

Asymmetric Fit Effects on Vertical Line Extensions

A thesis submitted in fulfillment of the requirements of the degree

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ADDENDUM

P 23 line 23: add at the end of sentence 1 “When it comes to line extensions similarity is determined by product attributes that parent brand and extension share (Lee, Lee, and Kamakura 1996). According to the literature (Keller 1993), attributes can be product related or non-product related (e.g. price and packaging)”

P 16 line 18: add at the end of sentence 1 “In the present thesis, brand expertise represents the extent to which the parent brand is capable of introducing a new vertical extension at a specific price/quality point.”

P 54 line 14: delete “has no effect on perceptions” and add “is not used as cue to reduce”

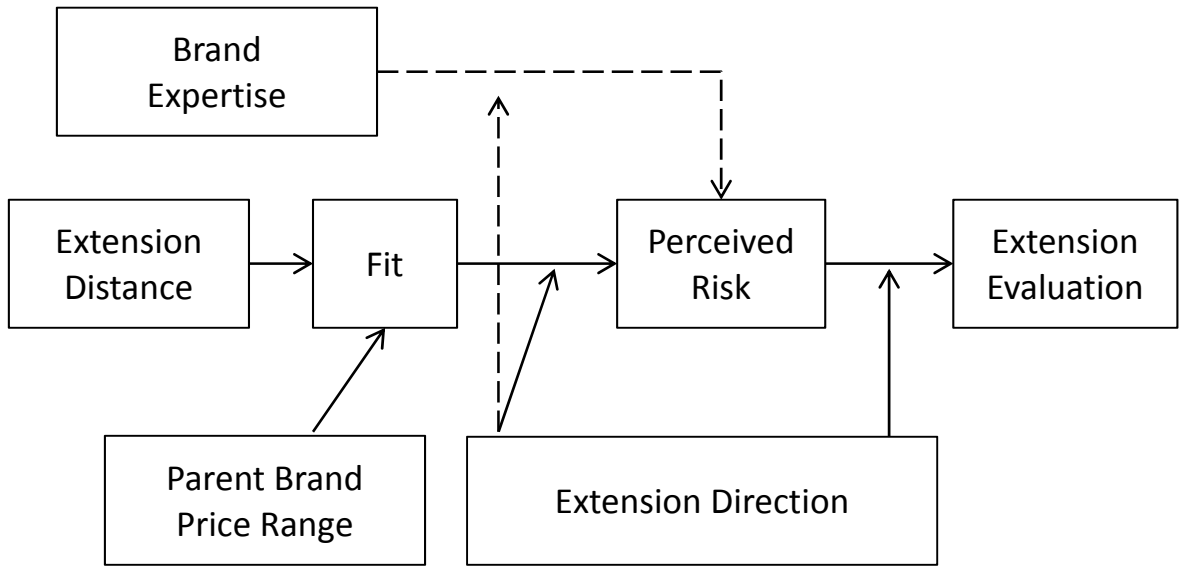
P 142 line 24: add at the end of sentence 1 “It is important to note that results provided in this thesis refer to use of price information to make evaluations of extensions when the parent brand price information is accessible. In reality, consumers may or may not be aware of the price range of the parent brand. When consumers are not aware of price information, perceptions of fit may be drawn upon other brand attributes, e.g. packaging, size, colour, and image”.

P 136 line 11: add new paragraph “Finally, it is important to note that manipulation check ratings show statistical difference in ratings of price range between the downscale narrow condition and the upscale narrow condition ($M = 4.42$ vs. $M = 3.50$, $F(1/117) = 15.25$, $p < .001$). This could indicate a possible confound in manipulations but because no manipulation check measures were taken for extension direction an ANOVA could not be conducted to examine such confound. Nonetheless, the results provided in Study 6 are consistent with previous results of Studies 4 and 5 showing that price range has an effect for upscale but not for downscale scenario. Thus, the fact that participants in the upscale

condition perceived price range to be narrower than the downscale condition did not influence respondent's extension evaluations.”

P 20: delete “Figure 1 – Conceptual Model” and add

Figure 1 - Conceptual Model



P 59: delete “Figure 2 – Conceptual Model with Hypotheses” and add

Figure 2 – Conceptual Model with Hypotheses

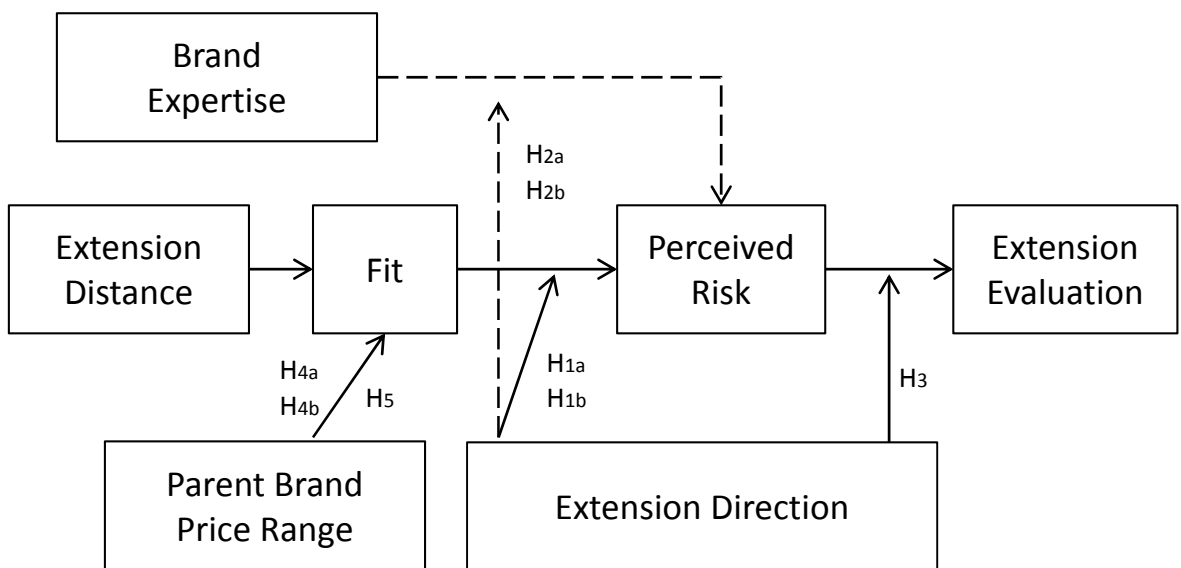


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ABSTRACT

This research examines the moderating role of the extension direction on the fit-extension relationship in a vertical extension context. Existing brand extension knowledge suggests that as fit increases, risk decreases, resulting in better extension evaluations. However, there is a gap in our knowledge of how this effect behaves in a vertical line extension context. In contrast to the existing brand extension literature, this research shows that fit has an asymmetrical effect on evaluations of vertical extensions; an effect is found for upscale but not downscale extensions. The asymmetry suggested here is a consequence of the moderating effect of the extension direction on the two independent variables, fit and brand expertise. It is shown that for upscale extensions, fit is used as a risk reduction mechanism while brand expertise plays that role for downscale extensions.

Further, this thesis investigates a different proxy for fit perception. Examining the role of the parent brand price range on fit perceptions, it is shown that consumer evaluations of extensions are more consistent with range theory than adaptation-level theory predictions about consumers' contextual reference price processing. In particular, it is demonstrated that the parent brand price range rather than its mean, or a single anchor (e.g. end-prices), influences consumer perceptions of the new extension product. And because fit has no effect on downscale scenarios, judgments of the new downscale extension are made regardless of the parent brand price mean or range width. In contrast, upscale extensions derived from parent brands with wide price portfolios tend to be more similar and thus are more positively evaluated than those derived from brand with a narrow vertical price structure.

This thesis defines and measures perceived fit from a feature-based perspective. The rationale for this approach relies on a particular characteristic of vertical extensions:

new products are extended within the same product line as the parent brand but at a higher or lower price/quality point than current offerings of the parent brand. Hence, price and quality are the two attributes that receive the most weight when determining the fit between parent brand and extension. Further, fit is also measured from a relative perspective that takes into account the parent brand price range as an antecedent of fit.

Experimental research was conducted to test the hypotheses outlined in this thesis. Six web-experiments were conducted using MTurk's platform for respondent sampling. The first three studies demonstrate that consumers systematically use perceived fit as a risk reduction mechanism for upscale extensions while perceived brand expertise is the mechanism for downscale extensions. These studies reveal that risk perceptions are lower for downscale extensions than for upscale extensions because it is the effect of brand expertise on the extension evaluation that is mediated by perceived risk in the downscale setting while the effect of perceived fit on the extension evaluation is mediated by perceived risk in upscale scenarios. In addition, the latter three studies show that respondents systematically used the parent brand price range rather than a single anchor (either the mean or end prices) to make judgments about the new extension product. Importantly, results from the first three studies are replicated in a different fit manipulation and it is shown that an effect exists in upscale but not in downscale scenarios.

This research adds to the literature by showing that the assumption that improvements of fit, decreases risk, resulting in better extension evaluations is replicated only for an upscale setting. Conversely, in the downscale scenario, it is the effect of brand expertise on extension evaluations, rather than fit, that is mediated by perceived risk. Further, this thesis extends the use of range-theory to a vertical extension context by showing that consumers do not rely on a single price anchor (mean prices or end prices) to

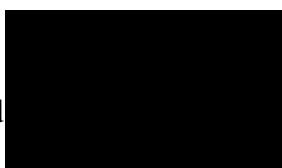
make judgments of a new product. Rather, it demonstrates that all contextual price information can influence how consumers rate new products. It adds to the literature by showing that consumer perception of similarity in a vertical extension context is a relative construct that can be affected by the firm's framing of its product line. By using vertical price differentiation, brands can improve their perceptions of fit for upscale extensions. This is particularly important for mainstream brands trying to introduce higher priced segments.

Lastly, the research presented in this thesis has direct implications for marketers hoping to successfully leverage their product line by introducing vertical extensions. If the effects of fit are diminished by the extension direction, then the extendibility of brands is different than previously thought. This thesis shows that if companies want to move their brands to the higher end of the market they should take small steps, slowly increasing perceptions of brand expertise. The introduction of a product that is far from their current price range is likely to be viewed with scepticism by consumers, who may see the purchase as too risky. But this is not the case for downscale extensions where new product evaluations are made regardless of fit.

DECLARATION

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other institution, and to the best of my knowledge the thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

Signed



Nicolas Gonçalves Pontes

June 2012

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1 INTRODUCTION

1.1 CHAPTER INTRODUCTION

Introducing a new brand can be very risky as probabilities of a successful outcome are low and the costs of new product introductions are high (Reddy, Holak, and Bhat, 1994; Volckner and Sattler, 2006). The use of established brand names to launch new products – that is, brand extensions – is one of the most frequently used branding strategies that aim to improve success rates. This practice is so often used that most new product introductions are made through the extension of existing product lines (Kirmani, Sood, and Bridges, 1999). It is assumed that consumer's knowledge and experience with the brand will be transferred to the new product (Aaker and Keller, 1990). In turn, companies expect to spend less in advertising, trade deals, or price promotion when compared to a totally new brand introduction (Balachander and Ghose, 2003; Grime, Diamantopoulos, and Smith, 2002; Tauber, 1988).

However, the success of a brand extension is uncertain. Although there are many examples in the consumer marketplace of successful extensions where companies have stretched their brands to a different product category (e.g., Samsung binoculars, Bic windsurfers, Apple's iPod) or within the same product category (e.g., Audi A1, Coke Zero, Armani Exchange, BMW X3), these successes are in fact in the minority. Most common to the marketplace are examples of brand extension failure. For example, when extending the brand to a different category, Hooters the restaurant chain known for waitresses dressed in a skimpy manner, launched in 2003 a brand extension called Hooters Air. The immature and inexperienced airline ceased its operations in spring 2006. Furthermore, Xerox's failure to expand their brand to the personal computers product category, Campbell's

unsuccessful attempt in the tomato sauce category, and Harley-Davidson's cake decorating kit are just a few examples of unsuccessful category extensions (Jana, 2006).

On the other hand, when extending their product line, the luxury Jaguar brand did not fool consumers, who saw its Jaguar X-type as a cheap Ford with a Jaguar hood ornament. Similarly, Mercedes' A-Class was a disaster in the downscale attempt of its luxury models (Strach and Everett, 2006). Also, the strong association with everyday meals of the brand Rice-A-Roni made its upscale sub-brand Rice-A-Roni Savory difficult for consumers' to accept (Aaker, 1997). These are just a few examples that add up to the list of bad brand extension choices that firms make.

Despite the extensive literature in brand extensions, failure rates of brand extensions in many product categories are as high as 80% (Volckner and Sattler, 2006). In general, there are two types of brand extensions: category extensions and line extensions (Aaker, 1991). Most research in the brand extension literature is found on category extensions (e.g Broniarczyk and Alba, 1994; Kim and John, 2008; Park, Milberg, and Lawson, 1991), but industry practice differs: line extensions account for most new product introductions (Aaker, 1991). Although, this thesis does not promise a definite solution to this gap in knowledge, it seeks to balance the current literature available to brand managers when planning a new product introduction in a line extension context.

Line extensions are the use of the parent brand name in the new offering that is in the same product class as the parent brand. These can also be further categorized into either horizontal or vertical line extensions. Horizontal line extension is the introduction of a new product in the same category, into the same price/quality point as the parent brand but for a different segment, such as Coke and Diet Coke (Pitta and Katsanis, 1995). This type of extension can be related to flavour, colour or aroma variations (Draganska and Jain,

2005b; Nijssen, 1999). On the other hand, a vertical line extension is the introduction of a new product under the same brand name, but that differs usually in terms of price and/or quality from its parent brand (Heath, DelVecchio, and McCarthy, 2011; Kirmani et al., 1999; Randall, Ulrich, and Reibstein, 1998) and can be further categorized according to its direction: upscale or downscale. An upscale extension is when a product is introduced at a higher quality level and price point than the parent brand current offerings. For example, Roberto Cavalli (usually priced between \$200 and \$300) formed its new high-end luxury line of watches by introducing The Diamond Time collection with prices reaching almost \$2,000. Likewise, Sony launched their new line of monitors with an organic light emitting diode (OLED) screen. Compared to traditional LCD monitors priced between \$100 and \$400, prices for a 25-inch screen are around \$28,840 while a 17-inch model costs a bit less at around \$15,600. While some companies upscale their product line to enjoy higher profits, others may use downscale extensions to increase the overall sales volume.

A downscale extension is the introduction of a new product at a lower price and lower quality level than its parent brand. For instance, a number of luxury watch brands, including De Beers, Bertolucci, Hermes, Glashutte, and TAG Heuer have introduced watch collections with lower price points. Similarly, following the success of the i30 model, Hyundai launched in 2011 a new economic car in the Australian market, the i20, while Tata, normally priced at \$4,000, introduced the Tata Nano to the Indian market in 2008 with the starting price of \$2,500. Taken together, vertical extensions' main objective is to increase the firm's market share and/or its profits (Aaker, 1997). To do so, they must first thrive in the marketplace. But, the question then is: how to introduce a successful extension? Will the formulas and findings provided by the extensive literature in category extensions provide the necessary answers to the vertical line extension context? With these questions in mind, this thesis aims to examine the moderating role of the extension

direction on the effect of perceived fit on priced-based vertical line extensions. Next, the specific research objectives are outlined in the sections that follow.

1.2 RESEARCH OBJECTIVES

1.2.1 Moderating Effect of the Extension Direction

A common finding in the brand extension literature is that extension favourability is a function of the perceived fit between the parent brand and its extension (Aaker and Keller, 1990; Park et al., 1991) that is mediated by perceptions of risk (Milberg, Sinn, and Goodstein, 2010; Smith and Andrews, 1995). Supporting this premise, a comparison of ten known predictors of brand extension success (Volckner and Sattler, 2006) found that the fit between the parent brand and the extension category is the most important of these factors. Although the body of literature in this research stream that examines the category extension context is extensive, research on vertical line extensions is relatively scarce. Of the few existing studies, some researchers examined how the number of products in the line (Dacin and Smith, 1994), the direction of the extension and brand concept (Kim, Lavack, and Smith, 2001), and perceived risk (Lei, de Ruyter, and Wetzels, 2008) influence extension evaluations. Another line of research has investigated how vertical extensions influence consumer parent brand evaluations (Heath et al., 2011; Kirmani et al., 1999; Randall et al., 1998) and the retailer's price image (Hamilton and Chernev, 2010). However, little is known about how perceived fit affects consumers' judgments of vertical line extensions.

Perhaps it is a natural assumption that the knowledge about brand extension should readily transfer to the vertical line extension context. This rationale would lead to the prediction that the higher the fit between parent brand and vertical line extension, the

higher the consumer's favourability towards the new vertical extension product. However, research in vertical line extensions (Kim et al., 2001; Kirmani et al., 1999; Lei et al., 2008) suggests that the direction of the extension is an important factor that moderates consumers' judgments. Furthermore, a growing body of literature in category extension has examined some boundary conditions by which the effect of perceived fit diminishes in consumer judgments of new extension products (Klink and Smith, 2001; Milberg et al., 2010).

Hence, because of the lack of studies in vertical line extensions and grounded on the findings provided by category extension research on the diminishing effects of perceived fit, this thesis aims to theoretically develop, and empirically test, a model of the perceived fit effect in the vertical line extension context. Specifically, the first objective of this thesis is to test the moderating effect of extension direction on the perceived fit effect on vertical line extensions.

1.2.2 The Role of Brand Expertise

If there is an asymmetrical effect of perceived fit on extension evaluations, the next question would be to understand and explain why this effect happens. One such account lies on the concept of brand expertise which is broadly defined as the brand's ability to deliver its promise (Erdem and Swait, 2004). Literature in vertical extensions suggests that it is the highest-end model that signals consumers the firm's capability (Heath et al., 2011; Randall et al., 1998). This is consistent with signalling theory (Wernerfelt, 1988) and with transaction cost theory (Williamson, 1975, 1985) that assert that what firms make is a good proxy for what firms know. Therefore, the introduction of upscale extensions could make consumers question whether the company has the necessary expertise to develop and market this product at the proposed price/quality point. Consumers recognize that higher

firm expertise is required, and acquiring expertise is a time and resource consuming process. Thus, they may be sceptical about the brand's competence and ability to deliver the benefits of a higher quality/price product in an upscale market.

In contrast, a downscale extension does not require a firm expertise change because the brand's highest-end price/quality level is unaffected. Since the company's expertise status quo is unchanged, it is only reasonable to assume that consumers' uncertainty about the firm's offering has remained the same. Thus, consumers' confidence in whether the company has the necessary expertise to produce the new product at the proposed price/quality point should be higher in a downscale scenario than in an upscale scenario, where an increase in expertise would be required. In sum, in an effort to optimize its resources, firms opt to introduce products that are consistent with its current resources and level of expertise. By doing so, expertise plays an important role in reducing consumer uncertainty. In contrast, lack of expertise can reduce consumer confidence about the brand's ability to perform and deliver its promise, which in turn may result in lower levels of favourability.

1.2.3 Antecedents of Perceived Fit

The literature in brand extensions (Aaker and Keller, 1990; Broniarczyk and Alba, 1994; Park et al., 1991) is largely based on the premise that knowledge and attitudes associated with an established brand are part of a network of associations that may be transferred to an extension product under the same umbrella brand name. Thus, the higher the fit between the extension and its parent brand, the more likely the transfer of knowledge, cognition and affect between products. The term "fit" refers to the degree of similarity between an extension product and the parent brand current product offerings (DelVecchio and Smith, 2005). When similarity is high, it is said that the two products fit

well together. Conversely, when similarity between the two is low, it is assumed that there is a low fit between the parent brand and its extension (Martin, Stewart, and Matta, 2005). The finding that perceived fit is one key factor that explains extension success (Volckner and Sattler, 2006), led researches to examine different definitions of perceived fit. Of particular interest to the present thesis is the concept of feature-based similarity. A key characteristic within the vertical line extension context is that extension products are placed within the same product category as the parent brand, where product and service features are highly comparable. For instance, a basic model of a bicycle (e.g. mountain bike) and a high-end model bicycle (mountain bike) are highly comparable because parent brand and extension have many, if not most, features in common.

Within this context, it is suggested that perceived fit is determined by how similar the extension is to its parent brand in terms of price and quality (Heath et al., 2011; Kirmani et al., 1999; Randall et al., 1998). Consistent with the feature-based similarity view, this thesis understands that fit is a measurement based on the distance between parent brand and its extension in the price/quality spectrum.

In another body of knowledge, research on reference price (Janiszewski and Lichtenstein, 1999; Niedrich, Sharma, and Wedell, 2001; Niedrich, Weathers, Hill, and Bell, 2009) and on context effects (Cooke and Mellers, 1998; Parducci, 1965; Volkmann, 1951; Yeung and Soman, 2005) suggest that distance, in particular price distance, is a matter of framing. Range theory (Volkmann, 1951) and range-frequency theory (Parducci, 1965) posit that judgment of the value of an object (e.g. a new vertical extension product) is determined by its location within the distribution of contextual stimuli that are brought to mind at the time of judgment (e.g. parent brand range of products). Further, these theories suggest that the location is a relative rather than an absolute (objective) concept. According

to the range principle advocated by both theories, judgments reflect the location of a vertical extension relative to extreme values (higher and lower end-points) of the parent brand range of products that define the context. This premise leads to the prediction that at a same price point, perceptions of similarity between parent brand and extension is a function of the parent brand range width in terms of price/quality points.

Hence, considering that similarity in a vertical extension context is a function of the perceived distance between parent brand and extension in the price/quality spectrum (Heath et al., 2011; Kirmani et al., 1999; Randall et al., 1998) and that the distribution of the contextual stimuli may influence perceptions of distance (Parducci, 1965; Volkman, 1951), this thesis aims to examine and test the antecedents of perceived fit in a feature-based similarity perspective. Therefore, the third objective of this thesis is to test empirically whether the parent brand price range influences perceived fit, that in turn, affects extension evaluations.

1.3 RESEARCH QUESTIONS

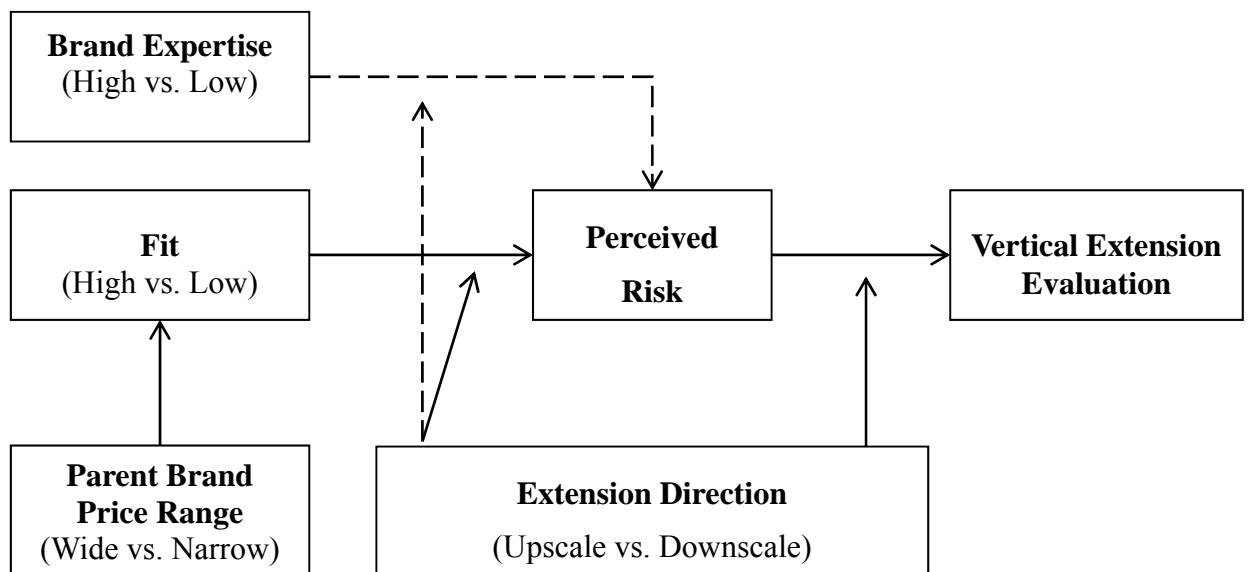
Building on the rationale presented in the previous sections, the main hypothesis on which the present thesis proceeds is that the perceived fit effect on evaluations of vertical extensions, which is mediated by perceived risk, is moderated by the extension direction. Furthermore, this thesis proposes that the parent brand price range is an important antecedent of perceived fit that in turn affects vertical extension evaluations. Figure 1 depicts the overall conceptual model proposed in thesis. It contains the variables perceived fit, price range, and perceived risk. The effect of the interactions of these variables with extension direction on extension evaluations are tested in the present thesis. In accordance with the overall conceptual model (Figure 1), the core objective of this thesis is to

investigate the moderating role of the extension direction in the fit-extension relationship.

More specifically, the present thesis seeks to answer the following research questions:

- 1) Is the effect of perceived fit on perceived risk and on extension evaluations a function of the extension direction?
- 2) Is the effect of brand expertise on perceived risk and on extension evaluations a function of the extension direction?
- 3) Do different extension directions induce different levels of perceived risk?
- 4) Do different extension directions induce different levels of favourability?
- 5) Does the parent price range influence consumers' perceptions of fit?

Figure 3 - Conceptual Model



1.4 CHAPTER SUMMARY

This chapter presented an outline of the thesis including the overall conceptual model as well as the research objectives and research questions. Importantly, the thesis

context of vertical line extensions was situated and its importance to the industry highlighted. The overall conceptual model is grounded on findings that support diminishing effects to the perceived fit effect on extension evaluations, as well as, on the principles of feature-based similarity, brand expertise, and in research on framing and contextual effects. The chapter specifically highlighted the moderating role of the extension's direction on the effect of perceived fit on evaluations of vertical line extensions¹ and the role of the parent brand price structure as an antecedent of perceived fit.

The thesis consists of six chapters and it is structured as follows: Chapter 2 reviews the literature and empirical research on the basis of which the research hypotheses will be developed. Specifically, Chapter 2 reviews the literature on perceived fit, brand expertise, range effects, extension direction, and perceived risk. Then, Chapter 3 develops the conceptual model and research hypotheses. This is followed by Chapter 4, which discusses the research design of the studies conducted in the thesis. After that, Chapter 5 presents the results of the six studies conducted to test the research hypotheses. Finally, Chapter 6 provides an analytical summary of the results of all studies, draws conclusions and discusses their theoretical and managerial implications, as well as the limitations of the studies and directions for future research in this area.

¹ The term 'vertical line extension' will be referred as 'vertical extensions' throughout this document for simplification purposes.

2 LITERATURE REVIEW

2.1 CHAPTER INTRODUCTION

In the previous chapter, the purpose of this research and a brief background was outlined and the importance of the context of vertical line extensions to the industry highlighted. Although of great importance to the industry and to marketing managers, the lack of research on vertical extension was one of the gaps identified. Most research in the literature has focused on category extensions, and a common finding within the literature is that fit is an important factor to extension success. However, it is not clear how, or if, this effect can be transferred to the context of vertical extensions. It is proposed that the extension's direction is an important moderator of the perceived fit-extension² evaluation relationship such that fit has an effect for upscale extensions but not for downscale extensions. Furthermore, brand expertise, the parent brand price range, and perceived risk were identified as important variables that interact with perceived fit to form evaluations of extensions. This chapter provides more detail of the existing knowledge about each of the variables identified in the conceptual model.

2.2 PERCEIVED FIT

Prior literature suggests that customer evaluations of brand extensions are influenced by the degree to which consumers' knowledge and associations towards a brand are transferrable to a new extension product (Aaker and Keller, 1990; Park et al., 1991; Volckner and Sattler, 2006). Drawing on theory and research in cognitive psychology (Anderson, 1995), a common understanding in the marketing literature is that the extent to

² The relationship 'perceived fit-extension evaluation' will be referred as 'fit-extension' for simplification purposes and the benefit of the reader.

which these associations will be transferred to a new product context depends significantly on the perceived fit between the extension and the brand's current offerings. The term "*fit*" refers to the degree of similarity between an extension product and the parent brand current product offerings (DelVecchio and Smith, 2005). When perceived similarity is high, associations and knowledge about the parent brand become more readily available and relevant to the proposed extension product, thus affecting consumer evaluations more strongly. Conversely, when similarity is perceived to be low, any positive parent brand associations do not readily transfer to the extension reducing consumer's favourability about the new product.

According to Martin and Stewart (2001), marketing literature conceptualization and measurement of fit between parent brand and extension can be classified into four general approaches: feature-based similarity, usage-based similarity, brand-concept similarity, and goal-based similarity. These four approaches not only differ in how they operationalized and measure fit, but also in their explanation of how similarity facilitates the transfer of knowledge, affect and intention. The following paragraphs will discuss these four approaches in more detail.

2.2.1 Feature-Based Similarity

Brand extensions research has defined similarity between parent brand and its extension products in terms of its shared features and attributes (Aaker and Keller, 1990; Boush and Loken, 1991; Keller and Aaker, 1992). Feature-based similarity emphasizes measures of shared product characteristics that are more tangible which in essence are also difficult to apply to extensions across product categories whose physical features are not comparable (Martin and Stewart, 2001). Within this perspective, conceptualization of similarity and its associated measures, rests on the theoretical foundations of cognitive

psychology that emphasize a feature-based similarity perspective as the basis for the categorization process and the transfer of affect. For example, drawing on categorization theory, Boush and Loken (1991) suggested that brands are like categories in which brand names are labels of the category, and the products, its members that are part of a grade structure. A grading structure is the range of category representativeness that goes from the most representative members of a category to the non-members that are least similar to the category. For example, a robin is perceived as more typical or a better representative of the 'bird' category than is an ostrich. On the other hand a chair is a better non-member of this category than is a butterfly. In a consumer market context, 'Coca-cola' is a better representative of the "cola soft-drink" category than is Diet Pepsi. On the other hand, Budweiser is probably a better example of non-members than Sprite is.

Thus, if brands can be considered categories, consumers then may use a categorization process to determine if a brand extension is more or less similar to the category (or parent brand). Similarly, Aaker and Keller (1990) suggest that consumers evaluate brand extensions by a category-based processing, whereby consumers transfer quality perceptions about the parent brand to the new brand extension depending how well the two fit together. In cognitive psychology, the concept of similarity has been used to understand processes underlying evaluative judgments. Categorization theory provides a rationale for evaluating the effects of similarity between existing and new products on the transfer of affect from the one to the other when consumers assign them to the same category of products (Boush et al., 1987).

2.2.1.1 Categorization Theory

Categorization theory assumes that in the process of understanding the world, individuals tend to construct and use categorical information to classify, interpret, and

understand information they receive in their everyday life (Murphy, 2002). Categorization can be defined as the process in which individuals group objects or events together that are alike in important aspects in order to enhance information processing efficiency and cognitive ability (Cohen and Basu, 1987). Categorization is a classification process which individuals treat different objects or events as if they were equivalent (Alba and Hutchinson, 1987). By doing so, individuals form an organized knowledge structure that allows them to identify and give meaning to new objects or events, draw inferences about features and interaction outcomes, and make causal or evaluative judgments (Cohen and Basu, 1987). In a consumer context, categorization is used to assign a particular product or service to a consumer category (e.g. a set of products, services or brands) so that inferences can be drawn about it (Loken, Barsalou, and Joiner, 2008). An important discussion in the literature of marketing and psychology is how consumers form category representations.

2.2.1.2 Classical view

Historically, the literature has discussed different approaches to account for how categories are represented in memory. This thesis will focus on the discussion on the three main perspectives in the literature: classical view, prototype view, and the exemplar view (Cohen and Basu, 1987; Loken et al., 2008). The classical view of category representation offers an all-or-nothing perspective in which all members of a category should be equally representative and that learning a category consists of discovering its defining attributes. Its premise is that people adopt concept identification strategies that lead to formal structures of knowledge in memory which in turn act as input in a problem-solving context to determine behaviour (Cohen and Basu, 1987; Hampton, 1995). The classical view is a proposal about representations that has three main assumptions (Smith and Medin, 1981). The first representational assumption is that a category is a summary description of an

entire class, rather than a set of descriptions of various subsets or exemplars of that class. The second assumption is that categorization of instances within a category is based on a fixed set of defining features which are individually necessary and jointly sufficient for categorization. In turn, any entity possessing the set of critical features is a member of the category while any entity lacking even one of the attributes is not a member. For example, a three-legged chair could not be considered a chair because chairs have four legs. This aspect of definition is an important part of the philosophical background of the classical view that draws upon the law of the excluded middle, a rule of logic that states that every statement is either true or false, so long as it is not ambiguous (Murphy, 2002). The final assumption is that defining features of a concept Y are nested in those of X, when X is a subset of Y. Further, the more specific concept X must include some defining features that are not shared by its superset Y (Smith and Medin, 1981).

Although endorsed and advocated by some authors (Osherson and Smith, 1981; Sutcliffe, 1993), the assumptions of the classical view have been heavily criticized by many researchers in the consumer and cognitive psychology fields. Rosch (1975b, 1978) and Rosch and Mervis (1975) have clearly explained and demonstrated empirically that the classical view cannot provide a full account for categorical representation. It is argued mostly that the distinction of category members and non-members does not have clear-cut boundaries and that category members in fact differ in the degree to which they fit the category. In agreement, Hampton (1995) proposed that categorization is processed in a continuous similarity scale between prototypes and new members that follows a threshold curve. According to this notion, a positive categorization (classification of an instance as a member of the category) will be made if, and only if, similarity of an instance is greater than a given criterion while a negative categorization is made (classification of an instance as a non-member of the category) if similarity is lower than the criterion. Because this

criterion range varies across individuals, contexts and occasions categorization of an instance that lies between the lower and upper bound of the criterion has a probability of categorization between 0 and 1, and this is where subjects disagree and are inconsistent in their classification of instances. The classical view is a theory of representations rather than mental processes (Smith and Medin, 1981) that better addresses easily definable and unambiguous concepts and related learning contexts (Cohen and Basu, 1987). As such, it does not provide accurate descriptive account of the categorization process in consumer settings.

2.2.1.3 Prototypical view

Alternatively, prototype theory (Hampton, 1995; Rosch and Mervis, 1975; Smith and Medin, 1981) offers an approach to categorization that includes fuzzy sets, as membership definition is assigned in a continuum (high to low) of category representativeness. According to Rosch (1975b) categories are internally structured into prototype (clearest cases, best examples of the category) and non-prototype members, the latter tending toward an order from better to poorer examples or less typical members. An important difference between prototypes and typical members is that the latter is a good example of a category member while the prototype is the best example of a category (Murphy, 2002). Although it seems that a prototype is a specific member of the category that is referred as the best example, it is not necessary for the prototype to be a real object. Individuals may form an ideal, based on previous experiences and stored information, of what the best example in a category may be and what kind of features it must contain. In turn, this information is used in the categorization process, and since members of a category are classified in order of goodness, most typical members tend to be those that are more similar to the category prototype (Rosch, 1975a, 1975b).

The idea behind the prototype theory is that every category can be represented by a single prototype (Rosch, 1975a, 1975b). A critical component of this view is that categories are a summary of representation or a unified representation of category members (Murphy, 2002). That is, according to the family-resemblance view (Rosch and Mervis, 1975), a concept is represented with features that are most commonly found in the category members. However, not all features have the same weight, some are more important than others. In accord, the similarity approach based on feature matching developed by Tversky (1977) states that individuals tend to extract and compile information into a list of relevant features on the basis of which they perform evaluation judgments. Similarity is then a feature-matching process in which the addition of common features or deletion of distinct features leads to an increase in similarity. For example, it is important that weapons are able to hurt people, but not so important that they are made of metal although many weapons are made of metal. So, the more highly weighted features an item has, the more likely it is to be defined as a typical member of the category (Murphy, 2002) and closer to the category prototype.

2.2.1.4 Exemplar view

The exemplar view (Medin and Schaffer, 1978), on the other hand, provides an entire different perspective of how categories are formed. Rather than an ideal prototype, the exemplar perspective asserts that one's definition of a category member is based on a set of previous experiences that are retrieved and matched with the object at hand. Thus, one's concept of a car is not a definition that includes all cars (as suggested by the classical view), nor a list of features that are normally found in cars (as suggested by the prototypical view) but a set of cars that one can remember. In other words, categorization

of a new member is matching similarities between new members and exemplars of the category that one can retrieve from memory.

2.2.2 Brand-Concept Similarity

A different approach to how consumers perceive the fit between extension and parent brand is based on how the latter is perceived to offer the benefits sought in the extended category, regardless of its category of origin and apart from any features similarity (Martin and Stewart, 2001; Murphy and Medin, 1985). Consistent with this perspective Park et al. (1991) suggested that products could be classified based on their brand concept: functional or prestige. Thus, products with no feature similarities can fit together because they ‘hang’ together within the same brand concept. However, their study shows evidence of the concept-based similarity only for prestige-oriented brands but not for functional concepts. Building on this finding (Monga and John, 2010) demonstrated that the concept-based similarity effect on consumer’s evaluations is moderated by consumers’ style of thinking. In particular, they show that for functional brands, holistic thinkers evaluate distant brand extensions more favourably than analytic thinkers mainly due to their abstraction capability. On the other hand, holistic and analytic thinkers evaluated prestigious brand extensions similarly.

In addition, Broniarczyk and Alba (1994) suggested that perceived fit is a function of specific brand associations which means that a brand fits with the extension category as long as it offers the benefits sought by consumers within that product category. In a similar vein, Herr, Farquhar and Fazio (1996) demonstrated that learning new associations for brand extensions is a function of the parent brand dominance and relatedness with the target category. Dominance is a concept with two dimensions: (1) category dominance, which refers to the strength of the category-to-brand association; and (2) instance

dominance which refers to the strength of the brand-to-category association. The authors suggest that category dominance enhances perceptions of fit between parent brand and extension while instance dominance may have an opposite effect. Furthermore, they argue that the extent the parent brand is related to the extension category may facilitate perceptions of fit. In this sense, relatedness is a broader view of similarity that captures consumers' response to stimuli that are conceptually related but not necessarily feature-similar.

2.2.3 Usage-Based and Goal-Based Similarity

Alternatively, other researchers suggested that similarity between two objects (parent brand and extension) could be formed in different ways. The usage-based perspective suggests that the similarity between parent brand and extension is related to how consumers use brands or products. Ratneshwar and Shocker (1991) results suggest that similarity of use occasion has a direct effect on the transfer of knowledge, affect, and intention to purchase. Resembling the feature-based similarity view, this perspective is mostly valid and used for products that are within the same product category (complements) or product line. In essence, usage must be comparable. For example, Wilson tennis balls are a good fit for Wilson tennis rackets because consumers use both products to play tennis. Likewise, Sony memory cards and digital cameras fit well together for their simultaneous use when taking pictures.

Another perspective of similarity relies on the concept of consumers' goal-orientation. Otherwise stated, the goal-based similarity holds that consumers consider two objects to be similar as long as they are organized in memory around common goals (Loken et al., 2008). Consistent with the goal-derived categorization theory, Martin and Stewart (2001) found that when two products shared a set of goals, consumers'

elaborations about those products were more detailed and focused on a link between attributes of the extension and the parent brand. Further, when both product category similarity and brand attitude similarity reflected a common goal, they both predicted extension acceptance.

2.2.4 Perceived Fit Summary

Taken together, these four perspectives of similarity provide a broad view of how brands and their extensions may fit together. Literature in brand extensions has focused mostly on the study of category extensions. Only a few studies have directed their attention to the study of line extensions (e.g. Kirmani et al., 1999; Lei et al., 2008; Randall et al., 1998). In particular, very few have concentrated in the examination of the vertical extension phenomena. That said, this broad discussion about how fit may be measured concerns mostly to the context of category extensions, although the literature in vertical extensions has drawn upon this concepts to define fit in the vertical line extension context. Two entities can be arbitrarily similar or dissimilar by changing the criterion of what counts as a relevant attribute. Unless such criterion is specified, then the claim that categorization is based on attribute matching is almost entirely vacuous (Murphy and Medin, 1985). The approach used in this thesis to define similarity is the feature-based perspective. This reflects the particular characteristic of vertical extensions that new products are extended within the same product line as the parent brand but at a higher or lower price/quality point compared to current offerings of the parent brand. Hence, these two main features or attributes receive the most weight when determining similarity between parent brand and new product in a vertical line extension context.

2.3 PARENT BRAND PRICE RANGE

The postulation advocated by the feature-similarity perspective is that fit is a function of the distance between features of parent brand and extension. It has been argued elsewhere (Martin and Stewart, 2001) that this view has a limited, if not problematic, application to the category extension context because features among different product categories are not comparable. However, it is for this same reason that the feature-based similarity view provides a great understanding of the fit-extension relationship in the vertical extension context. Because this is a within product category phenomena, product features and attributes are by definition comparable. Thus, if the level of fit is defined by the distance between features, then it is noteworthy the understanding of how perceptions of distance between features are formed. In the context of vertical extensions, it has been suggested that it is the difference in price/quality points between extension and parent brand that determines how the two fit together (Lei et al., 2008). When price information is available, and when the buyer is uncertain about product quality, it would seem reasonable to use price as a criterion for assessing quality (Monroe, 1973). Grounded in signalling theory and reference price theory, this research proposes that when judging the extension's price position, consumers will do so based on a reference price, namely parent brand prices or price range.

2.3.1 Reference Price

In the brand extension context, consumers often rely on parent brand's information and cues to make judgments about the extension. Research on vertical extensions suggests that the parent brand price is one such cue (Kim et al., 2001; Kirmani et al., 1999; Lei et al., 2008; Randall et al., 1998). Reference price theory suggests that consumers' judgment of prices is a comparison task where the new price information is compared to some

reference price point that consumers hold (Monroe, 1973). The pricing literature has discussed many different ways that this reference price is formed. In that sense, Mazumdar, Raj, and Sinha (2005) provide a conceptual framework that summarizes the literature in the area. Drawing on their framework, two main conceptualizations of reference price can be outlined from previous literature. The most common one defines reference price as a predictive price expectation that is formed by consumers' prior experiences (Jacobson and Obermiller, 1990) and current purchase environment (Rajendran and Tellis, 1994). On the other hand, a normative reference price that is formed by consumers' perception of what is 'just' or 'fair' for a firm to charge (e.g. Xia, Monroe, and Cox, 2004). To the purpose of this research, this thesis will advance on the literature of reference price as a predictive price expectation rather than a normative reference price view.

Reference price literature has relied largely on adaptation-level theory (Helson, 1947, 1964) to explain how judgments of prices are made. Adaptation-level theory states that individual's response to stimuli depends on focal cues (which represent direct responses) and contextual cues that determine the adjustment level underlying behaviour. In essence, prior experiences and contextual cues generate an adaptation-level that is used as a reference or standard that stimuli are judged on. In a pricing context, price perception is a function of the difference between the actual price and the individual's reference price or adaptation-level (Della Bitta and Monroe, 1974; Monroe, 1973). An important component of adaptation-level theory is that, this standard or adaptation level is context sensitive, and follows the predictions of prototypical models. As stated previously, the prototype view state the category representation is an abstraction of a single prototypical value (Medin, 1984; Smith and Medin, 1981). In other words, adaptation-levels are conceived as the mean of the stimuli presented within a contextual set (Helson, 1964; Wedell, 1995).

2.3.2 Range Effects

However, more recently, the pricing literature has questioned the ability of adaptation-level theory to account for reference price effects (Janiszewski and Lichtenstein, 1999; Niedrich et al., 2001; Niedrich et al., 2009). It has been stated in the literature that the adaptation-level is not the only price cue that affects price judgments. Two other cues have been suggested to affect price perceptions: the lowest price in a price set, and the highest price in a price set (Della Bitta and Monroe, 1974; Petroschius and Monroe, 1987). Consistent with this notion, Janiszewski and Lichtenstein (1999) draw on range-theory (Volkman, 1951) to show that a consumer's assessment of market price attractiveness depends on a comparison of the market price to the endpoints (highest and lowest) of the evoked price range. Their results provide evidence that the endpoints of the price range can serve as anchors for judgment of price attractiveness. Further, they showed that when the upper bound of the range of evoked prices increases, perceptions of the market price become more favourable. Conversely, when the lower bound of the range of evoked prices decreases, perceptions of the market price become less favourable. Taken together, these findings suggest that assessments of price information is more complex than suggested by adaptation-level theory models such that all prices in the context rather than a single summarized anchor are considered in consumer's judgments.

Another explanation for category representation based on exemplar models is the range-frequency theory (Parducci, 1965) which posits that a category is represented by the distribution of its instances. As stated on page 28, exemplar models assume that judgments are based on comparisons with specific category members rather than summarized information about a typical member (Niedrich et al., 2001). In other words, cognitive representation is assumed to include all prices in the contextual set rather than a single

value. Drawing on this theory, Mellers and Cooke (1994) showed an interesting range effect in multi-attribute judgments. In their study, participants were asked to judge the attractiveness of apartments on the basis of monthly rent and distance from campus. They found that the rate at which consumers were willing to substitute one attribute for another (price for distance) varied with attribute range. In short, they found that preference orderings for the same stimuli can change across contexts that differ in attribute range. Their results demonstrated that rank orderings of the same stimuli can be reversed if appropriate attribute differences are highlighted. Consistent with this, Yeung and Soman (2005) investigated how preferences shift as a function of the range width of the background set. Their results reveal that the range of the background set affects the trade-offs that consumers make in determining preferences, and that this effect is larger for attributes that are low in evaluability.

Further evidence for the limitations of adaptation level theory come from the work of Niedrich et al. (2001). These researchers compared different models (adaptation-level theory, range theory, and range-frequency theory) and showed that range theory and range-frequency theory provided a better account of their data compared to adaptation-level theory. This is consistent with the idea that consumers store, retrieve, and use a rich array of price information in the process of generating price judgments. Moreover, Niedrich et al. (2009) investigated the use of range-frequency theory in models of brand choice and found that it improved the model fit over previous models, allowing for a more complete specification of reference price effects.

2.3.3 Parent Brand Price Range Summary

Taken together, range-theory and range-frequency theory research suggest that the range principle, which is consistent with an exemplar model of category representation,

provides a superior framework to understand price judgments than adaptation-level theory, which posits that a single anchor that is based on the mean is used as reference price.

Building on the range principle, this research argues that parent brand price range may be able to explain additional variability in perceptions of vertical extensions.

2.4 BRAND EXPERTISE

The concept of expertise has received attention from a range of disciplines (e.g. management, economics, psychology and marketing). In the marketing literature, the study of expertise has explored mostly a consumer perspective. In the seminal article “*Dimensions of Consumer Expertise*” Alba and Hutchinson (1987) elaborate on how consumer knowledge is formed by two components: familiarity and expertise. The authors defined consumer expertise as “the ability to perform product-related tasks successfully” (Alba and Hutchinson, 1987, p. 411). From a psychological perspective, expertise consists of a high level of domain-specific knowledge acquired through experience (Ericsson, 2006; Ericsson, Charness, Feltovich, and Hoffman, 2006) that leads to a superior performance compared to its peers (Ericsson, Prietula, and Cokely, 2007).

From a firm’s perspective, expertise has been defined as the firm’s understanding of the skills associated with a particular component, including design, production, and marketing knowledge, as well as other skills related to the making of a good or service (Conner and Prahalad, 1996; Parmigiani and Mitchell, 2009; Wernerfelt, 1984). A common assumption is that acquiring expertise demands a significant amount of time, research-and-development efforts, and accurate performance-related feedback (Dane, 2010; Ericsson et al., 2007; Helfat and Raubitschek, 2000). Similar to these perspectives (consumer and firm) is the notion that expertise is related to the ability or competence to perform. Research on services marketing (Liu, 2007) suggests that firm’s expertise is the

extent to which a customer perceives the company to have the required knowledge and skills to deliver services. In particular, a lack of product knowledge by salespeople, in the banking industry, is a key barrier to the successful cross-selling of financial services. The underlying rationale is that consumers have no confidence in a bank's salespeople's knowledge of and expertise in investment products. Certainly, the bank's expertise has a particularly important role in reducing uncertainty and in increasing the level of consumer's confidence in financial investments.

Transaction cost theory (Williamson, 1975, 1985) suggests that what firms make is a good proxy for what firms know. In other words, the range of products offered by a firm should represent the extent of that firm's capability. This view has been criticized by the literature on the boundaries of the firm (Brusoni, 2001; Parmigiani, 2007; Parmigiani and Mitchell, 2009). This research stream argues that firms will make products that are close to their area of expertise and related to items they already produce, as it uses past experience and resources as stepping stones into related areas. Additionally, it states that expertise is a broader and deeper construct that goes beyond the firm's prior experience in production to incorporate its understanding of the base technology and the firm's related skills (Parmigiani, 2007). Although companies have a limited set of products that they market because of limited internal or external resources, the firm's expertise stretch beyond their production boundaries (Brusoni, 2001).

Consistent with transaction cost view, however, is the signalling theory (Erdem and Swait, 1998; Wernerfelt, 1988). It states that the marketing strategies and activities that firms perform have a direct impact on how consumers form their associations and image about the firm. Erdem and Swait (1998) adopt a signalling perspective to approach the concept of consumer-based brand equity (Keller, 1993). In contrast to the traditional

consumer-based approach where brand associations and image played a central role, they argue that it is the informational aspects of the market that affect consumer brand preference. A key element of the signalling perspective is the credibility of brand signals. According to Erdem and Swait (2004, p. 192) brand credibility is the “believability of the product position information contained in a brand, which requires that consumers perceive that the brand have the ability and willingness to continuously deliver what has been promised”. Thus, brand credibility is said to have two components: ability (e.g. expertise) and willingness (e.g. trustworthiness).

Expertise is defined as the company’s ability or competence to deliver its promise. On the other hand, trustworthiness is about the brand’s willingness to deliver what the brand has promised. This is often supported by brand investments that firms make to assure consumers that brand promises will be kept and demonstrate their commitment in the long-term (Erdem and Swait, 1998, 2004). Both, expertise and trustworthiness, is a result of all cumulative associated past and present marketing strategies and activities. In other words, expertise and trustworthiness is a brand signal that is learned by consumers through their experiences and contacts with the brand. Although companies may hold internally skills and knowledge that are not visible to consumers and that go beyond what they offer, judgments and perceptions of the firm’s expertise are made based on the signals that consumers received from brands. That said, Teece (1982) suggests that a firm’s expertise lies upstream from their end products. In the same line of thought, recent marketing literature suggest that it is the highest-end model of a product line that signal consumers brand’s expertise boundaries (Heath et al., 2011; Randall et al., 1998).

2.4.1 Brand Expertise Summary

In sum, brand expertise, as applied to this thesis, is defined as the brand's ability to deliver its promise. As noted, acquiring expertise is not a simple process, but a rather time and resource consuming one. Hence, firms most often opt for introducing products that are closer to its area of expertise in an effort to optimize its resources. By doing so, expertise also plays an important role in reducing consumer uncertainty. Conversely, the lack of expertise can reduce consumer confidence about the brand's ability to perform and deliver its promise which in turn may result in lower levels of favourability.

2.5 PERCEIVED RISK

Risk is an important construct in understanding consumer's judgments of new products. It has been defined as the combination of consequences and the probabilistic belief of what may occur if a purchase is made (Campbell and Goodstein, 2001; Dowling and Staelin, 1994; Mandel, 2003). To illustrate, consider the purchase of newly launched laundry detergent. The perceived risk associated with the purchase arises because the consumer does not know how the laundry detergent will perform and is worried that his clothes will not be as clean as expected or may even be damaged. In this case, consumer's concern is mostly due to the perceived performance risk which refers to how uncertain the consumer is about the product's ability to perform its intended function (Grewal, Gotlieb, and Marmorstein, 1994; Roggeveen, Grewal, and Gotlieb, 2006).

Additional to performance risk, the marketing literature suggests another four types of risk: financial, physical, psychological, and social risk (Jacoby and Kaplan, 1972). Financial risk is related to consumer's monetary loss (Grewal et al., 1994). For example, when a product fails to deliver its promises, consumers lose money because either they

have to fix or replace the product with a more satisfactory alternative (Roselius, 1971). Physical risk concerns the confidence that consumers have on the product's safety. It is about how safe products are to consumers' health. Lastly, psychological risk is about how the individual perceives himself or how well the product fits with one's self-image or self-concept. In contrast, social risk refers to the consumer's perception of how others will react to his purchase (Jacoby and Kaplan, 1972). Although these five dimensions of risk interact with each other constantly (e.g. buying an expensive wine may reduce social risk but increase financial risk), research has shown that overall risk is best explained by two most salient risk facets: performance risk and financial risk (Kaplan, Szybillo, and Jacoby, 1974).

An underlying assumption in the risk literature is that people are averse to risk most of the time and that they prefer less risky products over more risky ones (Dowling, 1986; Kahneman and Tversky, 1979). It is suggested that the greater the uncertainty level, the higher the risk associated, the less favourable the evaluation of a new product (Bearden and Shimp, 1982). Thus, the study of risk reliever mechanisms can help firms increase marketing efficiency by channelling resources into strategies which consumers find more useful (Mitchell, 1999). In this sense, a large body of literature has examined the different risk reduction mechanisms in consumer decision making (e.g. Bearden and Shimp, 1982; Gürhan-Canli and Batra, 2004; Montgomery and Wernerfelt, 1992).

For example, Ostrom and Cummings (1998) examined the impact of service guarantees on consumers' evaluations. They found that service guarantees can reduce uncertainty associated with a negative outcome (performance risk) and that greater variance in service quality leads to greater perceived risk. Shimp and Bearden (1982) examined warranty effects on financial and performance risk and found that only high

warranty quality lead to lower perceived risk while the effect of a moderate warranty quality on perceived risk was no different from a poor or nonexistent warranty. Lei et al. (2008) found that consumers perceive higher risks in upscale compared to downscale extensions and that this effect on extension evaluations is moderated by risk relievers such as service guarantee and consumers' prior knowledge in the service category. Roselius (1971) examined 11 risk reliever types and found that brand loyalty and strong brand name evoked the most consistently favourable responses to reduce risk perception.

Building on this finding, Montgomery and Wernerfelt (1992) develop a theory portraying branding as a risk reduction mechanism. They show that firms can use umbrella branding as an effective risk reliever. Signalling theory (Wernerfelt, 1988) suggests that consumers hold lower risk perceptions towards new products of a well-known brand because: (1) consumers are generally uncertain about product quality, and (2) consumers tend to believe that a new extension product of a high-quality brand is likely to be of high quality as well. In essence, it is suggested that low variance in product quality leads to lower level of perceived risk. Consistent with this notion, Erdem and Swait (1998) argue that a brand signal should be clear and credible in order to increase expected utility by reducing information costs and risk perceptions. One key dimension of signal clarity is its consistency – that is, the company's ability to consistently deliver its marketing messages, brand positioning, and a low variation of brand attributes over time.

According to the brand extension literature, the ability of an established brand to reduce risk is a function of the consumer's confidence in generalizing parent brand beliefs to the new product. This transfer of affect, in turn, is a function of the perceived fit between parent brand and extension (e.g. Volckner and Sattler, 2006). The notion that perceived fit is an important risk reliever in consumer judgment of new extension products

is not new. For example, Smith and Andrews (1995) show that there is a positive relationship between perceived fit and consumer certainty in a firm's ability to provide a new industrial product. They argue that greater perceived fit leads consumers to be more confident about new brand offerings. In contrast, when companies deviate too far from their normal domain of expertise, consumers tend to be more sceptical of extensions leading to increasing levels of perceived risk (Smith and Park, 1992). Consistent with this notion is the finding that consumers experience higher performance risk and financial risk in upscale extensions compared to downscale extensions (Lei et al., 2008). As stated previously, upscale extensions signal consumers a change in brand expertise while downscale extensions do not.

Furthermore, DelVecchio and Smith (2005) examined whether brand extension price premiums are a function of the brand's ability to reduce risk perception. Results suggest that financial risk has a positive effect on willingness to pay premium prices, but no differences in willingness to pay were found for different levels of performance risk. Additionally, perceived fit becomes more important as financial risk increases, but the effect of perceived fit on willingness to pay premium prices is only evident when financial risk is high but not when it is low. In accord with the latter, research on product incongruity evaluations suggest that consumers prefer similar versus dissimilar products when risks are high, but are indifferent when risks are low (Campbell and Goodstein, 2001). Drawing on these findings, it is suggested that consumer exploratory tendencies have a propensity to be restrained, leading to preference for similar over less similar options when risks are high, but not necessarily when they are low.

2.5.1 Perceived Risk Summary

In sum, risk is an important construct that is inherent of the consumer behaviour process. When shopping for goods, consumers rely on the company's signal and on the credibility of this signal to adjust uncertainty levels about the offer. Although perceived risk is a multidimensional construct, prior literature suggests that, financial and performance risk, are the dimensions that drive overall risk perception. Further, an underlying assumption of this literature is that people are averse to risk and tend to prefer lower risk options than higher risk (Dowling, 1986; Kahneman and Tversky, 1979). Under higher risk situations, consumers tend to rely on the firm's signals to reduce uncertainty. In a brand extension context, the fit between brand and extension is often a cue that is used by consumers to diminish risk. But prior research has shown, in a different context, that consumers are indifferent to how similar the new product is to the firm's offerings when risks are low (Campbell and Goodstein, 2001).

2.6 EXTENSION DIRECTION

Firms can extend their product lines in two ways: horizontally or vertically. Either way, an important distinction between brand extensions and line extensions is that the latter uses the core brand name in the new offering in the same product class as the parent brand. A horizontal line extension is the introduction of a new product at the same or similar price/quality point as the parent brand, such as Coke and Diet Coke (Pitta and Katsanis, 1995). This type of product addition is often related to flavour, colour or smell variations (Draganska and Jain, 2005a; Nijssen, 1999). On the other hand, a common strategy to capture the differential willingness to pay for quality among customers is to provide different levels of quality at different prices (Draganska and Jain, 2005a). In this sense, vertical line extension is the introduction of a new product under the same brand

name at a different point of price and quality (Kim and Lavack, 1996), such as Intel Pentium and Intel Celeron or Giorgio Armani and Armani Exchange. There are two directions which companies can use vertical line extensions to stretch their portfolio: upscale or downscale. Upscale extensions are introduced at a higher price/quality point compared to the parent brand current offerings. In contrast, downscale extensions refer to the introduction of a new product at a lower price/quality point compared to the parent brand current offerings (Kim and Lavack, 1996; Kim et al., 2001).

To date, very few studies have examined the role of extension direction on consumer extension evaluations. The first papers to specifically address the vertical line extension topic were mostly conceptual (Aaker, 1997; Kim and Lavack, 1996; Pitta and Katsanis, 1995) but the idea that the extension direction played an important role in consumer evaluations was somewhat recognized. The work of Randall et al. (1998) was amongst the first to examine moderating effects of extension directions on brand value. According to the authors, upscale and downscale extensions have different effects on the parent brand valuation. In particular, high-end models (or premium designs) can contribute to an image of prestige and exclusivity as they create consumer beliefs that the brand possesses strong design and production capabilities. Thus, consumers may believe that such capabilities are likely to result in high product performance even for the non-premium models in the product line. Conversely, low-end products in the line may raise questions in the consumers mind about the possibility that some of the lesser-quality components are also used in the high-end products.

In a different context, Lei et al. (2008), examined the effect of extension direction on consumers judgments of vertical service line extensions. They found that consumers perceived risk tend to be higher for upscale than downscale extensions and that the

extension's direction has a positive effect on the parent brand evaluations. In particular, the feedback effect on the parent brand tend to be more positive for upscale compared to downscale extensions, and this effect tends to be stronger for more similar compared to less similar extensions. Additionally, Kirmani et al. (1999) examine the role of product ownership on consumer evaluations of vertical extensions. They found that the ownership effect occurs for both directions (up and down) of the extension for non-prestige brands but not for prestige brands, that an effect is present only when an upscale extension is introduced. Similarly, Heath et al. (2011) show that upscale (higher-quality) extensions typically produce positive effects while downscale (lower-quality) extensions produce positive effects or no effect on the parent brand attitudes due to its increase in portfolio. This is consistent with research that has shown that offering greater variety at the same quality level affects positively the parent brand (Berger, Draganska, and Simonson, 2007).

Taken together, prior literature in the vertical line extension context suggests that the extension direction is a moderator that influences how consumers perceive a new extension product. Specifically, it has been proposed in the literature that the direction of the extension moderates the brand's image perception (Randall et al., 1998), perceived risk (Lei et al., 2008), and brand evaluation (Heath et al., 2011). However, to date literature is blind to how the extension direction moderates the fit-extension relationship in the vertical line extension context.

2.7 CHAPTER SUMMARY

This chapter provided an overview of the literature from each of the variables identified in the conceptual model. The concept of perceived fit, which refers to how similar the parent brand is to its extension, was defined according to a feature-based similarity perspective that uses categorization theory as foundation for its model.

Historically, the literature has presented three different views of how individuals represent categories: (1) the classical view, (2) the prototype view, and (3) the exemplar view.

Although most literature in the brand extension context and in the reference price literature adopted prototypical models, recent research has shown that theories based on exemplar models provide a better account of actual behaviour. In other words, literature has shown that when using a reference to make judgments of focal stimuli, consumers may use not a single averaged piece of information but rather more complex information processing that includes all contextual prices.

Moreover, firm expertise was defined as the company's ability to deliver its promise. Signalling branding theory suggests that consumer perceptions of a brand's expertise refers to the signals that brands send to consumers about their capability of production. One such cue is represented by the company's highest price/quality in the product line. Although organizational studies suggest that the firm's expertise is often higher than what they produce, consumers can judge the company's ability only based on what they see or experience. Lastly, this chapter provided an overview of consumers' perceptions of risk and how it mediates the effect of fit on extension evaluations. Finally, this chapter reviewed the importance of the extension direction in vertical extensions and how it has been shown to moderate consumer evaluations of vertical extensions. The next chapter provides a rationale for hypotheses development and presents the proposed conceptual framework of this thesis along with its hypotheses.

3 RESEARCH MODEL AND HYPOTHESES

3.1 INTRODUCTION

In the previous chapter, an overview of the literature pertaining to the research questions and the variables that compose the research model was presented. The main purpose of this overview was to provide the relevant theoretical and empirical background for developing the research hypotheses. In this chapter, the research hypotheses are developed and presented in two blocks. The first set of hypotheses focuses on the moderating effects of the extension direction on the fit-extension relationship of vertical extensions. The second set of hypotheses intends to test the brand's price range as an antecedent of fit and its effects on vertical extension evaluations. First, recall the research questions that drive this thesis:

- 1) Is the effect of perceived fit on perceived risk and on extension evaluations a function of the extension direction?
- 2) Is the effect of brand expertise on perceived risk and on extension evaluations a function of the extension direction?
- 3) Do different extension directions induce different levels of perceived risk?
- 4) Do different extension directions induce different levels of favourability?
- 5) Does the parent price range influences consumers' perceptions of fit?

3.2 MODERATING EFFECT OF THE EXTENSION DIRECTION

A common finding in the brand extension literature is that extension favourability is a function of the perceived fit between the parent brand and its extension (e.g. Aaker and Keller, 1990; Park et al., 1991; Volckner and Sattler, 2006) that is mediated by perceived

risk (Milberg et al., 2010; Smith and Andrews, 1995). This assumption holds that, as fit between the parent brand and its extension increases, parent brand beliefs become more readily available, increasing consumer certainty and confidence about the new product, resulting in more positive evaluations. Similarly, as perceived fit decreases, consumer certainty and confidence about the new product's quality decreases, leading to more negative evaluations. Building on the notion that perceived fit of vertical line extensions is a function of the price/quality distance between parent brand and its extension (Heath et al., 2011; Kirmani et al., 1999; Randall et al., 1998), existing brand extension knowledge implies a positive effect of perceived fit on evaluations of vertical extensions. Hence, vertical (upscale or downscale) extensions that are closer to the parent brand in the price/quality spectrum should lead to higher favourability ratings than more distant ones.

In contrast to what the existing literature suggests, this research argues that the extension direction moderates the perceived fit effect on vertical line extension evaluations. Specifically, it is hypothesized that while for upscale extensions consumers indeed rely on perceived fit to diminish risk perceptions increasing favourability ratings, this will not be the case for downscale extensions. This research argues that this asymmetric effect occurs because of the role of perceived brand expertise. Introducing an upscale extension requires an improvement of expertise by the firm (Heath et al., 2011; Randall et al., 1998). Thus consumers rely on perceived fit to diminish rising levels of uncertainty about the company's ability to deliver higher price/quality products. Conversely, because there is no change in brand expertise associated with downscale extensions, there is a reduced perception of risk. This notion has its foundations on the assumption that the firm has shown that it is able to deliver a new product at such price/quality point because its product line has a number of examples that are higher in price and quality than the new extension product. The following sections provide the

theoretical background and theory that supports such rationale, hypotheses are stated and a hypothesized conceptual model is presented.

3.3 EXTENSION DIRECTION HYPOTHESES DEVELOPMENT

Prior research has extensively discussed how perceived fit influences new product evaluations, as set out in Chapter 2. One stream of research advocates the use of a feature-based similarity to measure fit. This perspective suggests that consumers tend to assign their parent brand attitudes to the new product most readily when the extension is perceived more similar to the parent brand in terms of shared features (Aaker and Keller, 1990; Boush and Loken, 1991). A second stream of work uses a concept consistency model suggesting that extension evaluation is a function of the shared abstract meaning or benefits between parent brand and extension. The concept-based similarity view argues that a brand may fit into another category if it is perceived to offer the benefits sought in the extended category, regardless of its category of origin (Broniarczyk and Alba, 1994; Park et al., 1991). A third view of fit suggests that consumers may consider products that have the same usage purpose as similar (e.g. L'Oreal Shampoo and L'Oreal Conditioner, Wilson tennis rackets and Wilson tennis balls). Thus, attitude and knowledge of one product may be transferred to another based on how well they fit together (Ratneshwar and Shocker, 1991). Finally, the goal-based perspective of fit holds that objects are similar as long as they share associations in memory that are organized around common goals (Martin and Stewart, 2001; Ratneshwar, Pechmann, and Shocker, 1996). Common in the literature is the finding that perceived fit is one of the main drivers of the brand extension's success (Volckner and Sattler, 2006).

Grounded on this finding, most research has examined how perceived fit can be enhanced in order to create more favourable perception towards the parent brand and the

extension. For instance, Broniarczyk and Alba (1994) show that initial perceptions of poor category fit can be overcome by linking an extension to the parent brand's image. Also, Bridges, Keller and Sood (2000) show how that the communication strategy used to introduce an extension can be used to effectively increase fit perception and strengthen the link between extension and parent brand. In a similar vein, Klink and Smith (2001) demonstrate that perceptions of fit between parent brand and extension can be enhanced by simply increasing a person's exposure to brand extensions. Further, prior research shows that this fit-extension relationship is negatively mediated by perceived risk (Milberg et al., 2010; Smith and Andrews, 1995). In sum, as fit between the parent brand and its extension increases, perceived risk decreases, leading to more favourable evaluations of the extension. Conversely, as perceived fit decreases perceived risk increases, which in turn results in less favourable evaluations of the extension.

Taken together, these findings are consistent with the prediction that perceived fit has a positive effect on extension evaluations that is mediated by perceived risk. Consistent with this prediction, Lei et al. (2008) found that the fit between extension and parent brand is influenced by their distance in the price/quality spectrum. They show that parent brand evaluations are lower when new vertical extensions are placed far compared to when they are placed closer to their parent brands. Building on this result and grounded on the feature-similarity view of fit, this research posits that the perceived fit effect on extension evaluations is moderated by the direction of the vertical extension, such that fit has an effect on evaluations of upscale extensions but not on downscale extensions.

Contrasting the common assumption that extension success is a function of perceived fit, a growing body of literature examines boundary conditions of the perceived fit effect. For example, Klink and Smith (2001) found that when consumer innovativeness

is low or when the amount of product-related information increases, the effect of fit on extension evaluations diminishes. Likewise, Kim and John (2008) showed that consumers who construe stimuli at a higher level (in terms of abstract and generalized features), place more importance on perceived fit in evaluating brand extensions. On the other hand, consumers who construe their environments at a lower level (in terms of concrete and contextualized features) are less sensitive to the level of perceived fit, evaluating moderate versus high fit extensions in a similar way. Additionally, Milberg et al. (2010) identified the moderating effect of salience and nature of competitive alternatives in the brand-extension fit relationship. In particular, they find evidence that, in competitive settings, differences in risk perceptions and extension preferences are more associated with consumers' relative brand familiarity than with fit. Extensions perform better regardless of fit when paired with relatively unfamiliar versus familiar competitors.

In summary, previous research has shown that perceived fit generally has a positive effect on extension evaluations but this effect is bounded to certain conditions demonstrated in the few available existing studies. A key difference between the present research and past literature is that this is the first to investigate the perceived fit effect on vertical extension evaluations. This thesis seeks to find out if this effect is asymmetric. More specifically, it is argued that consumers rely on perceived fit to diminish risk perceptions increasing favourability for upscale but not for downscale extensions. Additionally, because introducing an upscale extension implies that a positive change in brand expertise is required, perceived fit is evoked to diminish increases of uncertainty in upscale but not downscale scenarios. Conversely, because there is no change in brand expertise for downscale extensions, perceived risk is naturally lower and in turn consumers do not need to reduce risk perception once the company has shown the ability to produce a new product at such price/quality level. Therefore, the following hypotheses are stated:

H₁: The effect of fit on extension evaluations is moderated by the extension direction and mediated by perceived risk.

H_{1a}: For upscale extensions, the higher the fit between parent brand and extension, the lower the perceived risk, and the higher the consumer favourability towards the extension.

H_{1b}: For downscale extensions, fit has no effect on perceptions of risk and as consequence it does not influence extension evaluations.

The next section builds on concept of brand expertise to explain how it affects perceived risk and in turn, extension evaluations.

3.4 BRAND EXPERTISE HYPOTHESES DEVELOPMENT

The notion that the direction of vertical line extensions moderates the effect of perceived fit on extension evaluation has support on two important constructs that are central to consumer judgments: brand expertise and perceived risk. The concept of expertise has received attention from researchers across a range of disciplines (e.g. management, economics, psychology and marketing). From the firm's perspective, expertise is the firm's understanding of the skills associated with a particular component, including design, production, and marketing knowledge, as well as other skills related to the making of a good or service that makes it possible for the brand to deliver its promise (Conner and Prahalad, 1996; Erdem and Swait, 1998, 2004; Parmigiani and Mitchell, 2009; Wernerfelt, 1984).

In a product line, the highest-end model often signals brand expertise (Heath et al., 2011; Randall et al., 1998). The introduction of upscale extensions results in higher consumer uncertainty and perceived risk because consumers recognize that an increase in brand expertise is required. Consequently, consumers may be sceptical about the brand's

competence and ability to deliver the tangible and intangible benefits of a more upscale market than the one it previously served. The further it stretches, the more sceptical consumers are. A common assumption in the literature is that acquiring expertise demands a significant amount of time, research-and-development efforts, and accurate performance-related feedback (Dane, 2010; Ericsson et al., 2007; Helfat and Raubitschek, 2000). Thus, this research argues that great required improvements of brand expertise will lead to higher levels of uncertainty and perceived risk resulting in more negative product evaluations. In particular, it is proposed that for upscale extensions, perceived fit will be used as a cue to diminish risk perceptions. Compared to distant extensions, close extensions will be perceived as more similar, resulting in more favourable evaluations. This is consistent with the notion that the greater the uncertainty level, the higher the risk associated and the less favourable the evaluation of a new product (Bearden and Shimp, 1982).

Contrariwise, a downscale extension does not require brand expertise change because the status quo of the brand's highest-end price is unchanged. Hence, it is only reasonable to assume that levels of consumer uncertainty about the firm's offering have also remained the same. Thus, downscale extensions should yield lower uncertainty and perceived risk than upscale extensions. Consistent with this reasoning, research in vertical service line extensions (Lei et al., 2008) shows that consumers experience higher perceived risk in upscale compared to downscale extensions. Further, in a downscale scenario, the firm's challenge is lowering cost/price. Although lower quality is a possible consequence, it is often not the goal of moving downwards. In this case, consumers may be doubtful that a high quality brand would produce a lower priced product. However, once the product is a market reality, consumers should experience low levels of uncertainty since there should be no doubt whether the company has the necessary expertise to produce a product at such price/quality point. In fact, favourability towards the downscale extension may increase

due to anchor and adjustment effects (Kim et al., 2001) and assortment size effects (Heath et al., 2011).

Because consumers tend to prefer similar versus dissimilar products when risks are high but are indifferent when risks are low (Campbell and Goodstein, 2001), it is suggested that in a downscale extension scenario, the perceived fit effect on the extension's evaluation is topped by the brand expertise effect. In other words, when moving downscale, consumers would not question the company's ability to deliver the product once it has shown the necessary expertise to do so. Since perceptions of risk are low and no different before and after a downscale extension is introduced, consumers do not need a risk reduction mechanism such as the fit between parent brand and extension to form their judgments about the new product. To formalize, the following hypotheses are stated:

H₂: The effect of brand expertise on extension evaluations is moderated by the extension direction and mediated by perceived risk.

H_{2a}: For upscale extensions, brand expertise has no effect on perceptions of risk and as consequence it does not influence extension evaluations.

H_{2b}: For downscale extensions, brand expertise is used as cue to reduce perceived risk, and as consequence influences consumer favourability towards the extension regardless of fit.

H₃: Perceived risk is moderated by the extension direction such that it is higher for upscale extensions compared to downscale extensions.

In sum, this research argues that when evaluating an upscale extension, consumers will question the company's ability to make higher price/quality products, relying on perceived fit to diminish risk perceptions, which in turn increases extension favourability. In contrast, when evaluating downscale extensions, it is reasoned that because consumers

do not question the company's competence in producing a lower price/quality product, brand expertise is more readily available and is primarily evoked to form judgments about the new product. This leads consumer evaluations of downscale extensions to be similar regardless of its price/quality distance from the parent brand.

3.5 THE PARENT BRAND PRICE RANGE EFFECT

Brand extension literature has relied extensively on the concept of fit or similarity between parent brand and extension as means of explaining extension success. As explained in Chapter 2, one stream of research has taken a feature-based similarity approach (Tversky, 1977) to measure fit. This perspective has been criticized because in a category extensions context it is implied that an extension product is placed in different product category than its parent brand, whose physical features are not comparable (Martin and Stewart, 2001). However, in a vertical line extension context, the parent brand and its extension belong to the same product category. For that reason, parent brand and extension share many features, if not most. Consistent with previous research (e.g. Randall et al., 1998), this thesis utilizes a feature-based similarity perspective to measure fit. One feature that consumers use to make judgments about the extension's similarity to the parent brand is price. According to the marketing literature, price judgment is a context dependent construct. The reference price literature has shown that price perception is influenced by context (Rajendran and Tellis, 1994), consumer's goals (Cunha and Shulman, 2011), and its framing (Coulter, Choi, and Monroe, 2011; DeVecchio, 2007). Based on the notion that price perception is influenced by how prices are framed, this research argues that the brand's vertical price structure has an important influence on consumers' judgments of the extension's similarity towards the parent brand, which in turn influence extension evaluations.

Research on the relationship between the vertical structure of the product line and a new product introduction is scarce. The few existing available studies focuses mostly on the effects that a vertical product extension may have on the brand's value or image. For example, Randall et al. (1998) have shown that brand value is a function of a brand's market position and its end-prices. For a brand's product line placed at the lower quality segments of the market, price premium (used as proxy for brand equity) is positively correlated with the quality of the highest quality model in the line. At the other end, it is the quality of the lowest quality model in the brand's product line that matters for the upper quality segments. Additionally, Hamilton and Chernev (2010) show that the impact of vertical extensions on price image is moderated by consumer goals such that when consumers have a browsing goal, upscale extensions lead to higher price images and downscale extensions lead to lower price images. However, results can be reversed when consumers have a buying goal. More recently, Heath et al. (2011) show that higher-quality extensions typically produce positive effects while lower-quality extensions are associated with two primary underlying processes: (1) opponent processes produced by lower-quality extensions whose negative quality-association effects are tempered by the positive effects of larger assortment and (2) best-of-brand processing, in which lower-quality extensions produce no effect. To this point, literature is unsighted to the extent a brand's vertical price structure influences consumer evaluations of vertical line extensions.

Reference price literature has used widely adaptation-level theory (Helson, 1947), which asserts that all relevant price information is integrated into a single prototype value which consumers use as reference when making price judgments (Mazumdar et al., 2005). Additionally, based on categorization theory and prototypical models, brand extension literature (e.g. Aaker and Keller, 1990; Broniarczyk and Alba, 1994; Park et al., 1991) suggests that fit has a positive effect on judgments of category extensions. Taken together,

this line of thought in a vertical extensions context would lead to the prediction that the parent brand price average has a positive effect on judgments of vertical extensions such that upscale extensions are better evaluated if made by brands with higher (vs. lower) price averages. In contrast, downscale extensions should be better evaluated if made by brands with lower (vs. higher) price averages.

In contrast, this research draws on range theory (Volkman, 1951) to question consumers' reliance on a single anchor when making judgments of vertical extensions. In particular, it is argued that consumers rely on the parent brand width of prices rather than on the a single price anchor such that parent brands with lower price averages can lead to better evaluations of upscale extensions. Moreover, this research hypothesizes that fit is a function of the perceived price distance which is influenced by the parent brand price range such that wider price ranges lead to perceptions of higher proximity between brand and extension resulting in better evaluations. The next section summarizes the literature background that was presented in Chapter 2 and develops the arguments that lead to the proposed hypotheses.

3.6 BACKGROUND AND HYPOTHESES DEVELOPMENT

A common explanation of how consumers use reference prices is based on adaptation-level theory (Helson, 1947) which has been often used in the brand extension literature (Aaker and Keller, 1990; Boush and Loken, 1991; Dacin and Smith, 1994; Kim et al., 2001; Kirmani et al., 1999). Based on prototypical models, adaptation-level theory states that stimulus values are judged within a frame of reference. In a price perception context, it suggests that all relevant price information is integrated into a single prototype value and used in consumer judgments of price (Mazumdar et al., 2005). In a vertical line

extension context, this notion states that consumer evaluations of vertical extensions are based on a single anchor that is formed by an averaging process of parent brand prices.

In contrast, this research draws upon the range theory (Volkman, 1951) to show that consumer evaluations of vertical extensions is more consistent with the representation of categories based on exemplar models, which posits that the category is represented by all prices in the contextual set rather than a single value (Niedrich et al., 2001). This thesis is consistent with prior literature that has questioned the assumption that consumer assessment of prices is based on a single anchor (Janiszewski and Lichtenstein, 1999; Mellers and Cooke, 1994; Niedrich et al., 2001; Niedrich et al., 2009; Yeung and Soman, 2005). Common to this research stream is the finding that reference price ranges influence consumer evaluations of the new focal price.

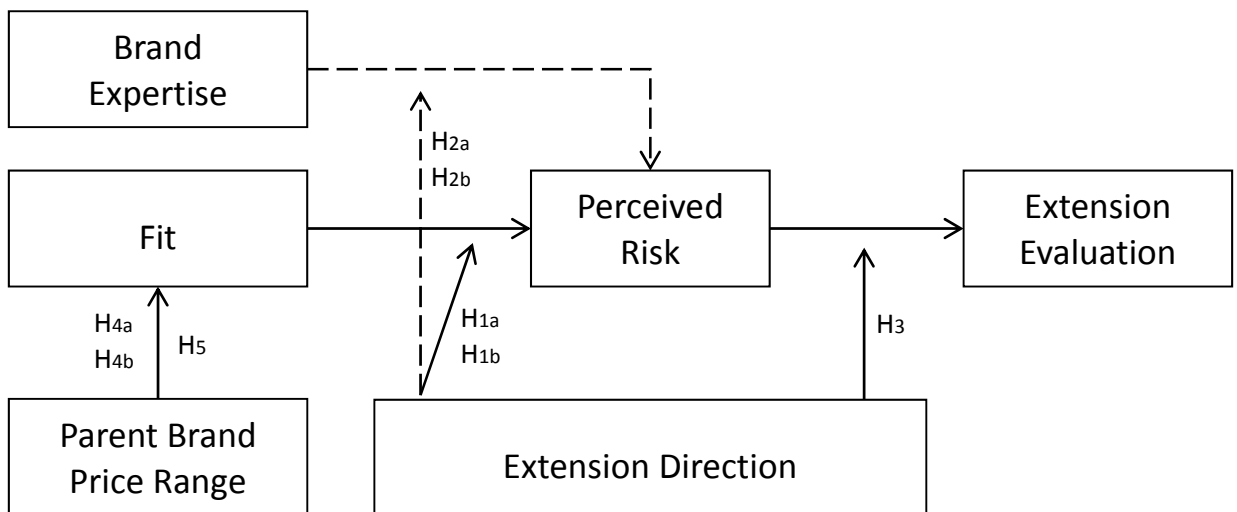
Building on this literature, this research investigates whether the parent brand price range explain additional variability in perceptions of vertical extensions. In particular, it is argued that the parent brand price range affects consumer perceptions of fit. Compared to a narrow price structure, wide price ranges lead to perceptions of higher similarity between parent brand and extension which in turn increases consumer favourability towards the new product. Consistent with the first set of hypotheses, an effect is expected be to found in upscale extensions but not in downscale extensions. To formalize, the hypotheses are stated as follow:

H_{4a} (ALT): According to adaptation-level theory, consumers compare the new upscale extension price against the price mean of the parent brand regardless of its price width. Thus, the higher the parent brand's mean, the better the fit and the evaluation of the new upscale extension.

H_{4b} (RT): According to range theory, consumers compare the new upscale extension price against the two prices that define the parent brand price range. Thus, upscale extensions of parent brands with wide compared to narrow price structures are deemed more similar to their parent brand leading to higher ratings of extension favourability regardless of the parent brand price mean.

H₅: Downscale extensions of parent brands are deemed equally similar to their parent brand regardless of its price width or mean. In turn, the parent brand price width or mean has no effect on downscale extension evaluations.

Figure 4 – Conceptual Model with Hypotheses



3.7 CONCEPTUAL MODEL

The main purpose of this thesis is to examine the moderating effect of the extension direction on consumer evaluations of vertical extensions. Moreover, it aims to provide not only the evidence for such effect, but also an explanation that reasons the existence of such effect. Finally, it also examines and tests the parent brand price range as an antecedent of

perceived fit from a feature-based similarity perspective. Figure 2 shows the hypothesized effects of perceived fit on extension evaluations and the interactions that influence these effects.

3.8 CHAPTER SUMMARY

In the present chapter, the research hypotheses related to the cause and effect relationships specified in the research model were proposed. The first set of hypotheses (H1a, H1b, H2a, H2b, and H3) addresses the asymmetrical effect of fit on the extension evaluation. The asymmetry suggested here is a consequence of the moderating effect of the extension direction on the two proposed independent variables, namely fit and brand expertise. It is proposed that for upscale extensions, fit is used as a risk reduction mechanism while brand expertise plays that part for downscale extensions. The second set of hypotheses (H4a, H4b, and H5) addresses the parent brand vertical price structure as an antecedent of fit which in turn influences vertical extension evaluations. In particular, it is suggested that the parent brand price range rather than its mean influences consumer perceptions of the new extension product. Also, because fit has no effect in downscale scenarios, judgments of the new downscale extension are made regardless of the parent brand price mean or width. In contrast, upscale extensions derived from parent brands with wide price portfolios tend to be more similar and thus, better evaluated than those derived from brand with a narrow vertical price structure. To justify the developed hypotheses, a review of the literature was provided and the theories that supported our hypothesis and rationale were presented. The next chapter presents in detail the research design used to test our research model and specific hypotheses.

4 RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

One of the most important stages of theory construction is the test of hypotheses that validates proposed links and relationships. This chapter details the research methodology and design used to test the conceptual model shown in the previous chapter. It starts with the description of the research approach and the research method. Then, it shows how the different sections of the questionnaires used for data collection were constructed. Specifically, the research methodology and research instruments related to the first set of hypotheses (H1a, H1b, H2a, H2b, and H3) and the second set of hypotheses (H4a, H4b, and H5) are explained separately. Finally, data analysis techniques deployed to test research hypotheses are explained.

4.2 RESEARCH APPROACH

The approach or the nature of a study can be categorized into three main types: exploratory research, descriptive, or causal research (Sekaran, 2006). Exploratory research seeks mostly to gain insights about the general nature of the problem while descriptive research focuses on describing a phenomenon, which in marketing usually concerns with consumers characteristics and behaviour in the market place (Aaker, Kumar, and Day, 2007). In contrast, this thesis adopts a causal research approach. This type of research approach intends to show that one variable causes or determines the values of other variables. It focuses not only in affirming the existence of relationships but also in understanding why and how these relationships happen. Causality is usually represented by the expression: 'X causes Y'. However, a certainty of causation implied at this level

rarely exists in the marketing context. At best, one can infer causal relationships as: ‘X is likely to cause Y’ (Patzer, 1996).

In order to make such an inference, there must be a reasonable proof that one variable precedes the other and that there are no other causal factors that can explain the relationship (Aaker et al., 2007). Specifically, a causal relationship exists if the relationship between two variables satisfy the following conditions: (1) the cause precedes the effect, (2) the cause was related to the effect, and (3) there is no other plausible alternative explanation for the effect other than the cause (Malhotra, 2012; Patzer, 1996; Shadish, Cook, and Campbell, 2002). Experimentation is the main method of conducting causal research (Aaker et al., 2007; Campbell and Stanley, 1966; Malhotra, Hall, Shaw, and Oppenheim, 2008). In fact, no other scientific method regularly matches the characteristics of causal relationships so well. First, experiments manipulate the hypothesized cause and observe the outcome afterward therefore fulfilling the time sequence requirement. Second, the researcher observes whether the variation in the cause is related to variation in the effect. Finally, experiments use many different methods to reduce and rule out the plausibility of other explanations for the effects. These three characteristics mirror the three defining characteristics of a causal relationship (Shadish et al., 2002).

At the same time that causal research seeks to understand the effects of independent variable(s) have on dependent variable(s), it can be a very complex and time-consuming exercise. This is because an experiment is a “sophisticated version of trial and error, or plan-act-evaluate cycles of behaviour” (Oppewal, 2011, p. 163). According to Aronson (1990), there a few advantages in the use of experimental research to study causal relationships. First, rather than searching for naturally occurring situations, the experimenter creates the conditions necessary for observations and controls the conditions

under which studies are conducted. The experimenter also has the power to decide which individuals will be exposed to which conditions. By using a random assignment of respondents, it is possible to create two or more groups of units that are probabilistically similar to each other on the average. Thus, any outcome differences that are observed between those groups are likely to be due to the treatment they were exposed to (Leary, 2008; Shadish et al., 2002). The use of experimental research has also some disadvantages that are most often outweighed by the benefits of experimentation. First, they are time consuming and difficult to design. Second, alternative explanations must be eliminated, and stimulus materials and dependent measures must be carefully selected or developed. Lastly, experiments (more specifically lab experiments) are usually far removed from the real-life phenomena in which the experimenter is supposedly interested (Aronson, 1990).

In an experimental research design, the “*cause*” (X) is often called the independent variable (IV) that researchers manipulate intentionally in order to understand under what circumstances effects occur on the dependent variable (Y), also called the “*effect*” (Myers and Hansen, 2006). It is an independent variable (IV) in the sense that its variations are created by the experiment that defines its values. The dependent variables (DVs), on the other hand, measure how conditions have changed after an IV is introduced (Campbell and Stanley, 1966; Hair, Bush, and Ortinau, 2009). It is the numerical measured used for purpose of analysis relative to an IV (Patzner, 1996). In order to determine a causal relationship between IVs and DVs, researchers have the challenge of controlling every possible external factor that has also an influence or a causal relationship with the dependent variable. Control variables are other independent variables that could have causal relationships in the proposed relationship and rather than a true causal relationship, the researcher would be facing a mere spurious relationship (Oppewal, 2011). The control of extraneous variables effects on the DV is one of the main reasons that makes results of

experimental designs a more convincing evidence of causal relationships than exploratory or descriptive designs (Churchill and Iacobucci, 2005).

Considering the preceding descriptions, the research approach adopted in the present thesis can be categorized as causal research and the research method used is experimental research. In the context of vertical line extensions, it is suggested that consumers use parent brand knowledge and beliefs to make judgments about a new extension product. This implies that information about the parent brand (X) affects how consumers perceive the new product (Y). In this fashion, it is argued that parent brand attributes such as the vertical price range and the parent brand current price position (lower than the extension for upscale scenarios vs. higher than the extension for downscale scenarios) are independent variables that affect extension evaluations (dependent variable).

4.3 RESEARCH METHOD

As mentioned previously, experimental research is the best way to investigate a causal relationship between two variables (Aaker et al., 2007; 1966; Malhotra et al., 2008). Specifically, an experiment is a study in which the researcher manipulates and controls one or more independent variables and then observes the effects of the manipulated variables on one (or more) dependent variables, while controlling for the influence of extraneous variables (Aronson, 1990; Oppewal, 2010). The following paragraphs details the common features of experiments and the terminologies typically applied in experimental research.

4.3.1 Experiment Setting

Traditionally, in behavioural sciences, there are two broad categories of experiment settings: laboratory experiments and field experiments. Field experiments tend to be more realistic and may represent the real world better than laboratory studies. Additionally, they

exhibit greater external validity producing results that can be generalized to a wider population (Churchill and Iacobucci, 2005). Despite its advantages, field studies can be very expensive, difficult to control for alternative explanations of the effect, and demand great effort from researchers. Because this thesis context is about the introduction of a new line extension product, cost of creating a field experiment can get above one's optimistic expectative. Alternatively, laboratory studies represent a good option to research investigate causal relationships. In this type of research study, the experimenter is able to minimize the variance of the extraneous variables. This is achieved by conducting the experiment in an isolated physical situation by manipulating independent variables under rigorously specified, operational, and controlled conditions. There are two main advantages in this type of setting: (1) typically they exhibit great internal validity since settings are created, controlled and manipulated by researchers and (2) they are less expensive to conduct (Campbell and Stanley, 1966).

Recently, a new experimental setting called web experiments have been used in behavioural sciences with increasing frequency. The term "web experiment" was created to underline this method's categorical distinctiveness from laboratory and field experiments. This type of setting has been used since 1995 in psychology (for a review see Birnbaum, 2000) and more recently in marketing studies (e.g. Coulter et al., 2011; Palmeira, 2011). According to Birnbaum (2000), web experiments provide possible solutions to the typical theoretical and practical disadvantages of field and lab experiments. In particular, lab and field experiments tend to have low generalizability because of the small number of participants (which reduces statistical power) and the limited sample population (mainly students from psychology and business courses). Web experiments on the other hand, can easily attract many demographics and because of its low costs, the experimenter is also able to collect more data by increasing sample sizes. Additionally, a common criticism to

lab experiments is its low external validity. In highly controlled situations, people might produce results that cannot be transferred to their behaviour since participants often find themselves in an artificial and unfamiliar atmosphere that they personally do not relate to (Martin, 2007). While the dependence on a technical interface may limit external validity of web experiments, the wide array of situations that allow access increases external validity. Web experiments reduce costs and run around the clock allowing for multiple simultaneous accesses by a large number of participants (Birnbbaum, 2000).

Despite its advantages, web experiments may have also some disadvantages. One potential issue is whether web experiments have the desired control of the experimental situation. Much of the situation cannot be controlled in web experiments. For instance, the environment in which respondents answer to the experimental manipulations may differ within treatment condition groups and affect final results. Because respondents most often answer to these experiments from home (86%) and alone (73%), they also do other activities simultaneously, like watching TV or listening to music (Chandler, Mueller, and Paolacci, 2012). However, this can also be considered an advantage as respondents are in a more natural setting to them and they may behave more naturally while in an experiment. Moreover, web experiment platforms such as the Amazon Mechanical Turk, allows the experiment to control for cultural diversity, time, and other important variables that could affect the internal and external validities of a web experiment (Paolacci, Chandler, and Ipeirotis, 2010). Taken together, these challenges require more preparation and rigor from experiments (Birnbbaum, 2000).

In many disciplines (e.g. marketing, economics, political sciences), Amazon Mechanical Turk or simply MTurk has been widely used as a source of experimental data. The unfamiliarity with online labour markets characteristics, how they work, and

uncertainty about participants' demographics together form a major concern about data quality from this source. Nonetheless, Paolacci et al. (2010) have shown that only a small percentage (13.8%) of workers consider MTurk to be their primary source of income. Further, only very few prolific workers devote a significant amount of time and effort that in some cases generate an income more than \$1000/month. In general, according to Paolacci et al.(2010) U.S. MTurk workers are closer to the American population as a whole than subjects recruited from traditional university subject pools. Moreover, comparative studies (e.g. Berinsky, Huber, Lenz, and Alvarez, 2012 ; Chandler et al., 2012) have found no difference in the use of MTurk and other sources of experimental data.

A potential threat to the internal validity that web experimenters face is the possibility of multiple submissions by the same respondent (Reips, 2001). Duplicate responses are of concern not only because they violate assumptions of statistical independence but also because familiarity with an experimental manipulation influence participant responses (Patzer, 1996; Shadish et al., 2002). However, Chandler et al. (2012) demonstrates that differently than traditional web-based recruiting that relies on identifying duplicate participants by filtering duplicate IP addresses (which does not excludes participants from the same household and misses duplicate respondents who have different IP addresses at different times), MTurk can make it more difficult for workers to complete a task twice based on their WorkerID, which is unique to individual workers and linked to a credit card.

Another concern to experimenters is relative to recruiting strategies, namely selection bias. Self-selection bias is when a respondent decides entirely by themselves whether or not to participate in a study. In turn, this would lead to a lower

representativeness of the entire population (Lavrakas, 2008). The problem with self-selected bias appears when a respondent chooses to participate in an experiment that is of his/her interest, thus participants' responses may be a result of prior behaviours and attitudes that they carry rather than the manipulation conditions of the experiment. However, the factors that lead people to join the MTurk workforce are frequently centred on earning money, killing time (Paolacci et al., 2010), and task length (Chandler et al., 2012) rather than the respondents' interest in the topic.

To summarize, the use of web experiments, specifically MTurk, has been largely adopted not only in the marketing discipline but also in other behavioural research areas. This choice is not only based on the financial benefits that MTurk provides to researchers but also to its ability to reduce or eliminate many of the threats to external and internal validity that experiments face when using a web experimental setting. The hypotheses proposed in this thesis are tested in such experimental environment and platform. Just as field and lab experiments, the web experiments used in this thesis focuses in the manipulation of the proposed causes and the observation of changes in the dependent variables. Thus, in the following sections the variables that compose each study are discussed in more detail, along with its values and measures. In particular, the manipulations of the independent variables, measurement and scaling of the dependent and mediating variables are explained in more detailed.

4.3.2 Variables of Interest in Experiments

Independent Variables. According to the literature (Aaker et al., 2007; Aronson, 1990; Malhotra et al., 2008; Shadish et al., 2002), independent variables are those that cause an effect or change on the dependent variables. In an experiment, these variables are the ones that the researcher manipulates or use as a treatment variable to observe whether it

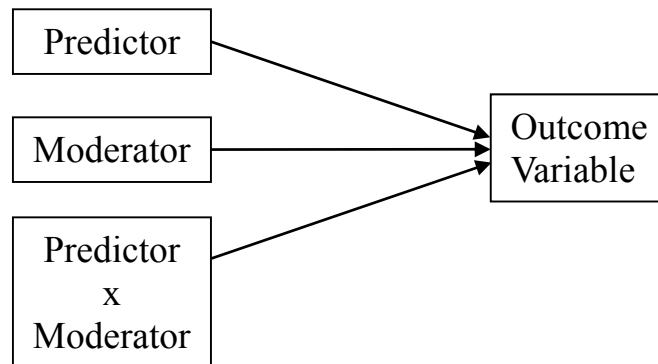
causes a change in the dependent variable. It is named independent variable because its variation is controlled by the experimenter and independent of all other causative influences. The independent variable must have at least two values or levels that represent the minimum of two different treatment conditions required in an experiment (Leary, 2008).

Moderating Variables. Moderation describes a situation in which the effect of the predictor on the dependent variable varies as a function of some third variable (Hayes, 2009). As defined by Baron and Kenny (1986, p. 1174), a moderator is a “qualitative or quantitative variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable”. The moderator effect can be represented in an analysis of variance (ANOVA) simply by the interaction between a focal independent variable and a factor that determines the conditions for its effect on the dependent variable. It can help the understanding of how a process operates when a moderator places constraints on how or when that process can function. A moderating effect is said to occur if the process is substantially reduced or reversed (Baron and Kenny, 1986; Hayes, 2009). For example, Hamilton and Chernev (2010) found that perceptions of store price image were reversed depending on consumer goals (browsing vs. buying). Also, Milberg et al.(2010), found that the effect of fit on brand extension evaluations became neutral when comparing competitive versus non-competitive settings.

The moderator model presented on Figure 3 shows three causal paths that feed into the outcome variable: the predictor (a), the moderator (b), and the interaction between predictor and moderator (c). Moderation is found when the interaction (path c) is significant. Although main effects of both predictor and moderator are a possibility, they are not directly relevant when testing a moderating effect hypothesis. An important

property of the moderator variable is that it stands at the same level as the causal variables. That is, moderator variables function as independent variables.

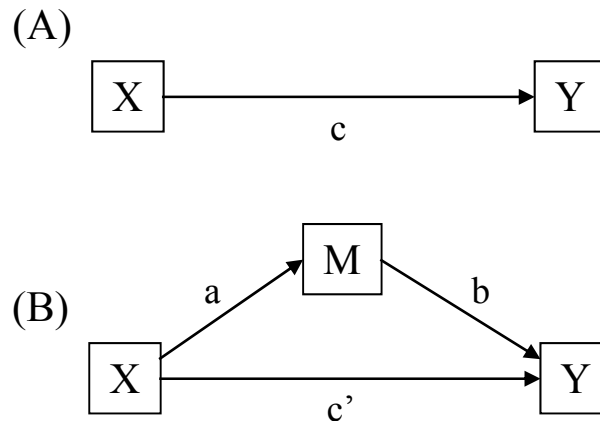
Figure 5 – Moderator Model



Source: Baron and Kenny (1986, p. 1174)

Mediating Variables. Experimental researchers have a particular interest on the study of the process by which some variables exert influences on others through some third variable (Preacher and Hayes, 2008). In psychology, the process is often termed *mediation*, in sociology it is named *indirect effect*, and in epidemiology, it is termed the *surrogate or intermediate endpoint effect* (MacKinnon, Lockwood, Hoffman, West, and Sheets, 2002). The study of mediating or intervening variables allows a better understanding of how and why cause-effect relationships occur. In contrast to moderators, mediating variables shift roles from being an effect to become the cause (Baron and Kenny, 1986).

Figure 6 – Simple Mediation Model.



NOTE – (A) Illustration of a direct effect. X affects Y. (B) Illustration of a simple mediation design. X is hypothesized to exert an indirect effect on Y through M (Preacher and Hayes, 2008, p. 880).

Figure 4A shows a simple causal model where *path c* represents the effect of X on Y. Figure 4B, on the other hand, depicts a simple mediation model showing how X affects Y through the mediator M. *Path a* represents the effect of X on the proposed mediator M, whereas *path b* represents the effect of the mediator M on Y. *Path ab* is called the indirect path and partials out the effect of Y on X. *Path c'* represents the direct effect of X on Y. At least a dozen methods have been suggested by the literature to investigate whether or not a mediation effect occurs (see MacKinnon et al., 2002). However, until recently the marketing literature has relied mostly on the model proposed by Baron and Kenny (1986). The causal step strategy proposed by these authors, the investigator estimates the paths of the model in Figure 4 through regression or SEM analysis and assesses the extent to which several criteria are met. First, *path c* must be statistically significant. Thus, there must be a direct effect in order to establish a mediating effect. Second, *path a* and *path b* must also be statistically significant. In other words, variations of the independent variable significantly account for variations in the presumed mediator. Additionally, variations in

the presumed mediator significantly account for variations in the dependent variable. Lastly, the effect of X on Y, when controlling of *path a* and *path b*, is no longer significant. This is often called full mediation. When *path c'* is partially significant, it is said that mediation is partial (Baron and Kenny, 1986; Preacher and Hayes, 2008).

The starting point for Baron and Kenny's (1986) analysis is the existence of a significant zero-order effect of X on Y. If this relationship is not established, the mediation analysis would stop and no mediation effects could be found. Counter arguing to this criteria, Zhao, Lynch and Chen (2010) have recently proposed that an indirect only mediation is possible and a zero-order effect of X on Y to establish mediation is not needed. In their approach, *path c'* (see Figure 2) is the only total effect in which a significant *path c'* does not necessarily indicate mediation and a non-significant *c'* does not necessarily indicate a lack of mediation. The mediation effect is found when a significant indirect effect $a \times b$ is found. These authors offer a classification of mediation effects that includes three patterns consistent with mediation and two with non-mediation:

1. Complementary mediation – mediated effect ($a \times b$) and direct effect (c') both exist and point at the same direction ($a \times b \times c$ is positive).
2. Competitive mediation - mediated effect ($a \times b$) and direct effect (c') both exist and point in opposite directions ($a \times b \times c$ is negative).
3. Indirect-only mediation - mediated effect ($a \times b$) exists, but no direct effect (c').
4. Direct-only mediation – direct effect (c') exists, but no indirect effect ($a \times b$).
5. No-effect non-mediation – neither direct effect (c') nor indirect effect ($a \times b$) exists.

In sum, the model proposed by Zhao et al. (2010) expands the investigation of mediating effects in the consumer behaviour discipline by allowing researchers to establish mediation through an indirect effect only. However, the minimum condition or the first

criteria to be met in this model is whether the product of the paths $a \times b$ is statistically significant. In this matter, Sobel's (1982) test has been the most used statistical method to test for such significance. Nonetheless, recent studies (e.g. MacKinnon et al., 2002; MacKinnon, Lockwood, and Williams, 2004) that assessed many different methods in regards to their Type I error rates and statistical power have shown that the bootstrapping method outperforms both the Sobel test and the causal steps approach. Thus, the bootstrapping method proposed by Preacher and Hayes (2004, 2008) and recommended by Zhao et al. (2010) has recently been adopted in the marketing literature as the new mainstream method to test for statistical significance of mediation effects.

Dependent Variables. The variables that measure the effect of the independent variables are called dependent variables, also synonymously with effect or outcome (Aaker et al., 2007; Malhotra et al., 2008). It is called dependent because its value varies depending on the changes of the independent variable.

Taken together, the previous description of the different variable types provides a better understanding on the role that each construct plays in the proposed conceptual model shown on Figure 2. Next, the proposed independent, moderating, mediating, and dependent variables are explained in more detail.

4.3.3 Independent Variables

Perceived Fit. Represents the extent to which the new vertical extension is similar to the parent brand in terms of absolute price point distances and quality level. This view of fit does not necessarily means that a lower/higher price extension will lead to a change in the brand's image. An example would be the new line of BMW's SUVs. Although BMW X3 and BMW X1 are considered lower price and quality compared to the original BMW X5, the company's image is still the same and its intention with the new market is to

target a different consumer segment with a different product need but not necessarily a different brand image aspiration. It is important to note that a reduction in quality here is not necessarily a reduction in overall quality but in some dimensions of quality like the performance of the product.

This independent variable was manipulated and it has two treatment levels: far extension (which represents a lower similarity) and close extension (which represents a higher similarity). In Study 1, it is the extension's price point that is manipulated to create different price/quality distances between the extension and its parent brand. In studies 2 and 3, it is the parent brand price that is manipulated creating different levels of fit between the parent brand and the extension.

Parent Brand Price Range. In studies 4, 5 and 6 the parent brand price range is used as proxy for the fit manipulation. It represents how broad the parent brand product line is in terms of price variability. This variable was manipulated in two treatment levels: narrow price range (which represents a low vertical price variation) and wide price range (which represents a high vertical price variation).

4.3.4 Moderating and Mediating variables

Extension Direction. This variable is a moderating variable that represents the introduction of a higher or a lower price extension compared to the parent brand current price level. This variable was also manipulated in two treatment levels: upscale (the introduction of a higher priced product) versus downscale (the introduction of a lower priced product).

Perceived Risk. This variable mediates the effect of perceived fit and brand expertise on the extension evaluation. Because this is an intervening variable, it is only

measured and observed rather than manipulated. Previous literature suggests that perceived risk is a multidimensional construct (Jacoby and Kaplan, 1972; Kaplan et al., 1974).

However, previous literature has found that performance risk and financial risk are the two dimensions which correlate the most with overall perception of risk (Jacoby and Kaplan, 1972). These two dimensions have also been the focus of previous research that investigated perceptions of risk in the vertical line service extension context (Lei et al., 2008). In accord, the current thesis will measure perceived risk based on two dimensions: financial risk and performance risk. The test of the proposed risk mediation hypotheses will be conducted in studies 1, 2, and 6.

4.3.5 Dependent Variables

Extension Evaluation and Choice. These are the dependent variables or the effects that this thesis will observe. Extension evaluation is a well-established construct in the literature and its measurement consists of two dimensions: favourability and willingness to buy/choice. Favourability is a bi-dimensional construct that includes a measure that asks participants to rate their favourability and liking towards the new extended product (extracted from Milberg, Park, and McCarthy, 1997). Five studies have evaluation as the dependent variable while one study, specifically Study 3, has choice as the focal dependent variable. In this case, choice is an alternative measure for respondents' willingness to buy.

4.3.6 Covariates

Brand Expertise. Represents the extent to which the parent brand is capable of introducing a new vertical extension at a specific price/quality point. This variable was not directly manipulated. Rather, it was measured and observed from the manipulation of the different parent brand price levels that were manipulated in studies 2 and 3.

Parent Brand Variables. Three sets of variables were used to assess respondents' attitudes towards the parent brand. The first set of variable asked respondents to rate the parent brand in terms of perceived quality, trustworthiness, competence, and capability. Parent brand familiarity was also one of the variables rated by respondents to check whether consumers' specific knowledge about the parent brand would be confounded with the effect. Finally, the third set of variables asked respondents to evaluate the parent brand on the same measures as those of the dependent variable.

Product Category Knowledge. Represents the extent to which respondents are knowledgeable about the product/service category. It has been shown by previous literature that expert consumers tend to behave differently from novice consumers (Rao and Monroe, 1988; Sujan, 1985). Therefore this measure controls for the possible effect of consumer specific knowledge about the product category.

4.3.7 Experiment Design

The objective of the first three studies is to test the first set of hypotheses (H1a, H1b, H2a, H2b, and H3). In particular, these studies will test the moderating role of the extension direction on extension evaluation and the mediation effect of risk on the fit-extension relationship. Further, these studies will test whether in downscale situations brand expertise offsets the perceived fit effect on extension evaluations. The first two studies included a 2 (perceived fit: high vs. low) x 2 (extension direction: up vs. down) between-subjects factorial design in which participants were randomly assigned to one condition. The difference between studies 1 and 2 is that, in the first, it is the extension's price that it is manipulated to create the necessary differences in perceived fit. In contrast, it is the parent brand price that is manipulated in Study 2 while the extension's price is kept constant. In Study 3, the experiment includes a 2 (perceived fit: high vs. low) x 2

(direction: up vs. down) x 2 (hotel feature: location vs. accommodation) mixed design. Because this study required participants to choose between two options, a mixed design was a necessary condition. While direction is a between-subjects factor, perceived fit and hotel feature are within-subjects factors.

Similar to the approach taken for the test of the first set of hypotheses, studies 4 to 6 also test the second set of hypotheses (H4a, H4b, and H5) using a between-subjects factorial design. In particular, these studies test whether the parent brand price range has an effect on how consumers' perceive the fit between extension and parent brand and consequently evaluate the new extension product. In studies 4, 5, and 6, participants are assigned to only one condition of a 2 (price range: wide vs. narrow) x 2 (extension direction: up vs. down) between-subjects factorial design. A key difference between these studies is how price range is manipulated. In Study 4, price range is manipulated such that the parent brand average price is kept constant across conditions. On the other hand, in studies 5 and 6, price range is manipulated in such manner that end prices are kept constant across conditions such that the upper end price for an upscale extension and the lower end price for the downscale extension were kept constant across the wide and narrow conditions.

4.3.8 Study Subjects and Sampling Procedure

The sampling frame for collecting data consisted of the members of an international online panel recruited by a company that hosts online surveys. Amazon Mechanical Turk was used as the company of choice for data collection. The sampling criterion for recruiting sampling units was that the subjects should be over 18 years old. In general it is suggested that for every experimental condition at least 30 sampling units are required. Therefore the expected sample size should be 120 participants ($4 * 30 = 120$) for each

experiment of this thesis, totalling 720 participants for all studies conducted. However, literature suggests that depending on the effect size, experimental cell can range from 10 to 30 subjects per group depending on the objective of the study. However, in the marketing research stream experimental cell tend to range from 20 to 30 subjects. It is also possible to base the numbers of subjects per group on previous research that have successfully found evidence for the proposed or similar effects (Myers and Hansen, 2006).

In this sense, Sung Youl et al. (2005) used 21-26 respondents per cell in order to find evidence of expected prices on perceptions of quality on a 2 x 2 x 2 experimental design. Conversely, using 2x2 experiments Kim et al. (2001) used 30 respondents per group while Lei et al. (2008) averaged 40 respondents per group. It is believed that 25 respondents per group are enough to find evidence of the proposed relationships. The real actual sample size however was 736 for all experiments, an average of 30 respondents per experimental group. Participations assignment was randomized, meaning that the distribution of different questionnaires (each containing a different scenario) among the sample units was randomized. The implementation of the questionnaires and the randomization procedure were performed using the survey research tool 'Qualtrics'.

4.3.9 Manipulations

Although questionnaires differ across conditions and experiments, they follow a very similar structure. At the start of each study, participants read an explanatory statement and a general introduction to the survey. Then they were presented with some general parent brand information (e.g. price information, market position). Next, respondents read that the parent brand was introducing a new product or service and were asked to rate or choose the new extension product or service. The following subsections present the details of the different manipulations used in the different studies.

Experiment Manipulations (Study 1). Participants were given a hypothetical scenario in which they were asked to consider that a parent brand was introducing a new upscale or downscale hotel service. Then, respondents were then presented with the extension information which was limited to a brief description and price information. In this study two factors were manipulated: perceived fit (high vs. low) and extension direction (up vs. down). The manipulation of these factors was adapted from previous literature in vertical extensions (Kirmani et al., 1999; Lei et al., 2008) that have used the extension's price variation to manipulate extension direction and perceived fit. The use of the extension name (Empire and Eco) were extracted from Lei et al. (2008) that pre-tested a number of potential extension names and found these to be slightly preferred compared to the option (e.g. Lodge and Palace). Table 1 demonstrates how these two factors were manipulated.

The positioning of the extension indicated that it would compete in a significantly different price tier than existing parent brand price segment. Prices of lower and higher tiers were based on the prices of referent brands. The hotel industry star system was used to categorize hotels into different price/quality tiers. Using a well-known holiday search website (e.g. expedia.com) Holiday Inn's price range (\$90- \$125) was considered a 3 star hotel. Using referent brands such as Hilton (for a 4 star hotel) brands such as Ritz-Carlton (for a 5 star hotel) the close and far upscale extension price range was determined. For the downward stretch, referent brands such as La Quinta Inn and Econo Lodge, which represent lower-price tiers (2 stars and 1 star respectively), were used.

Table 1 - Study 1: Extension price manipulation

General information about the Parent Brand		
<p>Holiday Inn is a hotel company that is known for its quality facilities and service standards. Holiday Inn is typically ranked high in customer satisfaction and quality ratings and last year it won an award for excellence by a major Hotel Association. As a result, the brand has achieved a solid reputation in the hotel industry. The room rates in this hotel typically range from \$90 to \$125.</p>		
Extension Direction	Extension Fit	Information about the extension
Upscale	Close	In an effort to diversify its business, Holiday Inn recently decided to market an upscale and more expensive hotel. The new hotel will be called Holiday Inn Empire. The room rates in this hotel range from \$125 to \$175.
	Far	...room rates in this hotel range from \$295 to \$530.
Downscale	Close	In an effort to diversify its business, Holiday Inn recently decided to market a new budget hotel service. The new hotel will be called Holiday Inn Eco. The room rates in this hotel range from \$65 to \$90.
	Far	...room rates in this hotel range from \$35 to \$60.

Experiment Manipulations (Study 2). Similar to Study 1, participants were given a hypothetical scenario in which they were asked to consider that a parent brand was introducing a new upscale or downscale product. However, in this study, the parent brand varied and the extension price was kept constant across conditions. In particular, the extension price for all conditions was \$495. The price manipulations of the upward and downward stretch were a characteristic of market prices for the associated price tiers. Table 2 demonstrates how the parent brand prices varied in this study.

Table 2 - Study 2: Parent brand price manipulation

Extension Direction	Perceived Fit	Excerpt from scenario
Upscale	High	...prices for Alpha's models typically range from \$285 to \$415.
	Low	...prices for Alpha's models typically range from \$95 to \$165.
Downscale	High	...prices for Alpha's models typically range from \$625 to \$950.
	Low	...prices for Alpha's models typically range from \$1150 to \$2200.

Experiment Manipulations (Study 3). In Study 3, participants were asked to imagine a hypothetical scenario in which they were told that they had just begun a new job that would require some travelling. Then, they were asked to make a choice between two hotels in which they would stay in while travelling. Three factors were manipulated in this study: perceived fit, hotel feature, and extension direction. As stated before, the first two are within-subjects factors while the latter is a between-subjects factor. Similar to Study 2, to allow across condition comparison, the extension price was kept constant across conditions and prices were the same as those used in Study 1. Table 3 demonstrates how the upscale manipulation was operationalized while Table 4 shows the downscale manipulation.

Table 3 - Study 3: Upscale choice manipulation

Upscale Manipulation Excerpt			
<p>Consider that you have begun a job that requires you to travel quite often. During the planning of your travel the person in the company responsible to book your hotel provided you with the following information about two hotels.</p>			
Hotel A	Hotel B		
Hotel A is Bed and Breakfast hotel with budget facilities.	Hotel B is a Bed and Breakfast hotel with budget facilities.		
Room rates in this hotel typically range from \$65 to \$90	Room rates in this hotel typically range from \$35 to \$60		
Star Rating: 2.5 out of 5	Star Rating 1.5 out of 5		
General Extension/Choice Information			
<p>Both hotel companies recently decided to introduce a higher quality hotel service that will compete against other more upscale hotels with the Star Rating of 3 stars (out of 5). In both hotels, the current room rate around \$105/night for a standard room.</p>			
	Consumer ratings	New Hotel A	New Hotel B
Location	4.5	4.0	4.0
Accommodation	4.0	4.5	4.5

Table 4 - Study 3: Downscale choice manipulation

Downscale Manipulation Excerpt		
<p>Consider that you have begun a job that requires you to travel quite often. During the planning of your travel the person in the company responsible to book your hotel provided you with the following information about two Hotel Chains.</p>		
Hotel A	Hotel B	
Hotel A is a quality Business Hotel with upscale facilities.	Hotel B is a quality Business Hotel with upscale facilities.	
Room rates in this hotel typically range from \$125 to \$175	Room rates in this hotel typically range from \$295 to \$530	
Star Rating: 3.5 (out of 5)	Star Rating 4.5 (out of 5)	
General Extension/Choice Information		
<p>Both hotel companies recently decided to introduce a more economical hotel service that will compete against other Budget hotels with the Star Rating of 3 stars (out of 5). In both hotels, the current room rate around \$105/night for a standard room.</p>		
Consumer ratings	New Hotel A	New Hotel B
Location	4.5	4.0
Accommodation	4.0	4.5

Experiment Manipulations (studies 4, 5, and 6). In the last set of studies, two factors were manipulated. Manipulations of the extension direction were very similar to that of Study 1. That said, for an upscale condition the price of the extension had to be higher than current parent brand prices. Price range had two levels (wide and narrow). In Study 4, price range was manipulated in such a manner that the average price of the parent

brand was constant. As such, the higher end price is the same for the narrow and wide upscale condition while the lower end price is constant across narrow and wide conditions in the downscale scenario. Table 5 and Table 6 show the excerpts of these manipulations. On the other hand, the manipulation used in studies 5 and 6 consider that endpoints should be constant across conditions.

Table 5 – Study 4: Price range manipulation

Price Range	Excerpt from scenario
Wide	...manufactures digital cameras that sell in the \$89 to \$259 price range.
Low	...manufactures digital cameras that sell in the \$159 to \$189 price range.
Extension Direction	Excerpt from scenario
Upscale	... is considering introducing a more expensive model priced at \$299.
Downscale	... is considering introducing more affordable model priced at \$69.

Table 6 – Studies 5 and 6: Price range manipulation

Extension Direction	Price Range	Excerpt from scenario
Upscale (\$345,000)	Wide	...currently, BMW's models range from \$65,000 to \$287,000
	Narrow	...currently, BMW's models range from \$205,000 to \$287,000
Downscale (\$43,000)	Wide	...currently, BMW's models range from \$65,000 to \$287,000
	Narrow	...currently, BMW's models range from \$65,000 to \$92,000

4.4 MEASUREMENT AND SCALING

Following the exposure to the manipulations, participants answered questions about the variables of interest and responded to manipulation checks and demographics. In this

section, the measures used in all studies are detailed. The order of the variables explained below does not necessarily follow the same order presented to the respondents. The complete version of the each questionnaire used, as it was presented to respondents, is presented in the Appendix.

In order to confirm the validity and reliability of the conceptual constructs in this research, exploratory factor analysis was used. Measures of inter-correlation between variables are analysed to assess if there is sufficient correlations among variables to produce representative factors. Correlations should be at least above .30 while factor loading should be at least above .50 but loadings above .70 are ideal. Communalities represent the amount of variance explained by the factor solution for each variable. Communalities of less than .50 indicate that the variable does not have sufficient explanation. There are two factor extraction methods: common factor analysis and principal component analysis. Of interest in this research is the principal components analysis that is used for data reduction and prediction purposes (Hair, Black, Babin, Anderson, and Tatham, 2006).

Since most constructs are adapted or draw upon existing research, creating summative scales facilitates the analysis and interpretation of the results. A summated scale is formed by averaging all of the variables loading highly on a factor, and using the new variable as a replacement for the existing variables (Hair et al., 2006). In the construction of composite measures, two issues must be considered: reliability and validity. Reliability is an assessment of the degree of consistency between multiple measurements of a variable. In order to assess internal consistency, analysis of the item-total correlations and inter-item correlations is conducted. It has been suggested that, for each variable, item-total correlations should be above .50 while inter-item correlations

should be at least above .30. Reliability coefficient can also be assessed by calculating Cronbach’s alpha. The generally accepted lower limit for Cronbach’s alpha is .70 (Hair et al., 2006; Robinson, Shaver, Wrightsman, and Andrews, 1991).

Perceived Risk. This mediating variable was measured in two dimensions: financial risk and performance risk. A three-item scale that meant to capture consumers’ perceptions of risk was adapted from Ostrom and Iacobucci (1998). In particular, participants were asked to indicate the following:

Table 7 – Perceived risk measures

Given the expense involved, how much risk would be involved with staying at the hotel?	Financial Risk ^a
Considering the potential problems with the new hotel's service performance, how much risk would you say would be involved in staying at the new hotel?	Performance Risk ^a
Overall, how risky it would be to stay at the new hotel?	Overall Risk ^b

a Measured on a 7-point bipolar scale 1 = very little risk, 7 = a lot of risk

b Measured on a 7-point bipolar scale 1 = not at all risky, 7 = extremely risky

In Study 3, perceived risk was measured differently and one overall measure of risk was used. Due to the choice context, participants were asked to rate their perceived risk in a 9-point comparative scale. Specifically, participants were asked: “As a consumer what would be a bigger risk?” (1 = Staying at the new Hotel A, 9 = Staying at the new Hotel B). Reliability and validity of the measures of the perceived risk scale were assessed and results are shown in Table 8.

Table 8 – Perceived risk reliability

		Financial risk	Performance risk	Overall risk
Inter-Item Correlations	Financial risk	1.000	.763	.785
	Performance risk	.763	1.000	.829
	Overall risk	.785	.829	1.000
Item-Total Correlation		.809	.842	.859
Component Loading		0.914	0.931	0.939
Communalities		.835	.867	.882
Cronbach's alpha		.92		

Extension Evaluations. As stated before, three items are used to measure this dependent variable. Two items, favourability and liking, were extracted from the work of Milberg et al. (2010). Participants rated favourability (1 = not at all favourable, 7 = extremely favourable) and liking (1 = extremely negative, 7 = extremely positive) on two 7-point bipolar scales. Additionally, participants were asked to indicate their willingness to buy the new product on a 7-point bipolar scale (1 = very low, 7 = very high) extracted from Dodds, Monroe, and Grewal (1991). In the choice study, the dependent variable was a choice between two options (A or B). No rating scale was used to assess participants' evaluations of vertical extensions.

Brand Expertise. According to the literature (Erdem, 1998; Erdem and Swait, 2004) brand expertise refers to the brand's ability to deliver its promise. Drawing from this literature respondents evaluated brand expertise in two 7-point bipolar scales assessing capability (1 = not at all capable, 7 = extremely capable) and expertise (1 = not much expertise, 7 = a lot of expertise) that specifically had the intent to measure the brand's expertise to deliver a product at a specific (higher or lower) price/quality point. Reliability and validity of the measures of the brand expertise scale were assessed and results are shown in Table 10. They were asked to indicate the following:

Table 9 – Brand expertise ratings

How capable do you think the firm is to manufacture a new product at \$495?
How much expertise do you think the firm has to market a new product at \$495?

* The price displayed (\$495) in the question refers to the extension price in Study 2.

In Study 3, brand expertise was measured with similar questions but using a comparative 9-point scale (1 = Hotel A, 9 = Hotel B) instead. Specifically, participants were asked: “Which hotel company do you think is more capable to deliver a satisfying service at a price of \$105?” and “Which hotel company do you think has more expertise to provide a service priced at \$105?” The price displayed in the question refers to the extension price in Study 3.

Table 10 – Brand expertise reliability

Inter-Item Correlations	.681
Item-Total Correlation	.681
Component Loading	.917
Communalities	.841
Cronbach’s alpha	.81

* Only one value is displayed because this is a two item scale. Also, for that same reason, inter-item and item-total correlations are equal.

Manipulation Checks. The literature in vertical extensions define fit as the similarity level between an extension and its parent brand in the price/quality spectrum (Lei et al., 2008). However, price was the main attribute that was manipulated in all studies. Although previous literature suggest a very close relationship between price and quality (Rao, 2005; Shiv, Carmon, and Ariely, 2005) to check for the effectiveness of the manipulations, perceived fit was measured on three 7-point scales (1 = not at all similar, 7 = extremely similar) assessing price similarity, quality similarity and overall similarity between the extension and its parent brand. In Study 3, perceived fit was a two

dimensional construct that measured participants perceived image fit and price fit on two 9-points comparative scales (1 = Hotel A, 9 = Hotel B). Reliability and validity of the measures of the perceived fit scale were assessed and results are shown in Table 12.

Specifically, participants were asked the following:

Table 11 – Perceived fit measures

The price of the new extension product compared to that of the parent brand is:	Price Similarity
The quality of the new extension product compared to that of the parent brand is:	Quality Similarity
Overall, how similar the new extension product is to the parent brand?	Overall Similarity

a Measured on a 7-point bipolar scale 1 = not at all similar, 7 = very similar

Table 12 – Perceived fit scale reliability

		Price similarity	Quality similarity	Overall similarity
Inter-Item Correlations	Price similarity	1.000	.320	.407
	Quality similarity	.320	1.000	.644
	Overall similarity	.407	.644	1.000
Item-Total Correlation		.501	.560	.638
Component Loading		.674	.840	.877
Communalities		.554	.706	.770
Cronbach's alpha		.72		

Similar to the measure of perceived fit, a manipulation check question adapted from Sung Youl et al. (2005) was used to measured perceptions of the parent brand price range. Respondents indicated their perceived parent brand price width on a seven-point scale (1 = extremely narrow, 7 = extremely wide). Specifically, they were asked: “Please express your perception level regarding the price range of the parent brand”.

Control variables. To test for possible alternative explanations, respondents evaluated the parent brand on four seven-point scales adapted from Dodds et al. (1991) to assess the company’s perceived product quality (1 = very poor quality, 7 = very good quality), perceived manufacture ability (1 = not at all good, 7 = very good), trustworthiness (1 = not at all trustworthy, 7 = very trustworthy), and capability (1 = not at all capable, 7 = very capable). Reliability and validity of the measures of the parent brand ratings were assessed and results are shown in Table 13. Lastly, on a two seven-point scales (1 = very low, 7 = very high), they rated the parent brand prestige, and perceived overall quality.

Table 13 – Parent brand credibility scale reliability

		Product Quality	Manufacture Ability	Trust	Capability
Inter-Item Correlations	Product Quality	1.000	.800	.670	.642
	Manufacture Ability	.800	1.000	.697	.645
	Trust	.670	.697	1.000	.684
	Capability	.642	.645	.684	1.000
Item-Total Correlation		.792	.810	.766	.730
Component Loading		.890	.900	.870	.844
Communalities		.793	.810	.756	.712
Cronbach’s alpha		.91			

4.5 DATA ANALYSIS

The statistical procedures used to test the proposed hypotheses can be divided into three test groups: (1) moderating effects, (2) mediation effects, and (3) choice. The following sections will discuss each group and the statistical procedure used in more detail.

4.5.1 Moderating Effects

The main statistical tool used in this thesis to test interaction effects is the analysis of variance (ANOVA). The analysis of variance is a statistical technique mostly used to evaluate the size of the differences between two or more groups' scores. In experimental research, ANOVA is used to compare the scores in one condition to those of one or more other conditions (Gamst, Meyers, and Guarino, 2008). The different group means of scores may correspond to different levels of a single independent variable or to different combinations of levels of two or more independent variables. By using such a technique, the questions relating to main effects of the independent variables, effects of interactions among independent variables, specific post hoc comparisons, parameter estimates, effect sizes, and power of the test, can be answered (Tabachnick and Fidell, 2007).

In a between-subjects design where only one independent variable is manipulated at different levels, it is said that it is a one-way between-subjects design. If two independent variables are manipulated at different levels, a two-way between-subjects design is present. Assuming that in both cases there is only one dependent variable, the best statistical procedure for hypothesis test is an one-way ANOVA for the first and a two-way ANOVA for the second (Hinton, 2004; Hinton, Brownlow, McMurray, and Cozens, 2004). Although all studies are two-way between-subjects design, except Study 3 which uses choice as a dependent variable and a mixed between-subjects design, both ANOVA types will be conducted. Moderation effects can be represented by the interaction between a focal independent variable and a factor that determines the conditions for its effect on the dependent variable (Baron and Kenny, 1986; Hayes, 2009). In this case, two-way ANOVA will be used to test for interaction effects. Because it is expected that means will be

different between groups only in the upscale condition, one-way ANOVA will be used to test for differences in this situation.

4.5.2 Mediation Effects

The test of mediation effects will be performed using the bias-corrected and accelerated bootstrapping approach suggested by Preacher and Hayes (2008), instead of the traditional approach developed by Baron and Kenny (1986) as discussed on page 72. The bootstrapping test produces a confidence interval for the indirect effect in such a way that no assumptions are made about the distribution of the indirect effect. The results of this method are interpreted by determining whether the produced confidence interval contains the value “zero”; if it does, it means that the mediation effect is not sufficiently significant. It has been suggested that this mediation test be conducted based on 5000 bootstrap samples and with a 95% confidence interval (Preacher and Hayes, 2008; Zhao et al., 2010).

4.5.3 Choice

The dependent variables used in all studies, except Study 3, are categorized as metric scales. Differently, Study 3 uses choice (a binary nonmetric scale) as the dependent variable. Because this dependent variable is a categorical variable, a different statistical procedure is conducted. A categorical variable, specifically the choice of hotels in Study 3, has a measurement of a set of categories (e.g. yes/no, A/B). Dependent variables that have two categories are called binary variables that usually have nonlinear relationships that resemble a logistic regression function (Agresti, 2007). Although, the most appropriate statistical procedure when the dependent variable is nonmetric is the discriminant analysis, the most popular model for binary data is logistic regression. Logistic regression may be preferred over discriminant analysis for two reasons: (1) discriminant analysis relies on strictly meeting the assumptions of normality and equal variance across groups. Logistic

regression does not have these assumptions restrictions and is much more robust when they are not met. (2) It resembles multiple regression models, which in turn facilitates its application and interpretation. To assess the significance of each coefficient, in multiple regression the t value is used while in logistic regression different statistic is used, namely the *Wald* statistic. If the coefficient is statistically significant, then it is possible to predict group membership and how it impacts the estimated probability (Hair et al., 2006).

4.6 CHAPTER SUMMARY

This chapter has detailed the research methodology and design used to test the conceptual model shown in Chapter 3. It consisted of an outline of the research approach and method used. In particular, the type and stages of the scenario-based experiments, as well as the methods used to analyse the data were explained. In explaining the experimental studies, the definition of independent variables, the type of experimental design, study subjects and sampling procedure, the details of research questionnaire, along with the reliability analysis for each scale, were elaborated on. Finally, the techniques to analyse the data that included: ANOVA, bootstrapping, and logistic regression, were detailed. In the next chapter, the data are analysed, hypotheses tested, and the findings of each study are reported.

5 DATA ANALYSIS AND FINDINGS

5.1 INTRODUCTION

In the previous chapter, the research methodology and design used for testing the proposed conceptual model were described. In this chapter, the results of data analyses conducted to test the hypotheses related to the conceptual model are detailed. Specifically, for each study, this chapter reports: the objective that each study intended to accomplish; the data collection method along with the sample characteristics; the results of manipulation checks and hypotheses testing; finally, a brief discussion of the individual findings of each study.

As noted previously, the main hypothesis of the present thesis is that the extension direction moderates the effect of fit on vertical extension evaluations. It was argued that when evaluating an upscale extension, consumers will question the company's competence to produce higher quality/price products, relying on perceived fit to diminish risk perceptions and increase extension evaluation. In contrast, when evaluating downscale extensions, it is argued that consumers do not question the company's competence in delivering a lower quality/price product because compare to the expertise required for the downscale product's price/quality point, the firm has shown a higher level of brand expertise. In turn, risk perceptions are lowered and consumers evaluate the new product regardless of the fit between extension and parent brand.

Furthermore, this research hypothesizes that parent brand price range may be able to explain additional variability in perceptions of vertical extensions. In particular, it is argued that the parent brand price range affects consumer perceptions of fit. Compared to a narrow price structure, wide price range leads to perceptions of higher similarity between

parent brand and extension which in turn increases consumer favourability towards the new product. Consistent with the first set of hypotheses, an effect is expected to be found in upscale extensions but not in downscale extensions.

These predictions are tested in this chapter. The first three studies (1, 2, and 3) focus on the first set of hypotheses (H1a, H1b, H2a, H2b, and H3) while the later three studies (4, 5 and 6) focus on the second set of hypotheses (H4a and H4b). More specifically, Study 1 examines the moderating role of the extension direction on the fit-extension relationship in vertical extensions. Two levels (high vs. low) of fit are compared for each extension direction (up vs. down). Also, in the first study, the parent brand price is kept constant while the extension price is manipulated. In Study 2, findings from the first study are replicated but with a different manipulation of fit that varies the parent brand price point while keeping the extension price constant. In Study 3, findings from studies 1 and 2 are extended to a choice setting in which participants are asked to choose between a new service introduced by either a company with low fit or a company with high fit.

Study 4 has the goal of testing the prediction that consumers rely on the parent brand width of prices rather than on a single price anchor such that parent brands with lower price averages can lead to better evaluations of upscale extensions. Parent brand price range was manipulated at two levels: wide and narrow. Although the price range varied, the parent brand average price was kept fixed across conditions. Study 5 has the objective of ruling out the alternative explanation that perception of fit is caused by the absolute price differences of the extension and parent brand end prices. In this study, in the upscale conditions, upper end prices were kept constant, such that a narrow price range had a higher price average than the wide price range. Conversely, for downscale extensions, the lower end prices were fixed, such that the narrow price range had a lower price average.

Lastly, Study 6 replicates findings from studies 4 and 5 and additionally tests the mediation effect of risk on extension providing further evidence for the robustness of the findings of studies 1 and 2.

5.2 STUDY 1

The goal of this study is to test whether the effect of perceived fit on vertical extension evaluations is moderated by the extension direction. In particular, the prediction that the greater the perceived fit between an upscale extension and its parent brand, the greater the perceived risk, which in turn results in more favourable evaluations of the extension is tested. In contrast, it demonstrates that this is an asymmetrical effect that does not arise in downscale scenarios, such that consumers will not perceive a more distant downscale extension to be of higher risk compared to a closer extension.

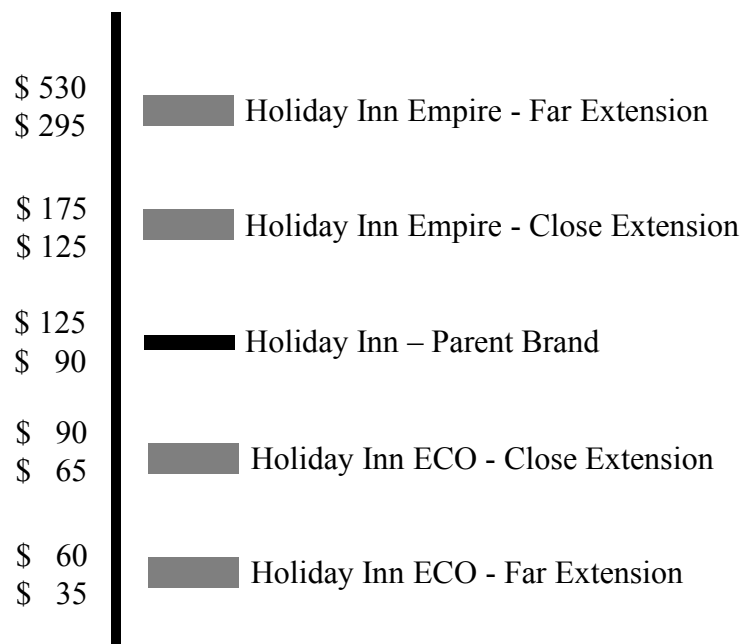
5.2.1 Method

A hundred and thirty-five U.S. respondents were recruited from MTurk to take in this online study. Participants' age ranged from 18 to 58 with a median age of 28 (40% were female) and income between US\$29,990 and US\$64,990 per year. They were randomly assigned to the conditions of a 2 (fit: close vs. far) x 2 (extension direction: up vs. down) between-subjects factorial design in order to test consumers' responses to vertical extensions. Fictitious extension names were used by adding descriptors to the parent brand name (i.e., Holiday Inn Eco & Holiday Inn Empire) to avoid a possible confounding effect of prior respondents' attitudes toward the brand name (Keller and Aaker, 1992). In this study, the contextual reference price of the core brand was kept constant across conditions.

Participants were given a scenario in which they were asked to consider that a hotel company (Holiday Inn) was introducing a new upscale or downscale hotel service. To illustrate, all participants read that “*Holiday Inn is a hotel company that is known for its quality facilities and service standards. Holiday Inn is typically ranked high in customer satisfaction and quality ratings and last year it won an award for excellence by a major Hotel Association. As a result, the brand has achieved a solid reputation in the hotel industry. The room rates in this hotel typically range from \$90 to \$125*”. Respondents were then presented with the extension information which was limited to a brief description and price information. To illustrate, in the far upscale condition they read that “*In an effort to diversify its business, Holiday Inn recently decided to market an upscale and more expensive hotel. The new hotel will be called Holiday Inn Empire. The room rates in this hotel range from \$295 to \$530*”. In the far downscale scenario respondents read that “*In an effort to diversify its business, Holiday Inn recently decided to market a new budget hotel service. The new hotel will be called Holiday Inn Eco. The room rates in this hotel range from \$35 to \$60*”. For a better visualization, all scenario conditions are presented on Figure 5.

The positioning of the extension indicated that it would compete in a significantly different price tier than existing parent brand price segment. Prices of lower and higher tiers were based on the prices of referent brands. The hotel industry star system was used to categorize hotels into different price/quality tiers. Using a well-known holiday search website (e.g. expedia.com) Holiday Inn’s price range (\$90- \$125) was considered a 3 star hotel. Using referent brands such as Hilton (for a 4 star hotel) brands such as Ritz-Carlton (for a 5 star hotel) the close and far upscale extension price range was determined. For the downward stretch, referent brands such as La Quinta Inn and Econo Lodge, which represent lower-price tiers (2 stars and 1 star respectively), were used.

Figure 7 – Study 1: Extension Price Manipulation



Note — Participants were exposed to only one of the four conditions shown in the above figure. In this study, the extension price is manipulated while the parent brand price is kept constant across conditions.

After reading the scenario, respondents evaluated the extension in two 7-point scales assessing favourability (1 = not at all favourable, 7 = extremely favourable) and liking (1 = extremely negative, 7 = extremely positive) that were averaged to form one single extension evaluation measure (Cronbach’s alpha = .90). Next, based on the study of Ostrom and Iacobucci (1998), participants completed a three-item scale meant to capture consumers’ perceptions of risk. They were asked to indicate the following: “Given the expense involved, how much risk would be involved with staying at the hotel?”, “Considering the potential problems with the new hotel's service performance, how much risk would you say would be involved in staying at the new hotel?”, “Overall, how risky it would be to stay at the new hotel?”. Each item was measured on a 7 point scale and were also averaged to form a single measure that captures participants’ overall risk perceptions (Cronbach’s alpha = .92).

To check for the fit manipulation was then measured on three 7-point scales (1 – not at all similar, 7 – extremely similar) assessing price similarity, quality similarity and overall similarity between the extension and its parent brand. Similar to previous measures, perceived fit was also averaged into a single fit measure (Cronbach’s alpha = .72). A fourth measure, price perception (1- very low, 7 – very high), was used to check respondents perception of price differences across conditions compared to the parent brand. Furthermore, participants assessed the parent brand quality, trust, competence, and capability which were used to form one single measure of parent brand’s credibility (Cronbach’s alpha = .91). Then, participants also rated their favourability and liking before assessing their familiarity with the parent brand and knowledge about the hotel industry (measured in four items). Each item was measured on a 7-point scale. Similar to the extension evaluation, the parent brand evaluation measures were averaged to form a single parent brand evaluation measure (Cronbach’s alpha = .88). Finally, a four-item scale was used to form an overall assessment of the participants’ hotel industry knowledge (Cronbach’s alpha = .92).

5.2.2 Results

Manipulation checks. Analysis of the manipulations indicates that the study was successfully conducted. Participants perceived upscale extensions to have a higher price ($M_{fu} = 5.75$ vs. $M_{cu} = 4.79$; $F(1, 64) = 11.80, p < .01$) and a lower fit ($M_{fu} = 3.33$ vs. $M_{cu} = 4.51$; $F(1, 64) = 16.09, p < .001$) in the far condition compared to the close condition. On the other hand, participants perceived downscale extensions to have a lower price ($M_{fd} = 2.73$ vs. $M_{cd} = 3.49$; $F(1, 67) = 5.14, p < .05$) and a lower fit ($M_{fd} = 3.72$ vs. $M_{cd} = 4.33$; $F(1, 67) = 5.54, p < .05$) in the far condition compared to the close condition. These results

and respondents' ratings about the hotel industry knowledge and the parent brand favourability, overall credibility and familiarity are summarized on Table 14.

Table 14 – Study 1: Manipulation checks and control variables

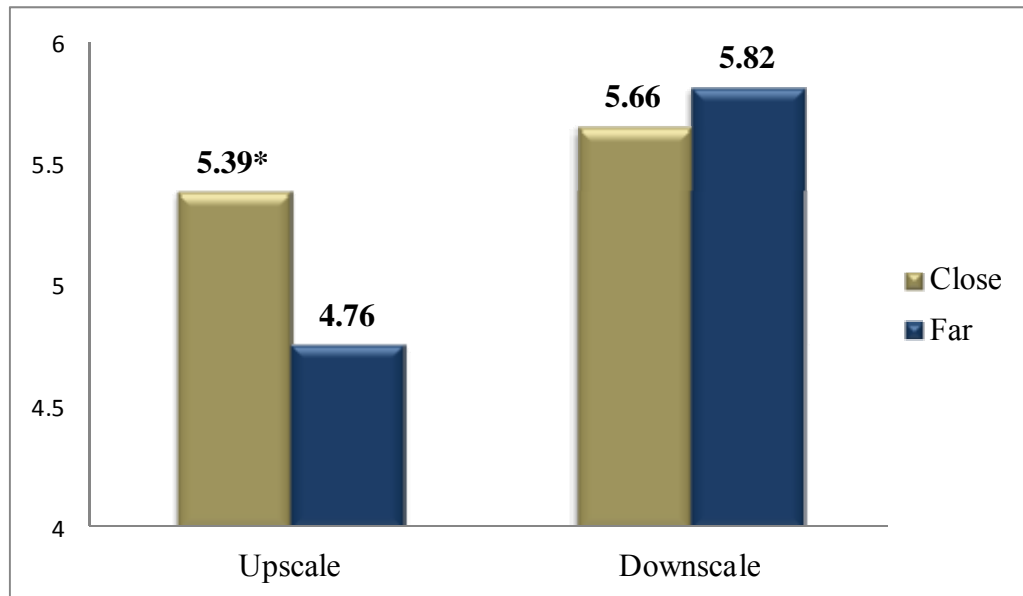
	Downscale			Upscale		
	Close	Far	<i>p</i>	Close	Far	<i>p</i>
Perceived Price	3.49 (.21)	2.73 (.23)	.027	4.79 (.16)	5.75 (.23)	.001
Perceived Fit	4.33 (.16)	3.72 (.21)	.022	4.51 (.18)	3.33 (.23)	.000
Brand Credibility	5.70 (.15)	5.64 (.18)	.799	5.68 (.17)	5.51 (.15)	.463
Brand Favourability	5.50 (.17)	5.72 (.18)	.377	5.65 (.16)	5.28 (.18)	.131
Brand Familiarity	4.71 (.26)	5.18 (.24)	.192	5.06 (.25)	4.94 (.24)	.724
Hotel Industry Knowledge	4.87 (.19)	5.24 (.20)	.194	5.37 (.18)	5.02 (.19)	.177

Note — Standard errors are in parentheses.

Extension Evaluations. The proposed hypotheses of this research state that the extension direction moderates the fit-extension relationship in vertical extensions. A one-way ANOVA showed no significant main effect for fit on the extension evaluations ($F(1, 131) = 1.54, p > .10$), but a significant main effect for direction ($F(1, 131) = 12.39, p < .05$) on the extension evaluations. More importantly there was a significant interaction effect between fit and direction on the extension evaluations ($F(1, 131) = 4.54, p < .05$). In support for the proposed hypotheses, this interaction effect was in the predicted direction. In particular, results shown in Figure 6 demonstrate that upscale extension evaluations are significantly lower in the far compared to the close condition ($M_{fu} = 4.76$ vs. $M_{cu} = 5.39$;

$F(1, 64) = 4.84, p < .05$), providing support for H_{1a} . In contrast, no significant differences between far versus close downscale extensions were found in the extensions evaluation ($M_{fd} = 5.82$ vs. $M_{cd} = 5.66$; $F(1, 67) = .47, p > .10$), which supports H_{1b} .

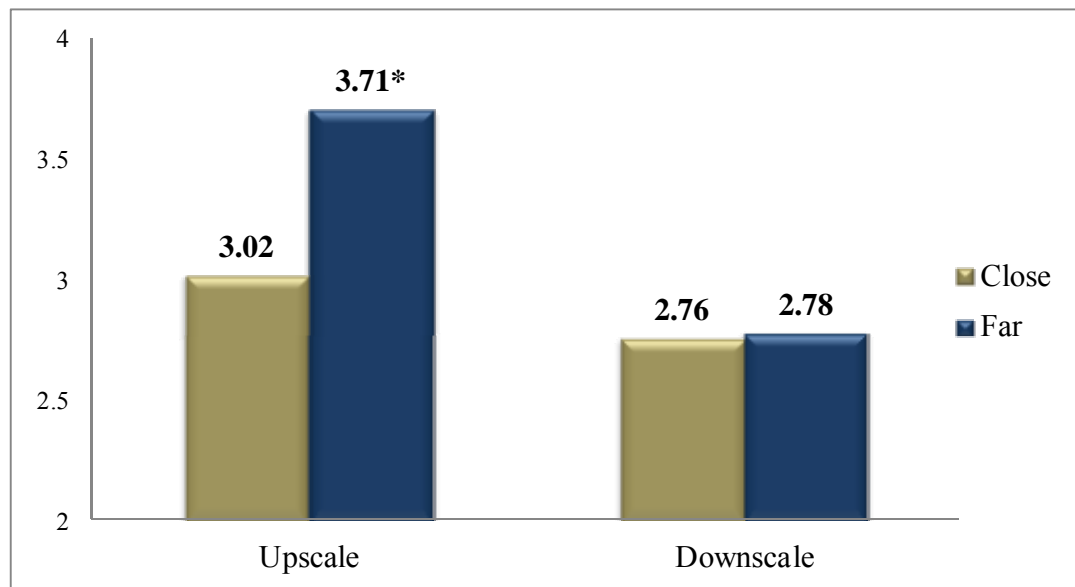
Figure 8 – Study 1: Extension Evaluation Mean Differences



Perceived Risk. This research predicts that because an upscale extension requires a change in brand expertise, perceived risk should be higher for upscale compared to downscale extensions. Additionally, it is argued that the lower the perceived fit between the parent brand and an upscale extension, the higher the perceived risk. Conversely, for downscale extensions (lower risk), consumers do not rely on perceived fit as a cue to diminish risk perceptions when evaluating downscale evaluations. Support to all predictions is found by the results found in the analysis. In particular, one-way ANOVA shows that participants perceived upscale extensions to be of higher risk compared to downscale extensions ($M_u = 3.35$ vs. $M_d = 2.77$; $F(1, 133) = 6.92, p = .01$), which supports H_3 . Furthermore, in the upscale scenario, results show that the extension perceived risk is significantly higher in the far compared to the close condition ($M_{fu} = 3.71$ vs. $M_{cu} = 3.02$; $F(1, 64) = 4.51, p < .05$). On the other hand, no significant differences in risk perception

between a far downscale extension and a close downscale extension ($M_{fd} = 2.78$ vs. $M_{cd} = 2.76$; $F(1, 67) = .01$, $p > .10$). Results are illustrated in Figure 7.

Figure 9 – Study 1: Perceived Risk Mean Differences



Mediating effects. An additional mediation analysis was conducted to test the proposition that the effect of perceived fit on upscale extension evaluations is mediated by perceptions of risk. Instead of the traditional causal-step method (Baron and Kenny, 1986), we used a bias-corrected bootstrapping methodology (Preacher and Hayes, 2008) following recommendations from previous methods research in social sciences (Shrout and Bolger, 2002; Zhao et al., 2010). Further, the decision to adopt the bootstrapping method rests on its higher statistical power and ability to use smaller sample size compared to other methods, such as causal-step and z tests (Fritz and MacKinnon, 2007; MacKinnon et al., 2004). The bias-corrected bootstrap (based on 5,000 bootstraps samples) reveal that the mean mediating effect is positive ($a \times b = .1196$). Meaning that the lower the fit, the higher the perceived risk which in turn leads to lower favourability ratings of the extension. A unit increase in fit reduces risk by $a = -.6887$ units and a unit increase in risk reduces extension

evaluation by $b = -.1737$. This mediation is significant with a 90% confidence interval excluding zero (.0031 to .3967) but it could be argued that the expected effect is directional, and therefore, it would mean that results are significant at a 95% confidence interval. The effect of the direct effect c (.5118) is marginally significant ($p < .09$). Because $a \times b \times c$ (.0612) is positive, this is a complementary mediation Zhao et al. (2010). This result provides support for H_1 and is consistent with prior literature in consumer behaviour (Milberg et al., 2010; Smith and Andrews, 1995) that suggests the mediating effect of perceived risk on the fit-extension relationship in brand extensions.

5.2.3 Discussion

The data furnished by Study 1 lent support to hypotheses H_1 , H_{1a} , H_{1b} , and H_3 . It shows that consumers rely on perceived fit to judge upscale extensions but not downscale extensions. Further, it shows that the lower the perceived fit between an upscale extension and its parent brand, the riskier is the option to consumers hence reducing extension favourability. Specifically, this study has shown that participants in the upscale condition evaluated close extensions more favourably than extensions in the far condition and that the perceived fit effect on extension evaluation is mediated by perceived risk. In contrast, because downscale extensions are perceived to be a lower risk scenario, consumers do not need to use perceived fit as a risk reduction mechanism. Hence, no significant differences were found in evaluations of downscale extensions. Taken together, these results provide strong evidence for the moderating effect of vertical extension direction on the fit-extension relationship.

There are, however, a few issues that limit these results. First, participants' risk ratings may have been influenced by their perceptions of the extensions' price level rather than the extension's direction. Although results suggest that consumers experience higher

risk in upscale extensions than in downscale extensions, it is possible that there was a confounding effect of the extension direction with price level. This could have happened because both upscale extensions were at a higher price points than the downscale extensions. Thus, these results could be a consequence of price level rather than extension direction. It could be that at lower price levels, there is no difference, but as price increases, differences in ratings may emerge. It is believed this is unlikely. If this was the case, results should have shown differences between close and far downscale extensions in terms of risk perceptions and favourability. Rather, they show an asymmetrical effect such that only upscale extensions were influenced by perceptions of fit and risk.

Secondly, the percentage deviation of the extension's mean was equivalent for both directions only for the close condition. The downward close extension's price was 38% lower and the upscale extension 39% higher than the current mean price of the parent brand. However, in the far condition, the downscale extension average price was 126% lower than the parent brand average price while the upscale extension was around 280% higher. Thus, it may be suggested that the difference in evaluation ratings are due to a larger difference between close and far extension in the upscale scenario compared to the downscale scenario. The design of this experiment had the intent to capture natural occurring price levels in the industry. This unbalance in the market may be explained by the notion of price thresholds and the just noticeable difference (Monroe, 1971, 1973) in which smaller price differences are required to trigger difference perceptions in lower than higher price levels.

To address this possible alternative explanation for the results in Study 1, a post-study was conducted. A third downscale level where the price point was set 377% lower than the parent brand average price was introduced. The difference between the extreme

far condition and close condition in the downscale scenario was now larger than the upscale scenario. Specifically, the new condition (extreme far condition) stated that the new Holiday Inn Eco had a price range between \$15 and \$30. The objective was to conduct an extreme manipulation to check whether a different result in the downscale scenario could be found. Consistent with previous results and with the proposed hypothesis, there was no difference between the close and extreme downscale evaluation ($M_{efd} = 5.64$ vs. $M_{cd} = 5.66$; $F(1, 78) = .01$, NS) and perceived risk ($M_{efd} = 2.88$ vs. $M_{cd} = 2.76$; $F(1, 78) = .15$, $p > .69$), which supports hypothesis 1.

Lastly, although Study 1 suggests an asymmetrical effect of fit on extension evaluation that is moderated by the extension's direction, it does not provide a full explanation for why the fit effect diminishes in downscale scenario. This research argues that upscale extensions tend to be riskier than downscale because the introduction of a higher quality and price product to the product line requires an increase in brand expertise while downscale extension does not. Although it was shown that participants' perceptions of risk are higher for upscale compared to downscale, and that far (vs. close) upscale extensions are perceived to be of higher risk, perceived brand expertise was not directly measured. To provide such evidence, the next study tests hypothesis 2, which refers to whether perceived risk mediates the effect of brand expertise on the extension evaluation. If the proposed hypotheses are correct, it should be possible to replicate the perceived risk mediation effect for upscale extensions in the fit-extension relationship while showing no effect for downscale extensions. In contrast, it is expected to find that perceived risk mediates the effect of brand expertise on extension evaluation for downscale extensions but not for upscale extensions.

5.3 STUDY 2

The goal of this study is to test why there is a null effect of fit on the extension's evaluation in downscale scenarios. In particular, it examines the effect of brand expertise on the extension evaluation in the upscale and downscale scenarios. This study tests whether perceived risk mediates this relationship in both directions (up vs. down). Additionally, the robustness of the findings of Study 1 is tested by the use of a different manipulation. In the first study, a mainstream brand was used and the extension price manipulated. Respondents' perception of fit between parent brand and extension were made based on price level inferences. Study 2 keeps the extension price constant across conditions and manipulates the parent brand price and quality levels. If the proposed hypotheses are correct, the extension direction should moderate the perceived fit effect on evaluations of the extension such that fit is used as a cue to reduce risk perceptions for upscale but not downscale extension. For downscale extensions, it is expected brand expertise to be used as a cue to reduce risk. The change in manipulation allowed this study to rule out the competing hypothesis that extension evaluations were affected by perceptions about the extension's price point.

5.3.1 Method

A hundred and one U.S. participants recruited from MTurk took part in this online study. In the sample, 58% of the respondents were female, and 42% male. With respect to age, 29% of the participants were younger than 27, 23% were aged between 27 and 37, 34% between 37 and 54, and 14% between 54 and 68. The median age was 35 and the modal category income was between US\$35,000 and US\$59,999 per year. Participants were randomly assigned to the conditions of a 2 (fit: close vs. far) x 2 (direction: up vs. down) between-subjects factorial design in order to test consumers responses to vertical

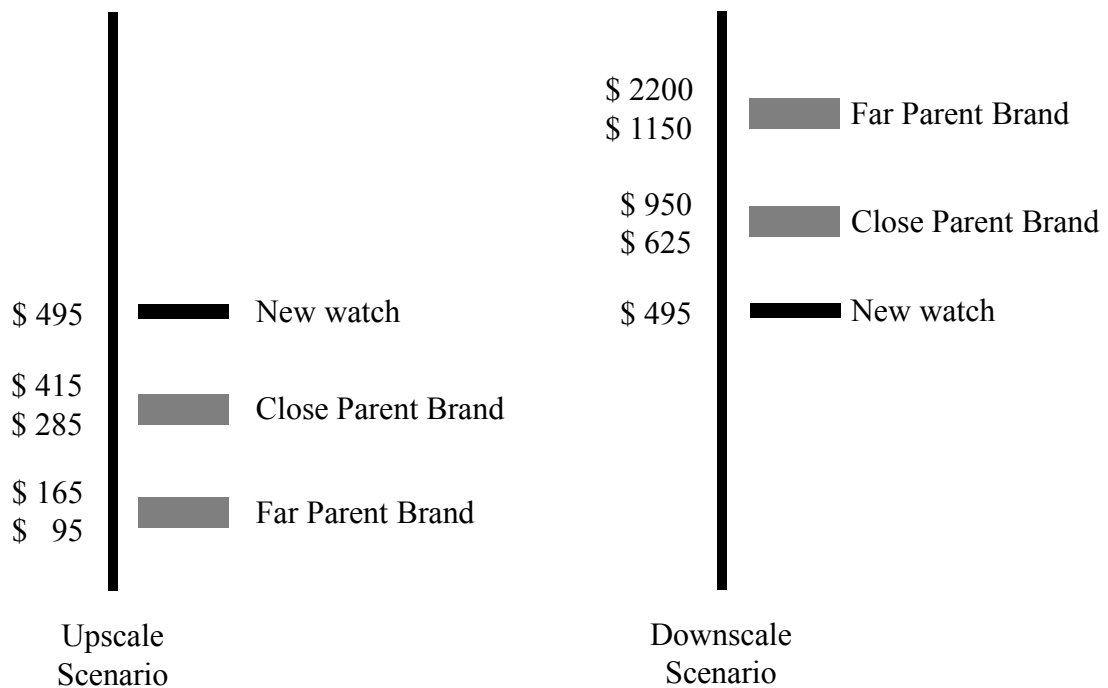
extensions. Because the manipulation consists of keeping the extension's price fixed across conditions and varies the parent brand price, a fictitious brand name was used. This was done in order to avoid different brand name effects and respondents' disbelief about the scenario presented. To define parent brand prices, research on the website www.amazon.com was conducted to determine the reference for the American wrist watch market. In this process brands such as Swatch, Timex, Citizen, Tissot, Movado, and Rolex were used as reference. The extension was defined as a mainstream product while parent brand prices would represent different price and quality segments. In particular, the extension price for all conditions was US\$495 and parent brand prices were: \$95 to \$165 (upscale far: low price), \$285 to \$415 (upscale close: low-mainstream), \$625 to \$950 (downscale close: high mainstream), \$1150 to \$2200 (downscale far: accessible luxury).

Participants were given a scenario in which they were asked to consider that a watch manufacturer (Alpha) was introducing a new upscale or downscale product. To illustrate, all participants read that "*Alpha is a wrist watch manufacturer that is known for its quality, design and orientation towards innovation. As a result, the brand has achieved a solid reputation in the wrist watch market*". Respondents were then presented with the parent brand price information followed by extension information. To illustrate, in the downscale far scenario they read that "*Currently, prices for Alpha's models typically range from \$1150 to \$2200 (\$625 to \$950 in the close condition). In an effort to diversify its business, Alpha recently decided to market a more economical and less expensive model to compete in the mainstream market. The new watch will be called Alpha Piccollo and will be priced at \$495*".

Similarly, in the upscale far scenario they read that "Currently, prices for Alpha's models typically range from \$95 to \$165 (\$285 to \$415 in the close condition). In an effort

to diversify its business, Alpha recently decided to market a higher quality and more expensive model to compete in the mainstream market. The new watch will be called Alpha Piccollo and will be priced at \$495”. The manipulations and conditions are shown on Figure 8.

Figure 10 – Study 2: Parent Brand Price Manipulation



Note — Participants were exposed to only one condition. In the figure, downscale and upscale conditions are shown separately for better visualization of the four conditions of the study. The new extended watch and the parent brand was the same for all conditions. In this study, the parent brand price was manipulated rather than the extension price.

After reading the scenario, respondents evaluated the extension on similar measures to those of Study 1. In addition, respondents evaluated brand expertise in two 7-point scales assessing capability (1 = not at all capable, 7 = extremely capable) and expertise (1 = not much expertise, 7 = a lot of expertise). They were asked to indicate the following: “How capable do you think the firm is to manufacture a new product at \$495?” and “How

much expertise do you think the firm has to market a new product at \$495?" (Cronbach's $\alpha = .81$). All other measures were identical to those of Study 1.

5.3.2 Results

Results show the effectiveness of the manipulations. As expected, distance was successfully manipulated in both directions such that participants perception of fit was significantly lower in the far compared to the close condition in the upscale ($M_{fu} = 3.88$ vs. $M_{cu} = 6.09$; $F(1, 47) = 40.91, p < .001$) and in the downscale scenarios ($M_{fd} = 4.33$ vs. $M_{cd} = 5.78$; $F(1, 4) = 19.56, p < .001$). These results and all control measures are summarized on Table 15. Replicating findings from Study 1, two-way ANOVA results show a marginally significant interaction effect between fit and direction on the extension's evaluations ($F(1, 96) = 3.20, p < .08$). Additionally, a significant interaction effect between direction and fit on risk perceptions ($F(1, 96) = 4.05, p < .05$) and on brand expertise ($F(1, 96) = 5.99, p < .05$) was found. Next, each extension direction is analysed separately in more detail.

Upscale scenario. This research predicts that far upscale extensions are perceived to be riskier compared to closer upscale extensions. Additionally, because upscale extensions require a change in brand expertise, perceived fit should be more readily available to consumers to reduce perceptions of risk. In support to this prediction, one-way ANOVA results show that extension perceived risk is significantly higher in the far compared to the close condition ($M_{fu} = 5.51$ vs. $M_{cu} = 4.30$; $F(1, 47) = 19.52, p < .001$). Conversely, perceived brand expertise was higher in the close compared to the far condition ($M_{fu} = 4.89$ vs. $M_{cu} = 5.86$; $F(1, 47) = 7.96, p < .01$). Recall that brand expertise measures the perceived capacity and expertise of the company to manufacture at a specific price/quality point, rather than the perceived expertise in an absolute sense. As a

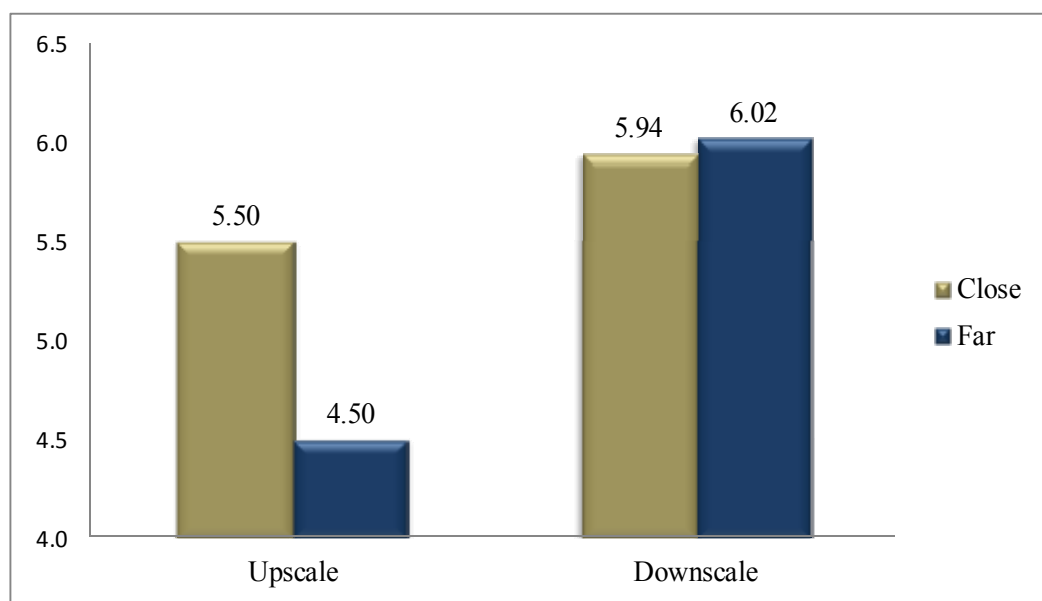
consequence, extension evaluations were significantly lower in the far compared to the close condition ($M_{fu} = 4.50$ vs. $M_{cu} = 5.50$; $F(1, 47) = 7.72, p < .01$). These results are shown on Figure 9.

Table 15 – Study 2: Manipulation checks and control variables

	Downscale			Upscale		
	Close	Far	<i>p</i>	Close	Far	<i>p</i>
Perceived Fit	5.78 (.21)	4.33 (.26)	.000	6.09 (.23)	3.88 (.26)	.000
Brand Credibility	5.23 (.20)	5.42 (.16)	.467	4.89 (.18)	4.57 (.17)	.183
Brand Favourability	5.15 (.19)	4.90 (.21)	.371	4.84 (.17)	4.63 (.18)	.391
Brand Familiarity	2.27 (.34)	1.76 (.24)	.226	1.48 (.19)	1.63 (.22)	.625
Hotel Industry Knowledge	3.40 (.30)	2.96 (.29)	.290	2.90 (.26)	3.0 (.27)	.730

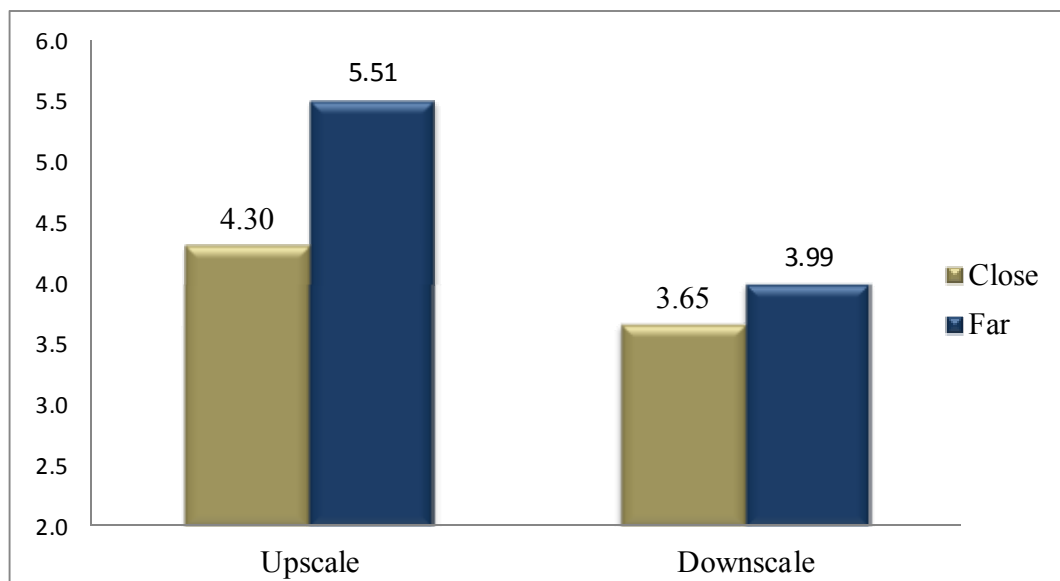
Note — Standard errors are in parentheses.

Figure 11 – Study 2: Extension Evaluation Mean Differences



Upscale mediation analysis. A bias-corrected bootstrap analysis (based on 5,000 bootstraps samples) was conducted to test whether perceived risk mediates the effect of fit on evaluations of upscale extensions. Brand expertise was used as a covariate. The results reveal that the mean mediating effect is positive ($a \times b = .6592$) meaning that the lower the fit, the higher the perceived risk which in turn leads to lower favourability ratings of the extension. A unit increase in fit reduces risk by $a = - 1.19$ units and a unit increase in risk reduces extension evaluation by $b = - .5556$. This mediation is significant with a 95% confidence interval excluding zero (.2632 to 1.2177), providing support for H_{1a}. The effect of brand expertise on the extension evaluation ($p > .60$) and the direct effect c (.3946) are not significant ($p > .34$). According to Zhao et al. (2010), because c path is not significant at a 90% confidence level, this is an indirect-only mediation. This result provides further evidence for the mediating effect of perceived risk on the fit-extension relationship found in Study 1.

Figure 12 – Study 2: Perceived Risk Mean Differences



Downscale scenario. In contrast to the upscale scenario findings, one-way ANOVA results show no significant differences in evaluations ($M_{fd} = 6.02$ vs. $M_{cd} = 5.94$; $F(1, 49) = .22, p > .10$) or risk perceptions ($M_{fd} = 3.99$ vs. $M_{cd} = 3.65$; $F(1, 49) = 1.01, p > .10$) between far and close downscale extensions. These results are shown on Figure 10.

Downscale mediation analysis The current research argues that the reason why in downscale scenarios there is no difference in evaluation of extensions is that consumers do not rely on the perceived fit to diminish risk perceptions and in turn make judgments about the new product. Rather, consumers rely on brand expertise to diminish risk and in turn determine their ratings of the new extension product. Hypothesis 2 was tested using a bias-corrected bootstrap analysis (using 5,000 samples) that used fit as the independent variable and brand expertise as covariate. Results show that fit did not affect the mediating variable ($p > .75$) neither the dependent variable ($p > .35$). No mediation was found as the 90% confidence interval does not exclude zero (-.1817 to .3973) when fit was the independent variable and brand expertise the covariate. Finally, a mediation analysis was conducted to test whether it is the brand expertise rather than fit that affects risk in downscale scenarios. Results show that mean mediating effect is positive ($a \times b = .1152$) meaning that a unit increase in brand expertise reduces risk by $a = -.3923$ units and a unit increase in risk reduces extension evaluation by $b = -.5197$. The mediation is significant with a 95% confidence interval excluding zero (.0272 to .4459). The effect of fit on the extension evaluation is not significant ($p > .30$) and the direct effect c (.2937) is also not significant ($p > .13$) which indicates that this is an indirect-only mediation (Zhao et al., 2010).

5.3.3 Discussion

Taken together, these results provide strong evidence for the proposed hypothesis 2 while ruling out alternative accounts. A different price manipulation that varied the parent

brand price rather than the extension price (Study1) was used in Study 2. Furthermore, the manipulation of the parent brand price range was equally balanced between upscale and downscale scenarios. In particular, price range width was around 40% for the close condition and around 70% for the far condition. Despite the fact that market prices were used as reference to develop the scenarios, the decision to have a wider range for the far condition had the intent to strengthen our findings. The fact that results show no difference in the downscale scenario and a more favourable evaluation of close extensions in the upscale scenario, rules out any possible confound effect of the parent brand price range influences on consumers' perceptions (Janiszewski and Lichtenstein, 1999) or that respondents believe that offering greater variety is a sign of a more capable or higher quality brand (Berger et al., 2007; Heath et al., 2011).

This study has shown that perceived fit is used by consumers as a cue to reduce risk perceptions in upscale extensions while brand expertise overcomes this effect in the downscale extension scenario. Contrary to existing literature, the results of the first two studies show that the perceived fit effect on vertical extensions is asymmetrical such that an effect is found for upscale, but not for downscale extensions. In particular, this research shows that brand expertise offsets the perceived fit effect in downscale scenarios.

5.4 STUDY 3

The goal of this study was to expand and test the robustness of studies 1 and 2 findings in a choice setting. Although respondents' ratings provided compelling evidence for the moderating effect of the extension's direction on the fit-extension relationship, it does so in a non-competitive scenario. If these results can be replicated in a choice context, then one would be more confident as to the generalizability and the application of the theory to a wider scope. According to the proposed hypotheses, consumers should choose

an extension product that has been placed closer to the parent brand price point in upscale choice sets but should be indifferent in downscale choice sets. In particular, perceived fit should drive consumers' choice in upscale scenarios but not in downscale scenarios.

5.4.1 Method

Ninety seven participants recruited from MTurk took part in this online study. Participants were U.S. consumers with age between 18 and 52 where 75% of respondents were 27 years old or younger. The modal income category was between US\$35,000 and US\$59,999 per year and 54% were males. Participants were randomly assigned to the conditions of a 2 (fit: close vs. far) x 2 (direction: up vs. down) x 2 (hotel feature: location vs. accommodation) mixed design, where fit was manipulated within subjects and the other factors were manipulated between subjects. Participants read a scenario consisting of a choice between two new hotels that differed in terms of their features and their parent brand price range.

For each participant, the choice was either between two downscale extensions or two upscale extensions. They were told that they had just begun a new job that would require some travelling and in order to make travel arrangements, the company's travel agent had asked them to indicate which hotel chain they would prefer to use. In the upscale scenario, participants learned that two budget hotel chains were introducing a new and more upscale hotel with rooms typically priced at \$105. In addition, they read that Hotel Chain B's typical prices ranged from \$35 to \$60, while for Hotel Chain A, prices ranged from \$65 to \$90. Participants were also presented with a table for the location of the new hotels and their accommodation. For half of these participants, Hotel A had a better location (4.5 vs. 4.0 of 5), but worse accommodation (4.0 vs. 4.5) than Hotel B. For the other half, this was reversed Hotel A had worse location (4.0 vs. 4.5), but better

accommodation (4.5 vs. 4.0). We added these ratings to allow participants to rely on something other than fit if they wanted to.

Participants were asked to rate their perceived risk in two 9-items scale measuring financial risk (Given the price of the room, staying at which hotel would be a higher risk? 1 = Staying at the new Hotel A, 9 = Staying at the new Hotel B) and performance risk (Given the potential problems of a hotel service, staying at which hotel would be a higher risk? 1 = New Hotel A, 9 = New Hotel B). Two 9-item scales were used to capture perceived brand expertise. Participants were asked “which hotel company do you think is more capable to deliver a satisfying service at a price of \$105?” and “which hotel company do you think has more expertise to provide a service priced at \$105?” (1 = Hotel A, 9 = Hotel B). Lastly, respondents answered to a two 9-items scales that measured perceived price fit (Which hotel chain has introduced a new hotel service with prices more consistent to the hotel chain’s original prices? 1 = Hotel A, 9 = Hotel B) and perceived image fit (Which hotel chain has introduced a new hotel service that is more consistent with the current hotel chain's image? 1 = Hotel A, 9 = Hotel B).

5.4.2 Results

Choice of Hotels. This thesis predicts that the extension’s direction moderates the fit-extension choice relationship such that fit would influence consumer choice in the upscale scenario, where fit is an important cue to diminish risk perception, but not in the downscale scenario. In particular, it hypothesizes that while participants in an upscale scenario would choose a more similar (close) extension rather than a less similar (far) extension, consumer should have no preference for a close versus a far extension when making a choice in the downscale scenario.

As hypothesized, in the upscale extension scenario, participants chose Hotel A (71.2%) more often than Hotel B (28.8%). In contrast, in the downscale scenario, Hotel A (53.3%) and Hotel B (46.7%) were chosen by participants with no systematic preference. In addition, whether the hotels differed in terms of location and accommodation had no impact on choices. Table 16 and Table 17 provide a summary of these results.

Table 16 – Study 3: Hotel fit choice counts and percentage

			Distance		Total
			Hotel A Close	Hotel B Far	
Direction	Upscale	Count	37	15	52
		% within Direction	71.2%	28.8%	100.0%
	Downscale	Count	24	21	45
		% within Direction	53.3%	46.7%	100.0%
Total	Count		61	36	97
	% within Direction		62.9%	37.1%	100.0%

The significance of the results was confirmed through a logistic regression on choice of hotels. A significant main effect was found for perceived fit ($\chi^2(1) = 11.75, p < .01$) but no effect for hotel features ($\chi^2(1) = .55, p > .10$) and direction ($\chi^2(1) = .00, NS$). Additionally, interaction effects were only found between perceived fit and direction ($\chi^2(1) = 6.30, p < .05$). No other interactions were significant, providing global support for the proposed hypotheses. Further each direction is analysed separately. A logistic regression on choice in the upscale extension condition shows a main effect of perceived fit ($\chi^2(1) = 16.98, p < .001$) but not for hotel feature ($\chi^2(1) = 0.87, p > .10$). In contrast, the downscale condition show no significant main effect for perceived fit ($\chi^2(1) = 0.41, p > .10$) and for hotel feature ($\chi^2(1) = 0.05, p > .10$). These results provide robust support for the proposed hypotheses.

Table 17 – Study 3: Hotel feature choice counts and percentage

			Feature		Total
			Location	Accommodation	
Direction	Upscale	Count	23	29	52
		% within Direction	44.2%	55.8%	100.0%
	Downscale	Count	22	23	45
		% within Direction	48.9%	51.1%	100.0%
Total		Count	45	52	97
		% within Direction	46.4%	53.6%	100.0%

Extension ratings. Following respondents' choice, participants were asked to answer three questions in regards to their perceptions of risk, expertise and fit.

Additionally to the choice results and thought protocols it was necessary to check whether the findings from the rating results of studies 1 and 2 could be replicated in a choice context and with a different scale measurement.

Table 18 – Study 3: Ratings of risk, brand expertise, and price and image fit

	Downscale	Upscale
Perceived Price Fit	3.47* (.38)	3.88* (.25)
Perceived Image Fit	4.78 (.32)	3.69* (.29)
Perceived Risk	4.88 (.21)	5.93* (.19)
Brand Expertise	4.80 (.26)	3.36* (.22)

* $p < .001$

Note — Standard errors are in parentheses.

To analyse the data, of comparative scales, the middle of the scale (five) was used as the natural test value, which represented the equal level of risk, expertise or fit between the two options. Thus, a mean response below this number means that Hotel A (close extension) is perceived as the option with a higher risk, credibility or fit. Conversely, a

mean response that it is higher than five indicates that Hotel B (far extension) is the option with higher risk, expertise or fit. Results show on Table 18 replicate the previous findings of studies 1 and 2.

Consistent with the proposed hypotheses and the previous findings of studies 1 and 2, participants rated higher risk ($M = 5.93$; $t(1, 51) = 4.76, p < .001$) for far upscale extensions compared to close upscale extensions, however, no differences in perceived risk were found in downscale extensions ($M = 4.88$; $t(1, 44) = -.58, p > .10$). Additionally, ratings of upscale extensions reveal higher levels of perceived expertise for closer extensions compared to far extensions ($M = 3.36$; $t(1, 51) = -7.57, p < .001$). In contrast, no difference in levels of expertise were found in the downscale scenario ($M = 4.80$; $t(1, 44) = -.77, p > .10$). Recall that expertise is the respondent's perception about the firm's ability to deliver a hotel service at a given price point (\$105) and not the overall brand expertise. In this sense, because both hotels were introducing a downscale extension, they have already shown consumers at what level they are capable of providing the service. Lastly, in the upscale scenario, participants perceived price fit ($M = 3.88$; $t(1,51) = -3.73, p < .001$) and image fit ($M = 3.69$; $t(1,51) = -5.34, p < .001$) to be significantly lower in the far condition compared to the close condition. Likewise, in the downscale scenario, perceived fit ratings were significantly lower in the far condition compared to the close condition for price fit ($M = 3.47$; $t(1, 44) = -4.04, p < .001$). However, perceived image fit was not significantly different between hotels ($M = 4.78$; $t(1, 44) = -.68, p > .10$). Perhaps the reason why respondents did not perceive the new extension as a shift in brand image was because the firm's higher end hotel service was not withdraw from the market as a trade-off to the new downscale product. This is consistent with market examples such as Audi and BMW. Common to these brands is the introduction of lower price extensions. Nonetheless, these brands have not shift their brand position from the prestige to the

mainstream automobile market and consumers still believe in their ability to manufacture high-quality cars.

5.4.3 Discussion

Study 3 extends the findings of studies 1 and 2 to a choice context. It provides further support for the moderating influence of the extension's direction on the fit-extension-choice relationship in the vertical extension context. In a choice between two new extension products/services, consumers tend to rely on the perceived fit between parent brand and extension as cue to reduce risk perceptions for upscale extensions but not for downscale extensions. In particular, in the upscale scenario, consumers tend to choose a close extension rather than a far extension. Moreover, results show that perceived risk ratings tend to be higher while perceptions of brand expertise and fit tend to be lower for far compared to close upscale extensions. This is consistent with the notion that less similar (far) extensions tend to be riskier leading to lower new product favourability (Bearden and Shimp, 1982) and as consequence, lower trial levels. In contrast, participants show no preference according to the fit between parent brand and downscale extensions. In fact, choice was almost even between alternatives.

5.5 STUDY 4

The first three studies used different price points of parent brands and extensions in order to manipulate fit. This research argues that fit in a vertical extension context is a relative construct that depends on contextual reference prices framing. As such, an extension product could be perceived as having a higher or a lower fit depending on the signals that parent brands send consumers about their product line price structure. In other words, for parent brands with wide vertical price structures, an extension, at an equal

price/quality point, is perceived to be of higher fit than an extension of a narrow price structure. Thus, the goal of this study is to test empirically the hypothesis that consumers rely on the parent brand price width, which is consistent with predictions of the range theory (Volkman, 1951) when making judgments of vertical extensions.

5.5.1 Method

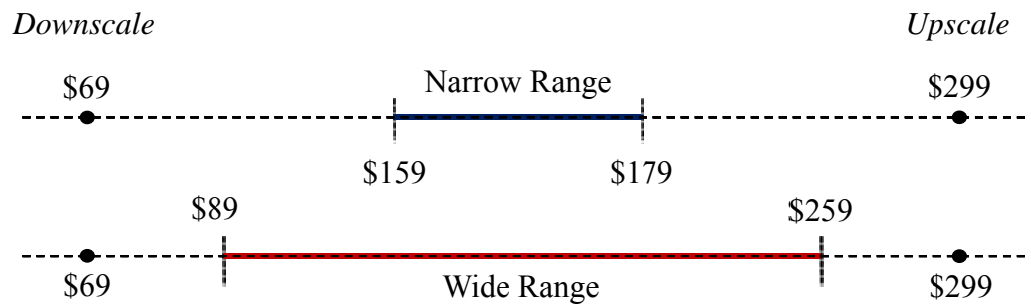
Eighty two people were recruited from MTurk to participate in an online survey on consumer perceptions of new products. Participants were mostly from Asia (70%), 30% were North-Americans (52% were males). With respect to age, 31% of the participants were between 20 and 26, 36% were aged between 27 and 36, 26% between 37 and 48, and 7% between 49 and 69. The vast majority (87.8%) of participants had income lower than US\$64,999 per year.

The evaluation task involved digital cameras, a category where brands vary naturally in portfolio size. Participants were randomly assigned to the conditions of a 2 (price range) x 2 (extension direction) between-subjects factorial design. The first factor, parent brand price range was manipulated at two levels: wide and narrow. Although the price range varied, the parent brand average price was kept fixed across conditions. The second factor, extension direction, was also manipulated at two levels: upscale and downscale. Participants were given a scenario in which they were asked to consider that a digital camera brand (Camel) was introducing a new upscale or downscale product. Extension information provided was limited to a brief description and price information.

To illustrate, participants in the wide condition read that “Camel manufactures digital cameras that sell in the \$89 to \$259 price range” while participants in the narrow conditions read that “Camel manufactures digital cameras that sell in the \$159 to \$189

price range”. In both conditions the average price was fixed at \$174. Figure 11 illustrates the different conditions.

Figure 13 – Study 4: Price Range Manipulations



Next, participants were presented with the extension information such that those in the upscale conditions read that “*Camel is considering introducing a more expensive model priced at \$299, named Camel Artica*” while those in the downscale conditions read that “*Camel is considering introducing a more affordable model priced at \$69, named Camel Artica*”. Then, respondents evaluated the extension on three seven-point scales assessing favourability (1 = not at all favourable, 7 = extremely favourable), liking (1 = extremely negative, 7 = extremely positive), and attractiveness (1 = not at all attractive, 7 = extremely attractive) and were also asked to assess their willingness to buy the new product on a seven-point scale (1 = very low, 7 = very high). Lastly, respondents answered to a manipulation check question where they indicated their perceived parent brand price width on a seven-point scale (1 = extremely narrow, 7 = extremely wide).

5.5.2 Results

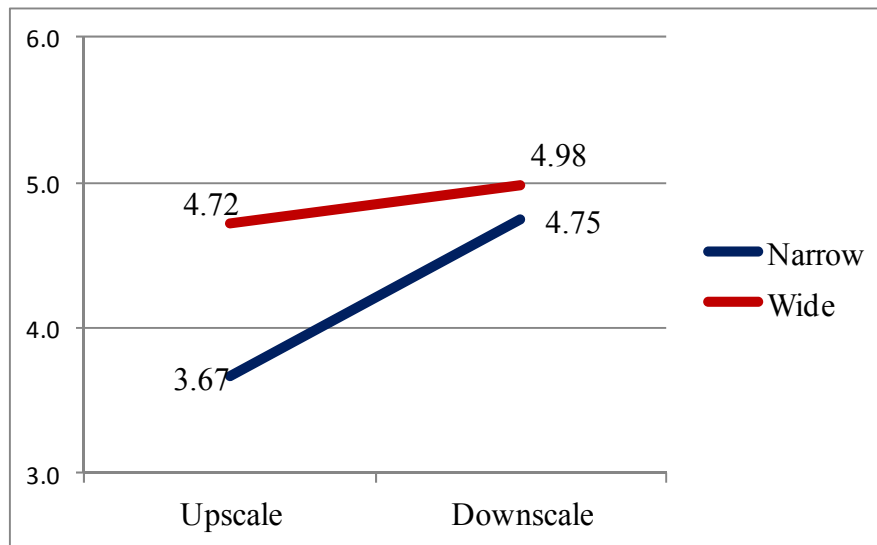
This research argues that the perceived fit influences consumers’ evaluations of vertical extensions for upscale but not downscale extensions. Additionally, it is also

suggested that the parent brand price range affects consumer's perception of fit which in turn should influence extension evaluations. Specifically, it is argued that wider price ranges lead to perceptions of higher proximity between brand and extension which in turn results in better extension evaluations. In contrast, narrower price ranges lead consumers to perceive an extension to be further from its parent brand, thus reducing favourability towards the extension.

To check for the effectiveness of the manipulations, an analysis of perceptions of the brand's price range (wide vs. narrow) in both directions was conducted. As expected, in the upscale scenario, participants perceptions of price range were lower in the narrow condition than in the wide condition ($M_{uN} = 3.10$ vs. $M_{uW} = 5.20$; $F(1, 39) = 40.87, p < .001$). Similarly, in the downscale scenario, perceptions of price range were lower in the narrow condition than in the wide condition ($M_{dN} = 3.71$ vs. $M_{dW} = 5.33$; $F(1, 39) = 17.49, p < .001$). Consistent with the findings of studies 1 and 2, two-way ANOVA shows a main effect for direction ($F(1, 78) = 8.31, p < .01$) and range ($F(1, 78) = 7.59, p < .01$) on the extension's evaluation. Also, a marginally significant interaction effect ($F(1, 78) = 3.02, p < .10$) between the direction and range on the extension's evaluation was found. These effects are shown on Figure 12.

In addition to the measures of the first three studies, this study also measured willingness to buy. Two-way ANOVA results show a significant main effect for direction ($F(1, 78) = 11.38, p < .001$) and a marginally significant main effect for range ($F(1, 78) = 3.17, p < .08$) on willingness to buy. Interaction effects between direction and range on willingness to buy was significant ($F(1, 78) = 7.26, p < .01$). Next, each direction is analysed separately in more detail.

Figure 14 – Study 4: Interaction Effects on Evaluations



As shown on Table 19, in the upscale scenario, participants' evaluations of the extension ($F(1, 39) = 9.05, p < .01$) and willingness to buy ($F(1, 39) = 11.03, p < .01$) were significantly lower in the narrow price range compared to the wide price range. This result supports hypothesis 4_b and rejects hypothesis 4_a. In contrast, participants' evaluations of downscale extensions did not differ between narrow and wide price range conditions in their evaluation of the extension ($F(1, 41) = .58, p > .10$) and in their willingness to buy ($F(1, 41) = .39, p > .10$). Hypothesis 5 is supported.

Table 19 – Study 4: Extension evaluations and willingness to buy

	Downscale		Upscale	
	Narrow	Wide	Narrow	Wide
Extension Evaluation	4.75 (.23)	4.98 (.23)	3.67 (.24)	4.72* (.24)
Willingness to Buy	5.05 (.31)	4.76 (.31)	3.15 (.32)	4.55* (.32)

* $p < .01$

Note — Standard errors are in parentheses. Differences are significant compared to the narrow condition. Price range refers to perceived parent brand price width.

5.5.3 Discussion

The results provided in Study 4, support the hypothesis that the parent brand price range influences perception of fit which in turn affects extension evaluations. Replicating the findings of the first three studies, this study shows that in the upscale scenario, consumers tend to rely more on perceptions of fit to make judgments of the new extension. As such, more proximal extensions tend to be better evaluated than more distant ones. In contrast, downscale extensions tend to be not influence by fit manipulations and differences. Consistent with this, results show that participants in the upscale condition evaluated extensions of wide price range more favourably compared to the narrow range condition. On the other hand, no significant difference was found in evaluations of downscale extensions.

Additionally, by keeping the parent brand average price constant and varying its range, this study lends support to the hypothesis that consumers did not use the parent brand averaged price as a single anchor. Rather, consistent with predictions of the range theory, participants relied on the parent brand price range to make judgments about the extensions. Although results suggest the influence of the parent brand price range on consumer's perceptions, it allowed room for a potential alternative explanation. It could still be argued that perceptions of fit between parent brand and its extension was caused by absolute price differences rather than the perceived price distance between the extension's price and the parent brand price width.

This competing hypothesis has its foundation on the fact that the absolute price difference between the upper end of the wide price range and its extension was \$40 while the absolute difference was much larger in the narrow condition (\$110). If the findings of this study could be attributed to absolute differences between end prices and the extension

rather than to the parent brand price range width, upper end prices would have been used as a single anchor to judge prices of the extensions. This then leads to the argument that the prototypical price, or the reference price, across conditions was not constant despite the fact that the parent brand price average was fixed across conditions. Consequently consumers' evoked reference price would have been higher in the wide condition than in the narrow condition. The next study is designed to rule out this alternative explanation providing a more stringent test of the proposed argument.

5.6 STUDY 5

The goal of this study was to rule out the alternative explanation that perception of fit is caused by the absolute price differences. In the upscale conditions, upper end prices were kept constant across conditions such that a narrow price range had a higher price average than the wide price range. Conversely, for downscale extensions, the lower end prices were fixed, such that the narrow price range had a lower price average.

5.6.1 Method

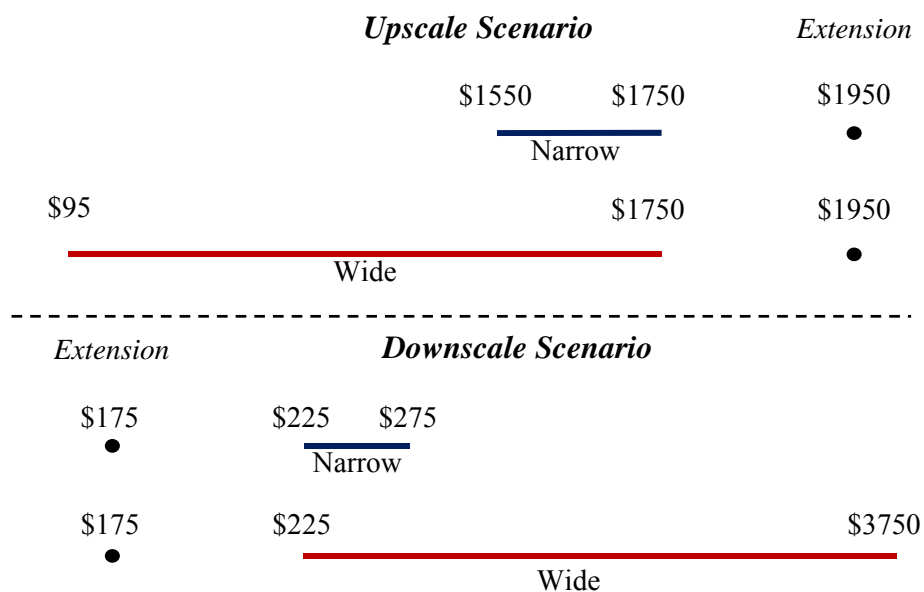
Eighty two respondents were recruited from MTurk to take part in this online study on consumer perceptions of new products. Participants were mostly from South-East Asia (60%), 40% were North-Americans (56% were males). With respect to age, 33% of the participants were between 18 and 25, 41% were aged between 26 and 35, 22% between 36 and 49, and 4% between 50 and 62. The modal income category (59.8%) ranged between US\$10,000 and US\$29,999 per year.

Participants were randomly assigned to the conditions of a 2 (fit: wide vs. narrow) x 2 (extension direction: up vs. down) between-subjects factorial design. Participants were given a scenario in which they were asked to consider that a watch brand (Swatch) was

introducing a new upscale or downscale product. Extension information provided was limited to a brief description and price information. To achieve the proposed goal, end prices were kept constant across conditions while the average price varied in each condition such that the narrow condition would always have a higher price average than the wide range condition in an upscale extension. Likewise, the price average for the wider condition would always be higher than the narrow condition for downscale extensions.

In both upscale conditions, the parent brand price range had the same upper end price such that participants in the wide condition saw a price range that varied from \$95 to \$1750 while participants in the narrow condition saw a price range that varied from \$1550 to \$1750. Conversely, in both downscale conditions, the lower end-price was kept constant across condition such that participants in the wide condition saw prices that ranged from \$225 to \$3750 while participants in the narrow condition saw prices that ranged from \$225 to \$275. These four conditions are demonstrated in Figure 13. Finally, participants used the same scales as in Study 4 to answer questions about the parent brand price range and the extension’s favourability, likability, attractiveness and willingness to buy.

Figure 15 – Study 5: Fixed End-Prices Manipulations



5.6.2 Results and Discussion

This research argues that consumer perception of fit is a function of the parent brand price width when making judgments of vertical extensions. This prediction was tested by keeping end prices fixed across conditions in both directions such that in the narrow conditions, the average price would be higher for upscale and lower for downscale. Similar to that reported in Study 4, price range was manipulated successfully such that perceptions of range were higher in the wide condition compared to the narrow condition in both upscale and downscale scenarios. As expected, there was a main effect of direction ($F(1, 78) = 10.52, p < .01$) and range ($F(1, 78) = 5.41, p < .05$), as well as interaction effects ($F(1, 78) = 14.67, p < .001$) on the extension evaluation. Also, two-way ANOVA results reveal a significant main effect for direction ($F(1, 78) = 11.98, p < .01$) and interaction effects between direction and range ($F(1, 78) = 8.38, p < .01$), but no significant main effect for range ($F(1, 78) = .89, p > .34$) on willingness to buy.

Table 20 – Study 5: Vertical extensions ratings

	Downscale		Upscale	
	Narrow	Wide	Narrow	Wide
Price Range	3.60 (.32)	5.05* (.35)	2.82 (.35)	5.24** (.34)
Extension Evaluation	5.10 (.32)	4.70 (.25)	3.23 (.23)	4.86* (.25)
Willingness to Buy	4.75 (.44)	3.95 (.45)	2.14 (.34)	3.71* (.42)

* $p < .01$; ** $p < .001$

Note — Standard errors are in parentheses. Differences are significant compared to the narrow condition. Price range refers to perceived parent brand price width.

Providing support for hypothesis 4_b, the data summarized in Table 20 shows that in the upscale scenario consumers do not rely on a single parent brand price anchor but rather on its price range to make judgments about the extension such that extensions of wide

price ranges are evaluated more favourably than those of narrow price ranges. As hypothesized, evaluations of upscale extensions were more favourable in wide versus narrow conditions even when the narrow condition had a higher price average. This is consistent with exemplar models that suggest that consumers use all contextual relevant price information to form their reference price rather than a single averaged reference. If predictions based on prototypical models were correct, respondents would have used either a single anchor based on end prices or on the parent brand average price. In the first case, results should show no differences in evaluations while the latter would lead to opposite effects from those found in this study. Thus, Study 5 rules out the potential alternative explanation for the results found in Study 4. Maintaining end prices that were closer to the extension constant (upper end prices for upscale extensions and lower end prices for downscale extensions), the argument that absolute price distance between the nearest price of the parent brand and its extension could explain the effects found is discarded.

Consistent with the previous studies shown in this thesis, Study 5's downscale scenario data did not show any difference across the narrow and wide conditions providing further support for H₅. Taken together, these results show that parent brand price width influences perceptions of fit. Further, it was demonstrated that the fit effect on extension evaluations is an asymmetric phenomenon such that there is an effect on upscale but not on downscale scenarios. Contrary to conventional wisdom results from studies 4 and 5 have shown that parent brands with lower price averages can lead to better evaluations of upscale extensions, rejecting hypothesis 4_a. Additionally, it has been shown that the parent brand price width influences perceptions of fit on which in turn affects extension evaluations.

Building on the findings of the first two studies and on prior research (Milberg et al., 2010; Smith and Andrews, 1995) that state that the effect of perceived fit on consumer's evaluation of brand extensions is mediated by perceived risk the next study tests whether this mediation effect is sustained when parent brand's width is manipulated. Furthermore, another potential rival explanation for the results found in studies 4 and 5 is addressed. It is conceivable to argue that participants of these studies made inferences about the parent brand quality and capability based on portfolio size. Despite the fact that end prices of both price ranges (wide/narrow) were fixed at the same level, it is possible that participants believed that a parent brand with a wider range of prices had more capability, more expertise or higher quality. Thus, such brand belief would be the cause of a more favourable evaluation of extensions derived from a wide (versus narrow) price structure. This rationale has support from previous literature on brand extensions that has shown the effect of a brand's portfolio size on consumers' beliefs about a company. For instance, Dacin and Smith (1994) found that as the number of products affiliated with the parent brand increases, consumer confidence in evaluations of the brand extension increases. In other words, a brand with a larger portfolio would be recognized as more competent and higher in quality hence more capable of introducing new products than a company with a narrower portfolio. Likewise, Berger et al. (2007) demonstrated that the variety a brand offers often serves as quality cue and thus influences brand choice. Therefore, it is possible that consumers in the wide condition formed the belief that the parent brand is more competent hence more qualified to introduce an upscale extension than in the narrow scenario. It should be noted that this alternative explanation cannot account for the difference in patterns obtained in upscale and downscale conditions. These issues are the focus of the next study.

5.7 STUDY 6

The goal of this study is to test the prediction that upscale extensions' evaluation is a function of perceived fit which is mediated by perceived risk. Specifically, in upscale scenarios the greater the perceived fit the higher the risk perception, leading to lower evaluations of the extension. In contrast, there should not be a fit effect on downscale extensions. This is tested by using a parent brand price range manipulation as proxy for the fit between extension and its parent brand. In other words, rather than manipulating absolute price distances like studies 1 and 2, this study will test this mediation effect using relative price distances. The design of this study is similar to the approach used in Study 5. However, a different brand and product category is used. Thus, this study extends the findings of previous studies reported in this thesis to a high involvement product and a prestige brand context. Lastly, the potential rival explanation for the results found in studies 4 and 5 is addressed.

5.7.1 Method

Two hundred and thirty-eight participants were recruited from MTurk to take part in this online study, which was embedded in a larger questionnaire. Participants were mostly from South-East Asia (51%), 49% were North-Americans (61% were males). With respect to age, 31% of the participants were between 18 and 25, 33% were aged between 26 and 35, 22% between 36 and 46, and 14% between 47 and 55. The modal income category (51%) ranged between US\$10,000 and US\$64,999 per year. Participants were randomly assigned to a 2 (fit: wide vs. narrow) x 2 (direction: upscale vs. downscale) factorial design. Manipulations followed that of Study 5 such that the upper end price for an upscale extension and the lower end price for the downscale extension were kept constant across the wide and narrow conditions. The scenarios are shown below:

Upscale extension manipulation: “BMW is an automobile manufacturer that produces high quality cars and it is well known for its models: Series 3, 5 and 7. Currently, BMW's models range from (\$65,000 to \$287,000 in the wide range or \$205,000 to \$287,000 in the narrow range). In an effort to diversify its business and capitalize on market trends, BMW has recently decided to market a new car which is of higher quality than the existing price range (wide range: \$65,000 to \$287,000 or narrow range: \$205,000 to \$287,000) using BMW's brand name. The new Series 8 car will be called BMW 800i and will be marketed at the price of \$345,000”.

Downscale extension manipulation: “BMW is an automobile manufacturer that produces high quality cars and it is well known for its models: Series 3, 5 and 7. Currently, BMW's models range from (\$65,000 to \$287,000 in the wide range or \$65,000 to \$92,000 in the narrow range). In an effort to diversify its business and capitalize on market trends, BMW has recently decided to market a new car which is of lower quality and more affordable than the existing price range (wide range: \$65,000 to \$287,000 or narrow range: \$65,000 to \$92,000) using BMW's brand name. The new Series 1 car will be called BMW 115i and will be marketed at the price of \$43,000”.

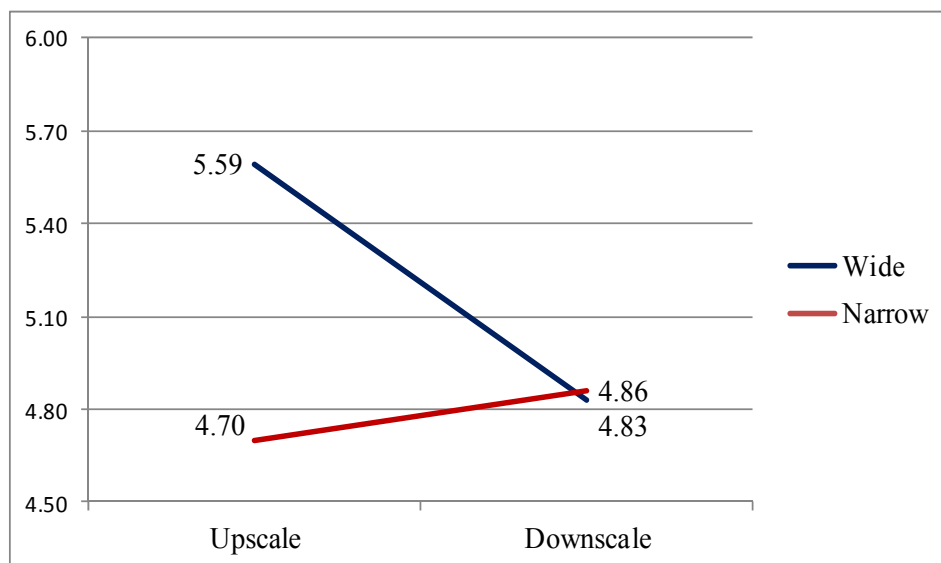
Measures of the parent brand price range and the extension favourability, liking and willingness to buy were the same as those used in the previous study. Additionally, participants were asked to rate their perceptions of performance and financial risk on two seven-point scales (1 = not at all risky, 7 = extremely risky), completing the extensions' measures. To test for a possible alternative explanation, respondents evaluated the parent brand on four seven-point scales adapted from Dodds et al. (1991) to assess the company's perceived product quality (1 = very poor quality, 7 = very good quality), perceived manufacturer ability (1 = not at all good, 7 = very good), trustworthiness (1 = not at all

trustworthy, 7 = very trustworthy), and capability (1 = not at all capable, 7 = very capable). Lastly, on a two seven-point scales (1 = very low, 7 = very high), they rated the parent brand prestige, and perceived overall quality.

5.7.2 Results

Manipulation check. Price range manipulation had the intended effect such that in the upscale scenario participants evaluations of price range were significantly lower in the narrow ($M_{\text{upNarrow}} = 3.50$) than in the wide condition ($M_{\text{upWide}} = 6.02$; $F(1, 117) = 175.02, p < .001$). Likewise, in the downscale scenario, evaluations were significantly lower in the narrow ($M_{\text{downNarrow}} = 4.42$) condition than in the wide condition ($M_{\text{downWide}} = 5.25$; $F(1, 117) = 13.23, p < .001$).

Figure 16 – Study 5: Interaction Effects on Evaluations



Main and Interaction Effects. Two-way ANOVA revealed a marginally significant main effect for direction ($F(1, 234) = 2.96, p < .10$), but a significant main effect for range ($F(1, 234) = 6.24, p < .05$) as well as a significant interaction ($F(1, 234) = 7.18, p < .01$)

between direction and range on participants evaluations of the extension. For willingness to pay, there was no significant main effect for direction ($F(1, 234) = .01, p > .10$) but there was a marginally significant main effect for range ($F(1, 234) = 2.89, p < .10$) and a significant interaction ($F(1, 234) = 9.16, p < .01$). Taken together, the results shown on Figure 14 are not only significant but also in the predicted direction. Thus, providing further support for results found in studies 4 and 5. Next, each direction is analysed separately in more detail.

Upscale evaluations. This research has shown that upscale extensions are higher risk compared to downscale extensions. As such, consumers tend to use perceived fit to reduce perceived risk and in turn make judgments of the new extension product. The data provided in Table 21 provides further support for these findings. One-way ANOVA results show that respondents perceived the extension in the wide price range as a lower risk ($F(1, 117) = 5.47, p < .05$) than the extension in the narrow price range. More importantly, results show that extension evaluations ($F(1, 117) = 13.74, p < .001$) and willingness to buy ($F(1, 117) = 10.09, p < .01$) are both significantly lower in the narrow compared to the wide price range condition. Taken together, these results are consistent with previous study findings that reductions in fit perception leads to higher perceived risk which in turn reduces extension favourability. Further confirmation of such assumption is attained from performing a mediation analysis. The bias-corrected bootstrap (using 5,000 sample) show that mean mediating effect is positive ($a \times b = .22$) and significant with a 95% confidence interval excluding zero (.07 to .58). In the indirect path, a unit increase in perceived fit reduces risk perception by $a = -.52$ units while a unit increase in risk reduces brand extension evaluation by $b = -.55$. The direct effect c (.60) is significant ($p < .01$). According to Zhao et al. (2010), because $a \times b \times c$ (.1725) is positive, this is a complementary mediation.

Table 21 – Study 6: Vertical extensions ratings

	Downscale		Upscale	
	Narrow	Wide	Narrow	Wide
Extension Evaluation	4.86 (.15)	4.83 (.19)	4.70 (.18)	5.59** (.16)
Willingness to Buy	5.03 (.19)	4.73 (.24)	4.33 (.26)	5.41** (.22)
Perceived Risk	3.08 (.18)	2.97 (.17)	2.17 (.18)	1.64* (.13)

* $p < .05$; ** $p < .01$

Note — Standard errors are in parentheses. Differences are significant compared to the narrow condition.

Downscale evaluations. The current research shows that, for downscale extensions (lower risk) consumers' judgments are not affected by perceptions of fit. Results shown on Table 21 are consistent with previous studies proving support for hypothesis 4. One-way ANOVA results show no significant differences in evaluations of downscale extensions across conditions ($F(1, 117) = .02$, all $p > .80$). There was also no difference in perceptions of risk in the wide versus narrow condition ($F(1, 117) = .22$, $p > .60$).

Parent brand evaluations. A potential competing hypothesis is that participants of studies 4 and 5 made inferences about the parent brand quality and capability based on portfolio size. Thus, such brand belief would be the cause of a more favourable evaluation rather than the proposed hypothesis about parent brand's price structure. To rule out this competing hypothesis, one-way ANOVA compared means between groups, across all conditions. The four scales used to evaluate company credibility were averaged to form a single measure (Cronbach's alpha = .92).

Table 22 – Study 6: Parent brand ratings

	Downscale		Upscale	
	Narrow	Wide	Narrow	Wide
Expertise	5.93 (.12)	6.00 (.09)	5.99 (.13)	6.22 (.11)
Overall Quality	6.15 (.12)	6.30 (.10)	6.28 (.15)	6.54 (.10)
Prestige	6.19 (.12)	6.37 (.09)	6.25 (.14)	6.54 (.11)

Note — Standard errors are in parentheses. No significant differences between conditions were found. ANOVA analysis was conducted comparing all conditions at once.

As expected, the results shown in Table 22 reveal that parent brand beliefs did not differ significantly across conditions for all measures: credibility ($F(3, 234) = 1.32, p > .10$), overall quality ($F(3, 234) = 1.85, p > .10$), and prestige ($F(3, 234) = 1.73, p > .10$). This is consistent with the proposed hypotheses and rules out the assumption that participants formed company's beliefs based on portfolio size rather than on price range.

5.7.3 Discussion

The results of this study replicate findings from studies 4 and 5 in another setting that consists of a more prestigious brand, a higher price level, a different product category, and with additional measures. Once more, results show price range affected fit, which in turn influenced ratings of upscale but not downscale extensions. The data furnished ruled out the possible explanation that results could be attributed to consumer beliefs in the company's capability, quality, and prestige. No differences in consumers' beliefs were found across all conditions. Importantly, this study replicates the mediating role of perceived risk shown in the fit-extension relationship for upscale extensions scenario using a different manipulation of fit where participants relied on the parent brand price range to infer perceptions of fit. The fact that this study could not replicate the finding that upscale

extensions are higher risk compared to downscale extensions demonstrates a problem with the measurement instrument used. While in previous studies participants evaluated risk of the new extension product relative to the parent brand price point, this study used a more general measure of risk. Thus, it is assumed that respondents perceived risk to be higher in a downscale than an upscale extension. Differences in perceived risk (up vs. down) are significant ($M_{\text{down}} = 3.02$ vs. $M_{\text{up}} = 1.91$; $F(1, 234) = 74.32, p < .001$). Nonetheless, this did not influence within direction comparison. When participants evaluated risk in the upscale scenario, wide ranges lead to lower perceptions of risk while in the downscale scenario there was no difference between conditions. In sum, results found here are consistent with the previous studies providing robust support for the hypotheses proposed in this thesis.

5.8 CHAPTER SUMMARY

In this chapter, all the proposed hypotheses of this thesis were tested. In particular, studies 1 to 3 tested the first set of hypotheses (H1a, H1b, H2a, H2b, and H3). The latter three studies (S4, S5, and S6) tested the last proposed hypotheses (H4a, H4b, and H5). The first three studies demonstrate that consumers systematically use perceived fit as a risk reduction mechanism for upscale extensions while brand expertise plays that part for downscale extensions. This chapter began with the examination of whether the effect of perceived fit on vertical extension evaluations is moderated by the extension direction. Results show that the greater the perceived fit between an upscale extension and its parent brand, the lower the perceived risk, which in turn results in more favourable evaluations of the extension. In contrast, it was shown that this is an asymmetrical effect that does not arise in downscale scenarios. Consumers do not perceive a more distant downscale extension to be of higher risk compared to a closer extension which in turn led to similar evaluations of the downscale extensions.

These findings are further examined and explained by Study 2 that also rules out the alternative explanation that extension evaluations were affected by participants' perceptions of the price level. In particular, Study 2 shows that risk perceptions are lower for downscale extensions compared to upscale extensions because it is the effect of brand expertise on the extension evaluation that is mediated by perceived risk in the downscale setting while the effect of perceived fit on the extension evaluation is mediated by perceived risk in upscale scenarios. Finally, Study 3 extended these findings to a choice setting which provides more confidence as to the generalizability to a wider scope of the examined theory. Consistent with the hypotheses, it is shown that consumers tend to choose an extension product that has been placed closer to the parent brand price point in upscale choice sets but are indifferent in downscale choice sets.

In the second set of studies, 4 to 6, the purpose was to understand of how the parent brand price structure affects judgments of vertical extensions. In particular, these studies tested the hypothesis that the parent brand price range can work as an antecedent for perceptions of fit. Respondents systematically used the parent brand price range rather than a single anchor (either the mean or end prices) to make judgments about the new extension product. Consistent with predictions of range theory (Volkman, 1951), by showing that reducing a parent brand price averages can lead to better evaluation of an upscale extension these studies provide strong support for the proposed hypotheses. Importantly, results from the first three studies are replicated in a different fit manipulation and it is shown that an effect was found in upscale but not for downscale extensions. In sum, the evidence from the six studies presented in this chapter provides compelling support for all proposed hypotheses. In the next chapter, the theoretical and managerial implications of this research are presented along with a discussion of the limitations and directions for future research.

6 CONCLUSIONS

6.1 INTRODUCTION

Literature on brand extension has focused mostly on understanding how can firms improve perceptions of fit between the parent brand and its extension (Bridges et al., 2000; Broniarczyk and Alba, 1994; Kim and John, 2008; Klink and Smith, 2001). The aim of this thesis was to investigate whether the findings and assumptions provided by the current literature in category extensions provides the necessary answers for understanding the fit-extension relationship in the context of vertical line extension. In the conceptual model (Figure 2), it was proposed that the direction of a vertical extension moderates the effect of perceived fit on extension evaluations. In particular, it was hypothesized that consumers rely on the fit between parent brand and extension to diminish perceptions of risk and increase favourability for upscale but not for downscale extensions. To account for such an asymmetrical effect, it was proposed that perceived brand expertise offsets consumers' reliance on fit when evaluating downscale extensions. As a consequence, it was expected that consumers' evaluations of downscale extensions to be similar regardless of its fit with the parent brand. Additionally, the conceptual model indicates that the parent brand price range in an antecedent of consumers perceptions of fit. It was hypothesized that compared to a narrow price structure, wide price ranges lead to perceptions of higher similarity between parent brand and extension. In turn, it increases consumer favourability towards the new extension products. Consistent with the hypotheses 1_a and 1_b, this was expected to be an asymmetrical outcome such that an effect is found for upscale but not for downscale extensions.

The conceptual model and its corresponding hypotheses were tested in six studies. This was done by conducting scenario-based web experiments. Specifically, the first three hypotheses were tested by conducting studies 1 to 3; and hypotheses 4 and 5 were tested by conducting studies 4 to 6. Overall, results of these studies provide strong support for all proposed hypotheses, except for hypothesis 4_a. In sum, it was shown that consumers systematically use perceived fit as a risk reduction mechanism for upscale extensions but not for downscale extensions. These findings were replicated across a wide array of price levels and product categories, using both unfamiliar and familiar brands, functional and prestige brand concepts, as well as a choice scenario. In the current chapter, the theoretical implications as well as managerial implications of this thesis' findings will be elaborated on. After that, the limitations of the present research accompanied by future research propositions will be highlighted.

6.2 THEORETICAL IMPLICATIONS

The influence of perceived fit on evaluation of brand extensions is an important topic for marketing managers as well as marketing researchers (Aaker and Keller, 1990; Volckner and Sattler, 2006). But, despite the extensive literature in this research stream, this is the first research to demonstrate the moderating effect of the extension direction on the fit-extension relationship in a vertical extension context. Though researchers suggest that the extension's direction is an important moderating variable in the vertical line extension context (Heath et al., 2011; Kim et al., 2001; Kirmani et al., 1999; Lei et al., 2008; Randall et al., 1998) and that fit is one of the main drivers of extension success (Volckner and Sattler, 2006), no prior study has investigated these two variables jointly to understand their effects on extension evaluations.

At first glance, it would be reasonable to assume that the positive effect of fit on extension evaluations found in the category extension literature is readily transferrable to the vertical line extension context. Indeed, the studies presented in this thesis replicate, in an upscale setting, the literature's main finding that fit improves extension evaluations (Aaker and Keller 1990; Park et al. 1991) but remarkably different effects were found in the downscale scenario. Specifically, perceived fit was found to have no effect on extension evaluations in downscale scenarios. The present research extends the knowledge in the perceived fit literature by demonstrating that the effect of perceived fit on vertical extension evaluations is asymmetric. The findings presented here are consistent with previous research in the category extension context. This is consistent with previous research in the category extension context (Kim and John, 2008; Klink and Smith, 2001; Milberg et al., 2010) that has demonstrated other boundary conditions to the fit effect.

In addition, this thesis contributes to the risk perception literature. Replicating findings from previous research (Lei et al., 2008), the current research shows that upscale extensions tend to be of higher risk compared to downscale extensions. This hypothesis was tested using different price levels and manipulations that eliminated the possible confound effects of price level. However, the present research adds to the literature not by showing the moderating effect of the extension direction on perceived risk but rather by providing an explanation to why upscale extensions are perceived higher risk than downscale extensions in the vertical line extension context. Specifically, this research has shown that perceived risk tends to be lower in downscale scenarios due to the role of brand expertise on consumer judgments. As hypothesized, consumers would not question whether a brand has the expertise to produce a lower price product once that the firm has already signal consumers its higher capability (e.g. selling a higher price product).

On the other hand, to make a more expensive and higher quality product, companies require a higher level of expertise that is not acquired overnight (Dane, 2010; Ericsson et al., 2007; Helfat and Raubitschek, 2000). Hence, customers' uncertainty about the company's ability to deliver such higher standard product offering increases. This hypothesis was supported by showing that fit does not influence perceptions of risk in downscale scenarios when brand expertise was used as a covariate, but it does so in the upscale scenario.

The present research also adds to the brand expertise literature. While prior research also addresses the effects of brand expertise on consumer choice and judgments (Erdem and Swait, 2004; Swait and Erdem, 2007) the present research diverges from this stream by exploring variations of brand expertise rather than a more stable perspective of brand expertise. Specifically, Erdem and Swait (2004) examined the role of brand credibility (trustworthiness and expertise) on brand choice and consideration and found that brand credibility increases probability of inclusion of a brand in the consideration set, as well as brand choice conditional on consideration. In their analysis, however, different brands with different levels of brand credibility were used. On the other hand, this thesis extends the analysis of brand expertise to the realm of vertical line extensions. In this sense, it explores the effects of perceived brand expertise change in consumer's judgments.

Furthermore, despite the importance of risk perception in consumer judgments (Campbell and Goodstein, 2001), only a couple of studies have examined the mediation role of risk in the brand extension literature. For instance, in the category extension research stream, Smith and Andrews (1995) used a B2B context and SEM analysis to test the mediation effect of perceived uncertainty on the fit-extension relationship and found an indirect-only mediation. Moreover, Milberg et al. (2010) found an indirect mediation effect

using the traditional Baron and Kenny (1986) mediation analysis. The contribution of this thesis in this research stream is two-fold: (1) it adds to the literature by showing that results found in the category extension research are replicated only for an upscale setting; (2) it shows that it is the effect of brand expertise on extension evaluations that is mediated by perceived risk in the downscale scenario. In fact, this is the first research to analyse this mediating effect in the vertical line extension context. This is done by using the bias-corrected bootstrapping method suggested by Preacher and Hayes (2008).

A growing body of literature has questioned whether reference price models based on adaptation-level theory (Helson, 1964) account for results found in this research stream. It has been suggested that range-theory (Volkman, 1951) and range-frequency theory (Parducci, 1965) can provide a better explanation of consumer's variability in price perception (Niedrich et al., 2001; Niedrich et al., 2009). Grounded on these findings, this research draws upon range-theory to argue that the parent brand vertical price structure influences perceptions of fit, and in turn, extension evaluations. Consistent with this notion, it was shown that consumers in fact do not rely on a single price anchor (average price or end price) to make judgments of a new product. Rather, it was demonstrated that all contextual price information can influence how consumers rate new products. In addition, it was also shown that this is an asymmetric effect that is not present in the downscale setting. Thus, this research contributes to the literature on perceived fit by showing that consumer perceptions of similarity in a vertical extension context is a relative construct that it can be affected by the firm's framing of its product line. By using vertical price differentiation, brands can improve their perceptions of fit for upscale extensions. This is particularly important for mainstream brands trying to break through higher priced segments.

Lastly, the present research adds to the literature by expanding analysis of vertical line extensions to a choice context. Though researchers have called for more realistic studies of brand extension effects (Klink and Smith, 2001), little empirical research investigates how competition impacts this relationship. Such an oversight is surprising given that competitive effects are known to affect evaluations across many consumer scenarios (Hsee and Leclerc, 1998; Milberg et al., 2010; Posavac, Kardes, Sanbonmatsu, and Fitzsimons, 2005). Thus, the present research address this request by extending the findings to a choice context (Study 3) where respondents were asked to jointly evaluate two brands. Although, it was not the objective of this thesis to measure and analyse competitive settings, Study 3 provides an insight to how this effect would behave in a competitive market. In sum, the findings of this thesis have important implications for understanding consumers' evaluation and choice processes.

6.3 MANAGERIAL IMPLICATIONS

In addition to contributions to the consumer behaviour literature, the research presented in this thesis has direct implications for marketers hoping to successfully leverage their product line by introducing vertical extensions. If the effects of fit are diminished by the extension direction, then brands may be less or more extendible than previously thought. Take the example of breadmakers. Examining Amazon's U.S. website, more than 80 breadmakers from more than 20 brands with prices ranging from \$40 to \$1148 were found (prices in American dollars). Sunbeam and West Brand are at the lower end of this range offering products from \$50 to \$80. The findings of this thesis suggest that if these companies want to move to the higher end of the market, they should take small steps slowly increasing perceptions of brand expertise. The introduction of a product that is far from their current price range is likely to be viewed with scepticism by consumers,

who may see the purchase as too risky. At a higher level in the price-quality spectrum, it is the Panasonic line of products ranging from \$135 to \$335. Going further up, at the highest level Sanyo Gopan sells breadmakers for \$1148. Despite the enormous difference in price points, the results shown in this thesis suggest that if both companies decide to introduce entry level breadmakers below \$100, their current price points will have little impact on consumers' perception of risk and evaluation of the new product. As both companies currently market products at prices higher than \$100, these prices do not matter. In this case, perceptions of brand expertise, not fit, will dictate risk perceptions for the new product. Recall that brand expertise was measured and defined as the company's ability to deliver a new product at a specific price/quality point.

Alternatively, managers could make use of their vertical price structure to improve perceptions of fit when upscaling their product line. To illustrate, using the example above, consider that Panasonic is introducing a new upscale breadmaker extension priced at \$450. The finding that price range affects perceptions of fit suggests that managers can make use of a product line pricing strategy to improve perceptions of fit, diminishing risk, and improve favourability of the new upscale product. In this sense, by reduce further down the price of their lower end product, managers are making these products more competitive in terms of price while at the same time improving perceptions of the new upscale product. This strategy provides a dual benefit for the company. First, by making the lower end more competitive, Panasonic can increase sales as it is now considered as an alternative for the lower price segment (\$50 to \$80). Consistent with this notion, previous research has shown that when consumers evaluate jointly a low-rank of a higher quality brand and a high-rank of a lower quality brand they tend to opt the first rather than the latter (Leclerc, Hsee, and Nunes, 2005). Also, the reduction of a lower end product's price extends the width of

prices and improves perceptions of fit between the new upscale extension and its parent brand.

Nonetheless, companies introducing new downscale extensions must weigh the benefits of attracting new customers against the costs of alienating current customers. Prior research shows that the introduction of downscale extension may cause neutral or positive effects on parent brand's attitudes due to an increase in portfolio size (Heath et al., 2011), it also can affect negatively product owners' attitudes toward the brand (Kirmani et al., 1999). Although one may suggest that the findings demonstrated in this research indicate that firms can downscale their product line without any risks, this is hardly the case. The current research shows that perceived fit does not influence extension evaluations in downscale scenarios, however risk is inherent to consumers' evaluations of downscale extensions. It was shown that regardless of fit, perceptions of risk regarding the new extension product were similar to close and far parent brands. Lastly, fit was measured from a feature-based view of similarity rather than a brand-concept view. Hence, managers should take into account possible parent brand effects when introducing downscale extensions as well as upscale extensions.

6.4 LIMITATIONS AND FUTURE RESEARCH

The findings reported in this research are subject to a few limitations that can be used as a guide for future research. One limitation of this research relates to the use of hypothetical scenarios. Stated intentions and imagined perceptions may not correspond with consumers' behaviour in live shopping environments. Nevertheless, scenario-based experiments allow the researcher to manipulate the independent variables in a way that matches the conceptual definitions of the variables, thereby enhancing the internal validity of the experiment, which is a prerequisite for its external validity (Campbell and Stanley,

1966). Moreover, they allow retaining levels of experimental control that cannot be achieved by other means. The present thesis was conducted using a web experiment platform. Its advantage compared to normal lab experiments is that it can easily attract many demographics and because of its low costs. In fact, research has shown that the profile demographic of MTurk's respondents are more representative of the general population than student samples (Paolacci et al., 2010). Further, because participation in the experiment was mostly done at home, respondents are in a more natural setting to them and tend to behave more naturally while in an experiment (Martin, 2007). In sum, the benefits of using scenario-based web experiments overcome by far the issues that may arise with external validity. Future research however, could extend this approach to field settings to observe naturally occurring variations in fit and observe consumers' real shopping behaviour. Alternatively, researchers could use scanner data to investigate such phenomenon. However, a point that should be noted is that, the use scanner data has its own limitations. In particular, as with any cross-sectional study, results provided by this method provides evidence of association rather than causation among the variables (Hair, Black, Babin, and Anderson, 2010). The theory and prior research that underpin this thesis' hypotheses presume a causal direction in which perceived fit affects extension favourability.

The second limitation of the studies conducted in this thesis has to do with the variable brand expertise. In particular, this variable was observed and measured as a covariate rather than manipulated as an independent variable. Although the theory and results provided strong support for the proposed hypotheses, future research would benefit from studies that specifically manipulated brand expertise. Furthermore, previous research has shown that brand trustworthiness may overcome the effect of brand expertise on consumers' choice (Erdem and Swait, 2004). This research did not measure or manipulated

brand trustworthiness for two reasons: (1) it was not the goal of this research to understand which dimension of brand credibility influences more the fit-extension relationship, (2) because brand expertise offsets perceived fit in downscale scenarios, one could expect that brand trustworthiness would have a much stronger effect. However, this research found that perceived fit, rather than expertise, is systematically used as a risk reduction cue for upscale scenarios. In this sense, future research could investigate whether brand trustworthiness offsets perceived fit in this setting. In support for that argument, prior research has shown that when firms increase consumers' exposure to advertising, perceptions of fit improved (Klink and Smith, 2001).

In the present thesis, perceived fit was defined and measured from a feature-based similarity perspective. Previous research however, has shown that the direction of the extension effects on vertical extensions is a function of brand concept (Kim et al., 2001; Kirmani et al., 1999). Literature in the perceived fit stream suggests that brand concept may be used to increase similarity between parent brand and extension (Park et al., 1991). Thus, a promising area for further research is test whether the asymmetrical fit effect on extension evaluation found in this research can be generalized with another measurement approach of perceived fit. According to Park et al. (1991), prestige brands are defined as those that are bought primarily for status and exclusivity reasons and because consumers may draw inferences about prestige on the basis of price (Petroshius and Monroe, 1987). On the other hand, functional brands tend to be more consistent with variations in performance or symbolic benefits unrelated to price (e.g., the fashionability of Benetton). Thus, it would be interesting to see if different patterns are found by measuring fit with a brand-concept perspective.

This research has focused on the examination of consumer evaluations of vertical extensions, hence extending the analysis to understanding the reciprocal effects on the parent brand is an important domain of research that can help marketing managers improve decision making. Finally, in this research, the manipulations used in studies 5 and 6 were somewhat artificial. In particular, consumers can easily recognize that BMW's range is not as narrow as proposed in the scenario. In contrast, Swatch's price range is not as wide as suggested in the experiment. This in turn reduces external validity and generalizability of the results found when investigating price range as an antecedent of fit. Nonetheless, studies 4, 5 and 6 replicated the findings of the first three studies (in which scenarios were based on realistic prices) indicating that they did not suffer from internal validity problems.

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8 APPENDICES

8.1 APPENDIX 1: RESEARCH QUESTIONNAIRE FOR STUDY 1

Explanatory Statement

Consumer Behaviour and Judgment of New Products

This study is being undertaken by Nicolas Pontes with Senior Lecturer Dr. Mauricio Palmeira and Associate Professor Dr. Colin Jevons as his supervisors in the department of Marketing, Faculty of Business and Economics at Monash University towards a PhD degree.

We are interested in understanding of consumers' perceptions of new product. The results of this study will help to better understand people's decision making process and the factors that influence their decisions. If you agree to participate, you will be asked to make certain judgments in different scenarios or to choose between two products or services. I will ask you some questions similar to those asked in the population Census. The purpose of the census questions is to allow us to compare the answers of different types of people – for example, we want to compare men with women, teenagers with young adults, etc. I therefore would appreciate if you would complete the questionnaire. Filling out this questionnaire will take no longer than 10 minutes. Participation in the survey is completely voluntary. Responses are strictly confidential and answers cannot be linked with individual persons or households. The results of this study will be written up for a PhD thesis, which is a research report of about 200 pages. Only the combined results of all participants will be published. Only the researchers will have access to the coded data, which will be stored for at least five years as prescribed by the university regulations. A copy of the aggregated results will be provided to participants if requested. If you would like to speak with the researchers about any aspect of this study, please contact student researcher:

Nicolas Pontes
Department of Marketing

Faculty of Business and Economics

Monash University

Tel: [REDACTED] Fax: [REDACTED]

Email: [REDACTED]

Should you have any complaint concerning the manner in which this research (number: 2010001040) is conducted, please do not hesitate to contact the Monash University Standing Committee on Ethics in Research Involving Humans at the following address:

The Secretary,

The Standing Committee on Ethics in Research Involving Humans (SCERH)

Building 3D, Research Grants & Ethics Branch

Monash University VIC 3800

Tel: +61 3 9905 2052 Fax: +61 3 9905 1420

Email: scerh@adm.monash.edu.au

Section A: Experimental Scenario (Randomised in a between-subjects full-factorial design)

You will now be presented with a hypothetical shopping scenario. Please read through the scenario and try to imagine yourself in the described situation. Take your time as keeping the details in mind throughout the survey is important.

Condition 1:
Extension Direction: Up
Fit: Far

Consider the following: Holiday Inn is a hotel company that is known for its quality facilities and service standards. Holiday Inn is typically ranked high in customer satisfaction and quality ratings and last year it won an award for excellence by a major Hotel Association. As a result, the brand has achieved a solid reputation in the hotel

industry. The room rates in this hotel typically range from \$90 to \$125.

In an effort to diversify its business, Holiday Inn recently decided to market an upscale and more expensive hotel. The new hotel will be called Holiday Inn Empire. The room rates in this hotel range from \$295 to \$530.

Condition 2:
Extension Direction: Up
Fit: Close

[Manipulation of parent brand information: Same as condition 1]

In an effort to diversify its business, Holiday Inn recently decided to market an upscale and more expensive hotel. The new hotel will be called Holiday Inn Empire. The room rates in this hotel range from \$125 to \$175.

Condition 3:
Extension Direction: Down
Fit: Far

[Manipulation of parent brand information: Same as condition 1]

In an effort to diversify its business, Holiday Inn recently decided to market a new budgeted hotel service. The new hotel will be called Holiday Inn Eco. The room rates in this hotel range from \$35 to \$60.

Condition 4:
Extension Direction: Down
Fit: Close

[Manipulation of parent brand information: Same as condition 1]

In an effort to diversify its business, Holiday Inn recently decided to market a new budgeted hotel service. The new hotel will be called Holiday Inn Eco. The room rates in this hotel range from \$65 to \$90.

Section B: Extension Evaluation

Select the rating that best describe how do you feel towards the new hotel:

Not at all favourable 1 2 3 4 5 6 7 Extremely favourable

Extremely negative 1 2 3 4 5 6 7 Extremely Positive

Section C: Risk Perception

Given the expense involved, how much risk would be involved with staying at the hotel?

Very little risk 1 2 3 4 5 6 7 Very high risk

Considering the potential problems with the new hotel's service performance, how much risk would you say would be involved in staying at the new hotel?

Not at all risky 1 2 3 4 5 6 7 Extremely risky

Overall, how risky it would be to stay at the new Holiday Inn Eco/Empire?

Not at all risky 1 2 3 4 5 6 7 Extremely risky

Section D: Manipulation Checks (perceived fit and price level)

The price of the new Holiday Inn Eco/Empire compared to that of the parent brand is:

Not at all similar 1 2 3 4 5 6 7 Extremely similar

The quality of the new Holiday Inn Empire compared to that of the parent brand is:

Not at all similar 1 2 3 4 5 6 7 Extremely similar

Overall, how similar the new hotel is to the parent brand:

Not at all similar 1 2 3 4 5 6 7 Extremely similar

The price of the new Holiday Inn Eco/Empire compared to that of the parent brand is:

Not at all similar 1 2 3 4 5 6 7 Extremely similar

Section E: Parent Brand Measures

In my opinion Holiday Inn provides overall:

Low quality service 1 2 3 4 5 6 7 High quality service

In think that Holiday Inn is:

Not at all trustworthy 1 2 3 4 5 6 7 Very trustworthy

Not at all capable 1 2 3 4 5 6 7 Very capable

Not at all competent 1 2 3 4 5 6 7 Very capable

Select the rating that best describe how do you feel towards Holiday Inn:

Not at all favourable 1 2 3 4 5 6 7 Extremely favourable

Extremely negative 1 2 3 4 5 6 7 Extremely Positive

I am _____ with the Holiday Inn brand:

Not at all familiar 1 2 3 4 5 6 7 Extremely familiar

Section E: Industry Knowledge Measures

I am _____ with Hotel services:

Not at all familiar 1 2 3 4 5 6 7 Extremely familiar

I am _____ about Hotel services:

Not at all knowledgeable 1 2 3 4 5 6 7 Extremely knowledgeable

Among my circle of friends, I think I know _____ about hotels.

Very little 1 2 3 4 5 6 7 A lot

I am _____ about Hotel prices:

Not at all knowledgeable 1 2 3 4 5 6 7 Extremely knowledgeable

Section F: Demographics

What is your gender?

- Female
- Male

What is your age? _____

Please indicate your current household income (US\$) per year:

- Under \$10,000
- \$10,000 - \$19,999
- \$20,000 - \$34,999
- \$35,000 - \$59,999
- \$60,000 - \$100,000
- Over \$100,000

Thank you very much for participating in this survey.

8.2 APPENDIX 2: RESEARCH QUESTIONNAIRE FOR STUDY 2

Explanatory Statement

Same as Study 1.

Section A: Experimental Scenario (Randomised in a between-subjects full-factorial design)

You will now be presented with a hypothetical shopping scenario. Please read through the scenario and try to imagine yourself in the described situation. Take your time as keeping the details in mind throughout the survey is important.

Condition 1:
Extension Direction: Up
Fit: Far

Consider that Alpha is a wrist watch manufacturer that is known for its quality, design and orientation towards innovation. As a result, the brand has achieved a solid reputation in the wrist watches market.

Currently, prices of Alpha's models typically range from \$95 to \$165

In an effort to diversify its business, Alpha recently decided to market a **higher quality and more expensive model**. The new watch will be called Alpha Piccolo and will be priced at \$495.

Condition 2:
Extension Direction: Up
Fit: Close

[Manipulation of parent brand general information (except prices): Same as condition 1]

Currently, prices of Alpha's models typically range from \$285 to \$415.

In an effort to diversify its business, Alpha recently decided to market a **higher quality and more expensive model**. The new watch will be called Alpha Piccolo and will be priced at \$495.

Condition 3:
Extension Direction: Down
Fit: Far

[Manipulation of parent brand general information (except prices): Same as condition 1]

Currently, prices of Alpha's models typically range from \$625 to \$950

In an effort to diversify its business, Alpha recently decided to market a **more economic and less expensive model**. The new watch will be called Alpha Piccolo and will be priced at \$495.

<p>Condition 4: Extension Direction: Down Fit: Close</p>
<p>[Manipulation of parent brand general information (except prices): Same as condition 1] Currently, prices of Alpha’s models typically range from \$1100 to \$2200. In an effort to diversify its business, Alpha recently decided to market a more economic and less expensive model. The new watch will be called Alpha Piccolo and will be priced at \$495.</p>

<p>Section B: Extension Evaluation</p>
<p>Same as Study 1.</p>
<p>Section C: Risk Perception</p>
<p>Same as Study 1.</p>
<p>Section D: Manipulation Checks (perceived fit and price level)</p>
<p>Same as Study 1.</p>
<p>Section E: Parent Brand Measures</p>
<p>Same as Study 1, plus: How capable do you think the firm is to manufacture a new product at \$495? Not at all capable 1 2 3 4 5 6 7 Very capable How much expertise do you think the firm has to market a new product at \$495? Not much expertise 1 2 3 4 5 6 7 A lot of expertise</p>
<p>Section E: Industry Knowledge Measures</p>
<p>Same as Study 1.</p>
<p>Section F: Demographics</p>
<p>Same as Study 1.</p>

8.3 APPENDIX 3: RESEARCH QUESTIONNAIRE FOR STUDY 3

Explanatory Statement
Same as Study 1.

Section A: Experimental Scenario (Randomised in a mixed design)									
<p>Condition 1: Extension Direction: Up Fit and Hotel Feature: Far-Location versus Close-Accommodation</p>									
<p>Consider that you have begun a job that requires you to travel quite often. During the planning of your travel the person in the company responsible to book your hotel provided you with the following information about two hotels.</p>									
<table border="1"> <thead> <tr> <th style="width: 50%;">Hotel A</th> <th style="width: 50%;">Hotel B</th> </tr> </thead> <tbody> <tr> <td>Hotel A is Bed and Breakfast hotel with budget facilities.</td> <td>Hotel B is a Bed and Breakfast hotel with budget facilities.</td> </tr> <tr> <td style="color: red;">Room rates in this hotel typically range from \$65 to \$90</td> <td style="color: red;">Room rates in this hotel typically range from \$35 to \$60</td> </tr> <tr> <td>Star Rating: 2.5 out of 5</td> <td>Star Rating 1.5 out of 5</td> </tr> </tbody> </table>	Hotel A	Hotel B	Hotel A is Bed and Breakfast hotel with budget facilities.	Hotel B is a Bed and Breakfast hotel with budget facilities.	Room rates in this hotel typically range from \$65 to \$90	Room rates in this hotel typically range from \$35 to \$60	Star Rating: 2.5 out of 5	Star Rating 1.5 out of 5	
Hotel A	Hotel B								
Hotel A is Bed and Breakfast hotel with budget facilities.	Hotel B is a Bed and Breakfast hotel with budget facilities.								
Room rates in this hotel typically range from \$65 to \$90	Room rates in this hotel typically range from \$35 to \$60								
Star Rating: 2.5 out of 5	Star Rating 1.5 out of 5								
<p>Both hotel companies recently decided to introduce a more economical hotel service that will compete against other Budget hotels with the Star Rating of 3 stars (out of 5). In both hotels, the current room rate around \$105/night for a standard room.</p>									
<table border="1"> <thead> <tr> <th>Consumer ratings</th> <th>New Hotel A</th> <th>New Hotel B</th> </tr> </thead> <tbody> <tr> <td>Location</td> <td style="text-align: center;">4.5</td> <td style="text-align: center;">4.0</td> </tr> <tr> <td>Accommodation</td> <td style="text-align: center;">4.0</td> <td style="text-align: center;">4.5</td> </tr> </tbody> </table>	Consumer ratings	New Hotel A	New Hotel B	Location	4.5	4.0	Accommodation	4.0	4.5
Consumer ratings	New Hotel A	New Hotel B							
Location	4.5	4.0							
Accommodation	4.0	4.5							

Condition 2:
Extension Direction: Up
Fit and Hotel Feature: Close-Location versus Far-Accommodation

[Manipulation of General Information: Same as condition 1]

Hotel A	Hotel B
Hotel A is Bed and Breakfast hotel with budget facilities.	Hotel B is a Bed and Breakfast hotel with budget facilities.
Room rates in this hotel typically range from \$35 to \$60	Room rates in this hotel typically range from \$65 to \$90
Star Rating: 2.5 out of 5	Star Rating 1.5 out of 5

[Manipulation of Hotel Feature and Extension Information: Same as condition 1]

Condition 3:
Extension Direction: Down
Fit and Hotel Feature: Close-Location versus Far-Accommodation

[Manipulation of General Information: Same as condition 1]

Hotel A	Hotel B
Hotel A is a quality Business Hotel with upscale facilities.	Hotel B is a quality Business Hotel with upscale facilities.
Room rates in this hotel typically range from \$125 to \$175	Room rates in this hotel typically range from \$295 to \$530
Star Rating: 3.5 (out of 5)	Star Rating 4.5 (out of 5)

Both hotel companies recently decided to introduce a more economical hotel service that will compete against other Budget hotels with the Star Rating of 3 stars (out of 5).

In both hotels, the current room rate around \$105/night for a standard room.

[Manipulation of Hotel Feature: Same as condition 1]

Condition 4:**Extension Direction:** Down**Fit and Hotel Feature:** Far-Location versus Close-Accommodation

[Manipulation of General Information: Same as condition 1]

Hotel A	Hotel B
Hotel A is a quality Business Hotel with upscale facilities.	Hotel B is a quality Business Hotel with upscale facilities.
Room rates in this hotel typically range from \$295 to \$530	Room rates in this hotel typically range from \$125 to \$175
Star Rating: 3.5 (out of 5)	Star Rating 4.5 (out of 5)

[Manipulation of Extension Information: Same as condition 3]

[Manipulation of Hotel Feature: Same as condition 1]

Section B: Extension Choice

Which hotel alternative would you choose?

- Book a room at the new Hotel A
- Book a room at the new Hotel B

Section C: Extension Ratings**Given the price of the room, staying at which hotel would be a higher risk?**

Staying at the new Hotel A 1 2 3 4 5 6 7 8 9 Staying at the new Hotel B

Given the potential problems of a hotel service, staying at which hotel would be a higher risk?

Staying at the new Hotel A 1 2 3 4 5 6 7 8 9 Staying at the new Hotel B

Which hotel company do you think is more capable to deliver a satisfying service at a price of \$105?

Hotel A 1 2 3 4 5 6 7 8 9 Hotel B

Which hotel company do you think has more expertise to provide a service priced at \$105?

Hotel A 1 2 3 4 5 6 7 8 9 Hotel B

Which hotel chain has introduced a new hotel service with prices more consistent to the hotel chain's original prices?

Hotel A 1 2 3 4 5 6 7 8 9 Hotel B

Which hotel chain has introduced a new hotel service that is more consistent with the current hotel chain's image?

Hotel A 1 2 3 4 5 6 7 8 9 Hotel B

Section F: Demographics

Same as studies 1 and 2.

8.4 APPENDIX 4: RESEARCH QUESTIONNAIRE FOR STUDY 4

Explanatory Statement
Same as studies 1, 2, and 3.

Section A: Experimental Scenario (Randomised in a between-subjects full-factorial design)
In the following screen you will be presented with a hypothetical scenario about a brand that manufactures digital cameras. Please read through the information provided and answer the questions that follow.
Condition 1: Extension Direction: Up Fit: Wide
Consider that Camel manufactures digital cameras that sell in the \$159 to \$189 price range. Now consider that Camel is considering introducing a more expensive model priced at \$299, named Camel Artica.
Condition 2: Extension Direction: Up Fit: Narrow
Consider that Camel manufactures digital cameras that sell in the \$89 to \$259 price range. [Manipulation of the extension: Same as condition 1]
Condition 3: Extension Direction: Down Fit: Wide
[Manipulation of the parent brand: Same as condition 1] Now consider that Camel is considering introducing a more affordable model priced at \$69, named Camel Artica.

Condition 4:
Extension Direction: Down
Fit: Narrow

[Manipulation of the parent brand: Same as condition 1]

[Manipulation of the extension: Same as condition 3]

Section B: Extension Evaluation

Select the rating that best describe how do you feel towards the new hotel:

Not at all favourable 1 2 3 4 5 6 7 Extremely favourable

Extremely negative 1 2 3 4 5 6 7 Extremely Positive

Select the rating that best describe how attractive do you think the new camera is:

Not at all attractive 1 2 3 4 5 6 7 Extremely attractive

My willingness to pay for the new digital camera:

Very low 1 2 3 4 5 6 7 Very high

Section C: Manipulation Checks (perceived fit and price level)

Please indicate your perception level of how wide is Camel's price range:

Extremely narrow 1 2 3 4 5 6 7 Extremely wide

Section D: Demographics

Same as Study 1.

8.5 APPENDIX 5: RESEARCH QUESTIONNAIRE FOR STUDY 5

Explanatory Statement
Same as studies 1, 2, 3, and 4.

Section A: Experimental Scenario (Randomised in a between-subjects full-factorial design)
<p>In the following screen you will be presented with a brand that manufactures Wrist Watches. Please read through the information provided and answer the questions that follow.</p>
<p>Condition 1: Extension Direction: Up Fit: Wide</p>
<p>Swatch has manufactured watches for more than 100 years and is known for its quality, design and orientation towards innovation. Swatch has typically ranked high in customer satisfaction and quality ratings. As a result, the brand has achieved a solid reputation in the watches market. Currently, Swatch’s models range from \$95 to \$1750.</p> <p>In an effort to diversify its business and capitalize on market trends, Swatch has recently decided to market a new watch with an improved design and of higher quality than the existing range using Swatch's brand name. The new watch will be called Swatch Sonnet and will be marked at a price of \$1950.</p>
<p>Condition 2: Extension Direction: Up Fit: Narrow</p>
<p>Swatch has manufactured watches for more than 100 years and is known for its quality, design and orientation towards innovation. Swatch has typically ranked high in customer satisfaction and quality ratings. As a result, the brand has achieved a solid reputation in the watches market. Currently, Swatch’s models range from \$1550 to \$1750</p> <p>[Manipulation of the extension: Same as condition 1]</p>

<p>Condition 3: Extension Direction: Down Fit: Wide</p>
<p>Swatch has manufactured watches for more than 100 years and is known for its quality, design and orientation towards innovation. Swatch has typically ranked high in customer satisfaction and quality ratings. As a result, the brand has achieved a solid reputation in the watches market. Currently, Swatch’s models range from \$225 to \$3750.</p> <p>In an effort to diversify its business and capitalize on market trends, Swatch has recently decided to market a new watch for everyday use which is more accessible than the existing range using Swatch's brand name. The new watch will be called Swatch Vector and will be marked at a price of \$175.</p>
<p>Condition 4: Extension Direction: Down Fit: Narrow</p>
<p>Swatch has manufactured watches for more than 100 years and is known for its quality, design and orientation towards innovation. Swatch has typically ranked high in customer satisfaction and quality ratings. As a result, the brand has achieved a solid reputation in the watches market. Currently, Swatch’s models range from \$225 to \$275</p> <p>[Manipulation of the extension: Same as condition 3]</p>

<p>Section B: Extension Evaluation</p>
<p>Same as study 4.</p>
<p>Section C: Manipulation Checks (perceived fit and price level)</p>
<p>Same as study 4.</p>
<p>Section D: Demographics</p>
<p>Same as Study 1.</p>

8.6 APPENDIX 6: RESEARCH QUESTIONNAIRE FOR STUDY 6

Explanatory Statement
Same as studies 1, 2, 3, 4, and 5.

Section A: Experimental Scenario (Randomised in a between-subjects full-factorial design)
In the following screen you will be presented with a hypothetical scenario about the BMW brand. Please read through the information provided and answer the questions that follow.
Condition 1: Extension Direction: Up Fit: Wide
BMW is an automobile manufacturer that produces high quality cars and it is well known for its models: Series 3, 5 and 7. Currently, BMW's models range from \$65,000 to \$287,000. In an effort to diversify its business and capitalize on market trends, BMW has recently decided to market a new car which is of higher quality than the existing price range (\$65,000 to \$287,000) using BMW's brand name. The new Series 8 car will be called BMW 800i and will be marketed at the price of \$345,000.
Condition 2: Extension Direction: Up Fit: Narrow
BMW is an automobile manufacturer that produces high quality cars and it is well known for its models: Series 3, 5 and 7. Currently, BMW's models range from \$205,000 to \$287,000. In an effort to diversify its business and capitalize on market trends, BMW has recently decided to market a new car which is of higher quality than the existing price range (\$205,000 to \$287,000) using BMW's brand name. The new Series 8 car will be called BMW 800i and will be marketed at the price of \$345,000.

<p>Condition 3: Extension Direction: Down Fit: Wide</p>
<p>[Manipulation of the extension: Same as condition 1]</p> <p>In an effort to diversify its business and capitalize on market trends, BMW has recently decided to market a new car which is of lower quality and more affordable than the existing price range (\$65,000 to \$287) using BMW's brand name. The new Series 1 car will be called BMW 115i and will be marketed at the price of \$43,000.</p>
<p>Condition 4: Extension Direction: Down Fit: Narrow</p>
<p>BMW is an automobile manufacturer that produces high quality cars and it is well known for its models: Series 3, 5 and 7. Currently, BMW's models range from \$65,000 to \$92,000. In an effort to diversify its business and capitalize on market trends, BMW has recently decided to market a new car which is of lower quality and more affordable than the existing price range (\$65,000 to \$92,000) using BMW's brand name. The new Series 1 car will be called BMW 115i and will be marketed at the price of \$43,000.</p>

<p>Section B: Extension Evaluation</p>
<p>Same as study 4.</p>
<p>Section C: Manipulation Checks (perceived fit and price level)</p>
<p>Same as study 4.</p>
<p>Section D: Risk Measures</p>
<p>Given the expense involved, how much risky would be involved in the purchase of the new BMW?</p> <p style="text-align: center;">Very little risk 1 2 3 4 5 6 7 Very high risk</p> <p>Considering the potential problems with the new car's performance, how much risk would you say would be involved in buying the new BMW?</p> <p style="text-align: center;">Not at all risky 1 2 3 4 5 6 7 Extremely risky</p>

Section E: Parent Brand Measures

In my opinion BMW offers products of _____:

Very poor quality 1 2 3 4 5 6 7 Very good quality

In my opinion BMW is _____ at manufacturing cars:

Not at all good 1 2 3 4 5 6 7 Very good

Not at all capable 1 2 3 4 5 6 7 Very capable

In my opinion BMW is _____.

Not at all trustworthy 1 2 3 4 5 6 7 Very trustworthy

In my opinion BMW is:

Inferior products 1 2 3 4 5 6 7 Superior products

I think that BMW is a _____ brand:

Very low prestige 1 2 3 4 5 6 7 Very high prestige

Overall, BMW is a _____ brand:

Very low quality 1 2 3 4 5 6 7 Very high quality

Section D: Demographics

Same as Study 1.

