1.68				
FBIV	5.35	1.29	0.29**			
ABDV	2.74	1.46	0.19*	0.19*		
FBDV	3.03	1.55	0.040	0.194	0.59**	
* significant at	10.05 **	signific:	ant at 0.01			

Table 19

Correlation Matrix of the Belief Items of Study II

Items	ABIV1	ABIV2	ABIV3	FBIV1	FBIV2	FBIV3	ABDV1	ABDV2	ABDV3	FBDV1	FBDV2	FBDV3
ABIV 1 - stylish												
ABIV 2 - fashionable	0.87**											
ABIV 3 - attractive	0.76**	0.79**		_								
FBIV 1 - running	0.50**	0.42**	0.35**									
FBIV 2 - walking	0.38**	0.28**	0.30**	0.52**								
FBIV 3 - exercise	0.46**	0.36**	0.30**	0.69**	0.55**							
ABDV 1 - stylish	0.11	0.20*	0.20**	0.11	0.02	0.15						
ABDV 2 - fashionable	0.15	0.24**	0.26**	0.07	-0.10	0.09	0.83**					
ABDV 3 - attractive	0.10	0.16	0.19*	0.12	0.05	0.14	0.65**	0.66**				
FBDV 1 - running	-0.02	-0.02	0.05	0.16	0.07	0.15	0.50**	0.46**	0.54**			
FBDV 2 - walking	0.13	0.15	0.18*	0.19*	0.06	0.12	0.51**	0.50**	0.55**	0.75**		
FBDV 3 - exercise	0.11	0.14	0.14	0.22*	0.06	0.16	0.46**	0.45**	0.49**	0.49**	0.65**	

^{**} significant at 0.01

^{*} significant at 0.05

Table 20

Mean, Standard Deviation, Correlation Matrix of Belief Constructs of Study II

Items	Mean	SD	ABIV	FBIV	ABDV	FBDV
ABIV	4.00	1.70				
FBIV	5.35	1.39	0.47**			
ABDV	3.20	1.61	0.21*	0.10		
FBDV	0.34	1.74	0.12	0.18*	0.61**	
* significant a	t 0.05 **	' significa	ant at 0.01			

In order to achieve better reliabilities in the final studies, the items were further extended. Several other items within a close distance with the themes of the related beliefs were added. The new items were taken from the themes obtained in the content analysis. The new items added into the aesthetic beliefs in the final studies such were "appealing," "good look," "good design," and "looks cool." The new items added into the aesthetic beliefs in the final studies such were "work out," "fitness" and "athletic."

3.2 Study I: Moderating Effects of Parent-Extension Product-fit and Brand-fit

Study I was designed to examine the first four hypotheses (H1, H2, H3, H4). Since this study investigated the transfer of the same particular salient beliefs from parent brands to the extension, the main effect of the particular salient belief of a parent brand was expected. The main effects of the perceptual fit (P-E product-fit and P-E brand-fit) were also expected, however they were not the focus of the current study.

This study uses an experimental design in which the moderating variables (P-E product-fit and P-E brand-fit) were manipulated by providing different extension categories. Other variables including the independent variables (the degree of particular salient beliefs of the parent brand) and the dependent variables (the degree of the same particular salient beliefs of the extension) were measured. The hypotheses tested in this study were:

- H1: Aesthetic belief strength associated with the parent brand (ABIV) is positively related to the same aesthetic belief strength associated with the extension brand (ABDV).
- H2: Parent-extension brand-fit (BFIT) moderates the effect of parent brand's aesthetic belief (ABIV) on extension's aesthetic belief (ABDV) such that its positive effect is stronger when the parent-extension brand-fit (BFIT) is high than when it is low.
- H3: Functional belief strength associated with the parent brand (FBIV) is positively related to the same functional belief strength associated with the extension brand (FBDV).
- H4: Parent-extension product-fit (PFIT) moderates the effect of parent brand's functional belief (FBIV) on extension's functional belief (FBDV) such that its positive effect is stronger when the parent-extension product-fit (PFIT) is high than when it is low.

3.2.1 Design and Procedure

Study I consisted of two experiments. The first experiment involved a manipulation of P-E brand-fit (low vs. high P-E brand-fit) by providing different extension categories. P-E brand-fit and the aesthetic belief strength of parent brand were then measured. The second experiment involved a manipulation of P-E product-fit (low vs. high P-E product-fit) by providing different extension categories. Similarly, P-E product-fit and the functional belief strength of parent brand were then measured. Participants were college students from University of North Texas and were randomly assigned to one of the manipulation scenarios. The perceived fit (P-E brand-fit and P-E product-fit), the strength of the related salient beliefs of the parent brands and the extension were measured in continuous scales.

The survey was administered both in paper and pencil as well as online. Participants were told that they were participating in an experiment for extra course credit. Respective to the assigned manipulation scenario, participants were given the product categories of the parent-extension pair (parent brand and extension product) and asked to answer questions to assess the degree of perceived P-E product-fit. Subsequently, the brand names of the parent brand were

revealed to the participants and short description about the brands and the current product categories marketed under the brand were informed. Participants were then asked to answer questions to assess the degree of perceived P-E brand-fit. The scales for both fit constructs were adopted from existing scales in the literature (see Appendix A). The next questions were to measure the strength of the selected beliefs (either aesthetical or functional beliefs) that the participants associate with the parent brand and to measure the strength of the related beliefs (either aesthetical or functional beliefs) that the participants associated with the extension.

Consistent with Ajzen (1991), the strength of beliefs were measured using unipolar scale (e.g. very unlikely – likely). All of the questions were to be answered in 7 point scales (see Appendix E).

3.2.2 Manipulation Checks and Data Analyses

Items within all scales were averaged to form composite scores for the constructs.

Manipulations of P-E product-fit and P-E brand-fit were confirmed using two separate one-way ANOVAs. In terms of P-E product-fit, if the manipulation was successful, a smaller average score was expected from the fit between athletic shoes (parent brand) and the two extension categories (fruit drink and soft drink). On the other hand, the product-fit between athletic shoes (parent brand) and other two extension categories (spring/artesian water and fitness/vitamin water) should produce a significantly higher average score. Similarly in terms of P-E brand-fit, if the manipulation was successful, a smaller average score was expected from the fit athletic shoes (parent brand) and the two extension categories (fruit drink and soft drink). On the other hand, the brand-fit between athletic shoes (parent brand) and other two extension categories (spring/artesian water and fitness/vitamin water) should produce a significantly higher average score.

Moderated multiple regression were employed as the primary data analysis technique in this study. The dependent variables in this analysis reflected the perceived degree of the extension to perform beliefs that are associated with the parent brand. Specifically, these variables were the composite scales representing either aesthetic beliefs or functional beliefs. Two separate regression runs were conducted to test each of these composite beliefs scales. Two sets of results were expected. The first set of results was that the main effect of parent brand's strength on aesthetic beliefs (ABIV) on that of the respective dependent extension aesthetic beliefs (ABDV) should be significant. Since it was hypothesized that P-E brand-fit (BFIT) positively moderates the transfer of beliefs from parent brands to the extension, the interaction terms between ABIV and BFIT representing the moderating effect should be significant. Main effect of the moderator (BFIT), although was not hypothesized, was also expected to be significant. The second set of results was that the main effect of parent brand's strength on functional beliefs (FBIV) on that of the respective dependent extension functional beliefs (FBDV) should be significant. Similarly, since it was hypothesized that P-E product-fit (PFIT) positively moderates the transfer of beliefs from parent brands to the extension, the interaction terms between FBIV and PFIT representing the moderating effect should be significant. Main effect of the moderator (PFIT), although was not hypothesized, was also expected to be significant.

3.3 Study II: Moderating Effects of Parent-Parent Brand-Fit

Study II was designed to examine two sets of hypotheses. The first set of hypotheses (H5, H6, H7, and H8) investigated the moderating effects of parent-parent brand-fit (PPBFIT) on the

transfer of salient beliefs from parent brands to the co-branded extension. The following is the first set of hypotheses that are be tested in this study:

- H5: Aesthetic belief strength associated with the host brand (ABIV) is positively related to the same aesthetic belief strength associated with the co-branded extension product (ABDV).
- H6: Parent-parent brand-fit (PPBFIT) moderates the effect of parent brand's aesthetic belief (ABIV) on the co-branded extension's aesthetic belief (ABDV) such that its positive effect is stronger when the parent-parent brand-fit (PPBFIT) is high than when it is low.
- H7: Functional belief strength associated with the host brand (FBIV) is positively related to the same functional belief strength associated with the co-branded extension product (FBDV).
- H8: Parent-parent brand-fit (PPBFIT) moderates the effect of parent brand's aesthetic belief (FBIV) on the co-branded extension's aesthetic belief (FBDV) such that its positive effect is stronger when the parent-parent brand-fit (PPBFIT) is low than when it is high.

As in Study I, the main effect of the strength of particular salient belief of the parent brand (ABIV or FBIV) was expected. The main effect of the parent-parent brand-fit (PPBFIT) was also expected although it was not hypothesized in this study. As a moderating variable that affects the transfer of related beliefs associated with parent brands to the extension, the interaction effect of PPBFIT with ABIV or FBIV was expected to be significant. This study used an experimental design in which the moderating variable (PPBFIT) was manipulated by providing two different partner brands for the host brand "New Balance" ("V Water" and "Minute Maid" as the alternative partner brands). Other variables including independent variable (the strength of particular salient beliefs of the parent brand) and the dependent variable (the strength of the related salient beliefs of the extension) were measured. The scale for the fit construct (PPBFIT) was adopted from existing scales in the literature (see Appendix A).

The second set of hypotheses in Study II (H9, H10, H11 and H12) investigated the effect of cognitive structures based on the beliefs (aesthetic and functional beliefs) measured in the host brand and in the extension. The following is the second set of hypotheses tested in this study:

- H9: The cognitive structure (based on aesthetic beliefs) of the extension (ABDV*ABEva) is positively related to the trial intention.
- H10: On predicting the purchase intention, the cognitive structure (based on aesthetic beliefs) of the extension (ABDV*ABEva) is stronger than that of the host brand (ABIV*ABEva).
- H11: The cognitive structure (based on functional beliefs) of the extension (FBDV*FBEva) is positively related to the trial intention.
- H12: On predicting the purchase intention, the cognitive structure (based on functional beliefs) of the extension (FBDV*FBEva) is stronger than that of the host brand (FBIV*FBEva).

The first two hypotheses (H9 and H10) were analyzed with purchase intention of the extension (EPI) as the dependent variable with two predictors. The first predictor was the extension's cognitive structure based on aesthetic beliefs, which was the average of products between aesthetic belief strength in the extension and the (good/bad) evaluation of attribute (ABDV*ABEva). The second predictor was the host brand's cognitive structure based on aesthetic beliefs which was the average of products between aesthetic belief strength in the host brand and the (good/bad) evaluation of attribute (ABIV*ABEva). The other two hypotheses (H11 and H12) were analyzed with purchase intention of the extension (EPI) as the dependent variable with two predictors. The first predictor was the extension's cognitive structure based on functional beliefs which was the average of products between functional belief strength in the extension and the (good/bad) evaluation of attribute (FBDV*FBEva). The second predictor was the host brand's cognitive structure based on functional beliefs which was the average of products between aesthetic belief strength in the host brand and the (good/bad) evaluation of attribute (FBDV*FBEva).

As for the first two hypotheses (H9 and H10), the expected results was twofold. First, ABDV*ABEva as the first predictor should be significant. Second, when ABIV*ABEva as the second predictor was introduced to the model, ABDV*ABEva should still be significant and ABIV*ABEva should be either (a) not significant, or (b) significant with the β less than that of ABDV*ABEva. Similarly with the last two hypotheses (H11 and H12), two consecutive results were expected. First, FBDV*FBEva as the first predictor should be significant. Second, when FBIV*FBEva as the second predictor was introduced to the model, FBDV*FBEva should still be significant and FBIV*FBEva should be either (a) not significant, or (b) significant with the β less than that of FBDV*FBEva.

3.3.1 Design and Procedure

Study II consists of two experiments. The first experiment involved a manipulation of parent-parent brand-fit (low vs. high PPBFIT) by pairing the host brand ("New Balance") with two alternate parent brands ("V Water" or "Minute Maid"). PPBFIT and the aesthetic belief strength of the parent brand (ABIV), functional belief strength of the parent brand (FBIV), aesthetic belief strength of the extension (ABDV) and functional belief strength of the extension (FBDV) brand were then measured. The participants in this study were college students from University of North Texas. Participants were randomly be assigned to one of the manipulation scenarios. The perceived fit (PPBFIT), the strength of the related salient beliefs of the host brands and the extension were measured. In addition, the (good/bad) evaluation of attribute (both for ABEva and FBEva) were also measured to be analyzed for the last four hypotheses (H9, H10, H11 and H12).

Respective to the assigned manipulation scenario, participants were given a fixed host brand ("New Balance") making alliance with a partner brand ("V Water" or "Minute Maid") to create a co-branded extension (either energy drink or soft drink product). Participants were then asked to answer questions to assess the degree of perceived parent-parent brand-fit (PPBFIT), the strength of the selected beliefs of the host brand (ABIV and FBIV), the strength of the related beliefs of the co-branded extension (ABDV and FBDV), as well as the evaluation (good or bad) of the attribute for aesthetic belief items (ABEva) and functional belief items (FBEva). The scales for the fit construct (PPBFIT) were adopted from existing scales in the literature (see Appendix A). The questions were to be answered in 7 point scales (see Appendix F).

The survey was administered both in paper and pencil as well as online. Participants were told that they were participating in an experiment for extra course credit. Respective to the assigned manipulation scenario, participants were given the information about the parent brands (host brand and partner brand) and information about the extension category, and asked to answer questions to assess the degree of perceived parent-parent brand-fit. The next questions were to measure the strength of the selected beliefs (either aesthetical or functional beliefs) that the participants associate with the host brand and to measure the strength of the related beliefs (either aesthetical or functional beliefs) that the participants associated with the extension.

Consistent with Ajzen (1991), the strength of beliefs were measured using unipolar scale (e.g. very unlikely – likely). Finally, the evaluations (good or bad) of attributes for both aesthetic and functional beliefs were also measured from the participants. As suggested by Ajzen (1991), the evaluations of attributes should be measured using bipolar scale (e.g. very bad – very good). All of the questions were to be answered in 7 point scales (see Appendix F).

3.3.2 Manipulation Checks and Data Analyses

3.3.2.1 Analyses for H5, H6, H7, and H8

Items within the scales were averaged to form composite scores for the constructs. Before analyzing data, manipulation of PPBFIT was examined using one-way ANOVA. If the manipulation is successful, minimum average score was expected from the pair of "New Balance" (host brand) with "Minute Maid" (partner brand 1) whereas the pair of "New Balance" (host brand) with "V Water" (partner brand 2) should gain significantly higher average score.

Moderated multiple regressions were used as the main data analysis technique in this study. The dependent variables in this analysis reflected the perceived degree of the extension to perform beliefs that were associated with the parent brand. Specifically, these variables were the composite scales representing either aesthetic beliefs or functional beliefs. Two separate regression runs were conducted to test each of these composite beliefs scales (aesthetic and functional composite beliefs scales). Two sets of regression results were expected. The first set of results was that the main effect of parent brand's strength on aesthetic beliefs (ABIV) on that of the respective dependent extension aesthetic beliefs (ABDV) should be significant. In addition, since it was hypothesized that P-P brand-fit (PPBFIT) positively moderates the transfer of beliefs from parent brands to the extension, the interaction terms between ABIV and PPBFIT representing the moderating effect should be significant. Main effect of the moderator (PPBFIT), although was not hypothesized, was also expected to be significant. The second set of results was that the main effect of parent brand's strength on functional beliefs (FBIV) on that of the respective dependent extension functional beliefs (FBDV) should be significant. In addition, since it was hypothesized that P-P brand-fit (PPBFIT) positively moderates the transfer of beliefs from parent brands to the extension, the interaction terms between FBIV and PPBFIT

representing the moderating effect should be significant. Main effect of the moderator (PPBFIT), although was not hypothesized, was also expected to be significant.

3.3.2.2 Analyses for H9, H10, H11, and H12

Cognitive structures as the final items were developed by averaging the multiplications of belief strength of each item with the respective attribute evaluation. There were four of cognitive structures developed to be analyzed into the regression models. The first one was cognitive structure as the product of aesthetic belief strength on the extension and the attribute evaluation (ABDV*ABEva). The second one was cognitive structure as the product of aesthetic belief strength on the parent brand and the aesthetic attribute evaluation (ABIV*ABEva). The third one was cognitive structure as the product of functional belief strength on the extension and functional attribute evaluation (FBDV*FBEva). The last one was cognitive structure as the product of functional belief strength on the parent brand and functional attribute evaluation (FBIV*FBEva).

Multiple regressions were employed as the main data analysis technique. The dependent variable in this analysis was the purchase intention of the extension. Two separate regression runs were conducted to test each of these composite cognitive structure scales (aesthetic and functional cognitive structure scales). Two sets of regression results were expected. The first set of results is that the effect of the aesthetic cognitive structure of extension (ABDV*ABEva) on the purchase intention of extension (EPI) should be significant. The second step, when the aesthetic cognitive structure of the parent brand (ABIV*ABEva) was introduced to the regression model, the ABDV*ABEva remains significant while the ABIV*ABEva is either (a) not significant or (b) significant with β less than that of ABDV*ABEva. The second set of results

was that the effect of the functional cognitive structure of extension (FBDV*FBEva) on the purchase intention of extension (EPI) should be significant. The second step, when the functional cognitive structure of the parent brand (FBIV*FBEva) was introduced to the regression model, the FBDV*FBEva remains significant while the FBIV*FBEva should be either (a) not significant or (b) significant with β less than that of FBDV*FBEva.

CHAPTER 4

ANALYSES AND RESULTS

This chapter discusses the analyses and the results there are associated with the two main studies that drove this dissertation (Study I and Study II). Chapter 4 ends with a summary reportage of the empirical analyses of the relationships hypothesized in this study.

4.1 Study I

4.1.1 Demographics

Data were collected from a survey instrument administered to 391 respondents. Those sampled were primarily undergraduate students between the ages 18 to 25, who were studying at a large U.S. public university. Demographic information was collected to better understand respondents' profiles. The information is useful insofar as it may ensure that no bias exists with respect to important demographic variables. About 59% of the respondents were female. Approximately 89% were between the ages of 18 to 25 years. About 54% of the respondents are Caucasian. Table 21 exhibits the detail of demographics.

The sample can be compared to the U.S. population, which currently includes about 320 million people (supporting a citation). Gender distribution in the United States population is split nearly evenly between males and females, with slightly more females than males. The largest age group is between 15-29 years old (21% of the population). Approximately, 86% of Americans have a high school degree. About 28% have completed college. Ethnically, approximately 72% of the U.S. population is White, 13% is African American, 5% Asian American and 16% is Hispanic (U.S. Census Bureau, 2010). This sample is not entirely representative of the entire U.S. population. But, each sample in the current study still appropriately represents the largest

group of age in the population; i.e., the young adult group. The representativeness of the sample is further underscored once one compares the ethnic makeup of this sample, as compared to the ethnic makeup of the entire U.S. population (note: samples over population: White 54%/72%, African 13%/13%, Hispanic 13%/16%, and Asian 6%/5%).

Table 21

Demographic of the Sample of Study I

		Frequency	Percentage
Gender	Male	160	40.9%
	Female	231	59.1%
Age	18-25	349	89.3%
(years)	26-33	36	9.2%
	34-41	2	0.5%
	42-49	2	0.5%
	50 and over	2	0.5%
Ethnicity	American Indian and Alaska Native	1	0.3%
	Asian	25	6.4%
	Black or African American	50	12.8%
	Hispanic or Latino	67	17.1%
	Mixed race	22	5.6%
	Native Hawaiian or Pacific Islander	2	0.5%
	White or Caucasian	209	53.5%
	No information	15	3.8%

The use of student samples has been criticized. However, undergraduate students are an appropriate sample for this study given its research purpose. Undergraduate students are highly representative of the population of interest, i.e. younger consumers. From the point of view that the parent brand acts as an endorser of the new extension product, younger consumers tend to be more affected and hold significantly more positive evaluation of the product endorsed (Atkin and Block, 1983). Although the current research would also provide practical applications related to the population, the main focus of the study is more on drawing conclusions about theory. Student samples feature a homogeneous sample that helps in theory extraction and also reduces Type II

error as compared to a relatively more heterogeneous sample (Calder et al., 1981; Lynch, 1982, 1983).

4.1.2 Exploratory Factor Analysis

Prior to performing the confirmatory factor analyses, all measurement scales were tested. Items were removed from the scales if they do not satisfy criteria established by Churchill (1979) and Nunnally (1978). Among the criteria were item-correlations that should be less than 0.30, cross-loadings on two or more factors, and subjective assessment of the value of the item for the construct. In the current study, all factor loadings were above 0.70 and all the Cronbach's alphas were above 0.90. Table 22 summarizes the findings.

4.1.3 Confirmatory Factor Analysis

LISREL® 8.8 structural equation modeling software 8 (Jöreskog and Sörbom, 2006) was used to test the measurement models. The analyses showed acceptable fit measures: χ^2 (764) = 2204.39 (p < 0.001), $\chi^2/d.f. = 2.88$, confirmatory fit index (CFI) = 0.97, normed fit index (NFI) = 0.95, non-normed fit index (NNFI) = 0.97, goodness of fit index (GFI) = 0.78 and root mean square error of approximation (RMSEA) = 0.07.

Cronbach's alpha was used to check the reliability of the constructs. A threshold value of 0.70 is generally used as the benchmark for acceptable reliability (Nunnally, 1978). An acceptable value that designates convergent validity is that all item-total correlation should be above 0.40. Discriminant validity is presumed to be present when the value of composite reliability (CR) is larger than the average variance extracted and AVE is larger than any of the correlation coefficients between the particular construct and other constructs.

Table 22 Scale Reliabilities and Convergent Validity of Study I

Constructs and Items	Factor Loadings	% of Variance	Crobach's α
Parent-Extension Product-Fit		12.43	0.93
Athletic shoes and xxx (the extension product) are similar products	0.74		
It is illogical/logical for athletic shoes to market xxx (the extension product)	0.75		
It makes very little / a lot of sense for athletic shoes to market xxx (the extension product)	0.76		
The xxx (the extension product) complements the athletic shoes product	0.78		
The xxx (the extension product) is consistent with the athletic shoes product	0.83		
The xxx (the extension product) and athletic shoes products fits nicely with each other	0.82		
The xxx (the extension product) and athletic shoes products are in the same category Parent-Extension Brand-Fit	0.73	15 40	0.07
	0.77	15.49	0.97
It is reasonable that the xxx (the extension product) has New Balance brand name			
It makes sense for New Balance to market xxx (the extension product) It is located for New Balance to also market xxx (the extension product)	0.82 0.81		
It is logical for New Balance to also market xxx (the extension product) New Balance as a brand is consistent with xxx (the extension product)	0.80		
New Balance fits the xxx (the extension product)	0.82		
The xxx (the extension product) adds to New Balance brand	0.79		
New Balance brand adds to xxx (the extension product)	0.80		
xxx (the extension product) is an appropriate extension for New Balance	0.81		
Functional Belief on Parent Brand (Indepenent Variable)		10.95	0.93
The New Balance is a shoe for running	0.84		
The New Balance shoe is good for walking	0.72		
The New Balance shoe reminds me of exercise	0.87		
The New Balance shoe reminds me to work out	0.86		
The New Balance shoe is good for fitness	0.88		
The New Balance is an athletic shoe	0.82		
Aesthetic Belief on Parent Brand (Independent Variable)		15.20	0.98
The New Balance shoe is stylish	0.94		
The New Balance shoe is fashionable	0.94		
The New Balance shoe is attractive	0.95		
The New Balance shoe is appealing	0.93		
The New Balance shoe has a good look	0.93		
The New Balance shoe has a good design	0.85		
The New Balance shoe looks cool	0.91		
Functional Belief on Brand Extension (Dependent Variable)		11.73	0.95
The New Balance xxx (the extension product) is a drink for running	0.81		
The New Balance xxx (the extension product) is good for walking activities	0.82		
The New Balance xxx (the extension product) reminds me of exercise	0.86		
The New Balance xxx (the extension product) reminds me to work out	0.86		
The New Balance xxx (the extension product) is good for fitness	0.83		
The New Balance xxx (the extension product) is an athletic drink	0.76		
Aesthetic Belief of Brand Extension (Dependent Variable)		15.27	0.96
The New Balance xxx (the extension product) is stylish	0.90		
The New Balance xxx (the extension product) is fashionable	0.88		
The New Balance xxx (the extension product) is attractive	0.90		
The New Balance xxx (the extension product) is appealing	0.83		
The New Balance xxx (the extension product) has a good look	0.87		
The New Balance xxx (the extension product) has a good design	0.83		
The New Balance xxx (the extension product) looks cool	0.82		

^{*} Total Variance Explained 80.41%

** xxx extension categories: fitness/vitamin water, fruit juice, soft drink, spring/artesian water, smart phone, laptop

Table 23

Parameters for Measurement Model, Item Loadings, Composite Reliability and Average Variance Extracted of Study I

Constructs and Items	PFIT	BFIT	FBIV	ABIV	FBDV	ABDV
Parent-Extension Product Fit						
Similar products	0.64					
Illogical/logical to market	0.76					
Very little / a lot of sense to market	0.80					
Complements	0.88					
Consistent with	0.90					
Fits nicely	0.93					
Same category	0.74					
Parent-Extension Brand Fit						
Reasonable brand name		0.86				
The brand makes sense to market		0.93				
The brand is logical to market		0.93				
The brand is consistent with		0.90				
The brand fits the extension product		0.82				
The extension product adds to the brand		0.84				
The brand adds to the extension product		0.84				
An appropriate extension for the brand		0.90				
Functional Belief on Parent Brand (Indepe	enent Vari	able)				
A shoe for running			0.82			
Good for walking			0.69			
Reminds me of exercise			0.86			
Reminds me to work out			0.86			
Good for fitness			0.90			
An athletic shoe			0.82			
Abstract Belief on Parent Brand (Independ	dent Varia	ble)				
Stylish				0.94		
Fashionable				0.94		
Attractive				0.97		
Appealing				0.95		
Good look				0.94		
Good design				0.86		
Looks cool						
	nondont Ve	wiahla)		0.90		
Functional Belief on Brand Extension (De	pendent va	iriabie)				
A drink for running					0.85	
Good for walking activities					0.84	
Reminds me of exercise					0.89	
Reminds me to work out					0.90	
Good for fitness					0.90	
An athletic drink					0.80	
Abstract Belief of Brand Extension (Depen	dent Varia	ble)				
Stylish						0.92
Fashionable						0.91
Attractive						0.94
Appealing						0.90
Good look						0.89
Good design						0.84
Looks cool						0.83
20010 0001						
Composite Reliability (CR)	0.93	0.97	0.93	0.98	0.95	0.96
Average Variance Extracted (AVE)	0.66	0.77	0.69	0.86	0.75	0.79

Table 24

Mean, Standard Deviation and Correlation of Study I

		•	•		Constructs					
Constructs	Mean	SD	CR	AVE	PFIT	BFIT	FBIV	ABIV	FBDV	ABDV
Parent-Extension Product Fit	2.89	1.43	0.93	0.66	0.81					
Parent-Extension Brand Fit	2.80	1.57	0.97	0.77	0.68	0.88				
Functional Belief Independent Variable	5.01	1.44	0.93	0.69	-0.08	0.09	0.83			
Aesthetic Belief Independent Variable	3.74	1.68	0.98	0.86	-0.08	0.17	0.33	0.93		
Functional Belief Dependent Variable	3.42	1.75	0.95	0.75	0.50	0.45	0.23	0.09	0.87	
Aesthetic Belief Dependent Variable	3.09	1.57	0.96	0.79	0.24	0.47	0.24	0.25	0.39	0.89

^{*)} Numbers on the diagonal (bold): the square root of the AVE. Off-diagonal numbers: the correlation among constructs.

Table 23 and Table 24 summarize these discriminant validity analyses. All item loadings were significant (p < 0.01) and exceeded 0.60 parameter value. Composite reliability (CR) exceeded the threshold of 0.60 and average variance extracted (AVE) were above 0.50 and exceeded the corresponding squared phi coefficient, indicating construct validity. Collectively, test results provide evidence of construct validity (Bagozzi and Yi, 1988; Fornell and Larcker, 1981).

4.1.4 Manipulation Checks

Manipulation checks were performed to validate whether the manipulations worked as intended. As discussed in Chapter 3, participants were randomly exposed to each of six different product categories in a scenario that the parent brand ("New Balance") plans to launch new products in those product categories. The six categories are: (1) Fitness/Vitamin Water, (2) Spring Water, (3) Fruit Drink, (4) Smart Phone, (5) Soft Drink and (6) Laptop. The objective of the manipulation is to develop samples that featured enough variance with respect to both the product-fit (PFIT) and brand-fit (BFIT) constructs.

After reading instructions, participants are asked to respond to questions that measure their perceptions of how well the parent brand products "fits" with the extension product (product-fit) and, in a sense, the appropriateness of the parent brand's decision to extend its brand and its equity to such product category (brand-fit). ANOVA results demonstrate the differences among the six different extension products based on both product-fit (p < 0.001) and brand-fit (p < 0.001). The post hoc (Tukey) analyses of mean difference among the products based on product-fit and brand-fit are shown in Table 25 and Table 26 respectively.

Table 25

Product-Fit Means with Post Hoc Analysis of Study I

	Subset for $\alpha = 0.05$							
Category	N	1	2	3	4	5		
Fitness/Vitamin Water	56					4.53		
Spring Water	55				3.57			
Fruit Drink	49			3.17	3.17			
Soft Drink	51		2.56	2.56				
Smart Phone	125	1.96	1.96					
Laptop	55	1.92						
Significance:		1.000	0.055	0.051	0.406	1.000		

Table 26

Brand-Fit Means with Post Hoc Analysis of Study I

		Subset for $\alpha = 0.05$			
Category	N	1	2	3	
Fitness/Vitamin Water	56			3.89	
Spring Water	55			3.77	
Fruit Drink	49		3.18	3.18	
Soft Drink	51	2.47	2.47	2.47	
Smart Phone	125	2.05	2.05		
Laptop	55	1.82			
Significance:		0.118	0.067	0.067	

Table 25 presents the means of product-fit (product-fit between "New Balance" and each extension categories). Post Hoc results, as measured by PFIT, demonstrated that while there was significant variance among the groups, there were overlapping subsets among groups. For

example, PFIT between "New Balance" and Laptop ($M_{Laptop} = 1.92$) did not significantly differ (p = 1.0) when compared to PFIT between "New Balance" and Smart Phone ($M_{Smartphone} = 1.96$). However, Laptop ($M_{Laptop} = 1.92$) was significantly different (p < 0.05) when compared to Soft Drink ($M_{Softdrink} = 2.56$). Similarly, there was significant difference (p < 0.05) when comparing Smart Phone ($M_{Smartphone} = 1.96$) with Fruit Drink ($M_{Fruitdrink} = 3.17$) while Smart Phone and Fruit Drink were not significantly different (p = 0.055).

Table 26 presents the means of brand-fit (brand-fit between "New Balance" and each extension categories). Similarly, the Post Hoc result in terms of BFIT showed that although there was significant variance among the groups, there were overlapping subsets among groups. For example, BFIT of the three groups, Laptop ($M_{Laptop} = 1.82$), Smart Phone ($M_{Smartphone} = 2.05$) and Soft Drink ($M_{Softdrink} = 2.47$) were not significantly different (p = 0.118). However, Laptop ($M_{Laptop} = 1.82$) was significantly different (p < 0.05) when compared to Fruit Drink ($M_{Fruitdrink} = 3.17$). Despite the overlapping subsets, the results support that the six categories provide sufficient variances in both BFIT and PFIT for Study I purpose.

4.1.5 Hypotheses Testing

Multiple regression analysis (IBM SPSS Statistics22) was used to evaluate whether the hypotheses were statistically supported. The set of beliefs (functional or aesthetic) measured in the parent brand (New Balance shoes) was used as the independent variable. The corresponding beliefs measured in the extension product categories were used as the dependent variable. In the respective hypothesized relationship between independent and dependent variable, Product-fit (PFIT) or brand-fit (BFIT) was used as the moderator.

Moderated multiple regressions were performed to test the hypotheses. Each of the

regression was done using: (a) the whole sample involving six types of extension product categories, and (b) specific samples in which maximum variance was present (in this case specific samples involved Fitness/Vitamin Water and Soft Drink as extension products).

4.1.5.1 Hypotheses H1 and H2

As formulated in previous chapter, hypotheses H1 and H2 are related with belief transfer in brand extension context.

H1: Aesthetic belief strength associated with the parent brand (ABIV) is positively related to the same aesthetic belief strength associated with the extension brand (ABDV).

H2: Parent-extension brand-fit (BFIT) moderates the effect of parent brand's aesthetic belief (ABIV) on extension's aesthetic belief (ABDV) such that its positive effect is stronger when the parent-extension brand-fit (BFIT) is high than when it is low.

To find support for H1 and H2, multiple regression was performed using all samples to include ABIV, BFIT and ABIV*BFIT as predictors; and ABDV as dependent variable. The result showed that the main effects were significant while the interaction terms was not significant. The model summary is shown in Table 27.

Table 27
Summary of Regression Involving ABIV and BFIT using All Samples

	Ma	ain Moc	lel	Mode	rating	Var.	Full Model		
	Std.	t	Sig.	Std.	t	Sig.	Std.	t	Sig.
	Coeff			Coeff			Coeff		
Constant		40.27	0.00		41.34	0.00		41.28	0.00
ABIV	0.23	5.11	0.00	0.24	5.28	0.00	0.24	5.28	0.00
BFIT				0.25	4.67	0.00	0.25	4.67	0.00
ABIV*BFIT							0.01	0.27	0.79
R square	0.06			0.11			0.11		
Δ R square	n.a.			0.05			0.00		
Δ F	n.a.			21.84			0.08		
Δ F Sig.	0.00			0.00			0.79		
Sig. Anova	0.00			0.00			0.00		

To further check whether there was interaction between ABIV and BFIT, another analysis was performed using specific sample that involves cells of Fitness/Vitamin Water and Soft Drink groups. Moderated multiple regression was performed to include ABIV, BFIT and ABIV*BFIT as predictors. The model summary is shown in Table 28. The result showed that the main effects of ABIV (p = 0.47) and BFIT (p = 0.068) were not significant. The interaction (ABIV*BFIT) was significant (p = 0.04).

Table 28

Regression Summary Involving ABIV and BFIT using Specific Sample

	Ma	in Mod	el	Mode	rating	Var.	Full Model		
	Std.	t	Sig.	Std.	t	Sig.	Std.	t	Sig.
	Coeff			Coeff			Coeff		
Constant		19.63	0.00		19.93	0.00		20.43	0.00
ABIV	0.08	0.73	0.47	0.09	0.83	0.41	0.09	0.78	0.44
BFIT				0.21	18.85	0.07	0.19	1.77	0.08
ABIV*BFIT							0.23	2.09	0.04
R square	0.07			0.05			0.10		
Δ R square	n.a.			0.04			0.05		
Δ F	n.a.			3.43			4.35		
Δ F Sig.	0.47			0.07			0.04		
Sig. Anova	0.47			0.14			0.04		

The results of regression analyses using all samples have shown that the main effects of both predictors (ABIV and BFIT) were significant. ABIV was significantly associated with ABDV. The result showed that the stronger the aesthetic beliefs that consumers associated with the parent brand (ABIV), the higher chance that the same beliefs were also associated in the extension (ABDV). It can be implied that the aesthetic beliefs of the parent brand (ABIV) were transferred to the extension brand (ABDV). The result supports hypothesis H1.

The regression analyses with specific samples indicated different results. The main effects (ABIV and BFIT) were not significant. But the interaction between both predictors (ABIV*BFIT) was significant. Accordingly, hypothesis H2 is supported. This suggests the

transfer of aesthetic beliefs from parent brand is higher when the parent-extension brand-fit (BFIT) is high.

Using the approach suggested by Aiken and West (1991), using the regression coefficients (C = 3.304, $\beta_{ABIV*BFIT} = 0.098$, $SD_{ABIV} = 1.844$, $SD_{BFIT} = 1.877$) the interaction plot of this study can be presented (See Figure 6.). The interaction plot suggests that the higher brandfit the stronger relationship between aesthetic beliefs in the parent brand and in the brand extension. In other words, brand-fit amplifies the transfer of aesthetic beliefs from parent to extension.



Figure 6. Interaction between aesthetic beliefs of the parent brand and P-E brand-fit.

4.1.5.2 Hypotheses H3 and H4

As formulated in Chapter 3, hypotheses H3 and H4 were related with belief transfer in brand extension context.

- H3: Functional belief strength associated with the parent brand (FBIV) is positively related to the same functional belief strength associated with the extension brand (FBDV).
- H4: Parent-extension product-fit (PFIT) moderates the effect of parent brand's functional belief (FBIV) on extension's functional belief (FBDV) such that its positive effect is stronger when the parent-extension product-fit (PFIT) is high than when it is low.

To find support for H3 and H4, a multiple regression was performed to include FBIV, PFIT, FBIV*PFIT as predictors; and FBDV as the dependent variable. The main effects of FBIV (p < 0.001) and PFIT (p < 0.001) were significant (FBIV, PFIT) while the interaction was not significant (p = 0.292). The model summary is shown in Table 29.

Table 29

Regression Summary Involving FBIV and PFIT using All Sample

	N	Iain Mod	del	Mode	erating `	Var.	Full Model		
	Std.	t	Sig.	Std.	t	Sig.	Std.	t	Sig.
	Coeff			Coeff			Coeff		
Constant		39.67	< 0.001		47.05	0.00		46.80	0.00
FBIV	0.23	4.58	< 0.001	0.18	4.26	0.00	0.18	4.23	0.00
PFIT				0.53	12.62	0.00	0.53	12.34	0.00
FBIV*PFIT							0.00	0.09	0.93
R square	0.05			0.33			0.33		
Δ R square	n.a.			0.28			0.00		
ΔF	n.a.			21.84			159.33		
Δ F Sig.	0.00			0.00			0.93		
Sig. Anova	0.00			0.00			0.00		

To evaluate whether there is interaction between FBIV and PFIT, additional analysis was performed using specific sample that involves cells with Fitness/Vitamin Water and Soft Drink groups. Main effect of FBIV (p = 0.535) was not significant, while PFIT (p < 0.001) was significant. The interaction of FBIV*PFIT was not significant (p = 0.122). The model summary is presented in Table 30.

Table 30

Regression Summary Involving FBIV and PFIT using Specific Sample

	Ma	in Mod	el	Mode	rating `	Var.	Full Model		
	Std. Coeff	t	Sig.	Std. Coeff	t	Sig.	Std. Coeff	t	Sig.
Constant		17.87	0.00		23.08	0.00		23.29	0.00
FBIV	0.07	0.62	0.54	0.16	1.79	0.08	0.13	1.50	0.14
PFIT				0.64	7.30	0.00	0.63	7.15	0.00
FBIV*PFIT							0.14	1.56	0.12
R square	0.01			0.41			0.43		
Δ R square	n.a.			0.41			0.02		
Δ F	n.a.			53.22			2.44		
Δ F Sig.	0.54			0.00			0.12		
Sig. Anova	0.54			0.00			0.00		

The results of regression analyses using all samples showed that the main effects of both predictors (FBIV and PFIT) were significant. FBIV was significantly associated with FBDV. This result suggests one can infer that the stronger the functional beliefs that consumers associate with the parent brand (FBIV), the higher chance that the corresponding beliefs were also associated in the extension (FBDV). The functional beliefs of the parent brand (FBIV) are apparently transferred to the extension brand (FBDV). The result supports hypothesis H3.

A regression analysis using specific samples indicated similar result in which the interaction of FBIV*PFIT was not significant. Hypothesis H4 was not supported. This suggests the likelihood of transfer of functional beliefs from parent brand (FBIV) to the extension (FBDV) is not affected by the level of parent-extension product-fit.

4.1.5.3 Summary of Hypotheses

Summary of hypotheses related to Study I (H1, H2, H3, H4) is presented in Table 31.

Table 31
Summary of Hypotheses Related to Study I

Н	DV	Factors	Findings	Conclusions
H1	ABDV	ABIV, BFIT	Main effect of ABIV is significant	H1 is supported
H2	ABDV	ABIV, BFIT	Interaction of ABIV*BFIT is significant	H2 is supported
Н3	FBDV	FBIV, PFIT	Main effect of FBIV is significant	H3 is supported
H4	FBDV	FBIV, PFIT	Interaction of FBIV*PFIT is not significant	H4 is not supported

4.2 Study II

4.2.1 Demographics

In Study II, among 216 respondents, about 53.7% were female. Approximately 96% were between the ages of 18 to 25 years. About 57.4% of the respondents were Caucasian. Table 32 exhibits the detail of demographics. Samples of the current study still appropriately represent young adult group as the largest group of age in the population. The representation of the samples can be seen further by comparing the composition of ethnicity of the top four ethnicities (samples over population: White 57%/72%, African 13%/13%, Hispanic 17%/16%, and Asian 4%/5%).

Similar with Study I, Study II employed student samples. However, for the current study context, the undergraduate students are an appropriate sample. Undergraduate students are representative of the population of interest, i.e. younger consumers. From the point of view that the parent brand acts as an endorser of the new extension product, younger consumers tend to be more affected and hold significantly more positive evaluation of the product endorsed (Atkin and Block, 1983). Although the current research would also provide practical applications related to the population, the main focus of the study is more on drawing conclusions about theory. Student samples feature a homogeneous sample that helps in theory extraction and also reduces Type II

error as compared to a relatively more heterogeneous sample (Calder et al., 1981; Lynch, 1982, 1983).

Table 32

Demographic of the Sample of Study II

		Frequency	Percentage
Gender	Male	100	46.3%
	Female	116	53.7%
Age	18-25	207	95.8%
(years)	26-33	7	3.2%
	34-41	2	0.9%
Ethnicity	American Indian and Alaska Native	2	0.9%
	Asian	9	4.2%
	Black or African American	27	12.5%
	Hispanic or Latino	38	17.6%
	Mixed race	11	5.1%
	White or Caucasian	124	57.4%
	No information	5	2.3%

4.2.2 Exploratory Factor Analysis

Prior to performing the confirmatory factor analyses, all measurement scales were tested. Some items were removed from the scales if they do not satisfy the criteria set by Churchill (1979) and Nunnally (1978). Among the criteria were item-correlations that should be less than 0.30, cross-loadings on two or more factors, and subjective assessment of the value of the item for the construct. In the current study, all factor loadings were above 0.70. All Cronbach's alphas exceeded 0.90. Table 33 summarizes the findings.

4.2.3 Confirmatory Factor Analysis

LISREL® 8.8 structural equation modeling software 8 (Jöreskog and Sörbom, 2006) was used to test the measurement models. The analyses showed acceptable fit measures: χ^2 (480) = 1164.88 (p < 0.001), $\chi^2/d.f. = 2.43$, confirmatory fit index (CFI) = 0.97, normed fit index (NFI) =

0.96, non-normed fit index (NNFI) = 0.96, goodness of fit index (GFI) = 0.78 and root mean square error of approximation (RMSEA) = 0.085.

Table 33

Scale Reliabilities and Convergent Validity of Study II

Constructs and Items	Factor Loadings	% of Variance	Crobach's α
Parent-Parent Brand-Fit		11.01	0.96
These two brands (New Balance and xxx) are consistent with each other	0.89		
These two brands (New Balance and xxx) are complementary to each other	0.89		
These two brands (New Balance and xxx) fit each other	0.88		
These two brands (New Balance and xxx) are related to each other	0.89		
Purchase Intention of the Co-branded Extension Product		12.74	0.96
How likely would you be to try this product (New Balance - xxx Drink)?	0.77		
How likely is it that you buy this product (New Balance - xxx Drink) if you see it in a store?	0.85		
How likely is it that you will purchase this product (New Balance - xxx Drink)?	0.86		
How certain is it that you will purchase this product (New Balance - xxx Drink)?	0.78		
What chance is there that you will buy this product (New Balance - xxx Drink)?	0.85		
Functional Belief on Parent Brand (Indepenent Variable)		11.20	0.90
The New Balance shoe is good for walking	0.75		
The New Balance shoe reminds me of exercise	0.88		
The New Balance shoe reminds me to work out	0.82		
The New Balance shoe is good for fitness	0.85		
The New Balance is an athletic shoe	0.84		
Aesthetic Belief on Parent Brand (Independent Variable)		19.15	0.98
The New Balance shoe is stylish	0.94		
The New Balance shoe is fashionable	0.93		
The New Balance shoe is attractive	0.94		
The New Balance shoe is appealing	0.93		
The New Balance shoe has a good look	0.94		
The New Balance shoe has a good design	0.87		
The New Balance shoe looks cool	0.90		
Functional Belief on the Co-branded Extension (Dependent Variable)	0.70	13.08	0.96
The New Balance xxx (the extension product) is good for walking activities	0.82	15.00	0.70
The New Balance xxx (the extension product) reminds me of exercise	0.83		
The New Balance xxx (the extension product) reminds me to work out	0.82		
The New Balance xxx (the extension product) is good for fitness	0.87		
The New Balance xxx (the extension product) is an athletic drink	0.86		
Aesthetic Belief on the Co-branded Extension (Dependent Variable)	0.00	17.96	0.97
The New Balance xxx (the extension product) is stylish	0.82	17.70	0.77
The New Balance xxx (the extension product) is fashionable	0.83		
The New Balance xxx (the extension product) is attractive	0.83		
*	0.83		
The New Balance xxx (the extension product) is appealing The New Balance xxx (the extension product) has a good look	0.81		
The New Balance xxx (the extension product) has a good look			
The New Balance xxx (the extension product) has a good design	0.87		
The New Balance xxx (the extension product) looks cool	0.83		

^{*} Total Variance Explained 85.134%

^{**} xxx co-branded extension categories: soft drink, energy drink

Table 34

Parameters for Measurement Model, Item Loadings, Composite Reliability and Average Variance Extracted of Study II

Constructs and Items	PPBFIT	EPI	FBIV	ABIV	FBDV	ABDV
Parent-Parent Brand Fit						
Consistent with each other	0.92					
Complementary to each other	0.95					
Fit each other	0.91					
Related to each other	0.92					
Purchase Intention of the Co-branded Exte	ension Prod					
Try this product		0.85				
Buy this product if I see it in a store		0.92				
Purchase this product		0.98 0.88				
Certain to purchase this product High chance to buy this product		0.88				
Functional Belief on Parent Brand (Indepe	enent Varia					
A shoe for walking		~)	0.69			
Reminds me of exercise			0.88			
Reminds me to work out			0.84			
A shoe for fitness			0.84			
An athletic shoe			0.80			
Abstract Belief on Parent Brand (Independ	dent Variah	le)	0.00			
Stylish	uciit vuiiub			0.95		
Fashionable				0.94		
Attractive				0.97		
Appealing				0.95		
Good look				0.95		
Good design				0.85		
Looks cool				0.92		
Functional Belief on the Co-branded Exter	nsion (Dene	ndent V	ariable)	0.72		
Good for walking activities	потоп (Бере	nucht ve	arrabic)		0.84	
Reminds me of exercise					0.94	
Reminds me to work out					0.95	
Good for fitness					0.92	
An athletic drink					0.52	
Abstract Belief on the Co-branded Extensi	ion (Denend	ont Vari	ahla)		0.07	
Stylish	топ (Берена	chi van	abic)			0.89
Fashionable						0.89
Attractive						0.91
Appealing						0.91
Good look						0.91
Good design						0.91
Looks cool						0.91
LOOKS COOL						
Composite Reliability (CR)	0.90	0.96	0.91	0.98	0.94	0.97
Average Variance Extracted (AVE)	0.86	0.83	0.66	0.87	0.82	0.82

Cronbach's alpha was used to check the reliability of the constructs with a threshold value of 0.70 for acceptable reliability (Nunnally, 1978). The acceptable value of convergent validity as all item-total correlation should be above 0.40. Discriminant validity is achieved when the value of composite reliability (CR) is larger than the average variance extracted, and that the AVE is larger than any of the correlation coefficients between the particular construct and other constructs. Table 34 and Table 35 show the summary of the discriminant validity analyses. All item loadings were significant (p < 0.01) and exceeded 0.60 parameter value.

Composite reliability (CR) exceeded the threshold of 0.60 and average variance extracted (AVE) were above 0.50 and exceeded the corresponding squared phi coefficient, indicating construct validity. Together, the test results provide evidence of construct validity (Bagozzi and Yi, 1988; Fornell and Larcker, 1981).

Table 35

Mean, Standard Deviation and Correlation of Study II

					Constructs					
Constructs	Mean	SD	CR	AVE	PPBFIT	EPI	ABIV	FBIV	ABDV	FBDV
Parent-Parent Brand Fit	3.22	1.74	0.90	0.86	0.93					
Purchase Intention on Extension	2.71	1.61	0.96	0.83	0.50	0.91				
Aesthetic Belief Independent Variable	3.93	1.79	0.91	0.69	0.20	0.28	0.83			
Functional Belief Independent Variable	5.17	1.41	0.98	0.86	0.21	0.24	0.31	0.93		
Aesthetic Belief Dependent Variable	3.35	1.68	0.94	0.82	0.50	0.45	0.33	0.30	0.91	
Functional Belief Dependent Variable	3.40	1.83	0.97	0.82	0.45	0.50	0.19	0.26	0.59	0.91

^{*)} Numbers on the diagonal (bold): the square root of the AVE. Off-diagonal numbers: the correlation among constructs.

4.2.4 Manipulation Checks

Manipulation checks were performed to validate that the manipulations work the way they were designed to be. The manipulation in Study II was designed to create variance in parent-parent brand-fit (PPBFIT) between the host brand "New Balance" and the partner brand (either "V Water" or "Minute Maid") in a scenario where the host brand and partner brand plan

to launch a new co-branded product. Two major scenarios are presented in the manipulations. The first set of scenarios used energy drink as the co-branded extension product category. The second set of scenarios used soft drink. Within each set, the scenarios were that "New Balance" as the host brand allying with a partner brand that has either high PPBFIT with "New Balance" (i.e. "V Water") or low PPBFIT with "New Balance" (i.e. "Minute Maid"). The manipulation should also satisfy the requirements of main scenario in which a Host Brand that has a low fit (in terms of PFIT and BFIT) with the extension category is seeking a brand alliance with a Partner Brand that has a relatively higher fit. In the current study this means both "V Water" and "Minute Maid" as the Partner Brands should have higher BFIT and PFIT comparably to "New Balance" as the Host Brand. At the same time, in terms of fit between the parent brands (PPBFIT), the pair of "New Balance - V Water" should have a higher PPBFIT than the pair of "New Balance - Minute Maid."

After reading the instructions, the participants were asked to answer questions to measure their perception of how both of the parent brands (the host brand and the partner brand) fit each other to launch a new product in the planned product category (PPBFIT). The first set of scenarios (energy drink as the extension product) did not satisfy all the expected variance in the manipulation. The second set of scenarios (soft drink as the extension product) generated significant variance in PPBFIT as expected, as well as the required levels of BFIT and PFIT to fulfill the study scenario. Accordingly, only the data from the second set was used for the final analyses. Table 36 summarizes the manipulation check of the second set of scenarios for Study II (using soft drink as the extension product).

Table 36

Manipulation Check: Mean Comparison of Study II

	BFIT	p	PFIT	p	
New Balance	2.30	< 0.001	2.23	< 0.001	
V Water	4.07	< 0.001	3.88	< 0.001	
New Balance	2.16	. 0. 001	2.21	. 0. 001	
Minute Maid	4.69	< 0.001	4.69	< 0.001	
·	•				

	PPBFIT	p
New Balance - V Water (Fitness Water)	4.22	< 0.001
New Balance - Minute Maid (Fruit Drink)	2.47	< 0.001

In Study II, the manipulation was designed to create two levels (high and low) PPBFIT. The first scenario pairing "New Balance" and "V Water" to introduce a co-branded soft drink product was expected to lead to a high level of PPBFIT. The second scenario pairing of "New Balance" and "Minute Maid" was expected to produce low PPBFIT. Table 36 presents the comparisons of: (1) means of BFIT within two scenarios, (2) means of PFIT within two scenarios, as well as (3) means of PPBFIT between two scenarios. In the first scenario, BFIT between "New Balance" and soft drink product (BFIT_{NewBalance} = 2.30) was significantly lower (p < 0.001) than the BFIT between "V Water" and soft drink (BFIT_{VWater} = 4.07). PFIT between "New Balance" and soft drink product (PFIT_{NewBalance} = 2.23) was also significantly lower (p <0.001) than the PFIT between "V Water" and soft drink (PFIT_{VWater} = 3.88). In the second scenario, BFIT between "New Balance" and soft drink product (BFIT_{NewBalance} = 2.16) was significantly lower (p < 0.001) than the BFIT between "V Water" and soft drink (BFIT_{VWater} = 4.69). Similarly, PFIT between "New Balance" and soft drink product (PFIT_{NewBalance} = 2.21) was significantly lower (p < 0.001) than the PFIT between "V Water" and soft drink (PFIT_{VWater} = 4.69). As designed, here the scenario entails a host brand that possessed low fit with the extension category is allying with partner brand that possesses a better fit with the extension

category. Therefore, such scenario necessitates "New Balance" (the host brand) to have a lower BFIT/PFIT than both the partner brands (V Water and Minute Maid). The results provide evidences that in both manipulations cells, the expected level of fits were achieved to fulfill the scenario of the study. Still referring to Table 36, PPBFIT between New Balance and V Water (PPBFIT $_{\text{NewBalance-VWater}} = 4.22$) was significantly higher (p < 0.001) than PPBFIT between New Balance and Minute Maid (PPBFIT $_{\text{NewBalance-MinuteMaid}} = 2.47$). This result provides confirmation that the manipulation required for Study II was fulfilled.

4.2.5 Hypotheses Testing

Multiple regression analysis (IBM SPSS Statistics22) was used to evaluate hypotheses.

The set of beliefs (functional or aesthetic beliefs) measured in the parent brand (New Balance shoes) was used as the independent variable (ABIV or FBIV). The corresponding beliefs measured in the extension were used as the dependent variable (ABDV or FBDV). Parent-parent brand-fit (PPBFIT) was used as the moderator.

4.2.5.1 Hypotheses H5 and H6

As formulated in Chapter 3, hypotheses H5 and H6 were related with the belief transfer of aesthetic belief in co-branding context and the role of parent-parent brand-fit.

- H5: Aesthetic belief strength associated with the host brand (ABIV) is positively related to the same aesthetic belief strength associated with the co-branded extension product (ABDV).
- H6: Parent-parent brand-fit (PPBFIT) moderates the effect of parent brand's aesthetic belief (ABIV) on the co-branded extension's aesthetic belief (ABDV) such that its positive effect is stronger when the parent-parent brand-fit (PPBFIT) is high than when it is low.

To test H5 and H6, a moderated multiple regression was performed. ABIV, PPBFIT, ABIV*PPBFIT was used as predictors. ABDV was use as the dependent variable. Both main effects, ABIV (p = 0.032) and PPBFIT (p < 0.001), were significant. The interaction ABIV*PPBFIT was also significant (p = 0.005). The model summary is presented in Table 37. Table 37

Regression Summary Involving ABIV and PPBFIT and the Interaction

	Ma	ain Moc	lel	Mode	rating `	Var.	Full Model		
	Std.	t	Sig.	Std.	t	Sig.	Std.	t	Sig.
	Coeff			Coeff			Coeff		
Constant		17.24	0.00		18.44	0.00		18.86	0.00
ABIV	0.21	2.17	0.03	0.15	1.60	0.11	0.19	2.13	0.04
PPBFIT				0.36	3.97	0.00	0.39	4.42	0.00
ABIV*PPBFIT							0.26	2.87	0.01
R square	0.04			0.17			0.24		
Δ R square	n.a.			0.13			0.06		
Δ F	n.a.			15.79			8.26		
Δ F Sig.	0.03			0.00			0.01		
Sig. Anova	0.03			0.00			0.00		

The results suggest the strength of aesthetic beliefs associated with the host brand is positively related to the corresponding beliefs associated in the co-branded extension. The aesthetic beliefs of the host brand (ABIV) are clearly transferred to the co-branded extension (ABDV). This result supports hypothesis H5. The significant interaction (ABIV*PPBFIT) indicates that the level of PPBFIT modifies the effect of ABIV on ABDV. The likelihood that aesthetic beliefs will transfer from the host brand to the co-branded extension is clearly high when the parent-parent brand-fit is high, and vice versa, as hypothesized.

Using the approach suggested by Aiken and West (1991), the interaction plot of this study can be presented based on the regression coefficients (C = 3.108, $\beta_{ABIV} = 0.254$, $\beta_{BFIT} = 0.403$, $\beta_{ABIV*BFIT} = 0.318$, $SD_{ABIV} = 1.844$, $SD_{BFIT} = 1.877$) (see Figure 7.). The results of this interaction plot suggests that the higher parent-parent brand-fit the stronger relationship between

aesthetic beliefs in the parent brand and in the extension. In other words, parent-parent brand-fit amplifies the transfer of aesthetic beliefs from parent to extension.

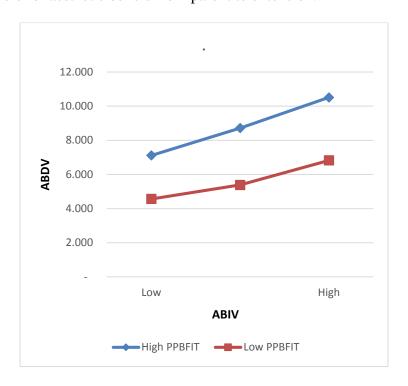


Figure 7. Interaction between aesthetic beliefs of the host brand and P-P brand-fit.

4.2.5.2 Hypotheses H7 and H8

As formulated in previous chapter, hypotheses H7 and H8 are related with belief transfer, specifically functional belief, in co-branding context.

- H7: Functional belief strength associated with the host brand (FBIV) is positively related to the same functional belief strength associated with the co-branded extension product (FBDV).
- H8: Parent-parent brand-fit (PPBFIT) moderates the effect of parent brand's aesthetic belief (FBIV) on the co-branded extension's aesthetic belief (FBDV) such that its positive effect is stronger when the parent-parent brand-fit (PPBFIT) is low than when it is high.

To find support for H7 and H8, a moderated multiple regression was performed. This model included FBIV, PPBFIT, FBIV*PPBFIT as predictors; and ABDV as dependent variable.

The result showed that both main effects of FBIV (p = 0.007) and PPBFIT (p < 0.001) were significant. The interaction ABIV*PPBFIT was not significant (p = 0.46). The model summary is presented in Table 38.

Table 38

Regression Summary Involving FBIV and PPBFIT and the Interaction FBIV*PPBFIT

	Ma	in Mod	el	Mode	Moderating Var.			Full Model		
	Std.	t	Sig.	Std.	t	Sig.	Std.	t	Sig.	
	Coeff			Coeff			Coeff			
Constant		22.42	0.00		24.33	0.00		23.78	0.00	
FBIV	0.26	2.74	0.01	0.24	2.68	0.01	0.25	2.77	0.01	
PPBFIT				0.39	4.39	0.00	0.39	4.39	0.00	
FBIV*PPBFIT							0.07	0.74	0.46	
R square	0.07			0.22			0.22			
Δ R square	n.a.			0.15			0.00			
Δ F	n.a.			19.25			0.55			
Δ F Sig.	0.01			0.00			0.46			
Sig. Anova	0.01			0.00			0.00			

The results suggest that the strength of functional beliefs associated with the host brand is positively related to the corresponding beliefs associated in the co-branded extension. It can be implied that the functional beliefs of the host brand (FBIV) are transferred to the co-branded extension (FBDV). The result supports hypothesis H7. The insignificant interaction of FBIV*PPBFIT indicates that the level of PPBFIT has no influence on the effect of FBIV on FBDV. It can be implied that the chance of transfer of functional beliefs from the host brand to the co-branded extension is independent upon the level of parent-parent brand-fit. The result does not support hypothesis H8.

4.2.5.3 Hypotheses H9 and H10

As formulated in Chapter 3, hypotheses H9 and H10 were related with the effects of cognitive structures based on aesthetic belief on consumers' purchase intention.

H9: The cognitive structure (based on aesthetic beliefs) of the extension (ABDV*ABEva) is positively related to the trial intention.

H10: On predicting the purchase intention, the cognitive structure (based on aesthetic beliefs) of the extension (ABDV*ABEva) is stronger than that of the host brand (ABIV*ABEva).

To find support for H9 and H10, a multiple regression was performed. It included two predictors. The first predictor was the extension's cognitive structure based on aesthetic beliefs. Such predictor reflected the average of products between aesthetic belief strength in the extension and the (good/bad) evaluation of attribute (ABDV*ABEva). The second predictor was the host brand's cognitive structure based on aesthetic beliefs. This second predictor reflected the average of products between aesthetic belief strength in the host brand and the (good/bad) evaluation of attribute (ABIV*ABEva). Purchase intention of the cobranded extension (EPI) was the dependent variable.

The result shows that ABDV*ABEva was significant (p < 0.001). When ABIV*ABEva was introduced into the model, ABDV*ABEva was still significant while ABIV*ABEva was not significant (p = 0.083). The results showed support of H9 and H10. The model summary is shown in Table 39.

Table 39

Regression Summary Involving Cognitive Structures based on Aesthetic Belief

	Ma	ain Mod	lel	Full Model			
	Std. Coeff	t	Sig.	Std. Coeff	t	Sig.	
Constant		19.12	0.00		19.03	0.00	
ABDV*ABEva	0.45	5.16	0.00 0.45		4.76	0.00	
ABIV*ABEva				0.01	0.08	0.94	
R square	0.21			0.21			
Δ R square	n.a.			0.00			
Δ F	n.a.			0.01			
Δ F Sig.	0.00			0.94			
Sig. Anova	0.00			0.00			

Such results indicate that the cognitive structure of the co-branded extension (based on aesthetic beliefs) is predictive on the purchase intention of the extension. Consequently, H9 is supported. When compared with the cognitive structure of the host brand (that was not significant), the cognitive structure of the extension is obviously stronger in predicting the purchase intention of the extension. Thus H10 is supported as well. In other words, the attitude formed from the cognitive structure (based on aesthetic beliefs) in the co-branded extension can predict the purchase intention of the extension, while the attitude formed from the cognitive structure (based on aesthetic beliefs) in the host brand is in fact irrelevant in predicting the purchase intention of the co-branded extension.

4.2.5.4 Hypotheses H11 and H12

As formulated in Chapter 3, hypotheses H9 and H10 were related with the effects of cognitive structures based on functional belief on consumers' purchase intention.

- H11: The cognitive structure (based on functional beliefs) of the extension (FBDV*FBEva) is positively related to the trial intention.
- H12: On predicting the purchase intention, the cognitive structure (based on functional beliefs) of the extension (FBDV*FBEva) is stronger than that of the host brand (FBIV*FBEva).

To find support for H11 and H12, a multiple regression was performed to include two predictors. The first predictor was the extension's cognitive structure based on functional beliefs. Such predictor reflected the average of products between functional belief strength in the extension and the (good/bad) evaluation of attribute (FBDV*FBEva). The second predictor was the host brand's cognitive structure based on functional beliefs. This second predictor reflected the average of products between functional belief strength in the host brand and the (good/bad)

evaluation of attribute (FBIV*FBEva). Purchase intention of the cobranded extension (EPI) was the dependent variable.

The result shows that FBDV*FBEva was significant (p < 0.001). When FBIV*FBEva was introduced into the model, FBDV*FBEva was still significant while FBIV*FBEva was not significant (p = 0.093). The results showed support of H11 and H12. The model summary is shown in Table 40.

Table 40

Regression Summary Involving Cognitive Structures based on Functional Belief

	Mai	n Mod	el	Full Model			
	Std.	t	Sig.	Std.	t	Sig.	
	Coeff			Coeff			
Constant		9.57	0.00		8.99	0.00	
FBDV*FBEva	0.62	7.93	0.00	0.45	6.74	0.00	
FBIV*FBEva				0.19	1.70	0.09	
R square	0.38			0.40			
Δ R square	n.a.			0.02			
Δ F	n.a.			2.87			
Δ F Sig.	0.00			0.09			
Sig. Anova	0.00			0.00			

These results indicate that the cognitive structure (based on functional beliefs) of the cobranded extension is predictive on the purchase intention of the extension. H11 is supported. When compared with the cognitive structure of the host brand (that was not significant), the cognitive structure of the extension is obviously stronger in predicting the purchase intention of the extension. H12 is also supported. In other words, the attitude formed from the cognitive structure (based on functional beliefs) in the co-branded extension can predict the purchase intention of the extension. Moreover, the attitude formed from the cognitive structure (based on functional beliefs) in the host brand is apparently irrelevant in terms of its ability to predict consumer purchase intentions with respect to the co-branded extension.

4.2.5.5 Summary of Hypotheses

The hypotheses related to Study II (H5, H6, H7, H8, H9, H10, H11 and H12) are summarized in Table 41.

Table 41
Summary of Hypotheses Related to Study II

Н	DV	Factors	Findings	Conclusions	
H5	ABDV	ABIV, PPBFIT	Main effect of ABIV is significant	H5 is supported	
Н6	ABDV	ABIV, PPBFIT	Interaction of ABIV*BFIT is significant	H6 is supported	
H7	FBDV	FBIV, PPBFIT	Main effect of FBIV is significant	H7 is supported	
H8	FBDV	FBIV, PPBFIT	Interaction of FBIV*PFIT is not significant	H8 is not supported	
Н9	EPI	ABDV*ABEva, ABIV*ABEva	ABDV*ABEva is significant	H9 is supported	
H10	EPI	ABDV*ABEva, ABIV*ABEva	ABIV*ABEva is not significant	H10 is supported	
H11	EPI	FBDV*FBEva, FBIV*FBEva	FBDV*FBEva is significant	H11 is supported	
H12	EPI	FBDV*FBEva, FBIV*FBEva	FBIV*FBEva is not significant	H12 is supported	

CHAPTER 5

DISCUSSIONS AND IMPLICATIONS

5.1 Discussions

The current research has three main purposes. First, the belief transfer in the context of brand extension and co-branding is examined. Second, the roles of perceptual fits in the belief transfer are investigated. Finally, the effects of the transferred belief (in terms of cognitive structures) on the behavioral intention are explored. The majority of the results reported in the previous chapter support the hypotheses.

Regarding the initial purpose which examined whether empirical study involving actual beliefs of a brand, the results support the notion of belief transfer in brand extension and cobranding contexts. Actual beliefs are evoked from (and measured in) the parent brand and also measured in the extensions. Moreover, in the current study, brand beliefs are differentiated into aesthetic and functional categories. The results suggest the evoked and measured belief strengths - both aesthetic functional and functional beliefs - from the parent brand are predictive to the same set of beliefs measured in the extension. In other words, consumer's belief about the parent brand is transferred to the extension brand in both brand extension and co-branding contexts.

In brand extension context, the results of Study I; i.e., the study that uses all samples, demonstrate support of the transfer of aesthetic beliefs (H1) and the transfer of functional beliefs (H3). The results lead to two conclusions. First, the salient beliefs of the parent brand are shown to be present in the extension. Second, the belief strength (or the likeliness that some attributes, benefits, or associations to be present) in the parent brand is predictive to the strength of similar beliefs in the extension. Again support is demonstrated for both transfer of aesthetic beliefs and functional beliefs.

In co-branding context, the results in Study II also show support of the transfer of aesthetic beliefs (H5) and the transfer of functional beliefs (H7). Similarly, two conclusions can be inferred from the results in co-branding contexts. First, the transfer of salient beliefs exists from host brand to the co-branded extension for both types of beliefs (aesthetic and functional beliefs). Second, the predictive power of the belief strength in host brand on the strength of similar belief in the co-branded extension.

Regarding this dissertation's second purpose, the findings indicate that the hypotheses related to the role of perceptual fits are partially supported in both contexts, brand extension and co-branding contexts. In the brand extension context, parent-extension brand-fit (brand-fit) positively affect the transfer of aesthetic beliefs from parent brand to extension, as was hypothesized in H2.

By contrast, parent-extension product-fit (product-fit) failed to significantly moderate belief transfer from parent brand to extension (H4). Result underscore the role of parent-extension product-fit (product-fit) is not significant in affecting the transfer of functional belief. A possible contributing factor for the non-significant influence of product-fit is that the effect of product-fit is inferior compared to brand-fit on extension evaluation. This rationale is consistent with Pruppers et al.'s finding (2007). With regard to co-branding context, as hypothesized, parent-parent brand-fit positively affects the transfer of aesthetic beliefs from the host brand to the extension (H7). However, the unexpected result is that the same fit construct (product-fit) does not significantly affect the transfer of functional beliefs (H8). In co-branding context, when the host brand and the partner brand have high brand-fit (PPBFIT), there is a higher chance aesthetic belief from the host brand to be transferred to the co-branded extension. The same fit construct (PPBFIT) does not affect the chance of the transfer of functional beliefs.

A post-hoc analysis is performed to further investigate whether or not there is a cross influence of the two constructs of fit on the transfer of aesthetic or functional beliefs (i.e. whether brand-fit has an effect on the transfer of functional beliefs and/or whether product-fit has an effect on the transfer of aesthetic beliefs. The result shows that neither is significant. Product-fit does not have any effect on the transfer of aesthetic beliefs ($p_{ABIV*PFIT} = 0.383$) and brand-fit does not have any effect on the transfer of functional beliefs ($p_{FBIV*BFIT} = 0.354$). The post-hoc result clearly indicates that there is a single influence on the transfer of aesthetic beliefs that it is only affected by the level of brand-fit and not by the level of product-fit.

Related to the third purpose in investigating the effect of the cognitive structure on consumer's purchase intention, the analyses results show that all hypotheses are supported. The attitude formed from the beliefs (both aesthetic and functional beliefs) is able to predict the purchase intention (H9, H11). The results also indicate that the cognitive structures formed from the beliefs associated with the host brand are no longer relevant to predict purchase intention. Instead, only the cognitive structures formed from the beliefs associated with the co-branded extension are the relevant one or having more power to predict purchase intention (H10, H12).

5.2 Theoretical, Methodological and Managerial Contributions

5.2.1 Theoretical Contributions

The current study contributes to the marketing literature by addressing a critical gap that has not been investigated. There is a significant and increasing body of work on the effect of perceptual fit in brand extension and co-branding contexts. But most studies have focused more on the effect of perceptual fit on attitude transfer. This ignores a still emerging stream of research that investigates belief transfer. It is true that several findings revealed in the current research are

consistent with previous literature (Aaker and Keller, 1990; Romeo, 1991; Park et al., 1996; Samu et al., 1999; Bhat and Reddy, 2001) insofar as this and prior studies were grounded in the general idea that belief can be transferred.

The current research, however, extends this foundational notion by demonstrating the transfer of beliefs from parent brand to extension by differentiating the transfer of aesthetic belief and functional belief. This important finding contributes to the extant body of knowledge because a different belief structure than was introduced by Park et al. (1991, 1996) was empirically investigated here. In their study, Park et al. (1996) used such distinction of aesthetic/symbolic and functional in terms of brand concept that is predominately believed by consumers in a parent brand. Park et al.'s (1996) study did not investigate the transfer of the two different types of beliefs that concurrently exist in a single parent brand. This dissertation does.

The findings associated with parent-extension brand-fit (brand-fit) also stand as an important contribution to the current body of marketing knowledge. The role of brand-fit has not been studied in the extant literature in terms of its effect on belief transfer, especially in the context of aesthetic belief. The closest study, in both spirit and character, was conducted by Park et al. (1991). These researchers observed that when a brand's concept is consistent with the extension product category, aesthetic/prestige brands have greater extendibility to products with low feature similarity as compared to the functional brands. However, as noted, the Park et al. (1991) investigation studied attitude transfer instead of belief transfer. The difference between each focus was elaborated in Chapter 2. Attitudinal transfer involves the overall affect that consumers hold toward the parent brand. Belief transfer, on the other hand, entails cognitive piecemeal processing which involves the perceived brand attribute beliefs.

With regard to parent-parent brand-fit, the findings contribute to marketing theory, especially in co-branding contexts, in at least two ways. First, the current research investigates the moderating role of fit (parent-parent brand-fit) in belief transfers. A similar fit construct was used in the extant literature as a moderator in other contexts that did not involve belief transfer. Instead, the fit construct was used in the context of the transfer of attitude (Simonin and Ruth, 1998; James, 2006; Pruppers et al., 2007; Bouten et al., 2011), perceived quality (James, 2006), and extension evaluation (Pruppers et al., 2007; Walchli, 2007). Second, the results of this dissertation indicate that the fit construct (parent-parent brand-fit) is affective (the word "affective" rather than the word "effective" is consciously used here) only with respect to the transfer of aesthetic belief and not with respect to the transfer to functional belief. The existing literature generally does not examine belief transfers in both brand extension and co-branding contexts (e.g. Aaker and Keller, 1990; Romeo, 1991; Park et al., 1996; Samu et al., 1999; Bhat and Reddy, 2001).

Finally, the contribution of the current study is the investigation and comparison between cognitive structure (of aesthetic and functional beliefs) formed in the host brand and that of in the co-branded extension. It was expected that the former has more relevance to predict consumer's purchase intention than the latter. The result of the current study doesn't only show support of the expectations but even a stronger case. The cognitive structure of the host brand is no more relevant to predict consumer's purchase intention of the extension product.

5.2.2 Methodological Contributions

The current study also makes a potential contribution within the domain of measurement and methodology. In terms of measurement, the study's usage of combined techniques to obtain

salient beliefs, measure their strengths, and apply the measures in both parent brand and brands extension stands as a contribution. The combined method used in this study is original; specifically, the use of such combined method in investigating belief transfer has never been used in brand extension and co-branding studies.

A second methodological contribution follows from the fact that the current study incorporates several concerns in procedures that the existing literature and thus existing studies have yet to fully adopt. By and large, the existing literature has investigated belief transfer adopts has only investigated part of the procedures and hence is burdened by methodological weaknesses in other part. A summary of the literature related to belief transfer in brand extension and co-branding along with the respective drawbacks in the procedures is presented in Table 42. This, too, stands as a unique contribution.

Referring to Table 42, the first problem/concern/shortfall ensues from efforts to establishing beliefs associated with the parent brands. Ideally, beliefs are elicited from the population itself as opposed to being predetermined by researchers themselves, as is characteristic of most of the literature (Park et al., 1996; Bhat and Reddy, 2001).

The second concern is the measurement of belief. The least expected case in the literature that asserts as a study in belief transfer is the one that doesn't measure the belief itself (see Romeo, 1991). Some literature uses the elicited beliefs from the sample in qualitative outcomes. For example, Aaker and Keller (1990) elicited beliefs from both parent brand and the extension product, and make a judgment about the existence of belief transfer based on the frequency of similar belief items elicited from both parent and extension.

Table 42

Extant Literature Investigating "Belief Transfer" with the Respective Drawbacks in Procedures

Table 42. Extant Literature Investigating "Belief Transfer" with the Respective Drawbacks in Procedures.

Author(s)	Associations	Belief Strength	Attribute Evaluation	Final Construct	Pre- extension	Post- extension	Pre on Post Measures	Existing Belief of Extension	Fit Construct	Objective	Context
Aaker & Keller (1990), JM	elicited (survey)	qualitative (frequency) *	not measured	qualitative (frequency) *	measured (qualitative)	measured (qualitative)	predictive (qualitative)	not controlled *	Transfer, Complement, Substitute	The effect of fit on extension attitude	brand extension
Romeo (1991), ACR	elicited (survey)	not measured *	measured	cognitive structure, undifferentiated (summated)	measured	measured	not predictive *	not controlled *	P-E Brand-Fit	The effect of negative information on extension evaluation	brand extension
Park, Jun & Shocker (1996), JMR	pre- determined *	attribute	measured as brand performance (a)	independent items, differentiated	measured	measured	predictive (1)	not controlled *	P-P Product-Fit (complement)	The effect of complementarity on attribute profile and consumer preference	co-branding
Samu, Krishnan & Smith (1999), JM	elicited (survey)	measured	not measured	brand belief v undifferentiated (summated) *	not measured *	measured	not predictive *	controlled (qualitatively)	P-P Product-Fit (complement)	The effect of complementarity on brand awareness, belief, attitude, accessbility	joint advertising
Bhat & Reddy (2001), JCM	pre- determined *	measured (b)	measured as attribute importance (b)	cognitive structure, undifferentiated (summated)	not measured *	measured	not predictive *	not controlled *	P-E Product-Fit, P-E Brand-Fit	Comparison of influence between belief and affect on extension attitude	brand extension
The Current Research	elicited (survey)	measured (c)	measured (c)	differentiated (summated)	measured	measured	predictive (2)	controlled	P-E Product-Fit, P-E Brand-Fit, P-P Brand-Fit	The effect of varous fit constructs on attitude/belief transfer	brand extension, co- branding

⁽a): using Adequacy Importance Model (Cohen, Fishbein and Ahtola 1975)

⁽b): using combined Adequacy Importance Model (Cohen, Fishbein and Ahtola 1975) and Expectancy Value Model (Fishbein 1967)

⁽c): using Expectancy Value Model (Fishbein 1967); the attribute evaluation is not included in the analysis related to belief transfer

^{(1):} using a set of attributes that are uniform for both host and partner brand

^{(2):} using two distinctive sets of attributes for host brands and partner brands

^(*) the drawbacks in the methodology.

The third concern relates to how belief can be transformed into attitude by measuring the attribute evaluation and creating the sum of multiplication of this variable with belief strength (Fishbein and Ajzen, 1975). Measuring belief strength and attribute evaluation separately enables researchers to maintain belief strength as a separate construct in order to specifically study the belief transfer phenomenon.

The fourth concern is the final construct of belief. Existing literature vary in the final construct used in the investigation. Park et al. (1991) uses independent single item beliefs. Other literature use the cognitive structure (the summated products of belief strength) which is not undifferentiated in terms of aesthetic/symbolic or functional beliefs (i.e. Rome, 1991; Samu et al., 1999; Bhat and Reddy, 2001).

The fifth concern derives from the question of whether beliefs are measured in both preextension scenario (of the parent brand) and post-extension scenario (beliefs in the extension
product) conditions. Studies that only measure beliefs in the post-extension scenario are not
capable of explaining where such beliefs actually originate and consequently would prove
inadequate to the task of explaining how beliefs are transferred from the parent brand to the
extension. The reason is that the beliefs measured in the parent brand are those that should be
investigated whether the same set of beliefs exists in the extension, or in other words whether
such beliefs are transferred to the extension.

The next concern is whether the analyses include the parent brand beliefs as predictive to that of the extension. Surprisingly, one of two literatures that measures beliefs in both pre- and post-extension scenarios fails to relate both in a predictive relationship. There is only one study (Park et al., 1996) that measures both and applies predictive relationship in the analysis although such study employs only single item beliefs.

The seventh concern is related to controlling for the existence of similar beliefs in the product category of the extension itself. The existing beliefs in the product category of the extension may contribute in the belief transfer and therefore need to be ruled out. Most current literatures fail to apply such controls. The sole exception of which we are aware is that of Samu et al. (1999), who employed only qualitative control.

The eighth concern is the context of the study. Most studies of the belief transfer process are applied in a brand extension context. Only one study has been performed in a co-branding context. Moreover, the perceptual fit constructs used in the existing literature are limited in both contexts.

The current study attempts and succeeds in its efforts to encompass most possible procedures. This was done to ensure validity in these belief transfer study, especially in brand extension and co-branding contexts. The current study provides a comprehensive procedure that potentially can be used as a foundational framework for future similar research related to belief transfer. Here, in this study, beliefs are elicited from the population. Belief strengths and attribute evaluation are measured separately. This facilitates the opportunity to investigate transfer of brand-related beliefs, specifically the transfer of two types of beliefs (aesthetic/symbolic and functional beliefs). Beliefs are measured in pre- and post- extension scenario. The analyses reported above include investigations of beliefs measured for the parent brand as predictive to the same beliefs that are measured with respect to the extension of brands. Extant beliefs in the product category of the extension are controlled by including the same factor as a covariate in the analysis. However, because the associated results indicate no significant difference transpired after inclusion of the covariate, the covariate was removed from the final analysis. The current

study investigates belief transfers in both brand extension and co-branding contexts. Most important perceptual fit constructs are included in the analyses.

Another potential methodological contribution is relates to scale development.

Notwithstanding the fact that normal and expected procedures as suggested by Churchill (1979) and Gerbing and Anderson (1988) were followed, a unique additional procedure was also performed in this study; i.e., related to the factor analysis procedure used above. Because belief items are measured and developed for both constructs (e.g. beliefs measured in the parent brand and in the extension), factor analyses have to be performed in a parallel process. Two criteria were added to the item removal procedure. First, items that demonstrated low loading or cross loading in both constructs were removed. Second, items removed included those that load into a factor but are qualitatively judged as out of the belief type (i.e. aesthetic or functional beliefs).

5.2.3 Managerial Contributions

Partner selection and product category choice are the critical factors for companies dealing with brand co-branding or brand extension applications. Selections of extension category or partner brand unavoidably and inextricably involve concerns about fit, or at least should. The current study reconfirms the importance of perceived fit with its several dimensions. Marketing practitioners and brand managers can learn, based on these results, that perceived fit not only affects the transfer of attitude but also influences the transfer of beliefs from parent to extension or co-branded extensions. These results should assist marketing practitioners and brand managers in their efforts to select partner brands or to select categories through which to extend their brands in order to achieve the desired level of beliefs to be transferred to the extension.

Managers dealing with brand extension plan must deal with two important fit dimensions; brand-fit and product-fit. Again, this is true regardless of marketers and brand managers acknowledge this need. The findings of the current study suggest that the extant aesthetic beliefs that consumers associate with the parent brand can easily be transferred when the parent brand's concept is coherent with; i.e., consistent or compatible with the extension category. Generally, aesthetic beliefs are beneficial. Thus it is both expected and desirable that they be transferred to the extension brand. By contrast, brand managers should tread carefully when attempting to transfer functional beliefs between parent and extension brands, according to the results of this study, This study's result related suggest that functional beliefs will transfer more readily absent regard or attention to the extant level of fit between the parent brand and the extension. This observed phenomenon would surely prove detrimental if a given functional belief from the parent brand fails to match up with what consumers would generally expect from an extension category. Consider, for example, what might befall their firm's success prospects were Dr. Pepper to extent to marinade, Colgate to kitchen entrees, or Ben-Gay to aspirin, and so forth). In co-branding context, the finding in the current study suggests a similar level of attention should be allocated. The transfer of aesthetic beliefs from the host brand to the co-branded extension can easily occur when a fit exists between both parent brands. But this was shown to not the case with respect to the transfer of functional beliefs.

Marketing practitioners apparently should become more aware of how favorable targeted consumers' attitudes toward the host brand are before developing and executing based on brand extension or co-branding decisions. Attitude toward host brand clearly can be leveraged in ways that ultimately elevate the likelihood that consumers will purchase extension products. The current study suggests practitioners should likewise attend carefully to consumers' beliefs as

opposed to merely evaluating consumers' attitudes. Consumer beliefs toward a parent brand, however, were not salient as predictors of purchase intention for extension. Instead, related sets of beliefs about the parent brand (both aesthetic/symbolic and functional beliefs) that consumers hold or develop about extension are highly relevant as a determinant predictor of consumer intentions to purchase extension products.

5.3 Limitations and Future Research

Despite its substantial contributions to the marketing literature and it delivery of several actionable managerial implications, as well as this study's ability to function as a potential springboard to future research, some limitations exist. First, the current study employs a student sample. This necessarily limits representativeness and generalizability. Further, respondents are geographically concentrated in the Southwestern United States and younger than the population in general. However, students of these age groups represent a segment that is entirely congruent with the product categories and brands used in the experiment studies. Accordingly, in general, they are representative of at least one portion of the population of interest. The homogeneity of student sample also reduces Type II error and helps theory extraction (Calder et al., 1981; Lynch, 1982, 1983).

Another limitation is that only one brand used as the main parent brand or the host brand in each study context. Respondents consequently were exposed to only one host brand and pairing/partner brand, thus limiting generalizability. However, this limitation was functionally unavoidable given the fact that, methodologically, it takes a long time to obtain the salient beliefs from a brand and validate them as a construct. However, limiting the study in this manner provided the primary investigator with the opportunity to control extraneous and confounding

variables more effectively. Still, a replication of this study would prove desirable, particularly if that study employed additional parent brands. Yet because the experiments in this study use actual brands, the more parent brands used, the more likely it becomes that extraneous variables would be introduced into the experiments.

In addition to replication of study using different parent brands and extension categories, this study draws attention to several (nine) exciting directions for future research. The following research questions were revealed as a result of this study:

- 1. Given that differentiating beliefs into aesthetic/symbolic and functional beliefs does not indicate full support of the effects of related perceptual fit constructs (i.e. the transfer of aesthetic beliefs is affected by brand-fit while the transfer of functional beliefs is not affected by any fit construct), do other type of differentiation of beliefs that exist that do?
 - 2. Building upon point 1, what factors affect transfer of functional beliefs?
- 3. To what extent do the contributions of the partner brand in affecting the belief transfer in co-branding contexts?
- 4. What other potential factors or covariates contribute to relevant belief transfers, such as existing beliefs in the product category of the extension, product category expertise, etc.?
- 5. Does a mediating effect of existing beliefs in the product category exist, and if so, does that effect mediates the relationship between belief strength in parent brands and belief strength in (co-branded) extension products?
- 6. Does product expertise (i.e. on host brand, partner brand and extension product categories) impose effects on the belief transfer process?
- 7. How do the models in the existing literature in brand extension and co-branding differ when the attitude construct be replaced with beliefs? If pursued, this research question would

necessitate massive replications of research in brand extension and co-branding to investigate belief transfer instead of attitude transfer.

- 8. To what extent do applications of attitude based on the expectancy value model (Fishbein et al., 1975) in the form of cognitive structure differ from the simpler attitude measure generally used in the attitude/belief transfer model?
- 9. To what extent can models of belief transfers in the current study be replicated: (a) using samples from members of the public, (b) in different cultures, or (c) in different business contexts (i.e., in a celebrity endorsement context, in service industry context, in B2B context, etc.)?

In sum, this study demonstrably answered the following fundamental research questions:

1) whether belief transfers exist in brand extension and co-branding, and 2) whether perceptual fits play their roles in the transfer. From this research, relevant answers to each question were attained. But as is usually true of ambitious research more new research questions were inspired than were resolved. The model and findings of the current research not only contribute to the marketing discipline's body of knowledge, but they open up a broader path through which future inquiry into belief transfers phenomena in brand extension and co-branding applications contexts. Belief transfer phenomena in both brand and co-branding contexts suggest numerous new directions for study and exploration as fascinating stream of research with numerous implications for both theory and practice.

APPENDIX A MEASUREMENT INSTRUMENTS

Parent-Extension Product-Fit (adapted from Aaker and Keller, 1990; Bhat and Reddy, 2001; Bouten et al., 2011; Broniarczyk and Alba, 1994; Park et al., 1991; Thompson and Strutton, 2012).

7-point semantic differential scale

- I think these two products are (very dissimilar / very similar).
- It is (very illogical / very logical) for a company that markets the parent brand product to also market the extension product.
- I think it (makes very little sense / makes a lot of sense) for a company that produces the parent brand product to produce the extension product.

7-point Likert-style scale anchored by "Strongly Disagree" and "Strongly Agree"

- I think the extension product complements the parent brand product.
- I think the extension product is consistent with the parent brand product.
- I think the extension product and the parent brand product fits nicely with each other.
- I think the extension product and the parent brand product are in the same category.

Parent-Extension Brand-Fit (adapted from Bhat and Reddy, 2001; Bouten et al., 2011; Simonin and Ruth, 1998).

7-point Likert-style scale anchored by "Strongly Disagree" and "Strongly Agree"

- It seems reasonable that a fitness/vitamin water* has the "New Balance" brand name.
- I think it makes sense for "New Balance" to market fitness/vitamin water*.
- It is logical for "New Balance" to also market fitness/vitamin water*.
- I think "New Balance" as a brand is consistent with fitness/vitamin water*.
- I think "New Balance" fits fitness/vitamin water* product.
- I think fitness/vitamin water* product adds to "New Balance."
- I think "New Balance" adds to fitness/vitamin water* product.
- I think fitness/vitamin water* is an appropriate extension for "New Balance."
- * other extension categories: fruit drink, soft drink, spring/artesian water, smart phone, laptop

Parent-Parent Brand-Fit (adapted from Bhat and Reddy, 2001; Bouten et al., 2011; Park et al., 1996; Simonin and Ruth, 1998).

7-point Likert-style scale anchored by "Strongly Disagree" and "Strongly Agree"

- I think these two brands ("New Balance" and "V Water") are consistent with each other
- I think these two brands ("New Balance" and "V Water") are complementary to each other
- I think these two brands ("New Balance" and "V Water") fit each other
- I think these two brands ("New Balance" and "V Water") are related to each other

Strength of Beliefs on the Parent Brand (developed in this study).

How likely is it that the "New Balance" athletic shoe possesses the following attributes or benefits?

7-point Likert-style scale anchored by "Very Unlikely" and "Very Likely"

- 1. The "New Balance" shoe is stylish^A
- 2. The "New Balance" shoe is fashionable^A
- 3. The "New Balance" shoe is attractive^A
- 4. The "New Balance" shoe is appealing^A
- 5. The "New Balance" shoe has a good look^A
- 6. The "New Balance" shoe has a good design^A
- 7. The "New Balance" shoe looks cool A
- 8. The "New Balance" shoe makes me feel more active if I wear it
- 9. The "New Balance" shoe is a shoe for running^F
- 10. The "New Balance" shoe is good for walking^F
- 11. The "New Balance" shoe reminds me of exercise^F
- 12. The "New Balance" shoe reminds me to work out^F
- 13. The "New Balance" shoe is good for fitness^F
- 14. The "New Balance" shoe is an athletic shoe^F
- 15. The "New Balance" shoe is comfortable
- 16. The "New Balance" shoe is supportive (provides good foot support)
- 17. The "New Balance" shoe is strong
- 18. The "New Balance" shoe is healthy to wear
- 19. The "New Balance" shoe provides better balance
- 20. The "New Balance" shoe is reliable

Strength of Beliefs on the Extension (developed in this study).

How likely is it that "New Balance" Fitness/Vitamin Water possesses the following attributes or benefits?

7-point Likert-style scale anchored by "Very Unlikely" and "Very Likely"

- 1. The New Balance fitness/vitamin water* is stylish
- 2. The New Balance fitness/vitamin water* is fashionable
- 3. The New Balance fitness/vitamin water* is attractive
- 4. The New Balance fitness/vitamin water* is appealing
- 5. The New Balance fitness/vitamin water* has a good look
- 6. The New Balance fitness/vitamin water* has a good design
- 7. The New Balance fitness/vitamin water* looks cool
- 8. The New Balance fitness/vitamin water* makes me feel more active if I drink it
- 9. The New Balance fitness/vitamin water* is a drink for running
- 10. The New Balance fitness/vitamin water* is good for walking activities
- 11. The New Balance fitness/vitamin water* reminds me of exercise
- 12. The New Balance fitness/vitamin water* reminds me to work out

A: aesthetic belief item; used in final analyses

F: aesthetic belief item; used in final analyses

- 13. The New Balance fitness/vitamin water* is good for fitness
- 14. The New Balance fitness/vitamin water* is an athletic drink
- 15. The New Balance fitness/vitamin water* provides comfort
- 16. The New Balance fitness/vitamin water* provides good support
- 17. The New Balance fitness/vitamin water* is strong
- 18. The New Balance fitness/vitamin water* is healthy to drink
- 19. The New Balance fitness/vitamin water* provides better balance
- 20. The New Balance fitness/vitamin water* is reliable

Strength of Beliefs on the Co-branded Extension (developed in this study).

How likely is it that the new soft drink* ("New Balance – V Water" ** soft drink*) possesses the following attributes/benefit?

7-point Likert-style scale anchored by "Very Unlikely" and "Very Likely"

- 1. The "New Balance V Water" soft drink is stylish
- 2. The "New Balance V Water" soft drink is fashionable
- 3. The "New Balance V Water" soft drink is attractive
- 4. The "New Balance V Water" soft drink is appealing
- 5. The "New Balance V Water" soft drink has a good look
- 6. The "New Balance V Water" soft drink has a good design
- 7. The "New Balance V Water" soft drink looks cool
- 8. The "New Balance V Water" soft drink makes me feel more active if I drink it
- 9. The "New Balance V Water" soft drink is a drink for running
- 10. The "New Balance V Water" soft drink is good for walking activities
- 11. The "New Balance V Water" soft drink reminds me of exercise
- 12. The "New Balance V Water" soft drink reminds me to work out
- 13. The "New Balance V Water" soft drink is good for fitness
- 14. The "New Balance V Water" soft drink is an athletic drink
- 15. The "New Balance V Water" soft drink provides comfort
- 16. The "New Balance V Water" soft drink provides good support
- 17. The "New Balance V Water" soft drink is strong
- 18. The "New Balance V Water" soft drink is healthy to drink
- 19. The "New Balance V Water" soft drink provides better balance
- 20. The "New Balance V Water" soft drink is reliable
- * other extension category: energy drink

Beliefs/Attribute Evaluation (developed in this study).

How good or bad is it for a soft drink* (in general) to possess these following attributes/benefits 7-point semantic differential scale anchored by "Bad" and "Good"

- 1. The soft drink is stylish
- 2. The soft drink is fashionable
- 3. The soft drink is attractive

^{*} other extension categories: fruit drink, soft drink, spring/artesian water, smart phone, laptop

^{**} other partner brand: "Minute Maid"

- 4. The soft drink is appealing
- 5. The soft drink has a good look
- 6. The soft drink has a good design
- 7. The soft drink looks cool
- 8. The soft drink makes me feel more active if I drink it
- 9. The soft drink is a drink for running
- 10. The soft drink is good for walking activities
- 11. The soft drink reminds me of exercise
- 12. The soft drink reminds me to work out
- 13. The soft drink is good for fitness
- 14. The soft drink is an athletic drink
- 15. The soft drink provides comfort
- 16. The soft drink provides good support
- 17. The soft drink is strong
- 18. The soft drink is healthy to drink
- 19. The soft drink provides better balance
- 20. The soft drink is reliable

^{*} other extension category: energy drink

APPENDIX B

MEASUREMENT INSTRUMENTS – PRETEST 1

Section A. Please think about athletic shoe product and answer the following questions.

Assume that a maker of athletic shoes and sportswear products is interested in producing and marketing a product category. Based on your image of the brand, <u>rate each product category</u> below in terms of how much sense it would make for the manufacturer to market new products in these product categories.

Rate each product category on a 1-7 scale where: (1) means "makes very little sense" and (7) means "makes a lot of sense."

If you have no idea of the product category, please circle 8.

Product Category	Makes very little sense						Makes a lot of sense	I do not know this category
Bottled spring or artesian water	1	2	3	4	5	6	7	8
Fitness or vitamin water	1	2	3	4	5	6	7	8
Energy Drink	1	2	3	4	5	6	7	8
Health foods	1	2	3	4	5	6	7	8
Formal shoes	1	2	3	4	5	6	7	8
Casual shoes	1	2	3	4	5	6	7	8
Fruit juices	1	2	3	4	5	6	7	8
Vegetable juices	1	2	3	4	5	6	7	8
Protein drinks and supplements	1	2	3	4	5	6	7	8
Specialty Coffee	1	2	3	4	5	6	7	8
Natural Tea	1	2	3	4	5	6	7	8
Soft drinks	1	2	3	4	5	6	7	8
Sports drinks	1	2	3	4	5	6	7	8
Beer	1	2	3	4	5	6	7	8
Distilled spirits	1	2	3	4	5	6	7	8

Section B. Please think about this brand and answer the following questions.

new balance is a brand for athletic shoes and sportswear products.



Assume that new bolonce, a maker of athletic shoes and sportswear products, is interested in producing and marketing a product category. Based on your image of the brand, <u>rate each</u> product category below in terms of how much sense it would make for the brand (New Balance) to market new products in these product categories.

Rate each product category on a 1-7 scale where: (1) means "makes very little sense" and (7) means "makes a lot of sense."

If you have no idea of the product category, please circle 8.

Product Category	Makes very little sense						Makes a lot of sense	I do not know this category
Bottled spring or	1	2	3	4	5	6	7	8
artesian water								
Fitness or vitamin water	1	2	3	4	5	6	7	8
Energy Drink	1	2	3	4	5	6	7	8
Health foods	1	2	3	4	5	6	7	8
Formal shoes	1	2	3	4	5	6	7	8
Casual shoes	1	2	3	4	5	6	7	8
Fruit juices	1	2	3	4	5	6	7	8
Vegetable juices	1	2	3	4	5	6	7	8
Protein drinks and supplements	1	2	3	4	5	6	7	8
Specialty Coffee	1	2	3	4	5	6	7	8
Natural Tea	1	2	3	4	5	6	7	8
Soft drinks	1	2	3	4	5	6	7	8
Sports drinks	1	2	3	4	5	6	7	8
Beer	1	2	3	4	5	6	7	8
Distilled spirits	1	2	3	4	5	6	7	8

APPENDIX C

MEASUREMENT INSTRUMENTS – PRETEST 2

SECTION (A): Please think about two products: (1) <u>athletic shoes</u> and (2) <u>fitness/vitamin water*</u> for a moment, and then answer the following questions.

very dissin	nilar					very similar
0	0	0	0	0	Ο	0
	for a compar	ny that marke	ets athletic sho	oes to also ma	rket <u>fitness/v</u>	
very illogi	cal					very logical
0	0	0	0	0	0	0
	o for a co	o mpony that n		tic shoes to n		O C/vitomin water
I think it .	o for a co	ompany that p		tic shoes to pr		os/vitamin water. makes a lot of sen.

		Strongl disagre			;		ongly gree 7	
		1	2	3	4	5	6	7
4. I th	ink fitness/vitamin water product complements the athletic shoes product	0	0	0	0	0	0	0
5. I th	ink fitness/vitamin water product is consistent with the athletic shoes product	0	0	0	0	0	0	0
6. I th	ink fitness/vitamin water product and athletic shoes fits nicely with each other	0	0	0	0	0	0	0
7. I th	ink fitness/vitamin water and the athletic shoes products are in the same category	0	0	0	0	0	0	0

^{*} other extension categories: fruit drink, soft drink, spring/artesian water, smart phone, laptop

SECTION (B): NEW BALANCE is a brand that features athletic shoes and sportswear products.

NEW BALANCE is launching a new product – a FITNESS/VITAMIN WATER* – that features the *NEW BALANCE* brand.



			strongly lisagree 1					ongly gree 7
		1	2	3	4	5	6	7
1.	It seems reasonable that the fitness/vitamin water product has NEW BALANCE brand name	0	0	0	0	0	0	0
2.	I think it makes sense for NEW BALANCE to market fitness/vitamin water products	0	0	0	0	0	0	0
3.	It is logical for NEW BALANCE to also market a fitness/vitamin water products	0	0	0	0	0	0	0
4.	I think NEW BALANCE as a brand is consistent with fitness/vitamin water products	0	0	0	0	0	0	0
5.	I think NEW BALANCE and fits the fitness/vitamin water products	0	0	0	0	0	0	0
6.	I think fitness/vitamin water products adds to NEW BALANCE brand	0	0	0	0	0	0	0

7. I think <i>NEW BALANCE</i> brand adds to the <u>fitness/vitamin wa</u>	ater products
---	---------------

<u>NEW BALANCE</u> and <u>V WATER</u> partner to introduce a <u>SOFT DRINK*</u> product that features both brand names ("New Balance" and "V Water"**).



2. How likely is it that you buy this product ("New Balance - V Water" Soft drink) if you happened to see it in a store? very unlikely very likely	1. How likely would you be to try this product? ("New Balance - V Water" Soft drink) very unlikely very likely										
see it in a store? very unlikely very likely	0	0	0	0	0	Ο	0				
	see it in a store?										
0 0 0 0 0 0	very unlikel	ly	very likely								
	0	0	0	0	0	0	Ο				
3. How likely is it that you will purchase the product? ("New Balance - V Water" Soft drink) highly improbable highly probable											
	Ο	0	Ο	0	0	Ο	0				
4. How certain is it that you will purchase this product? ("New Balance - V Water" Soft drink)	4. How certain	n is it that yo	u will purcha	se this produc	ct? ("New Bal	lance - V Wa	ter" Soft drink)				
very uncertain very certain		•	•	•							
	0	0	Ο	0	0	Ο	0				
5. What chance is there that you will buy this product? ("New Balance - V Water" Soft drink) no chance at all very good chance											
0 0 0 0 0 0	0	0	0	0	0	0	0				

I think a <u>fitness/vitamin water</u> product is an appropriate extension for *NEW BALANCE*

^{*} other extension categories: fruit drink, soft drink, spring/artesian water, smart phone, laptop SECTION (C):

^{*} other co-branded extension category: energy drink ** other partner brand: "Minute Maid"

APPENDIX D

MEASUREMENT INSTRUMENTS – PRETEST 3

SECTION (A):



Please think about this brand for a moment.

Please write down as many answers as you can for each of the following questions.

You may express your opinion in \underline{words} , $\underline{phrases}$ or $\underline{sentences}$ that express the thoughts in your mind (feel free to fill out anything that came as your thoughts).

1. When you think of this brand/product (New Balance athletic shoes), what comes to your mind?
2. In your opinion, what are the advantages (or disadvantages) of using this brand/product? In other words, what are good or bad things that may happen if you use this brand/product?
3. In your opinion, what would you enjoy or hate about using this brand/product (New Balance athletic shoes)?

APPENDIX E

MEASUREMENT INSTRUMENTS – STUDY I

SECTION (A): Please think about two products: (1) <u>athletic shoes</u> and (2) <u>fitness/vitamin water*</u> for a moment, and then answer the following questions.

	1. I think <u>athletic shoes</u> and <u>fitness/vitamin water</u> are products: very dissimilar very similar											
0	0	0	0	0	Ο	0						
2. It isvery illogic	•	ny that mark	ets athletic sho	o <u>es</u> to also ma	rket <u>fitness/v</u>	vitamin water. very logical						
0	0	0	0	0	0	O						
	for a cory little sense	mpany that p	produces athlet	tic shoes to pr	oduce <u>fitnes</u>	s/vitamin water. makes a lot of sense						

		U	Strongly disagree 1				Strongly agree 7			
		1	2	3	4	5	6	7		
4.	I think <u>fitness/vitamin water</u> product complements the <u>athletic shoes</u> product	0	0	0	0	0	0	0		
5.	I think fitness/vitamin water product is consistent with the athletic shoes product	0	0	0	0	0	0	0		
6.	I think <u>fitness/vitamin water</u> product and <u>athletic shoes</u> fits nicely with each other	0	0	0	0	0	0	0		
7.	I think <u>fitness/vitamin water</u> and the <u>athletic shoes</u> products are in the same category	0	0	0	0	0	0	0		

^{*} other extension categories: fruit drink, soft drink, spring/artesian water, smart phone, laptop

SECTION (B): new balance is a brand that features athletic shoes products.



Please think about this brand for a moment, and answer the following questions.

How likely is it that the *New Balance* athletic shoe possesses the following attributes or benefits?

		Very Unlikely 1				ery kely 7
		1 2 3	4	5	6	7
1.	The New Balance shoe is stylish	0 0 0	0	0	0	0
2.	The New Balance shoe is fashionable	0 0 0	0	0	0	0
3.	The New Balance shoe is attractive	0 0 0	0	0	0	0
4.	The New Balance shoe is appealing	0 0 0	0	0	0	0
5.	The New Balance shoe has a good look	0 0 0	0	0	0	0
6.	The New Balance shoe has a good design	0 0 0	0	0	0	0
7.	The New Balance shoe looks cool	0 0 0	0	0	0	0
8.	The New Balance shoe makes me feel more active if I wear it	0 0 0	0	0	0	0
9.	The New Balance shoe is a shoe for running	0 0 0	0	0	0	0
10.	The New Balance shoe is good for walking	0 0 0	0	0	0	0
11.	The New Balance shoe reminds me of exercise	0 0 0	0	0	0	0
12.	The New Balance shoe reminds me to work out	0 0 0	0	0	0	0
13.	The New Balance shoe is good for fitness	0 0 0	0	0	0	0
14.	The New Balance shoe is an athletic shoe	0 0 0	0	0	0	0
15.	The New Balance shoe is comfortable	0 0 0	0	0	0	0
16.	The New Balance shoe is supportive (provides good foot support)	0 0 0	0	0	0	0
17.	The New Balance shoe is strong	0 0 0	0	0	0	0
18.	The New Balance shoe is healthy to wear	0 0 0	0	0	0	0
19.	The New Balance shoe provides better balance	0 0 0	0	0	0	0
20.	The New Balance shoe is reliable	0 0 0	0	0	0	0

SECTION (C): NEW BALANCE is a brand that features athletic shoes and sportswear products.

NEW BALANCE is launching a new product – a FITNESS/VITAMIN WATER* – that features the *NEW BALANCE* brand.



	disagree 1	agree 7
	1 2 3 4	5 6 7
1. It seems reasonable that the <u>fitness/vitamin water</u> product has <i>NEW BALANCE</i> brand	name oooo	0 0 0
2. I think it makes sense for NEW BALANCE to market <u>fitness/vitamin water</u> products	0 0 0 0	0 0 0
3. It is logical for NEW BALANCE to also market a <u>fitness/vitamin water</u> products	0 0 0 0	0 0 0

4. I think <i>NEW BALANCE</i> as a brand is consistent w	ith <u>fitness/vitamin water</u> products
5. I think NEW BALANCE and fits the fitness/vitamin	n water products
6. I think <u>fitness/vitamin water</u> products adds to <i>NEV</i>	W BALANCE brand 0 0 0 0 0 0 0
7. I think NEW BALANCE brand adds to the fitness/v	vitamin water products 0 0 0 0 0 0 0
8. I think a <u>fitness/vitamin water</u> product is an appropriate of the state of the	priate extension for NEW BALANCE 000000000000000000000000000000000000

^{*} other extension categories: fruit drink, soft drink, spring/artesian water, smart phone, laptop

SECTION (D): *NEW BALANCE* is a brand that features athletic shoes and sportswear products. *NEW BALANCE* is launching a new product - a FITNESS/VITAMIN WATER* – that features the *NEW BALANCE* brand name.



Please think about this new product, <u>NEW BALANCE FITNESS/VITAMIN WATER*</u>, for a moment and then answer the following questions.

How likely is it that "<u>New Balance</u>" Fitness/Vitamin Water* possesses the following attributes or benefits?

		Very Unlikely 1				ery kely 7
		1 2	3 4	5	6	7
1.	The New Balance fitness/vitamin water is stylish	0 0	0 0	0	0	0
2.	The New Balance fitness/vitamin water is fashionable	0 0	0 0	0	0	0
3.	The New Balance fitness/vitamin water is attractive	0 0	0 0	0	0	0
4.	The New Balance fitness/vitamin water is appealing	0 0	0 0	0	0	0
5.	The New Balance fitness/vitamin water has a good look	0 0	0 0	0	0	0
6.	The New Balance fitness/vitamin water has a good design	0 0	0 0	0	0	0
7.	The New Balance fitness/vitamin water looks cool	0 0	0 0	0	0	0
8.	The New Balance fitness/vitamin water makes me feel more active if I drink it	0 0	0 0	0	0	0
9.	The New Balance fitness/vitamin water is a drink for running	0 0	0 0	0	0	0
10.	The New Balance fitness/vitamin water is good for walking activities	0 0	0 0	0	0	0
11.	The New Balance fitness/vitamin water reminds me of exercise	0 0	0 0	0	0	0
12.	The New Balance fitness/vitamin water reminds me to work out	0 0	0 0	0	0	0
13.	The New Balance fitness/vitamin water is good for fitness	0 0	0 0	0	0	0
14.	The New Balance fitness/vitamin water is an athletic drink	0 0	0 0	0	0	0

15.	The New Balance fitness/vitamin water provides comfort	0 0 0 0 0 0 0
16.	The New Balance fitness/vitamin water provides good support	0 0 0 0 0 0 0
17.	The New Balance fitness/vitamin water is strong	0 0 0 0 0 0 0
18.	The New Balance fitness/vitamin water is healthy to drink	0 0 0 0 0 0 0
19.	The New Balance fitness/vitamin water provides better balance	0 0 0 0 0 0 0
20.	The New Balance fitness/vitamin water is reliable	0 0 0 0 0 0 0

^{*} other extension categories: fruit drink, soft drink, spring/artesian water, smart phone, laptop

SECTION (E): Please describe yourself by checking the appropriate space.

Your age: 018-25 0 26-33 0 34-41 0 42-49 0 50 and over

Your gender: • Male • Female

With which social group do personally identify? (alphabetical order)

- o American Indian and Alaska Native
- o Asian
- O Black or African American
- Hispanic or Latino (of any race)
- Mixed race
- o Native Hawaiian or Other Pacific Islander
- \circ White
- o Do not want to give this information

^{***} Thank you for participating in this survey! ***

$\label{eq:appendix} \mbox{APPENDIX F}$ $\mbox{MEASUREMENT INSTRUMENTS} - \mbox{STUDY II}$

SECTION (A): Please think about two products: (1) athletic shoes and (2) soft drink* for a moment, and then answer the following questions. 1. I think athletic shoes and soft drink are products: very dissimilar very similar 0 0 0 0 2. It is for a company that markets athletic shoes to also market soft drink. very illogical very logical 0 0 3. I think it for a company that produces athletic shoes to produce soft drink. makes very little sense makes a lot of sense 0 0 0 0 Strongly Strongly disagree agree 1 7 3 4 5 4. I think soft drink product complements the athletic shoes product 0 0 0 5. I think soft drink product is consistent with the athletic shoes product 0 0 0 0 6. I think soft drink product and athletic shoes fits nicely with each other 0 0 0 0 0 7. I think soft drink and the athletic shoes products are in the same category 0 0 0 0 0 0 SECTION (B): Please think about two products: (1) fitness/vitamin water** and (2) soft drink* for a moment, and then answer the following questions. 1. I think <u>fitness/vitamin water</u> and <u>soft drink</u> are products: very dissimilar very similar 0 0 0 0 2. It is for a company that markets fitness/vitamin water to also market soft drink.

	O	O	O	O	O	O	O							
-								Strong disagre 1	-				a	ongly gree 7
								1	2	3	4	5	6	7
4.	I think soft dri	ink product o	complements t	he fitness/vit	<u>amin water</u> pı	roduct		0	0	0	0	0	0	0
5.	I think soft dri	<u>ink</u> product i	s consistent w	ith the <u>fitnes</u>	s/vitamin wat	<u>er</u> product		0	0	0	0	0	0	0
6.	I think soft dri	ink product a	and fitness/vita	<u>amin water</u> fi	ts nicely with	each other		0	0	0	0	0	0	0
7.	I think soft dri	ink and the f	itness/vitamin	water produ	cts are in the s	same category		0	0	0	0	0	0	0

3. I think it for a company that produces fitness/vitamin water to produce soft drink.

very logical

makes a lot of sense

very illogical

makes very little sense

^{*} other co-branded extension category: energy drink

^{**} other partner brand's category: fruit juice



SECTION (C): **new balance** is a brand that features athletic shoes products.



Please think about this brand for a moment, and answer the following questions.

How likely is it that New Balance athletic shoe possesses the following attributes or benefits?

		Very Unlikely 1					ery kely 7
		1 2	3	4	5	6	7
1.	The New Balance shoe is stylish	0 0	0	0	0	0	0
2.	The New Balance shoe is fashionable	0 0	0	0	0	0	0
3.	The New Balance shoe is attractive	0 0	0	0	0	0	0
4.	The New Balance shoe is appealing	0 0	0	0	0	0	0
5.	The New Balance shoe has a good look	0 0	0	0	0	0	0
6.	The New Balance shoe has a good design	0 0	0	0	0	0	0
7.	The New Balance shoe looks cool	0 0	0	0	0	0	0
8.	The New Balance shoe makes me feel more active if I wear it	0 0	0	0	0	0	0
9.	The New Balance shoe is a shoe for running	0 0	0	0	0	0	0
10.	The New Balance shoe is good for walking	0 0	0	0	0	0	0
11.	The New Balance shoe reminds me of exercise	0 0	0	0	0	0	0
12.	The New Balance shoe reminds me to work out	0 0	0	0	0	0	0
13.	The New Balance shoe is good for fitness	0 0	, 0	0	0	0	0
14.	The New Balance shoe is an athletic shoe	0 0	0	0	0	0	0
15.	The New Balance shoe is comfortable	0 0	0	0	0	0	0
16.	The New Balance shoe is supportive (provides good foot support)	0 0	0	0	0	0	0
17.	The New Balance shoe is strong	0 0	0	0	0	0	0
18.	The New Balance shoe is healthy to wear	0 0	0	0	0	0	0
19.	The New Balance shoe provides better balance	0 0	0	0	0	0	0
20.	The New Balance shoe is reliable	0 0	0	0	0	0	0

SECTION (D): NEW BALANCE is a brand that features athletic shoes and sportswear products. $VWATER^{**}$ is a brand that features fitness/vitamin water*** product.

<u>NEW BALANCE</u> and <u>V WATER</u> partner to introduce a <u>SOFT DRINK*</u> product that features both brand names ("New Balance" and "V Water").



Please indicate the degree to which you agree to the following statements

	Strongly disagree 1	Strongly agree 7
	1 2 3 4	5 6 7
1. I think these two brands (New Balance and V Water) are consistent with each other	0 0 0 0	0 0 0
2. I think these two brands (New Balance and V Water) are complementary to each other	0000	0 0 0
3. I think these two brands (New Balance and V Water) fit each other	0 0 0 0	0 0 0
4. I think these two brands (<i>New Balance</i> and <i>V Water</i>) are related to each other	0 0 0 0	0 0 0

- * other co-branded extension category: energy drink
- ** other partner brand: "Minute Maid"
- *** other partner brand's category: fruit juice

SECTION (E):

<u>NEW BALANCE</u> and <u>V WATER**</u> partner to introduce a <u>SOFT DRINK*</u> product that features both brand names ("New Balance" and "V Water*").



•	1. How likely would you be to try this product? ("New Balance - V Water" Soft Drink) very unlikely very likely							
•	-	_	_	_	_	very likely		
0	0	0	0	0	0	O		
2. How likely is it that you buy this product ("New Balance - V Water" Soft Drink) if you happened to see it in a store?								
very unlike	ly					very likely		
0	0	0	0	0	0	0		
3. How likely highly imp	•	ı will purchas	e the product	? ("New Bala	nce - V Watei	r" Soft Drink) highly probable		
0	0	0	0	0	0	Ο		
4. How certain very uncert	· .	ou will purcha	se this produc	ct? ("New Bai	lance - V Wat	er" Soft Drink) very certain		
0	0	0	0	0	0	0		
5. What chance on chance of		at you will bu	y this produc	t? ("New Bald	ance - V Wate	er" Soft Drink) very good chance		
0	0	0	0	0	0	0		

^{*} other co-branded extension category: energy drink
** other partner brand: "Minute Maid"

SECTION (F):



Please think about Softdrink* products in general (of any brand), and answer the following questions.

How likely is it, generally, that a <u>Softdrink*</u> product (of any brand) possesses the following attributes or benefits?

		Very Unlikely 1				Lik	ery kely 7
		1 2	3	4	5	6	7
1.	Generally, a soft drink is stylish	0 0	0	0	0	0	0
2.	Generally, a soft drink is fashionable	0 0	0	0	0	0	0
3.	Generally, a soft drink is attractive	0 0	0	0	0	0	0
4.	Generally, a soft drink is appealing	0 0	0	0	0	0	0
5.	Generally, a soft drink has a good look	0 0	0	0	0	0	0
6.	Generally, a soft drink has a good design	0 0	0	0	0	0	0
7.	Generally, a soft drink looks cool	0 0	0	0	0	0	0
8.	Generally, a soft drink makes me feel more active if I drink it	0 0	0	0	0	0	0
9.	Generally, a soft drink is a drink for running	0 0	0	0	0	0	0
10.	Generally, a soft drink is good for walking activities	0 0	0	0	0	0	0
11.	Generally, a soft drink reminds me of exercise	0 0	0	0	0	0	0
12.	Generally, a soft drink reminds me to work out	0 0	0	0	0	0	0
13.	Generally, a soft drink is good for fitness	0 0	0	0	0	0	0
14.	Generally, a soft drink is an athletic drink	0 0	0	0	0	0	0
15.	Generally, a soft drink provides comfort	0 0	0	0	0	0	0
16.	Generally, a soft drink provides good support	0 0	0	0	0	0	0
17.	Generally, a soft drink is strong	0 0	0	0	0	0	0
18.	Generally, a soft drink is healthy to drink	0 0	0	0	0	0	0
19.	Generally, a soft drink provides more balance	0 0	0	0	0	0	0
20.	Generally, a soft drink is reliable	0 0	0	0	0	0	0

^{*} other co-branded extension category: energy drink

SECTION (G): Please think about <u>Soft Drink products in general (of any brand)</u>, and answer the following questions.

How good or bad is it for a soft drink* (in general) to possess these following attributes/benefits?

	Thow good of out is it for a soft drink (in general) to possess these following an	Bad 1			•		Go	ood 7
		1	2	3	4	5	6	7
1.	The soft drink product is stylish	0	0	0	0	0	0	0
2.	The soft drink product is fashionable	0	0	0	0	0	0	0
3.	The soft drink product is attractive	0	0	0	0	0	0	0
4.	The soft drink product is appealing	0	0	0	0	0	0	0
5.	The soft drink product has a good look	0	0	0	0	0	0	0
6.	The soft drink product has a good design	0	0	0	0	0	0	0
7.	The soft drink product looks cool	0	0	0	0	0	0	0
8.	The soft drink product makes me feel more active if I drink it	0	0	0	0	0	0	0
9.	The soft drink product is a drink for running	0	0	0	0	0	0	0
10.	The soft drink product is good for walking activities	0	0	0	0	0	0	0
11.	The soft drink product reminds me of exercise	0	0	0	0	0	0	0
12.	The soft drink product reminds me to work out	0	0	0	0	0	0	0
13.	The soft drink product is good for fitness	0	0	0	0	0	0	0
14.	The soft drink product is an athletic drink	0	0	0	0	0	0	0
15.	The soft drink product provides comfort	0	0	0	0	0	0	0
16.	The soft drink product provides good support	0	0	0	0	0	0	0
17.	The soft drink product is strong	0	0	0	0	0	0	0
18.	The soft drink product is healthy to drink	0	0	0	0	0	0	0
19.	The soft drink product provides more balance	0	0	0	0	0	0	0
20.	The soft drink product is reliable	0	0	0	0	0	0	0

^{*} other co-branded extension category: energy drink

SECTION (H): Please describe yourself by checking the appropriate space.

Your age: 018-25 0 26-33 0 34-41 0 42-49 0 50 and over

Your gender: • Male • Female

With which social group do personally identify? (alphabetical order)

- o American Indian and Alaska Native
- o Asian
- O Black or African American
- Hispanic or Latino (of any race)
- Mixed race
- o Native Hawaiian or Other Pacific Islander
- o White
- Do not want to give this information

*** Thank you for participating in this survey! ***

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