Doctoral Dissertation

Brand-driven Growth and Radical Innovations: Leveraging Brands Beyond Conventional Wisdom

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Abstract

Today it is undisputed that an established brand not only reflects a significant monetary value, but also is one of a company's most important assets. With an ever-increasing number of firms realizing that leveraging their existing brand equity can be the basis of competitive advantage and long-term profitability, it is not surprising that the topic brand-driven growth has recently received a considerable amount of attention.

However, to the apprehension of growth-oriented managers, previous research has suggested that a brand's ability to successfully stretch might be subject to tight boundaries. Driven by consumer learning theory, the most common recommendation of brand extension research for the field has so far been to focus on new products that are considered as close to the parent brand's product category. The underlying theoretical reasoning has hereby been that consumers' affective responses to brand extensions are primarily determined by knowledge transfers between the parent brand and the extension product which finally depend on the extension's identification as a member of the parent brand's category.

Radical innovations, however, either revolutionize existing product categories or create new product categories and hence are by definition "non-fitting" in the classic sense. Consequently, the current brand management theory has suggested that brand extensions into this form of innovation might not be promising growth opportunities. Since they tend to defy straightforward classification in existing product categories, they are assumed to not support affect transfer from the parent brand to the extension because. Yet, the very fact that there are several examples of very successfully introduced RNP extensions in the field reveals that the present brand management theory might not be a reliable predictor of brand extension success in the present case and hence unnecessarily lead to a disregard of radical innovations as potential sources of brand-driven growth.

Being the first to reconcile this apparent contradiction between the success of radical innovations in the marketplace and brand management theory, this dissertation assesses today's dominant brand-driven growth strategies and their underlying learning paradigms, introduces latest findings in analogical learning theory to the field of brand research, and finally reveals that today's conventional brand management wisdom may stop short of adequately addressing the complete spectrum of brand-driven growth opportunities.

The results of three empirical studies are presented. Study 1 analyzes previous research's general assumption that brand extensions into radical innovations are evaluated less favorably than brand extensions into incremental innovations as well as scrutinizes the underlying learning processes of these evaluations. Moreover the question of what kind of role a brand's positioning may play in determining its extensibility into radical innovations is assessed. Study 2 then introduces co-branding as a strategic alternative to brand extensions and examines the potential of leveraging a brand into radical innovations based on a brand alliance approach. Study 3 investigates the impact of a company's brand portfolio on its extensibility into radical innovations as well as broadens the analysis to also include radical new services.

Theoretical and practical implications are highlighted by identifying how the presented findings expand the scope of current brand extension research, how it differs from other conceptual frameworks such as categorization theory, and how it improves upon previous conceptual treatments in the brand extension area.

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Chapter I: Introductory Section

I.1 Preface

After a decade of downsizing, divesting and cost cutting being at the top of nearly every company's agenda, a resurgence of interest in growth related topics can be witnessed in theory and practice. Clearly, today across industries and research streams, awareness has spread that growth might be the life blood of companies in the present business environment and that hence the drive for growth should be back at the center of companies' and researchers' attention (Hamel and Getz 2004; Robert 2000; Zook 2004).

Yet despite this regained consciousness for the importance of growth, these days most companies are in fact struggling to grow. With only 10% of all publicly traded companies in the US capable of realizing eight or more years of double-digit top-line increases in the 1990s, organizations are becoming aware that in times of augmented competition, market maturation, and commodization, achieving sustainable growth is getting more and more difficult (Gulati 2004; Slywotzki and Wise 2002). And with several of the traditional growth drivers of the last decades in decline, the situation is even more challenging. Take international expansion as one example: it has been a reliable engine of growth for companies such as McDonald's and Coke for decades, yet today the richest international opportunities are already exploited or have proven themselves not as promising as they first appeared (Barkema and Verheulen 1998). Mergers and acquisitions are another example. One of the primary drivers of the booming 1990s, boosting companies such as Vivendi, DaimlerChrysler and Vodafone into a decade of double-digit growth, M&A activities have been suffering from dropping stock valuations, numerous reports about acquisitions failures and fading investor enthusiasm (Slywotzki and Wise 2002).

With some of the dominant growth tactics of the last decades running out of steam, companies searching for sustainable growth are increasingly turning to new potential sources. Among them one in particular has raised significant interest in theory and practice: leveraging

intangible assets (Slywotzki and Wise 2002). With options that include extending customer relationships, utilizing dynamic capabilities as well as exploiting existing networks, completed with contributions spanning such diverse research streams as organization (Knott, Bryce, and Posen 2003), strategy (Hatch and Schultz 2001), and marketing (Rust, Lemon, and Zeithaml 2004), exploring a company's opportunities through intangible assets has received a tremendous increase in attention during the last decade.

Along this development one focal point of attention has unquestionably been brands. It is therefore not surprising that with research issues ranging from rather simple brand naming issues (Keller, Heckler, and Houston 1998; Klink 2001) to complex inter-brand collaborations (Rao, Qu, and Rueckert 1999; Simonin and Ruth 1998), research in branding has not only been constantly among the top research issues of the Marketing Science Institute and the American Marketing Association, but also become one of the dominant topics in the marketing field during the last decade. Clearly, awareness has spread that brands are one of the firm's more valuable intangible assets, and that hence brand management has the potential to be one of the primary growth drivers of the future (Aaker 2004; Keller 1997). As a result, the latest research in branding has focused especially on the question of how to leverage a company's existing brand equity (Bottomley and Holden 2001; Keller 1993; Lane 2000; Meyvis and Janiszewski 2004; Pitta and Katsanis 1995).

However, despite this increased interest in research in branding and the apparent potential of leveraging brands, these days the majority of brand-driven growth strategies have so far revealed mixed results at best. Take brand extensions as the currently most dominant brand-driven growth strategy for example. Defined as the use of an established brand name to enter new product categories, brand extension strategies have been responsible for over ¾ of all newly introduced products in the 1990s (Aaker 2004). Interestingly, however, assessments of the outcomes of this strategic approach show a discrepancy between its popularity and its success in growing the top line. Despite the fact that every year the most popular new product

introductions tend to be brand extensions, the latest findings have revealed that overall more than 80% of all brand extensions fail to grow successfully in the market place and most of the succeeding ones are merely capable of replacing shrinking profits rather than representing a platform for driving sustainable growth in the future (Ernst & Young and Nielsen 1999; Kim and Maugorgne 2004; Slywotzky and Wise 2003).

In addition, latest revenue drops and income warnings of companies such as Unilever and Kraft, who possess portfolios of world-class brands ranging from the former's Knorr, Dove and Persil to the latter's Oscar Mayer, Philadelphia and Jacobs, indicate that owning a world-class brand portfolio does not automatically lead to world-class results. Evidently, today even the best brands in the world have a hard time to successfully leverage their existing brand equity (MarketWatch 2004a; MarketWatch 2004b).

So, where does this leave us? Is a company's brand portfolio now a potential driver of growth in today's times, or should managers and researchers focus their efforts on more promising approaches? Might branding be just another growth driver running out of steam, loosing its magic over the coming years? Put short, the answer appears to be "no". Despite some discouraging results, branding has most likely not lost its magic. Rather, there are several examples that highlight the unbroken potential and attractiveness of brand-driven growth strategies today, indicating that an unbroken and decisive interest in brands in both theory and practice should be maintained.

Take Apple for example. Revolutionizing classic product categories such as portable music players and the music industry with its iPod MP3 device and the iTunes music download platform, the company has repeatedly and successfully leveraged its brand equity. Over the last 3 years the company has generated a double digit revenue increase, with the iPod being responsible for almost 23% of the total revenues in 2004 (Yoffie and Freier 2004). Dyson is another example. With its radically new cleaning products the company has significantly shaken the European market for vacuum cleaners, becoming the market leader in

the continent's key markets within 2 or 3 years after its market introduction. In 2003, the company leveraged its brand equity into the US market and has sold over 900.000 units in 2004, making it the No.2 in this $2.2 billion upright market in its second year (Cuneo 2004). Another success story emphasizing the potential of brand-driven growth strategies is Actimel by Danone. By creating a new product category with its probiotic dairy drinks, the company has not only acieved one of the most successful brand extensions in the food market in recent years, but also created a whole new market with a volume of for instance £ 75m in the UK in 2002 (Doonar 2003). Sony in the 80s should not be forgotten, who extended its product portfolio into portable music players with the Walkman and helped create a whole new product category. Sold over 250 million times between 1979 and 1994, the Sony Walkman boosted the company to one of the leading technology companies in the world and made it a synonym for innovativeness (Cooper 1994). Last but not least, think off Virgin. Initially founded as a discount music retailer (Virgin Music) in 1971, the company has since then leveraged its brand equity into several industries worldwide. Today the "Virgin Empire" employs 25.000 employees in over 200 companies worldwide and includes a wide variety of industries such as the airline business (Virgin Atlantic), financial services (Virgin Direct), mobile phone services (Virgin Mobile), books (Virgin Books), and even bridal needs (Virgin Bride; Frei, Rodriguez-Farrar, and Hajim 2002). Evidently, these examples indicate that brand-driven growth strategies are as attractive as ever. Still, the question remains what the potential reasons might be for the apparently high failure rates among brand-driven growth strategies in recent times.

In the last decade academic literature has assessed a considerable number of potential rationales to answer this question ranging from environmental phenomena such as the information overload (Davenport and Beck 2002; Jacoby 1984) to organizational inefficiencies (Grandori 2001; Verona and Ravasi 2003) and management's reluctance to take risks (Christensen 1997; Hamel and Getz 2004). Yet, what has so far been widely neglected is

the question of what role current brand management practice (and especially its attitude towards innovations) may play in this context.

Recent studies have revealed that 89% of all new products introduced under an existing brand name are incremental, i.e. innovations that are at most a modest change to existing products in the marketplace. Radical new products on the other hand, which are so new that they tend to defy straightforward classification in any existing product category, are rarely found in brand-driven growth strategies (Aaker 2004; Keller 2003; Reddy, Holak, and Bhat 1994). This suggests that a majority of today's brand leveraging approaches show a tendency to focus on retreads, updates, and add-ons rather than real innovations. Yet, given that ever since Schumpeter's (1942) seminal work the potential of innovations for companies' performance and growth is well-known (Dougherty 1992; Kleinschmidt and Cooper 1991; Lynn, Morone, and Paulson 1996), such a focus on incrementalism appears to be hazardous for extension's success. It not only forces companies and their products to contend on similar dimensions as their opponents, putting them into a competition based largely on incremental improvement in cost and/or quality, but also ignores the augmented importance of innovations for achieving sustainable growth in today's ever-accelerating environment (Danneels 2002).

Consequently, this dissertation proposes that one important reason for the rather mixed results of today's brand-driven growth strategies might simply be brand management's tendency towards incrementalism, which leads to a neglect of vital growth opportunities along the innovation continuum. The main aim of this work is thus to analyze and extend current brand management theory regarding the question of how far a company's existing brand equity can be successfully leveraged. A focal point of attention will be on answering the question of why, given that the importance of innovation for growth is a well-known fact and successful examples are apparent in the marketplace, there are not more companies leveraging their brands over the complete innovation continuum. Why do companies with a potential to innovate still search for growth in all the wrong places instead of unleashing the full hidden

growth potential of their brands? Why don't they follow the example of companies such as Apple, Danone, or Dyson by leveraging their brands over the complete innovation continuum, with incremental innovations such as the G4 Powerbook or the 5-liter Volvic Fountain on the one side and radical innovations such as the iPod or the Actimel line on the other side?

Addressing these questions by empirically analyzing the extensibility of brands into radical innovations, this work will first assess today's dominant brand-driven growth strategies and their underlying learning paradigm. Then, in a second step, the author will introduce the latest findings from consumer learning theory, showing that today's conventional brand management wisdom may stop short of addressing the complete spectrum of brand-driven growth opportunities by relying on incremental innovations rather than using the full available continuum of innovations.

This dissertation is, to the best knowledge of the author, the first approach to show (a) why today's brand management wisdom may stop short of adequately addressing the complete innovation continuum of growth opportunities, hence spurring a culture of incrementalism, and (b) what marketers have to do to remedy this important problem. In order to do so, the here presented solution will extensively draw on the latest developments in consumer learning theory.

It will be shown how the results of this dissertation impact marketers' key areas of responsibilities and accountability in that they underline the need for marketers to change their thinking and approach in terms of when and how a brand can be successfully leveraged into radical innovations. By this means, this research will uncover the notion that if companies want to substantially grow with their brands, they not only need to depart from the today's dominating short-term tactics of branding towards long-term strategies and proactive brand leadership, but also to adjust their current brand management wisdom to the specifics of the ever-accelerating environment in order to understand and adapt to radical innovations.

The importance of this change cannot be underestimated. This work is long overdue in strategy, marketing, and innovation. The experience of two of the leading consumer goods manufacturers underlines the relevance of this topic. Unilever has recently announced its "path for growth" initiative that includes selling off any brands and businesses which are not part of its core. As a result, its number of brands was reduced from 1600 in 2000 to around 400 in 2003 (MarketWatch 2004b). Its main competitor Kraft has also reacted, announcing its "fewer, bigger, better" strategy for new-product innovation, postulating that marketing and R&D spending should be focused on fewer but bigger, i.e., more innovative products (MarketWatch 2004a). Both companies have indisputably pursued an up-to-date strategic approach, focusing their efforts on fewer brands with more powerful innovations rather than creating a broad array of smaller brands; many of which cannot be funded appropriately. However, with disappointing numbers, profit warnings, and declining earnings surfacing these days, it has become apparent for both companies that reducing a brand portfolio is easy, but that growing the remaining master brands is tough given existing guidelines from theory and practice (Thompson 2004).

Since this work highlights the shortcomings of existing theory and explains how to leverage brands beyond existing theory and practice, it can help companies to look methodologically across the present boundaries to find unoccupied territory that represents real value innovation and hence convert their brand management into more than just a matter of putting the right "spin" on products.

I.2 Introduction

Today it is undisputed that an established brand not only reflects a significant monetary value, but also is one of a company's most important assets. With an ever-increasing number of firms realizing that leveraging their existing brand equity can be the basis of competitive advantage and long-term profitability, it is not surprising that the topic brand-driven growth

has recently received a considerable amount of attention (Aaker 2004; Aaker and Joachimsthaler 2000; Kapferer 2004; Keller 2003).

In so doing, particularly the potential of growth through launching new products based on an existing brand portfolio, has not only been subject of various empirical examinations in academic literature (Aaker and Keller 1990; Dacin and Smith 1994; Keller and Aaker 1992), but also substantially entered daily management practice (Aaker and Joachimsthaler 2000). The strategic approaches within this field can be broadly classified into two major categories (Aaker 1996). First, that of brand leveraging strategies based on an individual brand. In this case, the brand is leveraged by introducing a new version of a product within the same product category and/or to enter another product category (Aaker and Keller 1990; Bottomley and Holden 2001). One example is how Apple extended the iPod Mini product line with a 10 GB device or how BMW launched the new 1 series. Second, we can consider leveraging strategies based on a co-branding approach. In this case, the individual brand is coupled with another brand to build a synergistic alliance in order to introduce a product within the same product category and/or to enter another product category (Rao and Rueckert 1994; Rao, Qu, and Rueckert 1999; Simonin and Ruth 1998). One example here is Ford introducing a Ford Explorer special edition co-branded by Eddie Bauer or Jack Daniel's cooperating with Coca-Cola to launch a whiskey-cola drink in cans.

Within these two different approaches towards leveraging brand equity, it is particularly one strategy of the first category that has raised much attention in theory and practice over the past decade: brand extensions. Defined as the use of an established brand name to enter new product categories and responsible for 81% of all newly introduced products in the 1990s, brand extensions are nowadays acknowledged as being by far the most popular brand leveraging strategy (Keller 1997).

The underlying premise of brand extension strategies is that customers use their already existing beliefs about the brand to make inferences about a new product that bears the

same brand name. As a result they are widely associated with decreased marketing spending and a minimized failure rate of new product introduction by providing consumers the familiarity of a well-known brand name (Aaker and Keller 1990; Klink and Smith 2001). This assumption arrives from categorization theory, which suggests that people use categories to store, structure and transfer information on the basis of perceived similarities and resemblances to respond to the overwhelming amount and variety of information in their environment (Fiske 1982; Ozanne, Brucks, and Grewal 1992; Rosch and Mervis 1975; Rosch, Simpson, and Miller 1976). Accordingly, in the case of brand extensions, it has been proposed that consumers, when confronted with a new extension, primarily evaluate it in terms of whether it can be classified as a member of the category that is spanned by the brand and its product portfolio (Aaker and Keller 1990; Bottomley and Holden 2001; Boush and Loken 1991; Keller and Aaker 1992; Park, Milberg, and Lawson 1991). If a classification is possible, information of the brand will be transferred to the novel product (Rosch and Mervis 1975).

Take BMW as an example. When the company introduced the new 1 series in June 2004, the management emphasized that it is of utmost importance for the success of this new product that consumers perceive it as belonging to the category defined by the BMW brand and its existing product portfolio. The company realized that only if the new car is perceived as a "real" BMW, consumers are willing to transfer their existing knowledge about BMW to the new product. This means that finally consumers' perception of similarity and resemblances between the new 1 series and the rest of BMW's products determined the degree of image and association spill-over between the BMW brand and this new product.

Put succinctly, today's brand management theory postulates that consumers' affective responses to brand extensions and hence brand extensions' success are primarily determined by knowledge transfers between the parent brand and the extension product. These knowledge transfers are assumed to be driven by categorization effects, which depend on the extension's identification as a member of the parent brand's category and hence the level of congruity

between the extension product and the parent brand (Aaker and Keller 1990; Bottomley and Holden 2001; Boush and Loken 1991; Keller and Aaker 1992; Park, Milberg, and Lawson 1991). As a result, the most common recommendation of brand extension research for the field has been to focus on new products that are considered to be perceptually close to the parent brand's product category, i.e., conventional brand management wisdom has implicitly and explicitly suggested that congruent brand extensions are successful, while incongruent ones are usually not (Aaker and Keller 1990; Bottomley and Holden 2001; Boush and Loken 1991; Chakravarti, MacInnis, and Nakamoto 1990; Cohen and Basu 1987; Keller and Aaker 1992; Meyers-Levy and Tybout 1989; Park, Milberg, and Lawson 1994).

Clearly, to the apprehension of growth-oriented managers, this reasoning suggests that a brand's ability to successfully stretch might be subject to tight boundaries. If the success of a brand leveraging strategy indeed solely depends on the similarity between the parent brand and the extension, every non-incremental extension would be cursed to fail. And this would make congruent innovations the only realistic alternative when it comes to brand-driven growth strategies. The previously mentioned radical innovations, on the other hand, would be unattractive options for creating growth, because they cannot, by definition, be categorized in close proximity to the parent brand (Hoeffler 2003; Moreau, Markmann, and Lehmann 2001; Urban, Weinberg, and Hauser 1996). Thus, today's theory implicitly suggests that brand extensions into this form of innovation should not be regarded as prospective growth opportunities for companies (Smith and Andrews 1995).

Given this conventional wisdom of brand management, it is not surprising that a tendency towards incrementalism has so far dominated brand-driven growth approaches. It has obviously put stringent restrictions on the companies' growth ambitions by preventing companies from exploiting the full continuum of growth opportunities with incremental innovations representing one end of the continuum, and radical innovations the other (Lane 2000; Smith and Andrews 1995).

However, as mentioned earlier, high failure rates of above 80% of primarily incremental brand extensions (Ernst & Young and Nielsen 1999) and highly successful introduced radical innovations such as Apple's iPod, Danone's Actimel, Bang & Olufson's Insulin Pen and 3M's Post-It stickers reveal that conventional wisdom's focus on incremental innovations might not necessarily be a reliable indicator of success. Contrastingly, it appears as if today's dominant brand theory seduces companies to focus its efforts on introducing dismal incremental innovations that should not be introduced, and to neglect promising radical innovations that indeed should have been introduced. In doing so, they help create a hostile environment for innovations that are highly acknowledged drivers of companies' performance.

Clearly, this raises doubts about the appropriateness of common brand management practice in today's ever accelerating environment and emphasizes the importance of the present reasoning (Danneels 2002; Kleinschmidt and Cooper 1991; O'Connor et al. 2000; Schumpeter 1942). Accordingly, the question remains what to do? Should brand management be banned from corporate strategy and companies return to the time when engineers determined what would be introduced to the market? Certainly not! The main problem is not brand management per se, but rather the fact that companies and researchers still stick to rules and strategies that were created 30 years ago in times when the technological pace and business environments supported rather incremental product extensions. Today, however, the situation has changed and companies have to face the ever-accelerating pace of technological change and hence the need to be capable of coping with leveraging existing brand equity into incremental as well as highly innovative new products (O'Connor et. al. 2000; Slywotzki and Wise 2002; Smith and Andrews 1995).

Since leveraging brands into radical innovations poses a unique set of challenges for existing theory and practice in brand management, a better understanding of the dominant brand leveraging strategies and their relation to innovations is of utmost importance.

Therefore, the present dissertation is the first empirical examination of brand-driven growth strategies and radical innovations. The initial focus and hence the starting point of this work will be on brand extensions as the most dominant approach in theory and in the field. This will be followed by co-branding approaches that will be added to the analysis to create a holistic picture and hence better understanding of the relationship between brand-driven growth strategies and radical innovations.

I.3 Research Questions and Objectives

As indicated in the introduction, this dissertation aims (a) to assess today's conventional brand management practice regarding the extensibility of existing brands into products with different levels of innovativeness, and (b) to identify new strategies and conditions with which brands can be successfully leveraged beyond conventional wisdom. By doing so, this research serves to advance both existing theory as well as practice.

From a theoretical point of view, the present dissertation represents the first approach to examine the impact of the latest findings in consumer learning theory on conventional wisdom in brand driven-growth strategies. It first analyzes the current conceptualization of consumer evaluations of brand extensions in the light of the defining characteristics of radical innovations. It then introduces with analogical learning theory a new consumer learning paradigm to the field that might be capable of explaining consumer evaluations of brand extensions across the complete product innovativeness continuum. By this means, it is the first approach to reconcile the apparent contradiction between the success of radical innovations in the marketplace and today's brand management theory.

Second, the present dissertation analyzes how companies may influence the success potential of their brand leveraging strategies into radical innovations through nurturing relevant brand associations as well as engaging in co-branding approaches. This study will thus highlight on the one hand, what kind of brand associations may increase the success

potential of these brand extensions into radical innovations, and on the other, how a coupling with another brand may help to positively influence consumer evaluations.

Finally, following the latest developments in brand theory, this dissertation acknowledges that brand extensions are often not stand-alone entities but embedded into a portfolio of products (Aaker 2004; DelVecchio 2001; Keller and Aaker 1992; Meyvis and Janiszewski 2004; Smith and Park 1994). It will hence also analyze the impact of different brand portfolio constellations on consumer evaluations of brand extensions into radical innovations. Building on the latest findings in the area of brand portfolios and analogical learning theory, a possible moderating impact of the leveraged brand's portfolio on consumers' processing behavior will be analyzed.

From a practical point of view, examining the apparent contradiction between the success of radical innovations in the marketplace and brand extension research is of utmost relevance. It will help brand managers to improve their understanding of this form of innovation and extend their practice to include the whole spectrum of innovations. Understanding the opportunity space of potential extensions as a continuum of innovations with incremental innovations on the one end and radical innovations on the other, brand managers have long been advised to focus their extension efforts only on incremental innovations, and thereby neglected potentially attractive opportunities in the latter end of the continuum. One of the driving forces of this neglect has been the current brand management theory which proposes that congruent extensions are successful, while discongruent are not. If the present dissertation is now capable of revealing that brands can be successfully extended into radical innovations, it will have the potential to attract companies' awareness that the effective range of new product opportunities may be greater than what is popularly recommended. Therefore, one of the primary aims of this work from a practical point of view is to raise brand management's awareness that the common practice neglects in radical

innovations a potentially very important driver of sustainable growth and hence hinders companies in fully exploiting their brand's growth potential.

I.4 Research Overview

Following this introductory chapter, Chapter 2 reviews literature in the fields of brand-driven growth strategies, consumer learning theory, and innovation providing the theoretical support for the development of the hypotheses. Drawing on this body of work and particularly merging literature on analogical learning, radical innovations, and brand-driven growth strategies, Chapter 3 then outlines the hypotheses of the present conceptualization.

Following the conceptual part of the dissertation, Chapter 4 through 6 empirically analyze the relationship between brand-driven growth strategies and radical innovations in three different studies. Chapter 4 first examines previous research's general assumption that brand extensions into radical innovations are evaluated less favorably than brand extensions into incremental innovations and that the reason for these differences in evaluation can be explained with the underlying learning processes. Second, it reveals that categorization theory with its literal similarity matching approach does not support brand extensions into radical innovations. Third, it analyzes the impact of different brand associations in this context and hence assesses the question whether and what kind of brand associations may allow companies to successfully extend their brands into radical innovations. Chapter 5 builds on the results of the study in Chapter 4 and examines the potential of coupling a brand with another brand to extend the resulting alliance into radical innovations. By doing so, the impact of co-branding strategies on processing mechanism is assessed. Chapter 6 examines the potential impact a company's brand portfolio on a brand's extensibility into radical innovations.

Finally, Chapter 7 summarizes and discusses the results of the empirical investigation. Theoretical and practical implications of the presented results are highlighted by identifying

how the findings expand the scope of current brand extension research, how it differs from other conceptual frameworks such as categorization theory, and how it improves upon previous conceptual treatments in the brand extension area. Moreover, potential limitations are discussed and future research areas identified.

Chapter II: Literature Review

The following literature review is divided into three major parts, reflecting the theoretical underpinnings of the present dissertation. First, the literature on brand leveraging strategies is reviewed. The focal point of attention is hereby on consumers' evaluations of these approaches, which are acknowledged as one of the primary success determinants in this context. In doing so, the following paragraphs will review research on consumers' attitude formation in the two predominant brand-driven growth strategies, namely (a) brand extension strategies, which deal with leveraging individual brands and represent the most heavily researched strategy within theory and practice, and (b) brand alliance strategies, which deal with inter-brand collaborations and represent a strongly emerging brand strategy, in which an individual brand is coupled with another brand to build a synergistic alliance. Examples for the former range from Coca Cola's recently introduced Vanilla Coke to BMW's new 1 series. Examples for the latter can be found across industries such as HP notebooks with Intel microprocessors and Puma Sneakers co-branded by Jil Sander. This review moreover provides a closer look on the previously mentioned notion of "fit", which is commonly assumed to determine the outcome of consumer evaluations in brand leveraging strategies (Aaker and Keller 1990; Bottomley and Holden 2001). In sum, the overall aim of the first part of this review is to evaluate the most relevant studies on brand-driven growth strategies as well as to give a better insight into today's conventional wisdom regarding consumer evaluations of brand leveraging strategies.

In the second part of this chapter the general process of consumer learning is reviewed to give the reader a better insight into the underlying processes of consumer evaluations in brand leveraging strategies. To do so, this review will first introduce general findings regarding the process of consumer learning per se, and highlight the different phases of learning as well as explain the underlying mechanism in these phases. Next, research on the dominant learning paradigm in brand leveraging research, categorization theory, is reviewed

to explain the latest theoretical thinking in this field, before last, the findings in the strongly emerging analogical learning theory are discussed, which point to a possible alternative to the categorization theory as learning paradigm.

In the third part, literature on radical innovations is reviewed. The focus is hereby on the analysis of whether and how their specific characteristics may impact consumer evaluations of brand extensions, given that categorization theory denies a transfer between disparate knowledge structures.

II.1 Brand Leveraging Strategies

In general, all brand leveraging strategies finally deal with a company's potential of growing through launching new products based on its existing brand equity (Aaker 2004; Aaker and Joachimsthaler 2000; Keller 2003). The potential of brands is hereby usually seen in the positive effect that existing brand knowledge has on consumer response to the marketing mix of a product or service. This means that it is generally assumed that consumers' (positive) associations and awareness for a brand will lead to more favorable reactions to the marketing mix for a product compared to a fictitiously named or unnamed version of the product (Aaker 2004; Keller 2003; Keller 1993).

As mentioned earlier, brand leveraging strategies have developed to one of top priorities in marketing during the last decade. They occupy a very prominent role among today's most popular managerial approaches (Aaker and Joachimsthaler 2000; Keller 2003) as well as have raised a lot of interest in academic literature (Aaker and Keller 1990; Bottomley and Holden 2001; Dacin and Smith 1994; Keller and Aaker 1992; Levin and Levin 2000; Simonin and Ruth 1998; Rao and Rueckert 1994; Rao, Qu, and Rueckert 1999). The following review focuses on consumer reactions to these strategies and is organized around the two dominant brand leveraging strategies, brand extensions and brand alliances.

II.1.1 Brand Extensions

Brand extension strategies are defined as the use of an established brand name to introduce a new product to enter the same and/or novel product categories and today generally acknowledged as one of the most promising ways to profit from a company's existing brand equity (Aaker 2004). Thus not surprisingly, they have developed to become the most frequently employed brand leveraging strategies in the field as well as risen to one of the most heavily researched areas in marketing (Aaker 1996; Bottomley and Holden 2001; Reddy, Holak, and Bhat 1994). Up to today, they have attracted an extensive body of academic literature with research topics ranging from market performance aspects (Lane and Jacobsen 1995; Smith and Park 1992) to consumer evaluations of brand extensions (Aaker and Keller 1990; Bottomley and Holden 2001; Keller and Aaker 1992) and brand equity issues (Keller and Aaker 1992), with the interest in the topic culminating in special issues of both the Journal of Marketing Research (Shocker, Srivastava, and Rueckert 1994) as well as the International Journal of Research in Marketing (Barwise 1993).

The main reasons for this augmented attention in theory and field are generally attributed to multiple benefits associated with brand extensions. Following latest findings in brand research, using a brand extension strategy can significantly enhance the success probabilities of a product by providing consumers with the familiarity of an established brand which results in immediate consumer awareness, diminished consumer uncertainty and increased advertising efficiency (Aaker and Keller 1990; Bottomley and Holden 2001; Boush and Loken 1991; Keller and Aaker 1992; Park, Milberg, and Lawson 1991; Smith and Park 1992).

Take again the new BMW 1 series as an example. Introduced to the market as a downstream extension to the highly profiled product portfolio of BMW in 2004, marketing for this product could already rely on a rich network of associations in consumers' minds. People already knew that BMW products are the ultimate driving machines, a joy to ride, and

reflect excellency in German craftsmanship. All of these associations were already in consumers' minds. The essential task for the market introduction team of the new 1 series hence was less to establish these associations in consumers' minds, but rather to convince potential buyers that the new product belongs to the BMW category.

However, besides these apparent benefits, extending a brand also has been shown to bear some considerable risks. Early on, studies have highlighted potential hazards for the parent brand's equity if the brand is not leveraged in a considerable manner, pointing to the fact that ill-fitting extensions may have a negative impact on parent brand's attitudes and associations. Clearly, mismanaged extension strategies such as Porsche's attempt to enter the segment of medium priced cars with the 914 in the 80s can cause an irreparable damage to the brand associations of the extended brand and hence a significant loss in brand equity for the company (Aaker and Keller 1990; Boush and Loken 1994; Gürham-Canli and Maheswaran 1998; Loken and Roedder John 1993; Morrin 1999; Romeo 1991). In the case of Porsche, the model 914 was not only a considerable flaw in terms of sold units, but its negative impact on Porsche's image as a world class sport car manufacturer also endangered the entire company survival.

Given these potential benefits and risks, and based on the awareness that the success of a brand extension primarily depends on how consumers are likely to respond to the extension, a majority of studies have focused on the question of how consumers may form evaluations of brand extensions based on their knowledge of the parent brand and its product portfolio. In these efforts, the focus of attention has primarily been on the impact of the perceived fit or cohesiveness between the parent brand and the extension on consumer evaluations. Reasoning behind this strategy was that it has been assumed that this fit finally determines the amount of brand associations that will be transferred from the parent brand to the brand extension and hence influence consumer's favorability evaluations of this extension (Aaker and Keller 1990; Park, Milberg, and Lawson 1991).

In more detail, the pattern of results of several empirical studies have revealed that affect and associations of the parent brand will be transferred to the extension if the similarity between the extension and the brand is high. This means that beliefs and affect associated with the parent brand may transfer to an extension when consumers perceive the extension as fitting with the parent brand (Aaker and Keller 1990; Boush and Loken 1991; Cohen and Basu 1987; Meyers-Levy and Tybout 1989; Park, Milberg, and Lawson 1991).

The underlying dimensions of fit have been most commonly defined in line with findings of the seminal Aaker and Keller (1990) study, which has argued that consumer evaluations of brand extensions are primarily determined by consumers' similarity judgments based on three dimensions of perceived fit between the parent brand and the extension, namely complementarity, substitutability, and transferability (Aaker and Keller 1990; Bottomley and Holden 2001; Boush and Loken 1991; Keller and Aaker 1992). The study examined consumer reactions to 20 proposed extensions of six well-known brands and revealed results that identified fit as a construct consisting of (a) the perceived transferability of skills and assets from the parent brand's product category to the extension, (b) the perceived product class complementarity, and (c) the perceived product class substitutability (Aaker and Keller 1990; Keller and Aaker 1992; Bottomley and Holden 2001). Until today, this understanding of fit has been acknowledged as the dominant paradigm in brand research dealing with consumer evaluations (Bottomley and Holden 2001).

The theoretical underpinnings behind this understanding of fit arrive from consumer learning theory, more precisely categorization effects. As mentioned earlier, in this theory it is suggested that individuals organize objects and information around them in categories to increase their processing efficiency. This means that categorization theory suggests that whenever an individual is confronted with a new object, she will first assess the potential similarity between this object and existing categories in her mind and then transfer her existing category knowledge to the new object dependent on the extent to which this object is

perceived as a member of this category (Cohen and Basu 1987; Klink and Smith 2001; Meyers-Levy and Tybout 1989).

Translated to the brand extension context, this means that consumers are assumed to conceptualize brands and their portfolio as categories in their minds with the brand name serving as the category label (Boush and Loken 1991). If it then comes to the evaluation of a new product in form of a brand extension, consumers are supposed to transfer associations from the parent brand's category to the extension with the match or perceived fit between the brand and the extension moderating the extent of the transfer process (Aaker and Keller 1990; Meyers-Levy and Tybout 1989). Consequently, it is assumed that the parent brand's associations and attitudes will impact the evaluation of a brand extension, if the consumer classifies the extension as a member of the parent brand's category, i.e., given a reputable brand, a higher level of fit will lead to more positive extension evaluations (Aaker and Keller 1990; Cohen and Basu 1987).

Accordingly, it has been proposed that because of these categorization effects the evaluation of a brand extension primarily depends on (a) whether consumers like the parent brand, and (b) whether the extension product fits the parent brand's product category (Boush and Loken 1991). As a result, categorization theory has indicated that affective responses to brand leveraging strategies might be often derived from the product's identification as a member of the parent brand's category instead of its individual characteristics (Aaker and Keller 1990; Hutchinson and Alba 1987; Ozanne, Brucks, and Grewal 1992; Rosch and Mervis 1975; Rosch, Simpson, and Miller 1976).

An example: following categorization theory, when consumers are confronted with a new Apple product, they analyze how this product fits into the existing product portfolio of Apple. Based on this fit assessment, they then implicitly decide how much of their knowledge of Apple they want to spill over to the new product. This means for example, when Apple introduced the iPod Shuffle earlier this year, consumers analyzed the product regarding its fit

with Apple's existing product portfolio. Since the new product was close to already existing products such as the iPod or the iPod Mini, the perceived fit was evaluated high and hence the knowledge spill-over from the parent brand substantial.

Apparently, these findings have been bad news for growth-oriented marketers. They emphasize the limits to the extensibility of parent brands and hence put a hold on ambitions of marketers, who are frequently motivated to leverage their brand names far a field from the brand's current product portfolio (Lane 2000). Clearly, with categorization theory being accepted as the dominant consumer learning paradigm in brand extension research, the category fit has been acknowledged as the primary determinant of success and failure of brand extensions. As a result, conventional brand management wisdom has suggested that a brand's ability to stretch may be subject to tight boundaries and hence recommended to focus efforts on incremental innovations, because following categorization theory congruent extensions will be successful, but incongruent usually will not (Lane 2000; Smith and Andrews 1995).

Yet, recently, several researchers have argued that too much emphasis has been put on this classic fit dimension (Brozniarzyk and Alba 1994; Klink and Smith 1997; Park, Milberg, and Lawson 1991; Smith and Andrews 1995; Tauber 1988). It has been suggested that the dominant fit paradigm certainly has its importance but may stop short in providing an explanation for all existing circumstances and that hence a brand might be extended into more product categories than researchers previously thought. Among others, Tauber (1988) has argued that a brand's leverage, understood as the delivered benefits, might be more important for consumers than fit. Klink and Smith (1997) have revealed evidence supporting that as an extension's attribute information increased, the effect of perceived fit on evaluation of an extension disappeared. Moreover, following a similar direction, Smith and Andrews (1995) have shown that the direct effect of fit may disappear when the effect of customer certainty is considered. Finally, Park, Milberg, and Lawson (1991) have suggested that consumers may

evaluate a brand extension's fit not only on the classic product dimensions but also on its brand concept consistency with the parent brand.

Partially reflecting the concerns and findings of these studies, it is particularly one study that has moved beyond a pure focus on fit as an indicator of consumer evaluations of brand extensions. In this study, Broniarczyk and Alba (1994) have argued that there might be multiple determinants of brand extension evaluations and hence success, of which product feature similarity might be only one aspect. They have emphasized the importance of brand-related determinants of evaluations of brand extensions, namely brand associations (Broniarczyk and Alba 1994). Following their line of reasoning, these associations, understood as attributes and benefits that differentiate a brand from competing brands, might be capable of dominating the effects of product category similarity, particularly when consumer knowledge is high (Broniarczyk and Alba 1994; MacInnis and Nakamoto 1990). This means that consumer evaluations of brand extensions are not a simple matter of similar product features but that consumers may assess the ability of the extensions to satisfy their needs and that such assessments are driven primarily by the specific associations of the brand (Broniarczyk and Alba 1994). Consequently, they have criticized today's understanding of brand extension evaluations, which purely depends on a product-feature driven fit because of its incapability to account for brand associations that might be capable of tying a parent brand and an otherwise dissimilar product category together (Broniarczyk and Alba 1994).

In sum, however, it has to be emphasized that despite these emerging concerns the classic fit paradigm still dominates researchers' and marketers' understanding of how consumers may evaluate brand extensions, strongly influencing which brand extensions are introduced and which not (Bottomley and Holden 2001; Lane 2000). Yet, as the previous paragraphs have shown, researchers have recently started to highlight factors that may override the effectiveness of the classic fit paradigm. Thus, it can be assumed that non-fitting extensions are not necessarily cursed to market failure as often proposed by conventional

brand management wisdom. However, what is still missing is a model capable of addressing congruent as well as incongruent extensions in the brand leveraging context.

II.1.2 Co-Branding

Understood as all circumstances in which two or more brands are presented jointly to the consumer (Rao, Qu, and Rueckert 1999), co-branding approaches can take different forms ranging from loosely coupled advertising alliances (Samu, Krishnan, and Smith 1999) to fully integrated inter-firm collaborations (Bucklin and Sengupta 1993). Nowadays, they have not only entered consumer's daily lives with prominent examples spanning such diverse industries as airlines (e.g., Star Alliance, One World), toys (Ferrari and Lego), high technology (e.g., IBM PCs with Intel microprocessors, Sony Ericsson mobile phones), and kitchen utilities (e.g., Alessi and Philips), but also raised considerable interest in the research community (Levin and Levin 2000; Rao, Qu, and Rueckert 1999; Simonin and Ruth 1998; Venkatesch and Mahajan 1997).

Lastly reflecting a classic search for synergy, reasons for the emerging popularity of this particular brand leveraging strategy are widespread and mainly based on corporations' new awareness that these forms of strategic alliances can be attractive vehicles through which companies can grow and expand their scope. Especially the potential to exploit the obtainable possibilities such as tapping the partner's customer base (Sherman 1992; Venkatesch, Mahajan, and Muller 2000) as well as influencing consumer evaluations of the product (Bucklin and Sengupta 1993; Keller 1997; Simonin and Ruth 1998) have raised considerable interest in research and practice. To date, research on brand alliances has mainly focused on three areas, namely (a) signaling aspects in situations when product quality is or is not observable, (b) spill-over effects between the partners in the alliance, and (c) consumer evaluations of brand alliances in general.

The first stream of research looks into the potential of brand alliances to signal unobservable product quality in the case when a brand is new to the market place and therefore not able to signal product quality on its own (Rao and Monroe 1989; Wernerfelt 1988). Take NutraSweet as an example. When the company entered the market of sweeteners in the beginning of the 80s, it struggled with rumors that its products might cause cancer. Clearly, its own brand was new to the market and hence lacked the reputation necessary to assure the disturbed consumers. Considerable marketing efforts and even independent research studies were not capable of distracting consumers' health concerns. However, when Coca-Cola and Pepsi Cola announced their cooperation with NutraSweet, these concerns almost totally disappeared. Apparently, by building an alliance with NutraSweet, these companies gave their own brands' equity as a bond for NutraSweet's quality (Brandenburger 1993; Rao and Rueckert 1994).

Empirical examinations have supported this reasoning by revealing that the presence of a second brand name on a product can result in a signal that helps unknown partner brands in a brand alliance to signal unobservable product quality (Rao and Rueckert 1994; Rao, Qu, and Rueckert 1999; Washburn, Till, and Priluck 2000). The brand equity of the partner brand can hereby be seen as a bond for the unobservable product quality of the jointly offered product (Rao and Rueckert 1994). Brand alliances are hence regarded as an especially appropriate instrument to signal unobservable product quality for brands that cannot successfully signal this quality on their own (Rao, Qu, and Rueckert 1999).

The main aim of the second major stream in brand alliance research has been to examine possible knowledge and attitude spill-over effects between partner brands in a brand alliance (Levin and Levin 2000; Simonin and Ruth 1998). The question was whether and how consumers use their knowledge of one brand in their assessment of the other brand in a alliance (Levin and Levin 2000; Park, Jun, and Shocker, 1996; Simonin and Ruth 1998). For example, if Apple and Intel now engage in an interbrand collaboration and will brand all new

products jointly with the Apple and the Intel brand starting in 2006, it raises the central question how this will affect consumers' overall evaluation of the individual brands.

Empirical evidence has pointed to the fact that there are spill-over effects between the partners of a brand alliance. Specifically, it has been revealed that consumers, who have developed some associations with one brand in an interbrand collaboration, tend to extend this knowledge to the partner brand (Levin and Levin 2000; Simonin and Ruth 1998). The reason for this effect is seen in consumers' tendency to make inferences regarding an unknown object or brand by examining cues in close proximity of this object, a phenomenon often referred to as context effects (Meyers-Levy and Tybout 1981). In the case of brand alliances, one of these context cues is the partner brand and hence consumers are assumed to spill-over their knowledge from one brand to the other (Simonin and Ruth 1998). The magnitude of these spill-over effects hereby appears to increase linearly to the strength of collaboration between the brands, reflected in product category congruity and shared attributes (Levin and Levin 2000; Simonin and Ruth 1998).

Finally, special attention has been devoted to the third research track, which examines consumers' evaluations of brand alliance research. While the examination of attitudes towards an individual brand is straightforward and mainly focuses on the aspect of category fit (Aaker 1991), the same topic has considerably more facets in the context of brand alliances with their more complex cooperation structure (Levin 2002; Levin and Levin 2000; Simonin and Ruth 1998).

Similar to findings in brand extension research, the first factors that have been identified to have a major impact on consumer evaluation of brand alliances are the pre-existing attitudes towards the partner brands in the brand alliance. Several studies have revealed that consumers' prior attitudes towards the involved individual brands significantly influence the overall evaluation of the alliance (Levin 2002; Levin and Levin 2000; Park, Jun, and Shocker 1996; Simonin and Ruth 1998). Drawing on findings of brand extension

literature (Aaker and Keller 1990), research on multi-product bundles (Gaeth et. al. 1990), and insights from information integration and attitude accessibility theory (Hampton 1987), it has been revealed that prior impressions of the involved brands were automatically retrieved if the subjects' memory stored a sufficiently strong brand alliance cue (Levin 2002; Simonin and Ruth 1998).

The second important variable in the process of brand alliance evaluation that has been identified is consumer's perception of the degree of complementarity between the images of the involved brands, most commonly referred to as brand fit (Park, Jun, and Shocker 1996; Simonin and Ruth 1998). An interbrand collaboration involves the brand images of multiple partners and consumers do not perceive these images independently from each other.

Following the findings of several empirical studies, consumers' evaluations of brand alliances are significantly influenced by their perception of fit between the partners' images (Simonin and Ruth 1998; Varadarajan 1986). For example, if a consumer evaluates a Lagerfeld - Hennes & Mauritz shirt, she not only assesses the product per se, but also devotes considerable thoughts to the question of how good the two brands Lagerfeld and Hennes & Mauritz fit together.

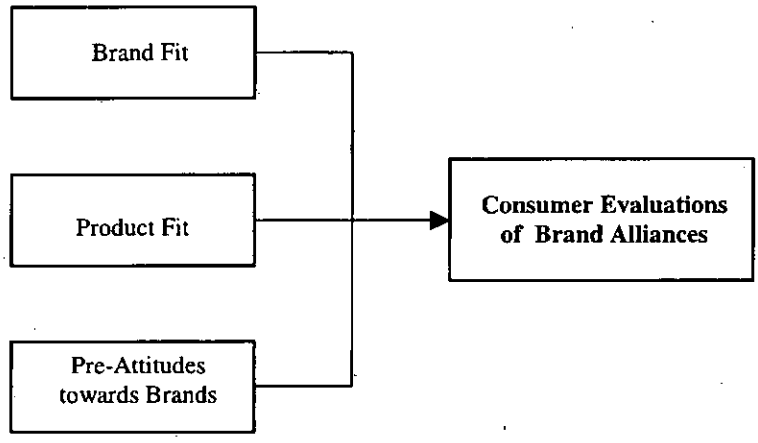
Empirical studies have supported this reasoning and revealed that the impact of the perception of brand fit is related to the fact that relations between the brands are highly visible in brand alliances, seducing consumers to strongly rely on this relation when evaluating a brand alliance (Park, Jun, and Shocker 1996). Moreover, findings in information integration psychology indicate that brand alliances, consisting of two somehow inconsistent brand images, are likely to force consumers into engaging in a causal or attributional search, which often results in questioning the connection of these brands triggering adverse beliefs and opinions (Hampton 1987; Park, Jun, and Shocker 1996; Simonin and Ruth 1998). Following this line of reasoning, this dissertation proposes that the perception of fit between the involved brand images of the partner brands is positively related to the brand alliance evaluation.

The third relevant factor underlying brand alliance evaluations is the perceived fit between the involved product categories. This construct of product fit is quite similar to the previously discussed brand fit. It deals with the extent to which consumers perceive the product categories in the alliances to be compatible (Samu, Krishnan, and Smith 1999). The basic idea is derived from the previously discussed findings in research on brand extensions, which has emphasized the importance of the product fit to ensure the transportation of the brand attitudes from the parent brand to the brand extension (Aaker and Keller 1990; Boush and Loken 1991; Dacin and Smith 1994; Keller and Aaker 1992; Park, Milberg, and Lawson 1991).

However, researchers' understanding of the fit idea is different in the two fields (for more details please see II.1.3 The Notion of "Fit"). Brand extension research emphasizes the importance of the transferability of skills from the core to the extension product category as the key determinant of consumer evaluations. Brand alliance research, in contrast, suggests that consumers simply evaluate whether the product categories of the partner brands are compatible on a abstract, conceptual level (Park, Jun, and Shocker 1996; Samu, Krishnan, and Smith 1999; Simonin and Ruth). The reason for this difference is that in brand alliances an examination of the transferability of skills is most of the times superfluous because the partners contribute to the alliance with their core skills so that no problems with transferability are expected (Simonin and Ruth 1998). For example, if IBM and Intel engage in a brand alliance to offer a joint PC, IBM brings its hardware knowledge and Intel its competence in building microprocessors to the alliance (Rukstad and Casadesus-Masanell 2001).

Figure 1 summarizes the main determinants of consumer evaluations of brand alliances.

Figure 1: Consumer Evaluations of Brand Alliances



Research, however, has not only focused on potential benefits of brand alliances but also started to examine potential pitfalls of these inter-brand collaborations, highlighting that coupling two or more brands might not always be without risks and should be handled with utmost care. Among others, Farquhar (1994) has shown that brand alliances can create asymmetries caused by consumers attributing a potentially negative experience with one brand in the brand alliance to the partner brand. As such, brands in a brand alliance run the risk that their positioning might be undermined when consumers blame the wrong brand for their dissatisfaction. Janiszewski and van Osselaer (2000) found empirical support for this reasoning in a study which revealed that a brand alliance may or may not be beneficial to the partnering brands, depending on when consumers are first exposed to the individual brand versus the alliance.

Despite these apparent risks and potential pitfalls, brand alliances have developed to an often chosen alternative to brand extension strategies. Therefore, it is not surprising that researchers have recently started to compare the effectiveness of this strategic approach versus other brand leveraging strategies (Brownell 1994; Desai and Keller 2002; Park, Jun, and Shocker 1996). Brownell (1994) early on demonstrated the competitiveness of brand

alliance strategies, revealing that a branded (compared to a non-branded) ingredient strategy can enhance consumers' attitudes and overall quality perceptions of a brand extension. Supporting these findings, Park, Jun, and Shocker (1996) have found a pattern of results indicating that a consumer may react more favorably to an extension product following a composite branding strategy than following the classic direct extension approach. Desai and Keller (2002), in contrast, have revealed that a co-branded ingredient may only facilitate initial expansion acceptance, while self-branded ingredients may lead to more favorable subsequent category extension evaluations. Moreover, Simonin and Ruth (1998) have shown that only a brand alliance with high product and brand fit ratings is well perceived by the consumers. A lack of fit or a wrong partner choice leads to a considerable damage to the involved brands. Clearly, there is no general answer to the question of what might be the better brand leveraging strategy because both approaches have their strengths and weaknesses.

II.1.3 The Notion of "Fit"

As the literature review has revealed, the notion of perceived "fit" appears to be a critical component across brand-driven growth strategies (Aaker and Keller 1990; Bottomley and Holden 2001; Levin and Levin 2000; Simonin and Ruth 1998). Therefore, it is important to get a better insight of similarities and differences between the notions of fit employed in brand extension and brand alliance strategies.

As seen earlier, in brand extension research one of the most robust findings across studies has been the emphasis of the importance of the similarity or cohesiveness between the parent brand and the extension category in determining brand extension evaluations (Aaker and Keller 1990; Bottomley and Holden 2001; Boush and Loken 1991; Keller and Aaker 1992). According to the conventional wisdom in brand extension research, the favorability of brand extension evaluations primarily depends on consumers' perception of the fit between

the parent brand and the product category to which the brand has been extended. If the extension is evaluated to be perceptually close to the parent brand, consumers provide more favorable evaluations compared to the case when the extension category is perceived to be distant (Aaker and Keller 1990; Boush and Loken 1991; Keller and Aaker 1992; Loken and John 1993).

Similarly, research on consumer evaluations of brand alliances has also emphasized the role of "fit", however, as indicated earlier, the concept of fit employed in brand alliance research is different from the concept of fit in brand extension research. While research in the latter has primarily focused on a fit idea that reflects the transferability of skills from the core to the extension product category and hence categorization learning considerations, this conceptualization of fit is assumed to play no role in the evaluation of brand alliances (Simonin and Ruth 1998).

The fit construct that significantly influences consumer evaluations of brand alliances consists of two main parts, namely (a) consumer's perception of the degree of complementarity between the images of the involved brands, often referred to as brand fit (Park, Jun, and Shocker 1996; Simonin and Ruth 1998), and (b) the extent to which consumers perceive the product categories involved in the alliance to be compatible, most commonly called product fit (Samu, Krishnan, and Smith 1999; Simonin and Ruth 1998). Apparently, it is particularly the construct of brand fit that reveals a significant difference between the two research streams and essentially reflects the fact that brand alliances involve the brand images of more than one brand (Simonin and Ruth 1998). The results of these studies have shown that the impact of the perception of brand fit is related to the fact that in brand alliances relations between the brands are highly visible, seducing consumers to strongly rely on this relation when evaluating a brand alliance (Park, Jun, and Shocker 1996).

Taken all together, this basically means that brand extension research has primarily focused on a construct of fit that describes similarity between the extension product and the

parent brand's product category, while brand alliance research's focus of attention is on a more abstract fit dimension that deals with the appropriateness or logical connectedness of product as well as image dimensions (MacInnis and Nakamoto 1991). Thus, it can be concluded that despite the fact that both research streams have described consumer evaluations as an inferential process involving several cognitive operations, the underlying assessments are different. In brand extension research it is merely a category similarity assessment, and in brand alliance research it is a logical connectedness approach (MacInnis and Nakamoto 1991; Simonin and Ruth 1998).

II.2 Theories of Consumer Learning

In this section, two models of consumer learning are reviewed. Besides today's dominant model of consumer learning in brand leveraging research, categorization theory, the present dissertation will also review the strongly emerging analogical learning theory, which has proven its efficiency especially in explaining consumer learning in the context of radical innovations (Gregan-Paxton and Roedder John 1997; Hoeffler 2003). Preceding these efforts, an overview of the general process of consumer learning is provided that facilitates an overall understanding of consumer learning. Following the review of the two learning paradigms is a comparison between the two highlights differences as well as similarities. Taken as a whole, the aim of this part is to lay the theoretical groundwork for a better understanding of how consumers may assess strategies that leverage brands into radical innovations.

II.2.1 The Process of Consumer Learning

Latest research on consumer learning has suggested that learning processes in which consumers use existing knowledge from a familiar domain (the base) to understand something novel (the target) generally follow a three step process (see Figure 2), in which the knowledge from the familiar base is first accessed, then mapped, and finally transferred to the target object (Falkenhainer, Forbus, and Gentner 1989; Gentner and Markman 1997; Gregan-Paxton

and Moreau 2003; Gregan-Paxton and Roedder John 1997; Markman and Wisniewski 1997; Medin, Goldstone, and Markman 1995; Novick 1988).

Figure 2: The Process of Consumer Learning

- Activation of the mental representation of the base domain, i.e., already stored information is accessed.
- Similarity comparisons between the base and target.
- Establishment of correspondences between the two entities.
- Realization of the relevance of existing knowledge for the target.
- Actual transfer of information from the base to the target

Think off the Apple iPod Shuffle as an example. Theory suggests that when consumers learn about this new product, they try to associate it with something they already know. In the case of the iPod Shuffle the familiar base is the brand, Apple, and its existing product portfolio. Thus, the first step of consumers is to assess their knowledge about Apple and its products. Then in the next step, when they have assessed this knowledge, they start to compare the iPod Shuffle with Apple's existing products, for example the iPod Mini, and try to find similarities that can facilitate their understanding of the new product. When these similarities are finally identified, in the present case both products are MP3 players with similar functions, functional knowledge about how to handle the new product as well as relational knowledge about how an Apple product can change consumers' lives is transferred from the familiar base to the new product.

In detail, from a theoretical perspective it has been proposed that in the first stage, commonly referred to as access stage, consumers activate their mental representation of the base domain. This means they access the information stored in their memories, so that it can

be considered as a basis of information for the target (Falkenhainer, Forbus, and Gentner 1989; Gentner 1989; Gregan-Paxton and Roedder John 1997). This access can occur spontaneously or via a prompt from an external source such as an advertisement (Gregan-Paxton, Hibbard, Brunel, and Azar 2002). In the case of the iPod Shuffle, the confrontation with the Apple brand on the product would activate consumer's mental representation of Apple's existing product portfolio.

In the second stage, most commonly referred to as mapping stage, the question is whether or not the knowledge that has been accessed in the access stage can be transferred from the familiar base to the target (Gregan-Paxton and Roedder John 1997). This means that this stage finally is responsible for establishing (mapping) the relevant correspondences between the base and target that serve later as the basis for consumer learning and hence determine how much information will be transferred (Clement and Gentner 1991; Gregan-Paxton 2001). Clearly, the fact that the Apple brand is able to serve as a cue to activate consumer's previous knowledge does not necessarily mean that the activated knowledge is also helpful to learn about the new product. If for example the iPod Shuffle would be an innovative toothbrush, consumers' existing functional knowledge of Apple's product portfolio would not be of much help. Thus, in the mapping stage it is determined if the stored knowledge is helpful in the present context. And this usefulness is most commonly determined by the similarity of the base and the target, i.e., in the case of the iPod Shuffle the mapping stage would determine if there are similar products in Apple's existing product portfolio.

Therefore, the central mechanism in the second stage is a mapping procedure that is aimed at aligning the base and the target such that knowledge from the former can be transferred to the latter. By this means, consumers try to establish one-to-one correspondences, which will later be used as knowledge transportation paths between the knowledge of the base and the target (Gentner 1989; Gregan-Paxton and Moreau 2003;

Gregan-Paxton and Roedder John 1997). To establish these one-to-one correspondences consumers can engage in three different similarity comparison processes (Gregan-Paxton and Roedder John 1997). First, a literal similarity comparison, in which base and target are mapped in terms of both attributes and relations. Second, a relational comparison, in which base and target are solely mapped in terms of relations. And finally, a mere appearance comparison, in which base and target are exclusively mapped in terms of attributes. The choice of the adequate comparison process depends on the characteristics of the information to be transferred and the learning process used. The information that is transferred from the base to the target can be roughly categorized into attributes and relations with attributes referring to both abstract and concrete properties of an object, and relations referring to the interconnected system between the object and its environment (Gregan-Paxton and Moreau 2003).

Finally in the last stage, the transfer stage, the actual transfer of information and hence the learning takes place. It is assumed that consumers, realizing the relevance of their stored knowledge for a novel situation and having performed a mapping of the elements, will transfer their information from the base to the target. They hereby follow the logic that domains known to be similar in certain respects, are likely to be similar in other respects as well (Gentner and Roedder John 1997). In the case of the iPod Shuffle this means that consumers realize that the new product is close to already existing products of Apple such as the iPod Mini and identify similarities between the new product and the already existing ones. Based on these similarities, they then transfer their already stored knowledge about the iPod Mini to learn about the iPod Shuffle.

Analogical learning theory and categorization theory resemble each other regarding the general process of consumer learning. However, these similarities are reduced to the very process. Within the single stages of the process several significant differences can be identified. Starting with the access stage, the main difference between them is that access is

normally not considered a difficulty in categorization theory, while in analogical learning theory the access stage is often crucial. In the case of the former, the target (e.g., the branded extension product) is very often directly associated with the base (e.g., the parent brand), and hence activation of previous knowledge of the latter is seen as an automatic event (Cohen and Basu 1987; Ozanne, Brucks, and Grewal 1992). In the case of the latter, the relation between the base and the target is often not that obvious, so that consumers often tend to fail to notice vital relations between the two (Gick and Holyak 1980; Gregan-Paxton and Roedder John 1997; Weisberg, DiCamillo, and Phillips 1978).

The theoretical underpinnings behind this reasoning come from general learning theory which has revealed that automatic access is primarily driven by the nature of correspondence between the base and the target, i.e., it has been suggested that the degree to which the two share common attributes determines the probability of access (Gick and Holyak 1980; Gregan-Paxton and Roedder John 1997; Nisbett and Ross 1980). Since most of the research on categorization effects has primarily focused on bases and targets that were quite similar, problems with access rarely appeared (Bottomley and Holden 2001). In studies on analogical learning theory, however, the focus has often been on situations with little attribute overlap between the two entities, which makes access less intuitive and hence a crucial determinant of success (Gregan-Paxton and Roedder John 1997; Holyak and Koh 1987).

Also in the mapping stage some significant differences between analogical learning theory and categorization theory can be identified. Categorization theory primarily focuses on a rather restrictive approach relying on a literal similarity comparison and hence a mapping of relations and attributes. Analogical learning theory, on the other hand, relies on a mapping solely based on relations. This basically means that both approaches considerably differ in their treatment of attributes and relations in the mapping stage: categorization theory relies on a more restraining approach in which both the attributes and relations have to be appropriately

mapped between the target object and the base domain. Analogical learning theory, in contrast, suggests a mapping process with a strong focus on relations (Gregan-Paxton and Moreau 2003). As a result, it is widely assumed that analogical learning allows for knowledge transfer between seemingly disparate categories, while categorization theory focuses on a more narrow interpretation of similarity and hence cannot explain learning in these circumstances.

Finally, the last stage of the learning process, which deals with the transfer of information between base and target, also reveals significant differences between the two approaches. It has been proposed that, since the two approaches differ in their mapping approaches that are the basis for knowledge transfer, they also differ in the type of knowledge transferred. Consumers who learn based on analogical learning theory transfer significantly more relational information from the base domain to the target object. Consumers who learn based on categorization effects transfer significantly more attribute information (Gregan-Paxton and Moreau 2003).

II.2.2 Categorization Theory

As mentioned earlier, categorization theory has so far been one of the most popular learning paradigms in marketing research and by far the most prominent when it comes to dealing with consumer evaluations of brand leveraging strategies (Aaker and Keller 1990; Bottomley and Holden 2001; Boush and Loken 1991; Cohen and Basu 1987; Keller and Aaker 1992; Park, Milberg, and Lawson 1991).

The starting point of reasoning in categorization theory is the general assumption that consumers have limited cognitive capacities and hence are overwhelmed and troubled to deal with today's information overload (Davenport and Beck 2000; Rosch 1975). To cope with this situation, they are assumed to group objects and events into categories on the basis of perceived similarities and resemblances that subsequently help them to structure and simplify

the information load, hence facilitating them to function in complex environments (Ozanne, Brucks, and Grewal 1992; Rosch 1975). Take again the Apple iPod Shuffle as an example. If consumers nowadays try to buy a MP3 player, they will not only be confronted by a overwhelming variety of offers, but also face an intimidating amount of functions and attributes they have never dealt with before. To cope with this information overload, consumers try to organize the information into already existing categories. In the case of the iPod Shuffle this category is Apple and its existing product portfolio, i.e., they will try to use their knowledge of the latter to learn and evaluate the former.

Underlying theoretical reckoning is that consumers, following this categorization approach, can significantly enhance their processing efficiency as well as cognitive stability. Based on categorizing novel items into well-known categories, they are capable of responding to these items in terms of their category membership rather than engaging in effortful processing of all the details (Cohen and Basu 1987; Ozanne, Brucks, and Grewal 1992). This means that consumers are assumed to follow a clear-cut strategy: they start with an access stage, in which they evaluate whether an item can be classified as a member of previously defined categories (Keller 1997). Then, when the information about a new product is consistent with category in their memories, they map the information in the category with the new item. Finally, they will make inferences about the new product based on the information available in the category. Put succinctly, whenever a new product is categorized as belonging to a category, the knowledge from the category will be transferred to it (Sujan and Dekleva 1987). Membership in the category might hereby not be determined as an in-or-out decision, but rather as a matter of degree (Barsalou 1985; Medin and Smith 1984; Mervis and Rosch 1981).

Given the apparent importance of new products to be classified as belonging to an existing category, one focal point of attention in categorization theory has so far been on the question of how people and/or consumers may create these categories. As a result of these

efforts, research has generally agreed that people may build categories by somehow grouping objects being similar in important respects. However, what is still rather controversially discussed is the question of what may finally determine this similarity in categorization theory (Bruner, Goodnow, and Austin 1956; Lingle, Altom, and Medin 1984). As seen earlier, today it is widely assumed that consumers' assessment of similarity can take place on three different abstraction levels. First, consumers can analyze the similarity between the category and the target object based on both attributes and relations, most commonly referred to as literal similarity comparison. Second, it is assumed that consumers can also focus their similarity judgments solely on relational aspects, hence neglecting surface similarity. And finally, it has been also proposed that consumers can also judge similarity based solely on appearance, hence neglecting relational aspects.

So far, the focus of previous research has been on the more restrictive categories. Among others, Fiske (1982), investigating person perception tasks, has suggested that people will transfer attitudes associated with a category of persons when the person is perceived to fit the category on a surface basis. Similarly, results of a study of Srull and Wyer (1989) have shown that people attempt to form general impressions of other people and subsequently will use those impressions both to assess new information and to make succeeding judgments. Again, the underlying mechanism has been hypothesized to be a categorization process based on an attribute comparison.

A study by Sujan (1985) has revealed similar pattern of results, also supporting the reasoning that categorization theory focuses on attributes or literal similarity comparisons. In her research dealing with information processing aspects of experts and novices, subjects were confronted with products that matched or mismatched a category label and reactions to these products were assessed. The results have revealed that for experts, when the category label matched the camera descriptions based on a literal similarity comparison, the evaluation

process appeared to be more category based, resulting in faster evaluations and evoking more verbalizations related to the product category.

Finally, Cohen and Basu (1987), reviewing alternative formulations of how people may categorize new objects, have shown that identification and evaluation are fundamentally intertwined and outcomes of a process designed both to provide meaning and to facilitate a readiness to respond. By doing so, they have developed a contingent processing formulation, emphasizing the flexibility of the information processing system in its response to important contextual factors and also essentially pointing to a literal similarity comparison mechanism at its very core (Cohen and Basu 1987).

Exceptions from this focus on attribute and literal similarity comparison processes are still sparse and for the most part argue that previous literature's focus on these taxonomic categories might be too close neglecting the fact that many important categories used by consumers are rather non-taxonomic and more relational and/or goal-derived categories (Barsalou 1985; Srivastava, Alpert, and Shocker 1984). Examples of such categories include for instance modes of transportation, things to do at the weekend, and food to eat on special occasions (Barsalou 1985). Still, it has to be emphasized that the majority of research on categorization theory on brand leveraging strategies still postulates that people use a literal similarity comparison when analyzing the classifiability of an item to a category (Bottomley and Holden 2001).

All told, one can summarize that in categorization theory learning takes place based on a categorization process, in which the identification as a member of a particular category is assumed to significantly impact subsequent affective responses (Cohen 1982; Hutchinson and Alba 1987; Sujan 1985). Across fields, this identification process is most commonly described as a literal similarity comparison, in which base and target are matched on attributes and relations (Cohen and Basu 1987; Loken and Ward 1990; Ozanne, Brucks, and Grewal 1999). For brand leveraging strategies this reasoning implies that the success of a new product

primarily depends on (a) the favorability of existing attitudes towards the parent brand, and (b) the degree to which the new product is perceived as a member of the parent brand's category. Consequently, it can be concluded that categorization theory suggests that brand leveraging strategies should focus on new products that are perceived as perceptually close to the parent brand's existing product portfolio.

II.2.3 Analogical Learning Theory

As mentioned earlier, similar to categorization theory, analogical learning theory deals with the transfer of knowledge from one domain to another as a function of the correspondence between the two. It hence also follows the fundamental assumption that a familiar situation may help consumers to make inferences about an unfamiliar situation (Gregan-Paxton and Moreau 2003). However, in contrast to categorization theory, analogical learning theory takes a broader perspective on this knowledge-transfer issue, because it too allows knowledge transfer between seemingly disparate knowledge structures (Gentner 1989; Gentner and Holyoak 1997; Gregan-Paxton, Hibbard, Brunel, and Azar 2002; Gregan-Paxton and Roedder John 1997).

The focus of attention again is on consumers using information from a base domain to understand a target object. Underlying assumptions are that (a) existing knowledge structures are capable of facilitating the achievement of specific learning objectives (Gentner 1989), (b) domains related in some respects are very likely to be related in other respects as well (Gentner 1989; Gregan-Paxton and Moreau 2003; Gregan-Paxton and Roedder John 1997), and (c) consumers, when faced with something unfamiliar, attempt to understand it by relating it to something familiar (Gregan-Paxton and Roedder John 1997).

Also similar to categorization theory, the transfer of knowledge in analogical learning theory depends on a three step process with an access and a mapping stage paving the way for the generation of knowledge pertaining to the target in a transfer stage (Gregan-Paxton and

Roedder John 1997; Halford 1987; Keane, Ledgeway and Duff 1994; Ross 1989). The big difference between the two learning paradigms however is that analogical learning theory does not restrict itself to situations where the base and target object are similar on surface features (as suggested by categorization theory's notion of fit) but proposes that learning may also occur between seemingly disparate knowledge structures that share only relations in common.

Specifically, in contrast to categorization theory which generally focuses solely on situations when there is a close similarity between the target and the base on an attribute or literal similarity basis, analogical learning theory is characterized by a preference for relation-based mapping (Clement and Gentner 1991; Spellman and Holyoak 1992 Gregan-Paxton, Hibbard, Brunel, and Azar 2002). This basically means that while categorization theory rejects a knowledge transfer if an obvious lack of surface similarity between target and base is apparent, analogical learning theory still allows it by focusing on the identification of structural similarities rather than surface attribute driven similarities between these two domains (Gentner 1983; Gregan-Paxton, Hibbard, Brunel, and Azar 2002).

Take Virgin's extension into airlines as an example. Following categorization theory there cannot be any kind of learning effects between the Virgin brand and its new service, because there is no product fit between Virgin's core business and airline services. Thus, categorization theory would suggest that this move is likely to become a failure. However, Virgin Atlantic succeeded and what is more important profited from the already existing brand equity of Virgin. How could this happen? The answer lies in consumers' associations with Virgin. Empirical examinations have shown that if you ask consumers to describe their associations with Virgin, you will rarely find any attributes or product related comments as answers (Frei, Rodriguez-Farrar, and Hajim 2001). Most commonly, people's answers refer to relational aspects such as brings me fun, offers me the best value for my money, is young,

and/or an underdog. With this positioning based on relational aspects, Virgin is capable of extending its brand beyond classic categories.

Analogical learning hereby takes place in the same three step process as categorization theory. In both cases, consumers are assumed to first access their knowledge from a relevant base before they subsequently map it with the target, and then transfer the knowledge from the base to the target. Yet, the main difference between the two learning theories is that analogical learning theory proposes that this process can also take place between seemingly disparate entities. The reason for this difference is embedded in the different mapping approaches of these theories. While categorization theory relies on a literal similarity comparison, analogical learning theory also accepts a mapping that can equally take place based solely on relational similarities between base and target. Specifically, following the dominant structural model in analogical learning theory, the structure mapping theory (Gentner 1983; Gentner 1989), analogical transfer involves a mapping procedure, in which relations between elements within the base are retrieved and then applied to the target. By doing so, the attributes of the base domain and the target object are of lesser importance, because mapping is more dependent on the relational communalities between the two rather than on the similarity between them.

Analogical learning theory has lately attracted a considerable increase of interest outside of its primary field. While initially it focused primarily on analogical reasoning problems of the sort of intelligence tests (e.g., "leg is to foot as arm is to what?"), a number of studies have recently appeared that link analogical learning theory to consumer behavior topics (Gregan-Paxton, Hibbard, Brunel, and Azar 2002; Gregan-Paxton and Moreau 1997; Gregan-Paxton and Roedder John 1997; Hoeffler 2003).

Among the first to adapt analogical learning theory to the consumer behavior area has been Gregan-Paxton and Moreau (1997), who have emphasized the usefulness of analogical learning theory to explain the internal knowledge transfer in consumer learning. They have

developed a conceptual model to explain how previously acquired knowledge might be transferred in the consumer learning process. In their empirical tests of the model, they have found a pattern of results which indicated that knowledge transfer is not necessarily limited to a narrow set of circumstances, but may also occur between seemingly disparate knowledge structures that share only relations in common. Successfully replicating these findings in several consumer behavior contexts, they have demonstrated that analogical learning theory might not only be capable of providing a broader perspective on the knowledge transfer issue compared to categorization theory, but also that analogical learning theory might be a tool for enhancing today's understanding of knowledge transfer in general.

Adapting this reasoning, Gregan-Paxton and Moreau (2003) have made the next step and directly compared analogical learning theory with categorization theory. A special focus of their empirical analysis has been on the suggested potential differences between the mapping mechanisms of these two learning paradigms. Based on the results of three experiments, which compared consumers' responses to analogy and categorization cues, they have shown that knowledge transfer via analogy and categorization may result in significantly different outcomes despite the fact that they use the same basic process. By this means, they have revealed some evidence for the differences between the mapping mechanism in the two theories.

Apart from these two more general approaches towards analogical learning theory, research has also started to apply it to specific contexts. In the focus of attention have mainly been radical innovations (Gregan-Paxton, Hibbard, Brunel, and Azar 2002; Hoeffler 2003). Given analogical learning theory's apparent advantage in dealing with knowledge transfer between disparate structures, Hoeffler (2003) analyzed how analogies may help to improve preference measurement for really new products. The basic idea has been that consumers have greater uncertainty when estimating the usefulness of really new products than they have with incremental new products and that analogues may help them to cope with this uncertainty.

Results supported this reasoning showing that an incorporation of analogical techniques into existing preference measurement technique has the potential to significantly enhance the predictive accuracy of classic measures (Hoeffler 2003).

Finally, Gregan-Paxton, Hibbard, Brunel, and Azar (2002) have examined whether and to what extent prior knowledge may play a role in the comprehension of radical innovations. Applying analogical learning theory to address this question, their assessment has shown that analogical reasoning may provide an effective link to the structural knowledge needed for consumers to learn about truly novel innovations. It has been revealed that subjects who engaged in analogical processing of new product information have been more focused in their processing than subjects who processed the same information in the absence of analogy. Moreover, it has been shown that benefits of these radical innovations may be easier learned through analogies to other products that provide similar benefits in another domain. This indicates that the knowledge about the other products might sometimes be used as a surrogate experience, which enables consumers to learn about the opportunities and benefits associated with a radical innovation (Roehm and Sternthal 2001).

In sum, analogical learning theory has recently faced an augmented interest in consumer behavior contexts and proven itself to be an appealing alternative to categorization theory. Especially its ability to explain consumer learning between seemingly disparate knowledge structures appears to offer an advantage over classic categorization theory. In today's environment that sees an accelerating pace of technological change and an increasing number of radical innovations that defy straightforward classification, knowledge about how consumers may use their existing knowledge to learn about seemingly incongruent innovations is, indisputably, of utmost interest (Gregan-Paxton, Hibbard, Brunel, and Azar 2002; Hoeffler 2003; Stringer 2000; Urban, Weinberg, and Hauser 1996).

II.2.4 Categorization vs. Analogical Learning Theory

Despite the significant contributions made by categorization literature to today's understanding of consumer learning, researchers' heavy reliance on the categorization paradigm may have become a liability especially in today's context of rapid technological pace (Gregan-Paxton and Roedder John 1997). Without doubt, much of the existing work on consumer knowledge transfer has been adequately described by the categorization literature, with its theory providing an appealing conceptual basis for many of today's researched problems. However, as the previous paragraphs on categorization and analogical learning theory have shown, categorization theory's ability to serve as a comprehensive framework, capable of addressing consumer learning along the whole innovation continuum, might be limited especially compared to analogical learning theory. But what exactly are the main differences between these two learning paradigms?

As mentioned earlier, both theories start with the same basic idea that existing knowledge structures are capable of facilitating the achievement of specific learning objectives (Cohen and Basu 1987; Gregan-Paxton and Roedder John 1997). Moreover, both of them share the same basic process of knowledge transfer with consumers going through an access, mapping, and transfer stage. However, in contrast to the categorization theory, analogical learning theory also allows for knowledge transfer between seemingly disparate knowledge structures that share only relations in common which means that knowledge transfer need not to be limited to a narrow set of circumstances such as fit in categorization theory (Gregan-Paxton and Roedder John 1997).

The reason for this fundamental difference can be attributed to a different mapping process in analogical learning theory which significantly impacts the different possibilities of learning that the two theories offer. While categorization theory has suggested that consumers use a literal similarity comparison in the mapping phase, analogical learning theory has proposed that consumers engage in a relational comparison process (Gregan-Paxton and

Moreau 2003). This means that while categorization theory relies on a process, in which target and base are mapped in terms of both attributes and relations, analogical learning theory emphasizes the possibility that consumers may engage in a mapping process in which base and target are primarily mapped in terms of relations and hence attribute dissimilarities are neglected (Gregan-Paxton and Moreau 2003).

Given that disparate entities that differ on surface features can show some similarities on a relational level, the present reasoning has far reaching consequences. It indicates that prior research on consumer knowledge transfer, driven by categorization theory, may have relied on a rather limited focus on knowledge transfer that only occurrs in the contexts of literal similarity comparisons, even though knowledge transfer might be capable in far more contexts (Gregan-Paxton and Moreau 2003). This means that it is reasonable to propose that analogical learning theory is capable of addressing consumer learning in a broader context than categorization theory and hence to deal with learning situations along the whole innovation continuum. This is because it has been shown that consumers might be capable of successfully mapping base and target solely based on relations and not on relations and attributes as proposed by categorization theory.

In sum, this indicates on the one hand that research on knowledge transfer faces with analogical learning theory a new learning paradigm that might be capable of explaining knowledge transfer between seemingly disparate knowledge structures that share only relations in common (Gregan-Paxton and Moreau 2003; Gregan-Paxton and Roedder John 1997). And on the other hand that today's research, guided by dominant categorization theory, has so far suggested a too narrow view on the knowledge transfer issue. A view that has greatly underestimated the extent to which prior knowledge can be harnessed to facilitate current learning across a wide variety of consumer contexts. In doing so, it has widely overlooked situations where a category, other than the one serving as the primary means of

organizing a novel stimulus, serves as a valuable source of information about it (Gregan Paxton and Roedder John 1997). Table 1 summarizes the essential differences.

Table 1: Categorization vs. Analogical Learning Theory

	Categorization Theory	**Analogical Learning Theory**
Access Stage	Automatic access of a relevant base domain based on the face similarity between base and target.	Access of a relevant base domain has to be activated by a cue.
Mapping Stage	Base and target are mapped in terms of both attribute and relations.	Base and target are primarily mapped in terms of relations.
Transfer Stage	Information transfer limited to congruent knowledge structures.	Also allows for knowledge transfer between disparate knowledge structures.

II.3 Radical Innovations

The concept of radical innovations, often also referred to as really new products (RNPs) or discontinuous and/or disruptive innovations, is of fairly recent origin (Aggrawal, Cha, and Wilemon 1998). Having so far been the exception rather than the rule in the field, radical innovations have been neglected in research compared to incremental innovations. However, given the ever-accelerating technological pace of today's environment and the fact that prominent examples of these innovations can increasingly be found throughout consumers' daily lives - spanning such diverse fields as high technology (e.g., Apple's iPod, Bang & Olufson Insulin Pen, IBM's PC, Sony's Walkman, JVC's VHS), the automotive industry (e.g., BMW's C1, Toyota Prius Hybrid), services (e.g., TiVo, deinsurances), and the Internet (e.g., Ebay's auction platform, Yahoo's search engine) - it is not surprising that awareness for

radical innovations has recently spread (Lynn, Morone, and Paulson 1996). This amplified awareness has finally resulted in an increase of research on measuring preferences for these products (Hoeffler 2003) as well as studies on consumer learning in their context (Moreau, Markman, and Lehmann 2001).

One of the main reasons for the augmented interest is that today's firms have realized that staying competitive not only requires them to maintain a stream of profitable new products, but also the right mixture of new products with incremental innovations, reflecting merely new variants of existing products on the one side, and radical innovations, reflecting products revolutionizing or creating new categories on the other. Only in following this strategy, will companies be able to contend on dissimilar dimensions than their opponents and hence escape today's face-to-face competition that is based largely on cost and/or quality. Thus, it can be assumed that a neglect of radical innovations as a vital growth opportunity is likely to result in major shortcomings. And this indicates that a better understanding of these forms of innovations is urgently needed (Danneels 2002; Urban, Weinberg, and Hauser 1996). So, what are radical innovations, and what makes them so special?

Several defining characteristics of radical innovations have been identified across research streams, reflecting the special character of radical innovations and indicating possible challenges of companies planning to introduce these products. First and foremost, several researchers have proposed that radical innovations revolutionize existing or define new product categories. This means that these products are no retreads and no incremental improvements of existing products but radically new and by definition different from what the consumers may have so far seen before (Aggrawal, Cha, and Wilemon 1998; Hoeffler 2003; Moreau, Markman, and Lehmann 2001; Urban, Weinberg, and Hauser 1996; Veryzer 1998). Second, some researchers have defined radical innovations as either being manufactured by using new technologies or being offered through new technologies to the consumer (Aggrawal, Cha, and Wilemon 1998; Song and Montoya-Weiss 1998). Third, it has been

proposed that radical innovations shift market structures, because their realization requires new strategic alliances in the market place as well as the development of a complementary infrastructure to support the adoption and use of RNPs (Schmidt and Calantone 1998). Fourth, it has been suggested that radical innovations are so new that they frequently require a considerable amount of active learning and cognitive investment on the part of consumers (Veryzer 1998). And finally fifth, since radical innovations are like nothing consumers have seen and hence frequently serve functions that have not been served before, they are assumed to require significant modifications in consumer behavior (Aggrawal, Cha, and Wilemon 1998; Hoeffler 2003; Moreau, Markman, and Lehmann 2001). For the herein tackled issues of consumer learning, it is particularly the characteristic identified by the first track that is of utmost interest because it directly relates to today's dominant learning paradigm: categorization theory. It is for this reason that it has been selected as the main defining characteristic in the present study.

Clearly, all of these characteristics point to some challenges for companies when it comes to launching radical innovations. The required modifications in consumer behavior indicate the necessity to convince consumers that these radical innovations and their benefits are worth the effort, outweighing the discomfort associated with post-purchase modifications in behavior (Aggrawal, Cha, and Wilemon 1998). The fact that radical innovations are often manufactured based on new technologies poses the problem of incompatibility as well as a high perceived risk on the consumer side that often leads consumers to hesitate in buying the product (Shimp and Bearden 1982). Moreover, given radical innovation's degree of innovativeness, potential consumers have, by definition, limited knowledge on them and hence are often initially reluctant to adopt them, especially if information pertaining to the radical innovation is also sparse or difficult to comprehend (Hoeffler 2003; Mahajan, Muller, and Bass 1990).

However, as mentioned earlier, the strongest impact is expected to be caused by the fact that radical innovations tend to defy straightforward classification in terms of already existing product categories. It is this characteristic which indicates that today's dominant consumer learning paradigm, categorization theory, might not be capable to explain consumer learning in the present context (Gregan-Paxton, Hibbard, Brunel, and Azar 2002).

These days conventional wisdom suggests that consumers primarily learn on the basis of categorization effects about new products. This means that consumers are assumed to categorize new products into existing categories in their minds and afterwards transfer knowledge from the category to the product (Cohen and Basu 1989). However, if radical innovations are now really different to everything consumers may have seen before and hence tend to defy straightforward classification in any existing product categories, then it is likely that today's dominant learning paradigms might not be capable of adequately predicting how consumers form preferences about these kind of innovations (Aggrawal, Cha, and Wilemon 1998; Fiske 1982; Gregan-Paxton and Roedder John 1997; Hoeffler 2003; Moreau, Markman, and Lehmann 2001; Sujan 1985).

Take JVC's video recorders for example. When they entered the market, nobody had seen anything comparable. They clearly created a new product category. So categorization theory would have suggested that a market success is unlikely, because this innovation was different to anything a consumer might have seen before and hence by definition incongruent (Aaker and Keller 1990). Still, they became an astonishing success. So, how did consumers learn about them? Apparently, categorization effects did not apply as an explanation, because if the category was totally new, how could it be similar to any existing product category and hence allow for knowledge spill-over? And if consumer evaluations of radical innovations really follow the same pattern of consumer learning as incremental innovations suggested by previous research, how can they possibly overcome their inherent disadvantage, since categorization theory postulates that there is no learning between disruptive knowledge

structures (Cohen and Basu 1989). Clearly, there appears to be more to consumer learning of radical innovations than previous research suggests. Thus, it is a foremost research priority to completely understand how consumers may evaluate these products given that they tend to defy straightforward classification or revolutionize existing product categories (Hoeffler 2003).

Given this apparent importance to adapt today's consumer learning to the characteristics of radical innovations, it is not surprising that radical innovations have recently attracted a lot of interest in the marketing research community. Among the first realizing the importance of this emerging topic were Urban, Weinberg, and Hauser (1996), who have examined companies' challenges of forecasting consumer reactions towards radical innovations. Examining the case of an electric vehicle, they have pointed to the importance for companies to face the challenge of forecasting consumer reactions for a radical innovation and highlighted how a company has to combine managerial judgment and latest marketing measurement tools to assess the opportunity a radical innovation may offer. Based on their results, they have developed a new market measurement system that combines existing methods with a multimedia virtual buying environment.

Several others studies have followed Urban, Weinberg, and Hauser's (1996) more company-focused approach, touching topics ranging from the sheer challenges of innovating (Song and Montoya-Weiss 1998) to strategic management issues in the product development process (McDermott and O'Connor 2002). Yet, up to the end of the last decade what has been fairly neglected is the perspective of the consumer, which resulted in a lack of answers to questions regarding consumer perceptions, evaluations, and information processing (Aggrawal, Cha, and Wilemon 1998).

Hoeffler (2003) has been among the first to cast some light into this rather deserted field of research by examining the impact of radical innovations on preference formation of consumers. Being concerned with the question of how existing preference measurement tools

could be improved to enhance their predictive accuracy for radical innovations, Hoeffler (2003) has suggested the use of inferential techniques to improve the accuracy of existing research tools for radical innovations. Starting point of his reasoning was the assumption that consumers face a higher degree of uncertainty when estimating the usefulness of radical innovations compared to incremental innovations. He assumed that this higher uncertainty induces instability to consumers' preferences when evaluating design features of radical innovations. Following the results of his study, consumers can cope with this uncertainty by using inferential techniques such as analogies and mental simulation, which are not captured by today's research techniques. Consequently, it has been suggested that these inferential techniques should be incorporated in existing preference measurement techniques.

Support for Hoeffler's (2003) reasoning about the elevated importance of analogies in the context of radical innovations has come from an earlier study examining consumers' knowledge development for radical innovations (Gregan-Paxton, Hibbard, Brunel, and Azar 2002). Dealing with the question of what role prior knowledge may play in consumer evaluations of these products and applying the latest findings in analogical learning theory, the authors demonstrated that consumers' learning processes were impacted by the presence of analogies. It has been revealed that subjects who engaged in analogical processing were more focused in their processing than subjects who processed the same information in the absence of analogies (Gregan-Paxton, Hibbard, Brunel, and Azar 2002).

Besides these two approaches that rely on analogical learning theory, another study tried to explain consumers' responses to these products from a categorization theory perspective (Moreau, Markman, and Lehmann 2001). In their study, Moreau, Markman, and Lehmann (2001) have examined how consumers may learn about and develop preferences for products that do not fit into existing categories. They have analyzed how and when consumers use knowledge from multiple categories to develop preferences for radical innovations. By doing so, they relied on radical innovations that did not fully defy straightforward

categorization, but shared properties with members of multiple existing product categories. The findings revealed that consumer evaluations of this special form of radical innovations were significantly influenced by the first plausible category label provided to them (Moreau, Markman, and Lehmann 2001).

Clearly, the emerging body of research on radical innovations indicates that the special characteristics of radical innovations require adjustments and changes in existing research techniques and management strategies. Especially the fact that radical innovations tend to defy straightforward classification in terms of accessible, closely related knowledge structures, points to the fact that existing research in consumer learning is not likely to be of much help to researchers in this area (Gregan-Paxton and Roedder John 1997). Rather the fact that today's dominant consumer learning paradigm denies knowledge transfer between seemingly disparate knowledge structures, indicates that continued research efforts are necessary to adopt a broader theoretical perspective on the knowledge transfer issue. One that is capable of explaining all the ways in which prior knowledge contributes to current learning for incremental as well radical innovations.

Chapter III: Hypotheses Development

In summary, with research interests ranging from consumer evaluations of brand extensions (Aaker and Keller 1990; Bottomley and Holden 2001; Dacin and Smith 1994) to context effects of brand alliances (Levin and Levin 2000; Simonin and Ruth 1998) as well as the assessment of potentially harmful effects of leveraging strategies on parent brands (Gürham-Cancli and Maheswaran 1998; Loken and Roedder John 1993; Rao, Qu, and Rueckert 1999) brand driven growth strategies have experienced a resurgence in interest in recent years.

Yet, surprisingly, as the literature review has revealed, while academic research has particularly developed an extensive body of research dealing with consumer evaluations of brand-driven growth strategies reflecting incremental changes, herein referred to as Incremental New Products or INPs (Aaker and Keller 1990; Levin and Levin 2000; Reddy, Holak, and Bhut 1991; Simonin and Ruth 1998), little attention has been devoted to the question of how consumers may react to brand-driven growth strategies into radical innovations, herein referred to as Radical New Products or RNPs (Klink and Smith 2001; Smith and Andrews 1995). However, given the ever-accelerating pace of technological change and the increased awareness of the importance of innovative products for a company's success (Lynn, Morone, and Paulson 1996; O'Connor et. al. 2000), these radical innovations have emerged with a growing percentage among the total amount of new product introductions. So that a neglect may result in considerable shortcomings in theory and practice (Aggrawal, Cha, and Wilemon 1998; Gregan-Paxton, Hibbard, Brunel, and Azar 2002).

As seen earlier, prior research examining consumer perceptions of brand leveraging strategies indicates that the notion of perceived "fit" is a critical component in brand extension as well as brand alliance strategies, determining the transfer of beliefs and hence significantly impacting the consumer's evaluation (Aaker and Keller 1990; Bottomley and Holden 2001; Boush and Loken 1991; Chakravarti, MacInnis, and Nakamoto 1990; Levin and

Levin 2000; Park, Milberg, and Lawson 1991; Simonin and Ruth 1998). Consequently, the main recommendations of research for brand management practice have so far been to focus on innovations in perceptually close new product areas. Radical innovations, in contrast, have been fairly neglected, because they tend to defy straightforward classification in existing product categories and hence are assumed not to support the essential affect transfer from the leveraged brand (Aaker and Keller 1990; Bottomley and Holden 2001; Simonin and Ruth 1998).

Apparently, radical innovations do not fit today's brand management wisdom of how a successful brand leveraging strategy has to look like and hence there is no clear understanding of how a proper brand strategy for launching radical innovations under existing brand names should look. Following today's reasoning in theory and practice, a brand extension into a radical innovation is very likely to become a market failure, because by revolutionizing existing product categories or creating new product categories, RNPs make a fit assessment based on the classic fit dimensions difficult if not impossible (Hoeffler 2003; Moreau, Markmann, and Lehmann 2001; Urban, Weinberg, and Hauser 1996). Yet, the very fact that there are several examples of very successfully introduced "non-fitting" RNPs such as Apple's iPod, Bang & Olufson's Insulin Pen, Virgin Space Travels, or Danone's Actimel dairy drinks reveals that today's brand extension research might not always be a reliable predictor of brand extension success into radical innovations. As a result, they might unnecessarily lead to a disregard of these innovations as potential sources of brand-driven growth.

Consequently, the first aim of the present dissertation is to analyze today's brand management theory regarding its usefulness in the context of radical innovations. The main question herein lies in whether and how companies can successfully leverage their brands into RNPs, given that the classic fit between these innovations and their parent brands is, by

definition, low. To answer this question a better understanding of brand leveraging strategies into RNPs is necessary.

This hypotheses development section is structured in three parts. First, a closer look at brand extension strategies into RNPs is taken, reflecting the most popular brand leveraging strategy. Second, introducing RNPs with a brand alliance is assessed as a possible alternative. And third, the potential impact of a company's product portfolio on consumer evaluations of brand extensions into RNPs is discussed.

III.1 Brand Extensions and Radical Innovations

As seen earlier, the key to understand consumer evaluations of brand extensions lies in the underlying consumer learning processes. To recall, up to now, researchers have primarily relied on categorization theory as the dominant learning paradigm to explain how consumers learn about brand extensions. In doing so, researchers have assumed that consumers group brands and their products into categories, in which the brand name serves as a category label and its existing products as defining characteristics of this category (Boush and Loken 1994). Whenever a company now introduces a new product in form of a brand extension, consumers' evaluation are assumed to be driven by the question whether the extension can be classified as a member of a parent brand's category (Cohen and Basu 1999; Keller 1997). If consumers are able to classify the extension as a member of this category, then a category-based evaluation process is triggered in which attributes and relations associated with the category are transferred to the brand extension (Gregan-Paxton and Roedder John 1997).

Given this hypothesized importance of categorization effects in brand extension evaluation, it is not surprising that brand extension research has put a high emphasis on analyzing consumers' classification processes in these evaluation tasks (Aaker and Keller 1990; Gregan-Paxton and Roedder John 1997). The main result of these examinations is that today it is widely assumed that congruent extensions are successful while incongruent ones

are not (Lane 2000). The underlying information processing perspective has been that consumers evaluate the appropriateness of a brand extension based on a literal similarity comparison process in which both attributes and relations are assessed regarding their similarity (Cohen and Basu 1989; Gregan-Paxton and Moreau 2003; Gregan-Paxton and Roedder John 1997). If the extension product and the parent brand are finally evaluated as similar on these dimensions, categorization effects and hence an affect transfer will take place (Barsalou 1983; Boush and Loken 1994; Dacin and Smith 1994; Mervis and Rosch 1981).

As mentioned earlier, the crux with RNPs is that they are unlikely to fit on these classic fit dimensions because they tend to defy straightforward classification in existing product categories. Consequently, given that common brand management wisdom postulates that consumer evaluations of brand extensions primarily depend on the outcome of this comparison process, today's brand theory hypothesizes that, considering all things being equal,

Hypothesis 1a: Brand extensions into RNPs will be evaluated less favorably than brand extensions into INPs.

The reason for these significantly less favorable consumer evaluations of brand extensions into RNPs is seen in the comparably lower fit, that undermines consumers' learning process and hence the positive affect spill-over from the parent brand. As mentioned earlier, RNPs revolutionize or create new categories and hence tend to defy straightforward classification (Urban, Weinberg, and Hauser 1996). In doing so, their defining characteristics are assumed to suppress any kind of categorization effects, because as the literature review on categorization theory has shown, categorization effects are primarily determined by the extent to which category similarity exists between the two entities. Consequently, if a RNP is, by definition, not close to any existing category, then it is obvious that consumer's fit evaluations of these extensions should be comparably low. As a result, and in line with conventional

brand management wisdom and categorization theory (Bottomley and Holden 2001; Cohen and Basu 1989), it is proposed that

Hypothesis 1b: Brand extensions into RNPs will have significantly lower scores in consumers' fit evaluation than brand extensions into INPs.

As seen earlier, the dominant comparison mechanism in brand extension evaluations is assumed to be the literal similarity comparison, in which both attributes and relations are mapped against each other and finally determine how much and what information will be transferred from the parent band to the extension (Gentner 1989; Gegan-Paxton and Roedder John 1997). In this comparison process, it has been proposed that consumers first analyze the base (i.e., the parent brand) and the target (i.e., extension product) regarding their similarity on attributes and relations, and then determine (based on this assessment) what kind of information will be transferred from the base to the target to evaluate brand extensions. This means for instance, that if BMW introduces a new car, then consumers will first evaluate if this car has a lot of matching attributes and relations with the rest of BMW's product portfolio, and then (based on this assessment) implicitly decide how much and which knowledge they will transfer from the parent brand BMW to the new product.

In the case of RNPs, however, it has been shown that consumers particularly have problems understanding what attributes these innovations may include, which apparently makes a comparison and mapping based on attributes more difficult compared to INPs. With relations though, these problems may not exist, because previous research has revealed that consumers are often well aware of how RNPs will relate to them in their daily lives (Gregan-Paxton and Roedder John 1997; Hoeffler 2003; Urban, Weinberg, and Hauser 1996). Consequently, while it is likely that consumers will be able to match parent brand and extension product based on relations and hence transfer relational knowledge between these two entities, it is unlikely that they are capable of matching the two entities based on

attributes. It can be therefore assumed that the results of the mapping between the two entities on their attributes should be rather poor and hence it can be further deduced that attributional knowledge transfer will be rather sparse between them. As a result, this dissertation proposes that

Hypothesis 1c: Brand extensions into RNPs will result in significantly less attribute transfer than brand extensions into INPs.

In the light of these propositions, which reflect conventional wisdom of brand management theory and practice, one may feel intrigued to agree with brand extension research's main recommendations not to extend brands into incongruent categories and hence RNPs. However, as mentioned earlier, these recommendations stand in sharp contrast to several success stories in the field such as Sony's Walkman, Bang & Olufson's Insulin Pen, Apple's iPod, and Danone's Actimel and thus may have the potential to undermine a very lucrative source of brand-driven growth, namely brand extensions into RNPs. Thus, the question appears what might be possible reasons for the fact that brand extensions into RNPs are often highly successful while dominant theory predicts that they should not.

Clearly, prior research has concentrated its efforts on knowledge transfer between parent brands and extensions that share both attributes and relations. In doing so, it has been influenced by categorization theory as its dominant learning paradigm (Gregan-Paxton and Moreau 2003), implicitly assuming that categorization theory is the only learning theory capable of explaining consumer learning in a brand leveraging context. It has thus neglected to consider alternative consumer learning paradigms that have revealed that knowledge transfer needs not to be limited to a narrow set of circumstances as suggested by categorization theory.

However, especially the previously reviewed and recent strongly emerging analogical learning theory appears to offer a rich alternative and corresponding explanation, because one

of its key propositions is particularly that knowledge transfer may also occur between seemingly disparate knowledge structures that share only relations in common. Given that research on RNPs has exactly postulated that consumers often are well aware of how these radical innovations will relate to them in their daily lives, it is only intuitive to consider a combination of these two research areas as fruitful (Gregan-Paxton, Hibbard, Brunel, and Azar 2002; Gregan-Paxton and Roedder John 1997; Novick 1988).

Following analogical learning theory, the similarity comparison in the mapping phase of the learning process need not necessarily be built on a literal similarity match as proposed by categorization theory, but may also rely on a less restrictive relational match between base and target (Clement and Gentner 1991; Gregan-Paxton and Roedder John 1997). For growth-oriented brand managers this is good news, because it indicates that brands might be leveraged further than currently assumed. If a knowledge transfer is indeed possible between seemingly disparate knowledge structures, consumers might be also well capable of transferring knowledge from a parent brand to a disruptive extension product.

For potential brand extensions into RNPs these differences in matching mechanism between analogical learning and categorization theory appear to contain some interesting implications for the present reasoning. They basically suggest that consumers, in trying to learn about radical innovations, might be capable of focusing their efforts on structural relations and hence positively evaluate these incongruent extensions despite their lack of attribute similarity (Roehm and Sternthal 2001). One of the central propositions of this dissertation therefore is that analogical learning theory might be capable of explaining consumer learning between RNPs and their parent brands, and hence to solve the apparent contradiction between conventional brand management wisdom and successful RNP examples in the field (Gregan-Paxton and Roedder John 1997; Roehm and Sternthal 2001; Urban, Weinberg, and Hauser 1996).

However, as mentioned earlier, the dilemma with analogical learning processes is that they need to be activated. Consumers intuitively rely on categorization effects and rarely use analogical learning processes to learn about new products if they are not stimulated to do so (Gick and Holyak 1980; Gregan-Paxton and Moreau 2003; Gregan-Paxton and Roedder John 1997). The reason is straightforward. In cases when target and base are similar, the use of categorization processes is an obvious solution. Yet, in cases when target and base are not visibly similar, consumers have been observed to fail to notice potentially valuable relationships between a new target object (e.g., extension product) and a base domain (e.g., parent brand). Since observing these relationships is crucial for analogical learning, consumers often fail to learn about new products, even though analogical learning would offer them the potential to do so (Gentner, Ratterman, and Forbus 1993; Gick and Holyoak 1980). One of the central question of this dissertation is thus whether and how consumers can be "seduced" to engage in analogical learning processing in their evaluations of brand leveraging strategies.

Evidently, there are two points of interest when it comes to answer the question of how to induce analogical learning processes in brand extension evaluations of RNPs: the extension product and the parent brand (Gick and Holyoak 1980). Regarding the former, previous research on analogical learning theory has suggested that highlighting attributes of the target object, which are shared with the base domain, may trigger analogical learning processes (Gregan-Paxton and Roedder John 1997). However, since attributes of RNPs are, by definition, different from the attributes of their parent brands and moreover most of the time unfamiliar to the consumers, triggering analogical learning processes by highlighting attributes of the extension product does not appear to be a promising approach in the brand extension context.

Regarding the latter, prior research on incongruent brand extensions has revealed some interesting findings. Several studies have shown that brand associations might be capable of

making incongruent brand extensions work, despite their low fit on classic literal similarity fit dimensions (Brozniarzyk and Alba 1994; Meyvis and Janiszewski 2004). In detail, it has been proposed that if a brand has an image and positioning that support the incongruent extension, it can be successfully extended even into disparate categories. The question therefore appears what kind of brand images, understood as consumers' perceptions about a brand reflected by associations held in their memory (Aaker 1995; Keller 1993), can generally be distinguished and which of them might be capable of inducing analogical learning processes?

In general, brands are most commonly categorized regarding the type of associations they include: on the one side there are the benefit brands, which include mainly benefit-driven associations. They reflect a brand positioning in which primarily relational aspects of the brand such as benefit promises are highlighted. On the other side there are the functional brands including functional-driven associations. They reflect a brand positioning that merely emphasizes attributes of the brand and its product portfolio (Aaker 1995; Keller 1993; Meyvis and Janiszewski 2004).

Following a study of Park, Milberg, and Lawson (1989), brands belonging to the former type are often organized according to the characteristics of their underlying product, while brands belonging to the latter category are often organized in terms of how they relate to consumers' everyday lives. The brand image of functional brands is hence mainly formed by the product image, while the brand image of benefit brands also often reflects the users' image as well as the context of brand usage (Olson and Jacoby 1972; Zeithaml 1988). Moreover, it has been shown that consumers most often associate benefit brands with psychosocial goals and personal value. Functional brands in contrast, are mainly associated with functional goals (Claeys, Swinnen, and Abeele 1995; Ratchford 1987).

Table 2 summarizes these differences.

Table 2: Functional Brands vs. Benefit Brands

	Functional Brand	Benefit Brand
Consumers' Associations (Aaker 1995; Keller 1993; Meyvis and Janiszewski 2004)	Associations with functional aspects such as product attributes.	Associations with relational aspects such as consumers' everyday life.
Level of Abstraction (Park, Milberg, and Lawson 1989)	Related to lower levels (e.g., product characteristics).	Related to more abstract levels (e.g., consumer's everyday lives).
Brand Image (Olson and Jacoby 1972; Zeithaml 1988)	Mainly reflects the image of the underlying product.	Includes product image as well as how the brand relates to the consumer.
Goals (Claeys, Swinnen, and Abeele 1995; Ratchford 1987)	Related to functional goals.	Related to psycho-social goals.

Since the present dissertation proposes that the effectiveness of brand associations will primarily depend on their ability to induce an analogical learning process, the question now is which type of brand image might favor analogical learning processing? As seen earlier, following analogical learning theory, to trigger analogical learning processes it is necessary to make the relational structures salient. Thus, it can be assumed that the main driver of a brand's effectiveness in inducing analogical learning processes should be the association's ability to make valuable relational structures salient. Consequently, it is likely that especially benefit brands with their benefit-driven positioning are capable of overriding a low fit on the classic dimensions because consumer associations with these sort of brands exactly reflect what the brand represent to the consumer. Functional brands, in contrast, with their more product-driven associations may stop short of making the critical relational fit salient because consumers primarily associate functional attributes with them. Thus, given the fact that it is assumed that analogical learning processes increase the probability that the consumer will be

enabled to transfer knowledge from the parent brand to the extension (Gregan-Paxton, Hibbard, Brunel, and Azar 2002), this dissertation proposes that

Hypothesis 2a: If the parent brand is a benefit brand, brand extensions into RNPs will be evaluated significantly more favorable than if the parent brand is a functional brand.

To prove the present dissertation's proposition that the reason for these proposed outcomes lies in the brand association's ability to encourage consumers into analogical learning processing, it is promising to take again a closer look at the transferred information (Gregan-Paxton and Moreau 2003). A key difference between the outcome of analogical knowledge transfer and knowledge transfer based on categorization effects is the transferred information (Gregan-Paxton and Moreau 2003). It has been revealed that consumers using a categorization process in their evaluations transfer a comparably higher amount of attribute information, while consumers using an analogical knowledge transfer process transfer comparably more relational information (Gregan-Paxton and Moreau 2003). Consequently, it is proposed that consumers, evaluating brand extensions into RNPs from a benefit brand, transfer significantly less attribute information from the parent brand to the extension than consumers who evaluate brand extensions into RNPs based on a functional brand (Gregan-Paxton and Moreau 2003). Therefore, this dissertation hypothesizes

Hypothesis 2b: If the parent brand is a benefit brand, brand extensions into RNPs will result in significantly less attribute transfer than brand extensions than if the parent brand is a functional brand.

This dissertation moreover proposes that the positive effects of having a benefit brand should be more elaborate for brand extensions into RNPs than INPs. Since knowledge transfer between parent brands and extensions into INPs can successfully be performed with

categorization effects, having a benefit brand that can induce an analogical knowledge transfer process should not necessarily be as beneficial compared to extensions into RNPs. This is because in the latter case, the extension product tends to defy learning by categorization effects and should hence more heavily profit from a benefit brand that can induce an alternative knowledge transfer process. Consequently, this dissertation proposes that

Hypothesis 2c: The effect of using a benefit brand over a functional brand as the parent brand on consumer evaluations is significantly more positive for brand extensions into RNPs than for brand extensions into INPs.

III.2 Brand Alliances and Radical Innovations

Hypotheses 2a through c have dealt with the potentially positive impact of the use of benefit vs. functional parent brands on consumer evaluations of brand extensions into RNPs. By this means, this dissertation has highlighted one possible reason of why some brand extensions into RNPs are successful in the field, while dominant theory has predicted they should not be. Yet, the problem is that not every company which is willing to extend its brand into a RNP might have a benefit brand (i.e., possess the relevant relational brand associations) and establishing these brand association requires huge investments in brand building programs and a considerable amount of time (Aaker and Joachimsthaler 2000). Therefore, the present dissertation also highlights an alternative to having a benefit brand that may have the potential to make brand extensions into RNPs a success, even if they are low on the classic fit dimensions and lack the relevant brand associations.

Starting point of considerations is the previously discussed literature on brand alliances and signaling theory. It has been revealed that the presence of a second brand name on a product may result in a signal that can help a previously unknown partner brand to signal unobservable product quality (Rao and Rueckert 1994; Rao, Qu, and Rueckert 1999;

Washburn, Till, and Priluck 2000). For the present reasoning these findings indicate that, if a second brand is capable of assisting the partner brand in signaling unobservable product quality, it might be also capable of adding relational associations to the collaboration and hence help to induce consumers into analogical processing. It is therefore proposed that engaging in a brand alliance may help a parent brand to signal relational brand associations and hence to trigger analogical learning processing.

Considered in more detail, consumers confronted with a particular brand have likely developed a series of associations around that brand. However, these associations are often not relational but rather functional, hence preventing the brand from successfully extending its portfolio into radical innovations. Yet, if this brand is now paired with another brand which possesses relational associations, it is likely that consumers extend their knowledge of the latter to the first and hence add relational associations to their initial perception.

Empirical support for such a transfer of associations arrives from classical conditioning research, context theory, and information integration research (Washburn, Till, and Priluck 2004). Studies in the first area have successfully developed associations for an unfamiliar brand when it was paired with favorable visual stimuli using classical conditioning procedures (Grossman and Till 1998; Stuart, Shimp, and Engle 1987). Research on context effects has supported this reasoning by revealing that judgments of a product or service are influenced by the perceptual or evaluative characteristics of material in close proximity, which points to the fact that in a brand alliance in which one brand is presented in the context of the other, consumers' associations with the alliance are likely to be affected by prior associations towards each brand (Lynch, Chakravarti, and Mitra 1991; Simonin and Ruth 1998). Finally, information integration theory has revealed that attitudes or beliefs are formed and modified as people receive, interpret, evaluate, and then integrate stimulus information with existing beliefs or attitudes (Anderson 1981). In the case of brand alliances this means that when consumers create associations with the alliance, they are likely to be the result of an

inferential process by which consumers must formulate their associations on the basis of what they already know about the brand and the associations of the partner brand (Bridges, Keller, and Sood 1999).

Consequently, it is proposed that adding a second brand name, which has relational associations, to a brand lacking these associations may help in inducing analogical learning processes in the consumer mind and hence prompt more favorable evaluations about RNPs. It is thus proposed that

Hypothesis 3a: If a brand alliance consists of a functional brand and a benefit brand, brand extensions into RNPs will be evaluated significantly more favorable than if the brand alliance consists of two functional brands.

Clearly, underlying this reasoning are again consumers' processing preferences. While it is assumed that a brand alliance with at least one benefit brand will help to trigger analogical learning processes in consumers' minds, it is assumed that a comparable brand alliance consisting of two functional brands will result in learning based on categorization effects. To again underline this reasoning, a closer look at the transferred information is helpful. Assuming that analogical learning and categorization effects result in the transfer of different information (Gregan-Paxton and Moreau 2003), this dissertation proposes that

Hypothesis 3b: If a brand alliance consists of a functional brand and a benefit brand, brand extensions into RNPs will result in significantly less attribute transfer than if the brand alliance consists of two functional brands.

Since the main reason for the positive impact of the use of brand alliances in the present context lies in their ability to induce analogical learning processes, their effectiveness should be more elaborate for brand extensions into RNPs than for brand extensions into INPs,

which can be also successfully evaluated based on categorization effects. Therefore, the present research proposes that

Hypothesis 3c: The impact of adding a benefit partner brand to a functional parent brand is significantly more positive for brand extensions into RNPs than INPs.

Similarly, the effectiveness of adding a benefit partner brand to the parent brand should be more elaborate for brand extensions from functional brands than for brand extensions from benefit brands. This research therefore proposes that

Hypothesis 3d: The impact of adding a benefit partner brand to a parent brand on consumer evaluations is significantly more positive for functional parent brands than compared to benefit parent brands.

III.3 Brand Portfolio Breadth

Having analyzed the relationship between the two dominant brand leveraging strategies and RNPs as well as having introduced a new learning paradigm to the field of branding, this dissertation has highlighted how brand management's theory and practice might be capable of dealing with the specifics of RNPs and hence successfully introduce RNPs into the market place. As discussed earlier, the key to success for both brand leveraging approaches is assumed to lie in a company's ability to highlight matching relational structures in the parent brand and the extension and thus to encourage consumers to engage in analogical learning processing.

The final part of this hypotheses development section is devoted to an area that has recently been among the most discussed research topics in brand management, brand portfolios. The next paragraphs are hence devoted to the question of how the parent brand's

product portfolio characteristics may moderate consumer's use of analogical learning processes in brand extensions.

The starting point of research on brand portfolios is the idea that today the majority of brands are no longer stand alone entities but most often affiliated with a portfolio of diverse products. For example, Virgin is associated with music stores, an airline, mobile phones, and even bridal needs. Consequently, one of the central question of this research is now whether and how a broad product portfolio may impact a parent brand's extensibility (Dacin and Smith 1994; DelVecchio 2000; Keller and Aaker 1992).

Of special interest for the present reasoning are recent findings in studies dealing with the question of how a broad product portfolio may impact consumers' perception of the brand and hence their processing preferences when it comes to the evaluation of a new extension product. It has been revealed that, in contrast to the predictions of conventional brand management wisdom, multiple extensions might not always be harmful, but rather capable of making a brand association more abstract and thus more extendable (Dacin and Smith 1994). It has been therefore suggested that the dominant notion of fit and hence categorization theory might be less suitable for multi-product contexts than for single product brands, because the importance of fit is likely to diminish once a brand has been successfully extended into multiple product categories, particularly if these product categories are not highly related to each other (Dacin and Smith 1994; DelVecchio 2000).

Underlying reasoning in this research stream has been that brand associations may become abstracted when a brand can be associated with multiple product categories, because it then obviously no longer stands for a single product category. Consequently, it has been suggested that categorization theory is no more capable of explaining learning effects in this context, because if the brand loses its distinctiveness it clearly becomes difficult to use categorization theory to explain learning effects since there is no real basis for categorizing future extensions (Cohen and Basu 1987; Fiske and Pavelchak 1986).

Analogical learning theory may offer a rich alternative in this context, because, as seen earlier, it can explain consumer learning between seemingly disparate structures by relying on structural relations between base and target (Gentner 1983). Interestingly, parent brands with a broad portfolio have been associated with distinct meaning for their brand that reflects an abstract dimension and not product driven associations (Dacin and Smith 1994). Take again Virgin as an example. The brand is not associated with its shops, or its service in airplanes, nor do consumers think about mobile phones when they have to evaluate Virgin. Most commonly, people think of Virgin as a brand that brings them fun, offers the best value for money, is young, and an underdog. And with this positioning based on relational aspects Virgin is known to move into areas in which the customer has traditionally received a poor deal and the company thinks it can offer something better, fresher and more valuable to the consumer.

Therefore, since consumers are assumed to evaluate extensions of brand with a broad product portfolio primarily based on structural relations and disregard a lack of surface similarities, it is hypothesized that the number of brands affiliated with a brand moderate consumer evaluations of brand extensions into RNPs. Consequently, this dissertation proposes that

Hypothesis 4: Consumer evaluations of brand extensions into RNPs will be moderated by the parent brand's product portfolio.

Table 3 summarizes all hypotheses of this dissertation.

Table 3: Summary of Research Hypotheses

	Hypotheses
H 1a	Brand extensions into RNPs will be evaluated less favorably than brand extensions into INPs.
H 1b	Brand extensions into RNPs will have significantly lower scores in consumers' fit evaluation than brand extensions into INPs.
H 1c	Brand extensions into RNPs will result in significantly less attribute transfer than brand extensions into INPs.
H 2a	If the parent brand is a benefit brand, brand extensions into RNPs will be evaluated significantly more favorable than if the parent brand is a functional brand.
H 2b	If the parent brand is a benefit brand, brand extensions into RNPs will result in significantly less attribute transfer than brand extensions than if the parent brand is a functional brand.
H 2c	The effect of using a benefit brand over a functional brand as the parent brand on consumer evaluations is significantly more positive for brand extensions into RNPs than for brand extensions into INPs.
H 3a	If a brand alliance consists of a functional brand and a benefit brand, brand extensions into RNPs will be evaluated significantly more favorable than if the brand alliance consists of two functional brands.
H 3b	If a brand alliance consists of a functional brand and a benefit brand, brand extensions into RNPs will result in significantly less attribute transfer than if the brand alliance consists of two functional brands.
H 3c	The impact of adding a benefit partner brand to a functional parent brand is significantly more positive for brand extensions into RNPs than INPs.
H 3d	The impact of adding a benefit partner brand to a parent brand on consumer evaluations is significantly more positive for functional parent brands compared to benefit parent brands.
H 4	Consumer evaluations of brand extensions into RNPs will be moderated by the parent brand's product portfolio.

Chapter IV: Study 1

The primary objective of Study 1 was to empirically analyze brand theory's proposition that brand extensions into radical innovations are evaluated less favorably than brand extensions into incremental innovations (Hypothesis 1a), and that these differences in evaluation are accompanied by consumers' perception of a lack of fit between the parent brand and the extension product (Hypothesis 1b). Moreover, the type and amount of transferred information was traced to reach a better understanding of the underlying learning processes (Hypotheses 1c).

In addition, Study 1 also took a closer look at the question whether certain brand associations may enable companies to extend their brands beyond conventional wisdom and hence allow them to consider radical innovations as valuable growth opportunities. To do so, the present study analyzed the impact of divergent parent brand associations on the outcomes of consumers' evaluations of radical innovations (Hypothesis 2a) as well as on their learning preferences (Hypothesis 2b-c).

IV.1 Method

Subjects were asked to evaluate a series of six potential brand extensions in three different consumption areas (high involvement products, commodity goods, and high technology products) that varied systematically in their degree of innovativeness (RNPs vs. INPs).

IV.1.1 Subjects

109 graduate students (35 females and 74 males), enrolled in a large German university, took part in this study on a voluntary basis and were randomly assigned to one of the experimental conditions. In doing so, the present dissertation acknowledged that the use of student subjects may cause limitations regarding the external validity of the study by only capturing the behavior of parts of the whole population. However, extensive reviews of previous research on potential differences between samples of student subjects and random samples have not

revealed pattern of results that would indicate major shortcomings through the use of student subjects in the present research context (Bernstein, Hakel, and Harlan 1975; McGovern, Jones, and Morris 1979; Olian, Schwab, and Haberfeld 1988; for more details see 'VII.4 Limitations and Future Research').

IV.1.2 Design

The design of Study 1 was a 2 (RNP vs. INP) x 2 (Benefit Brand vs. Functional Brand) mixed factorial design. The manipulation of experimental conditions was based on extensive pretesting.

In more detail, for the manipulation of the extension product's degree of innovativeness three different INP vs. RNP pairs had to be identified that on the one hand, significantly differed in their degree of innovativeness, and on the other, showed similar ratings in consumers' attitudinal predisposition (Pretest 1). Pretesting finally led to the identification of the three following product pairs: (a) a state-of-the-art mobile phone vs. a highly inventive PDA/mobile phone watch, representing commodity goods, (b) an innovative sports car vs. a futuristic mobility concept, representing high involvement products, and (c) a state-of-the-art mini laptop vs. a revolutionary wrist computer, representing high technology products. The selection of these product areas was based on recent findings in prior research on RNPs which have revealed encouraging results with these categories, as well as latest empirical figures which have shown a high percentage of radical innovations within these categories (Aggrawal, Cha, and Wilemon 1998; Gregan-Paxton and Moreau 2003; Hoeffler 2003; Urban, Weinberg, and Hauser 1996).

Regarding the selection of the parent brands, it was decided to rely on existing brands instead of creating fictitious ones, because previous research has revealed that fictitious brand names might not carry the well-formed associations and feelings that are considered a requisite for brand extensions (Brozniarzyk and Alba 1994; Martin and Stewart 2001; Park,

Milberg, and Lawson 1994). Based on the results of Pretest 2, six real world brand names were selected with Apple, Nokia and Mercedes representing the benefit brands, and IBM, Siemens Mobile and BMW representing the functional brands. Pretesting ensured that these brands were comparable concerning consumers' attitudinal predisposition but significantly differed regarding their positioning.

The selected stimuli were then arranged following a Latin square design. This means that it was assured that each subject only evaluated whether the RNP or the INP of one category, never both of them. This practice minimized the danger of carry-over effects between the products (Hoeffler 2003). Ultimately, each subject rated three products, reflecting one member from each of the three pairs in the three product categories.

Altogether this procedure resulted in four different versions of the questionnaire, since there were two different types of brands used (benefit brands vs. functional brands) as well as two different degrees of product innovativeness (RNPs vs. INPs). To reduce the risk of incorrectly answered questionnaires and to minimize potential order of presentation effects, the order of the brands and the anchoring of the used scales were randomly changed within the questionnaires (Greenwald 1976; Judd, Smith, and Kidder 1991).

IV.1.3 Stimulus Selection

In general, the stimulus selection had to fulfill two main goals. First, it was aimed at identifying product pairs, which were comparable in terms of consumers' overall evaluation but significantly varied in their level of innovativeness. Second, it was necessary to select real world brand names with different positioning strategies (Benefit Brand vs. Functional Brand) that were highly comparable regarding participants' evaluations of familiarity and favorability (Aronson, Ellsworth, Carlsmith, and Gonzales 1990).

In total, three stages of pretesting were conducted. Pretest 1 focused on identifying appropriate products for the manipulation of the RNP vs. INP condition. Pretest 2 was aimed

at finding suitable brands for the benefit brand vs. functional brand manipulation. Pretest 3 examined potential problems with the variables, procedures, hypotheses and the like before applying it to a greater audience. All conducted pretests had moreover the purpose to test the measures for the independent and dependent variables of the main study.

Having returned the pretests' questionnaires, the participants were debriefed and informed about the real aim of the pretests. Moreover, it was ensured that the subjects that had taken part in the pretests did not participate in the main study.

IV.1.3.1 Pretest 1

Pretest 1 started with the identification of a large set of products under development that were comparable regarding consumers' perceptions of quality and favorability, but significantly differed concerning their degree of innovativeness. Several magazines (BusinessWeek, The Economist, Popular Science, PC Magazine, Futurist, Auto, Motor und Sport, and Car & Driver) as well as several websites (Consumer Reports, Stiftung Warentest, Whynot.net) were scanned for products under development to ensure an akin level of chronological newness (Hoeffler 2003).

As a result, 33 products were identified that appeared to be appropriate for further consideration ranging from 3D TVs to battery-powered diagnosis pills and combined highlighter/memory stick writing tools. Five student subjects, who were unfamiliar with the real aim of the study, then evaluated these products regarding their degree of innovativeness, quality and favorability as well as classified them concerning their general similarity. Finally, if possible, these products were matched up in pairs of INPs and RNPs. Products that could not be paired or did not meet the quality and favorability requirements were excluded from further testing.

This procedure resulted in a list of six INP vs. RNP product pairs (a state-of-the-art mobile phone vs. a highly inventive PDA/mobile phone watch, an innovative sports car vs. a

futuristic mobility concept, a state-of-the-art mini laptop vs. a wrist computer, an advanced plasma TV vs. a progressive 3D TV projector, an up-to-date LCD flat screen display vs. a roll up display, and an innovative new toothbrush vs. a radically new toothbrush replacement).

In the next step, standardized ads for these products were developed. The aim of this effort was to prevent any kind of potential bias caused by ads or product descriptions in the main study. Each ad included a brief paragraph listing two significant attributes of the product and the corresponding benefit provided by each attribute as well as a picture, which was selected following guidelines from advertising research (see Appendix I / Anand and Sternthal 1990; Hoeffler 2003). The number of times the product itself was mentioned was kept constant across ads.

The ads were then presented to students (N = 20), who were asked to rate the advertised products regarding their degree of innovativeness and to indicate their attitudinal predisposition towards them on several dimensions. Specifically, participants were first asked to rate the products' degree of innovativeness on a scale from 1-100. The employed scale resembled the Hoeffler Newness Scale and was anchored at the upper end by the newest option in each category as revealed by the pretests (e.g., "100 = automatic car" / Hoeffler 2004). Afterwards, subjects were asked to indicate their overall evaluation of the products (from 1 = "unfavorable" to 7 = "favorable"), their likelihood to try these products (from 1 = "not at all likely" to 7 = "very likely"), and their perception of quality for the products (from 1 = "low" to 7 = "high" / Hoeffler 2003). Moreover, because of findings in previous research, which have revealed a moderating impact of uncertainty on consumer evaluations of radical innovations (Hoeffler 2003), participants were also asked to indicate their perceived uncertainty in evaluating the products (from 1 = "very uncertain" to 7 = "absolutely certain").

Next, subjects were asked to assess the presented advertisements including the product descriptions and a picture of the product regarding their favorability towards the ad (from 1 = "unfavorable" to 7 = "favorable"), their overall evaluation of the product description (from 1

= "dislike" to 7 = "like"), the difficulty to comprehend the ad (from 1 = "very difficult" to 7 = "very easy"), the realism of the ad (from 1 = "very unrealistic" to 7 = "very realistic"), and the difficulty to evaluate the product based on the ad (from 1 = "very difficult" to 7 = "very easy" / Hoeffler 2003; Moreau, Markman, and Lehmann 2001).

Based on the results of this pretest, three pairs of INP and RNP products were identified that showed strong differences in their degree of innovativeness and a high comparability on the other dimensions. Representing the high involvement product pair, an innovative sports car ($I_{Sports\ Car}$= 45.00) was paired with a futuristic mobility concept ($I_{Mobility\ Concept}$= 87.00 / t = 6.332; p < .001), in the commodity product pair a state-of-the-art mobile phone ($I_{Mobile\ Phone}$= 43.00) was pitted against a PDA/mobile phone watch ($I_{PDA\ Watch}$= 72.00 / t = 3.168; p = .011), and in the high-technology product pair an ultra small laptop (I_{Laptop}= 39.60) was paired with a wrist computer ($I_{Wrist\ Computer}$= 73.00 / t = 3.465; p = .007). Overall, the difference in the average innovativeness ratings between RNPs (I_{RNPs}= 73.17) and INPs (I_{INPs}= 48.20) of the three product pairs was significant (t = 3.046; p = .014).

The pretesting of consumers' attitudinal predisposition towards the ads and the product descriptions showed no significant differences in the ratings between RNPs and INPs for the high involvement pair (t = -1.316; p = .204), the high-technology products (t = -1.115; p = .279), as well as the commodity product pair (t = .940; p = .359). Similarly, participants' differences in their evaluations of the difficulty to comprehend the ad (high involvement category: t = .788; p = .440; high-technology category: t = .533; p = .600; commodity category: t = .233; p = .818), realism of the ad (high involvement category: t = -.139; p = .891; high-technology category: t = 1.044; p = .310; commodity category: t = 1.837; p = .082), and difficulty to evaluate the product based on the ad were not significant (high involvement category: t = -.637; p = .532; high-technology category: t = -.645; p = .527; commodity category: t = -1.824; p = .084). By this means, the tests emphasized the appropriateness of the developed stimuli. Table 4 summarizes the results of Pretest 1.

Table 4: Summary Pretest 1

	Measures	INP	RNP	Significance
High Involvement Product Pair Sports Car vs. Mobility Concept	Innovativeness	45.00	87,00	t = 6.332, p < .001
	Attitudes	5.30	5.60	t = -1.316, p = .204
	Difficulty to comprehend	5.30	5.13	t = .788, p = 440
	Perceived Realism	5.30	5.33	t = -.139, p = .891
	Difficulty to evaluate	5.30	5.50	t = -.637, p = .532
Commodity Product Pair Mobile Phone vs. PDA Watch	Innovativeness	43.00	72.00	t = 3.168, p = .011
	Attitudes	5.30	5.03	t = .940, p = .359
	Difficulty to comprehend	5.30	5.23	t = .233, p = .818
	Perceived Realism	5.60	5.13	t = 1.837, p = .082
	Difficulty to evaluate	5.60	6.10	t = -1.824, p = .084
High Technology Product Pair UPC vs. Wrist Computer	Innovativeness	39.60	73.00	t = 3.465, p = .007
	Attitudes	5.13	5.50	t = -1.115, p = .279
	Difficulty to comprehend	5.60	5.50	t = .533, p = .600
	Perceived Realism	5.60	5.33	t = 1.044, p = .310
	Difficulty to evaluate	5.13	5.33	t = -.645, p = .527

IV.1.3.2 Pretest 2

Based on the results of Pretest 1, the aim of Pretest 2 was to identify appropriate brands for the selected products. Thus, it was necessary to discover pairs of brands that (a) were perceived equally familiar and favorable, and (b) had significantly different associations. This means, for instance, for the ultra small laptop and the wrist computer two brands were needed that were evaluated comparably favorable but significantly differed in their positioning. Take IBM and Apple as an example. Both brands are equally liked and familiar among consumers. However, IBM is primarily associated with functional attributes such as state-of-the-art engineering and sheer performance aspects. Apple, in contrast, is often perceived as a lifestyle brand that is associated with relational benefits rather than its functional value.

Moreover, it had to be ensured that the selected brands had comparable product portfolios, because previous research has shown that the characteristics of a brand's product

portfolio can have a strong impact on its extensibility (Keller and Aaker 1992; Meyvis and Janiszewski 2004).

To fulfill these requirements, two steps were necessary. First, a list of potentially suitable brand names for the previously selected product pairs had to be identified and tested regarding their adequateness for further testing. Second, the selected brands had to be analyzed and ordered regarding their positioning strategies as well as possible pairs identified.

In more detail, in the first step in-depth interviews with 3 academics as well as two focus groups (including 8 business school graduates) were conducted. In these interviews, participants were confronted with the previously identified product pairs and asked to generate lists of 5 equally favorable and familiar brands that come to their mind when they think about these products. The resulting lists showed an agreement of 72% regarding the selected brands between the groups. Brands were then chosen for further pretesting if at least 50% of the judges agreed on them as being appropriate. As a result, 12 brands were retained for further pretesting (high involvement category: Audi, BMW, Lexus, Mercedes; commodity category: Nokia, Samsung, Siemens Mobile, Sony Ericsson; high-technology category: Apple, Dell, Hewlett Packard, IBM).

In the second step, these brands were scrutinized regarding their suitability for further testing and subsequently ordered concerning their different positioning strategies. 20 undergraduate students were therefore asked to indicate their perception of familiarity (from 1 = "not at all familiar" to 7 = "very familiar"), favorability (from 1 = "unfavorable" to 7 = "favorable"), quality (from 1 = "low" to 7 = "high"), and prestige (from 1 = "not at all" to 7 = "very much") with these brands (Aaker and Keller 1990; Bottomley and Holden 2001; Park, Milberg, and Lawson 1991).

To scrutinize participants associations with the presented brands, a free association task was used wherein subjects were given 30 seconds to provide associations that came to their minds upon presentation of a particular brand name (Brozniarzyk and Alba 1994).

Afterwards two coder, who were unaware of the real purpose of the study, were asked to classify these thought statements about the brands names into more functional- and more benefit-driven associations. A comparison between these coders revealed an agreement of 75% regarding the classifications of the associations. Finally, three brand management experts, who were unfamiliar to the real purpose of the study, were asked to evaluate the comparability of the product portfolios of the selected brands. The results were highly comparable across experts and revealed no significant product portfolio differences between the chosen brands (Dacin and Smith 1994; Meyvis and Janiszewski 2004).

As a result of Pretest 2, three pairs of brands were identified to be especially suitable for further testing. For the high involvement product pair, represented by the innovative sports car and the futuristic mobility concept, Mercedes and BMW were selected to represent the benefit and the functional brand. For the commodity product pair, consisting of the state-of-the-art mobile phone and the PDA/mobile phone watch, Nokia and Siemens Mobile were selected to represent the benefit and the functional brand. And finally for the high-technology product pair, consisting of the ultra small laptop and the wrist computer, Apple was chosen to represent the benefit brand and IBM to embody the functional brand.

To control for subjects' attitudinal predisposition towards the presented brands, a three-item measure was employed, including measures assessing consumers' perception of familiarity, favorability, and quality. As shown in Table 5, the results revealed no significant differences and hence a high degree of comparability between the selected brand pairs (high involvement category: $t = .516$, $p = .612$; high-technology category: $t = 1.068$, $p = .299$; commodity category: $t = 1.744$, $p = .097$).

Moreover, participants' perception of the brand's status was analyzed and also revealed no significant differences between Mercedes and BMW ($t = .331$, $p = .744$), Nokia and Siemens Mobile ($t = 1.361$, $p = .189$), as well as Apple and IBM ($t = 2.015$, $p = .058$).

Table 5: Summary Pretest 2

	Measures	Benefit Brand	Functional Brand	Significance
High Involvement Brand Pair Mercedes vs. BMW	Attitudes	5.50	5.33	t = .516, p = .612
	Status	5.33	5.23	t = .331, p = .744
Commodity Brand Pair Nokia vs. Siemens	Attitudes	5.33	5.03	t = 1.744, p = .097
	Status	5.50	5.03	t = 1.361, p = .189
High Technology Brand Pair Apple vs. IBM	Attitudes	5.33	5.03	t = 1.068, p = .299
	Status	5.60	5.10	t = 2.015, p = .058

IV.1.3.3 Pretest 3

Based on the results of Pretest 1 and 2, the stimulus material for the present study was selected. Now, the aim of Pretest 3 was to test the chosen stimulus material before applying it to a larger audience and hence to identify possible shortcomings of the pretests. Moreover, to prevent demand artifacts, participants were asked to indicate their opinion of the real purpose of the study (Darley and Lim 1993; Shimp, Hyatt, and Snyder 1991).

16 subjects (4 academics and 12 students) were recruited to test the appropriateness of the selected stimuli. The interviews were carried out face-to-face, based on the designated questionnaire of the main study. The informal feedback of these interviews showed that questions and scales were easily understood. Only the numeric anchoring of the scales was sometimes (N = 3) confused with the German grade system (from 1 = "excellent" to 6 = "fail"). Thus, it was changed from "1" to "7" to "-3" to "+3". The examination of participants' responses to the question about the true purpose of the study revealed that no subject guessed the hypotheses.

The following product categories and brands met the criteria for hypotheses testing in Study 1: for the RNP / Benefit Brand condition, the futuristic mobility concept was coupled with Mercedes, the PDA / cell phone watch with Nokia, and the wrist computer with Apple. In the RNP / Functional Brand condition the same products were combined with BMW,

Siemens Mobile, and IBM. In the INP / Benefit Brand condition, the innovative sports car was combined with Mercedes, the state-of-the-art cell phone with Nokia, and the ultra small laptop with Apple. In the INP / Functional Brand condition, the same products were accompanied by BMW, Siemens Mobile, and IBM.

In the end, the used questionnaires consisted of 47 seven-point bipolar scales, two open questions, and three innovativeness scales. The selection of the metrics was based on the highest correlation in the pretests and resembled approaches in prior research (Aaker and Keller 1990; Aronson, Ellsworth, Carlsmith, and Gonzales 1990; Hoeffler 2003).

IV.1.4 Procedure

Subjects were asked to complete questionnaires, which included a brief cover story explaining them that they are participating in an international branding study (see Appendix II). Overall the questionnaire consisted of three parts (see Appendix III). The aim of the first part was to examine the previously discussed comparability of the selected brands. Therefore, respondents had to indicate their ratings of familiarity, prior attitudes, quality judgments, innovativeness, and status as well as their associations with the presented six brands.

In the second part, subjects were confronted with an announcement that three of the presented brands want to introduce a new product into the market place. Subjects were asked to evaluate these extensions regarding their innovativeness and appeal on the following pages. The potential extension products were then presented in form of the standardized ads, each of them on an own page and accompanied by one innovativeness scale and 14 question. The innovativeness scale resembled the scale used in the pretests (Hoeffler 2003). The questions included five questions regarding the product, five questions regarding the ad, and four questions regarding the appropriateness of the product as a potential extension product for the presented brand as well as subjects' overall attitudes towards the extension.

In the third part, participants were asked to explain the presented products to a friend and hence to reveal the information they have learned about them (Gregan-Paxton and Moreau 2003). A brief section dealing with demographics concluded the questionnaires. The entire procedure to fill in the questionnaire took about 20 minutes.

IV.1.5 Measures

All employed measures in this study, summarized in Table 7, were selected based on the promising results in previous research as well as on the approving outcomes in the pretests. However, it has to be emphasized that they are not intended to be exhaustive of all measures that have been employed in prior research on brand extensions and radical innovations, but rather to represent the mostly agreed on question types that have appeared in the literature.

Table 6: Reliability Checks of the Employed Multi-Item Measures

Measure/Items	**Reliability** (Cronbach's Alpha)
Attitudes towards the Extension (7-point bipolar scales) Overall Evaluation Likelihood to try Perceived Quality	**a** = .8629
Perceived Fit (7-point bipolar scales) Similarity Complementarity Logic Skills	**a** = .8238
Attitudes towards the Brands (7-point bipolar scales) Overall Evaluation Quality Perception Status	**a** = .7965

As Table 6 reveals, most of the employed measures were multi-item constructs that have already proven their adequateness in previous research (Aaker and Keller 1990; Aronson, Ellsworth, Carlsmith, and Gonzales 1990; Bottomley and Holden 2001; Brozniarzyk and Alba 1994; Hoeffler 2003; Park, Milberg, and Lawson 1991). Cronbach's

alpha tests were employed to test the reliability of the measures (Cronbach 1951; Peter 1979). The outcomes of these tests revealed a high reliability of the employed metrics.

IV.1.5.1 Stimuli - Measures

The measurement of the independent variables in this study focused on three main areas. First, the selected brands, second, the chosen products, and third, the crafted ads for the products. To assess these variables, the following measures were included.

To test the adequateness of the selected brands, a four item scale was used assessing subjects' attitudes towards the presented brands. To do so, measures employed in previous research on consumer attitudes towards brands were employed (Aaker and Keller 1990; Brozniarzyk and Alba 1994; Keller and Aaker 1992; Park, Milberg, and Lawson 1991). Specifically, participants were asked to answer four 7-point bipolar scales asking them to indicate (a) their overall evaluation of the presented brands (from 1 = "unfavorable" to 7 = "favorable"), (b) their quality perception of these brands (from 1 = "low" to 7 = "high"), (c) their familiarity with these brands (from 1 = "unfamiliar" to 7 = "familiar"), as well as (d) their perception of the brands' status (from 1 = "low" to 7 = "high").

Subsequently, subjects were asked to perform an open thought listing by writing down their associations with the presented brands ("When you think about the following brands, which associations come first to your mind?" / Brozniarzyk and Alba 1994). The result of this question were coded by two students, who were blind to the real purpose of the study. Moreover, based on findings in previous research that have revealed that consumers' perception of innovativeness of a brand may impact its extendibility (Smith and Andrews 1995), it was decided to add a 7-point bipolar scale asking participants to indicate their perception of the brand's innovativeness (from 1 = "not innovative at all" to 7 = "highly innovative").

Second, to test the adequateness of the selected products, participants were asked to indicate their perception of the degree of innovativeness of these products on the previously discussed Hoeffler scale, the difficulty to evaluate the presented product (from 1 = "difficult" to 7 = "easy"), as well as the perceived uncertainty while evaluating the product (from 1 = "uncertain" to 7 = "sure" / Moreau, Markman, and Lehmann 2001; Hoeffler 2003).

Third, to examine the used ads, participants were asked to evaluate the product description per se (from 1 = "unfavorable" to 7 = "favorable"), the difficulty to understand the product description (from 1 = "confusing" to 7 = "understandable"), the perceived complexity of the ad (from 1 = "complex" to 7 = "simple"), the difficulty to comprehend the ad (from 1 = "difficult" to 7 = "easy"), and the degree of realism of the ad (from 1 = "unrealistic" to 7 = "realistic" / Hoeffler 2003).

IV.1.5.2 Dependent Variables - Measures

To test the hypothesized effects, this study used measures that (a) assessed consumers' perceptions of the presented brand extension, (b) scrutinized participants' perception of fit between the presented extension products and their parent brands, and (c) traced the transferred information.

To start with the first, in accordance with previous research on brand extension evaluations (Aaker and Keller 1990; Bottomley and Holden 2001; Brozniarzyk and Alba 1994), participants' attitudes towards the brand extensions were measured on a three item scale consisting of 7-point bipolar scales that asked participants to indicate their overall attitudes towards the extension (from 1 = "unfavorable" to 7 = "favorable"), their likelihood to try the presented product (from 1 = "not at all likely" to 7 = "very likely"), and their perception of the product's quality (from 1 = "low" to 7 = "high").

Table 7: Employed Measures Study 1

Brands:

Aaker and Keller 1990; Brozniarzyk and Alba 1994; Keller and Aaker 1992; Park, Milberg, and Lawson 1991

- Overall Evaluation (from 1 = "unfavorable" to 7 = "favorable")
- Quality Perception (from 1 = "low" to 7 = "high")
- Familiarity (from 1 = "unfamiliar" to 7 = "familiar")
- Status (from 1 = "low" to 7 = "high")
- Innovativeness (from 1 = "not innovative at all" to 7 = "highly innovative")
- Associations (open question)

Products:

Moreau, Markman, and Lehmann 2001; Hoeffler 2003

- Innovativeness (Hoeffler Newness Scale)
- Perceived Difficulty (from 1 = "easy" to 7 = "difficult")
- Perceived Uncertainty (from 1 = "uncertain" to 7 = "sure")

Ads & Descriptions:

Hoeffler 2003

- Overall Evaluation (from 1 = "unfavorable" to 7 = "favorable")
- Understandability (from 1 = "confusing" to 7 = "understandable")
- Complexity (from 1 = "complex" to 7 = "easy")
- Comprehensibility (from 1 = "difficult" to 7 = "easy")
- Realism (from 1 = "unrealistic" to 7 = "realistic")

Attitudes towards Brand Extension:

Aaker and Keller 1990; Bottomley and Holden 2001; Bronzniarzyk and Alba 1994

- Overall Evaluation (from 1 = "unfavorable" to 7 = "favorable")
- Likelihood to Try (from 1 = "not at all likely" to 7 = "very likely")
- Perceived Quality (from 1 = low" to 7 = "high")

Fit:

Aaker and Keller 1990; Bottomley and Holden 2001; Boush and Loken 1991

- Complementarity (from 1 =not complementary at all" to 7 = "very complementary")
- Similarity (from 1 = "dissimilar" to 7 = "similar")
- Logic (from 1 = "illogical" to 7 = "logical")
- Skills (from 1 = "unhelpful" to 7 = "helpful")

Transferred Information:

Moreau, Markman, and Lehmann 2001

- Open question

Consumers' perception of fit between the extension product and its parent brand was assessed based on a four item scale. First, participants were asked to evaluate the degree of complementarity between the brand and the extension (from 1 = "not complementary at all" to 7 = "very complementary"). Second, they had to indicate their perception of similarity between the presented extensions to the parent brand's existing product portfolio (from 1 = "dissimilar" to 7 = "similar"). Third, they were asked to express their opinion if the extension is logical for the parent brand (from 1 = "illogical" to 7 = "logical"). And fourth, they had to estimate if the extensions allows the parent brand to use its previous knowledge for the success of the extension (from 1 = "unhelpful" to 7 = "helpful" / Aaker and Keller 1990; Bottomley and Holden 2001; Boush and Loken 1991).

Last, the transferred information was analyzed with an open question asking participants to describe the presented products in their own words as if they were speaking to a confused friend ("A friend of yours has just come to you and said 'Hey, I just heard about this new product, but I don't understand what it is. Can you explain it to me?'" / Gregan-Paxton and Moreau 2003). The answers to this question were then coded by two graduate students, who were unfamiliar to the real purpose of the study, using a coding scheme that was based on previous research (Gregan-Paxton and Moreau 2003).

IV.2 Results

t-Tests and analyses of variance (ANOVAs) were used to assess the adequateness of the selected stimuli as well as to test for the hypothesized effects.

IV.2.1 Manipulations Checks

The manipulation checks of the selected products showed results across the three brand names that were highly consistent with those found in the pretest. Table 8 summarizes the results. Regarding the innovativeness' judgments, the results revealed that participants evaluated the futuristic mobility concept ($I_{\text{Mobility Concept}}$= 83.83) significantly more innovative (F = 68.942, p

< .001) than the innovative sports car ($I_{Sports\ Car}$= 47.98), the PDA/mobile phone watch ($I_{PDA\ Watch}$= 68.82) significantly more innovative (F = 33.387, p < .001) than the state-of-the-art mobile phone ($I_{Mobile\ Phone}$= 39.52) and the wrist computer ($I_{Wrist\ Computer}$= 70.67) significantly more innovative (F = 40.564, p < .001) than the ultra small laptop (I_{Laptop}= 49.24).

Regarding their perceived difficulty to evaluate the presented products, no significant differences were found within the high involvement product pair (F = .649; p = .423), the commodity product pair (F = 2.688; p = .104), as well as the high technology product pair (F = 1.506; p = .222). Similarly, differences in their evaluations of the perceived uncertainty during evaluation were not significant over the three different product pairs (high involvement product pair: F = .184, p = .669; commodity product pair: F = .345, p = .558; high technology product pair: F = 3.541, p = .063).

Regarding the selected product descriptions, subjects were asked to rate their overall evaluation of the product description as well as to indicate potential problems in understanding them. The results revealed that the differences in subjects' ratings of the selected product descriptions were not significant (high involvement category: F = .249, p = .619; commodity category: F = .235, p = .629; high technology category: F = 2.283, p = .134). Moreover, there were no significant differences in their perceptions of the understandability of the descriptions (high involvement category: F = .194, p = .661; commodity category: F = .146, p = .703; high technology category: F = 2.800, p = .097).

Regarding the chosen ads, participants were asked to indicate their perception of the ad's complexity, possible difficulties to comprehend the ad, as well as to evaluate the degree of realism of the ad. The results confirmed the adequateness of the selected ads for hypothesis testing. Subjects' perception of the ad's complexity (high involvement category: F = .004, p = .950; commodity category: F = 2.594, p = .110; high technology category: F = 1.700, p = .195), as well as their judgments of the difficulty to comprehend the ad (high involvement category: F = .194, p = .661; commodity category: F = 2.116, p = .149; high technology

category: F = .190, p = .664) revealed no significant differences within the different product pairs. Moreover, it was revealed that their evaluations of the degree of realism of the presented ads were also comparable within the different product categories (high involvement category: F = 1.199, p = .276; commodity category: F = 1.402, p = .239; high technology category: F = .458, p = .500)

Regarding the selected brands, participants' ratings revealed no significant differences regarding their overall evaluation (high involvement category: t = 1.399, p = .165; commodity category: t = -.048, p = .962; high technology category: t = -1.599, p = .113), their quality perception (high involvement category: t = -.537, p = .593; commodity category: t = -.967, p = .336; high technology category: t = .679, p = .499), as well as their perception of the brands' status (high involvement category: t = -1.392, p = .167; commodity category: t = -.564, p = .574; high technology category: t = -.210, p = .834). An analysis of participants' brand familiarity also revealed no significant differences (high involvement category: t = -.298, p = .766; commodity category: t = -.192, p = .848; high technology category: t = -1.048, p = .162). The analysis of subjects' evaluations of the brands' innovativeness revealed no significant differences in the high involvement (t = 1.400, p = 1.46), the commodity (t = -1.159, p = .249), and the high technology category (t = -1.616, p = .109).

Last, the selected brands had to be analyzed regarding the question if the manipulation of the different brand associations had been successful. To do so, the previously discussed open thought listings of the participants were assessed. Two graduate student, who were blind to the real purpose of the study, were asked to code independently from each other the results of this thought listing task regarding the amount of benefit and/or functional associations that were reflected in participants' thoughts. As a result of this analysis, it was revealed that participants had comparably more benefit-driven associations with Mercedes compared to BMW (t = 2.032, p = .045), Nokia compared to Siemens Mobile (t = 4.734, p < .001), and Apple compared to IBM (t = -2.364, p = .021).

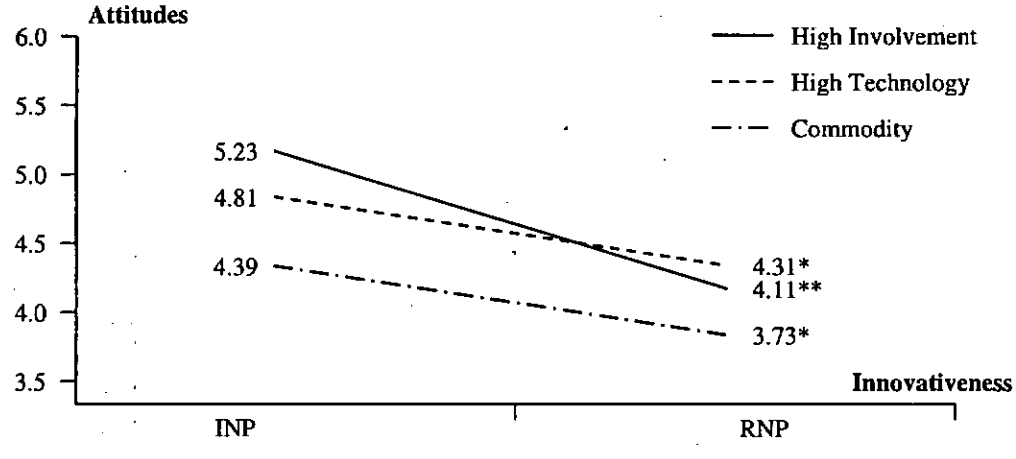
Table 8: Summary Manipulation Checks

		Measures	INP/ Functional	RNP/ Benefit	Significance
High Involvement Product Pair Sports Car vs. Mobility Concept	**Product**	Innovativeness	47.98	83.83	F = 68.942, p < .001
		Attitudes	4.89	4.69	F = .565, p = .455
		Difficulty to Evaluate	3.10	3.38	F = .649, p = .423
		Perceived Uncertainty	3.57	3.91	F = .012, p = .911
	Ads & Descriptions	Overall Evaluation	3.92	4.09	F = = .249, p = .619
		Understandability	5.05	5.20	F = .194, p = .661
		Complexity	3.85	3.87	F = .004, p = .950
		Comprehensibility	5.05	5.20	F = .194, p = .661
		Realism	3.77	3.34	F = 1.199, p = .276
	Brand	Evaluation	5.86	5.66	t = 1.399, p = .165
		Quality	6.06	6.13	t = -.537, p = .593
		Status	6.32	6.45	t = -1.392, p = .167
		Familiarity	5.19	5.25	t = -.298, p = .766
		Innovativeness	5.43	5.23	t = 1.400, p = .146
Commodity Product Pair Mobile Phone vs. PDA Watch	**Product**	Innovativeness	39.52	68.82	F = 33.387, p < .001
		Attitudes	4.45	4.62	F = .295, p = .589
		Difficulty to Evaluate	4.37	4.95	F = 2.668, p = .104
		Perceived Uncertainty	5.29	5.71	F = .345, p = .558
	Ads & Descriptions	Overall Evaluation	3.62	3.78	F = .235, p = .629
		Understandability	5.60	5.71	F = .146, p = .703
		Complexity	5.05	5.56	F = 2.594, p = .110
		Comprehensibility	4.50	4.98	F = 2.116, p = .149
		Realism	4.92	5.30	F = 1.402, p = .239
	Brand	Evaluation	4.83	4.84	t = -.048, p = .962
		Quality	5.12	4.95	t = -.967, p = .336
		Status	5.08	4.95	t = -.564, p = .574
		Familiarity	5.08	5.13	t = -.192, p = .848
		Innovativeness	4.67	4.84	t = -1.159, p = .249
High Technology Product Pair UPC vs. Wrist Computer	**Product**	Innovativeness	49.24	70.67	F = 40.564, p < .001
		Attitudes	5.18	5.41	F = .228, p = .636
		Difficulty to Evaluate	5.47	5.18	F = 1.506, p = .222
		Perceived Uncertainty	5.29	5.71	F = 3.541, p = .063
	Ads & Descriptions	Overall Evaluation	3.10	3.55	F = 2.283, p = .134
		Understandability	5.77	5.25	F = 2.800, p = .097
		Complexity	5.41	5.02	F = 1.700, p = .195
		Comprehensibility	3.80	3.95	F = .190, p = .664
		Realism	3.95	3.71	F = .458, p = .500
	Brand	Evaluation	4.91	5.13	t = -1.599, p = .113
		Quality	5.33	5.24	t = .679, p = .499
		Status	4.97	5.00	t = -.210, p = .834
		Familiarity	3.81	3.54	t = -1.048, p = .162
		Innovativeness	4.86	5.16	t = -1.616, p = .109

IV.2.2 Test of Hypotheses

In line with previous brand research, Hypothesis 1a predicted that brand extensions into RNPs will be evaluated less favorably than brand extensions into INPs. In order to test this hypothesis, an ANOVA was run on the evaluations of the group of participants evaluating the INP extension of a product pair and the group of participants assessing the RNP extension of this product pair. The results of this analysis, summarized in Figure 3, revealed that the differences between the two groups were significant across all three tested categories (high involvement, commodity, high-technology), indicating that brand extensions into RNPs were in general evaluated less favorably than brand extensions into INPs.

Figure 3: Results Hypothesis 1a – Attitudes towards the Extensions



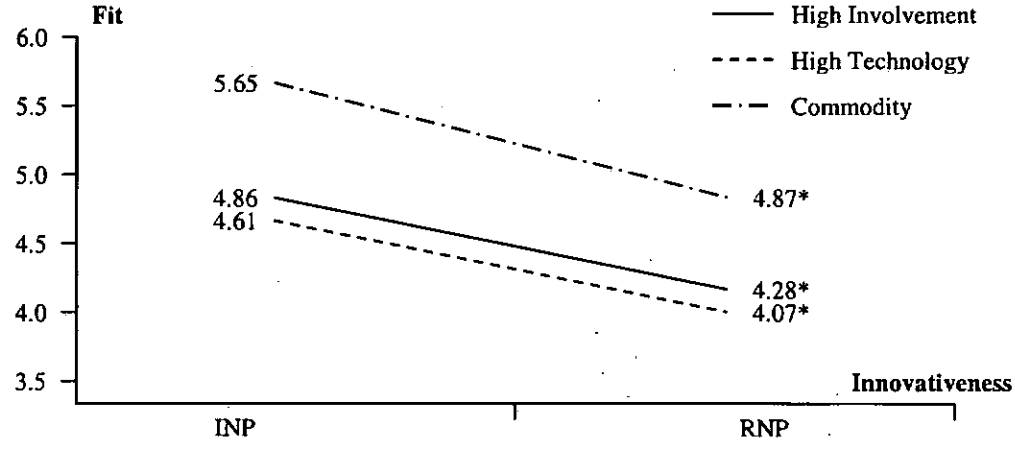
* Significant difference at $p < .05$
** Significant difference at $p < .01$

In detail, the participants, which assessed the extensions presented in the high involvement category, evaluated the extension into the innovative sports car significantly more favorably than the extension into the mobility concept ($E_{Sports\ Car}$= 5.23 vs. $E_{Mobility\ Concept}$= 4.11; F = 14.579, $p < .001$). The participants, evaluating the extensions in the commodity category, rated the extension into a state-of-the-art cell phone more positively than the extension into the PDA / mobile phone watch ($E_{Mobile\ Phone}$= 4.39 vs. $E_{PDA\ Watch}$= 3.73;

F = 3.994, p = .048). And the participants, evaluating the extensions in the high technology category, evaluated the ultra small laptop significantly better than the wrist PC (E_{Laptop}= 4.81 vs. $E_{Wrist\ Computer}$= 4.31; F = 5.114, p = .026). Thus, it can be concluded that the results of Study 1 supported Hypothesis 1a.

In Hypothesis 1b it was proposed that RNP extensions will have significantly lower scores on the classic fit evaluation compared to INP extensions. An ANOVA pitted participants' fit evaluations of the presented INP extensions against their fit evaluations of the presented RNP extensions. As highlighted in Figure 4, the results supported Hypothesis 1b. People in the former group evaluated the presented INP extensions as significantly better fitting than the presented RNP extensions (high involvement category: F = 4.125, p = .045; commodity category: F = 8.933, p = .004; high technology category: F = 4.410, p = .038).

Figure 4: Results Hypothesis 1b – Fit Judgments across the Extensions



* Significant difference at p < .05
** Significant difference at p < .01

Hypothesis 1c, which was aimed at tracing the underlying learning processes in participants' evaluations, postulated that brand extensions into RNPs will result in significantly less attribute transfer than brand extensions into INPs. ANOVAs confirmed the significance of the difference across the different extension product pairs. As Table 9 reveals,

it was shown that subjects recalled significantly more attributes of the sports car compared to the mobility concept (F = 12.527; p = .001), significantly more attributes of the laptop compared to the wrist computer (F = 10.331; p = .002), and significantly more attributes of the mobile phone compared to the PDA watch (F = 5.304; p = .024). Consequently, the results supported the reasoning of Hypothesis 1c. Thus, it can be concluded that a first undifferentiated analysis has supported conventional brand management wisdom.

Table 9: ANOVA Results – Hypotheses 1a-c

H 1a		Sum of Squares	df	Mean Square	F	Significance
$E_{Sports\ Car\ vs.\ E_{Mobility\ Concept}}$	Between Groups	28.303	1	28.303	14.579	.000
	Within Groups	176.660	91	1.941		
	Total	204.963	92			
$E_{Mobile\ Phone\ vs.\ E_{PDA\ Watch}}$	Between Groups	10.654	1	10.654	3.994	.048
	Within Groups	266.758	100	2.668		
	Total	277.412	101			
$E_{Laptop\ vs.\ E_{Wrist\ Computer}}$	Between Groups	6.272	1	6.272	5.114	.026
	Within Groups	121.409	99	1.226		
	Total	127.681	100			

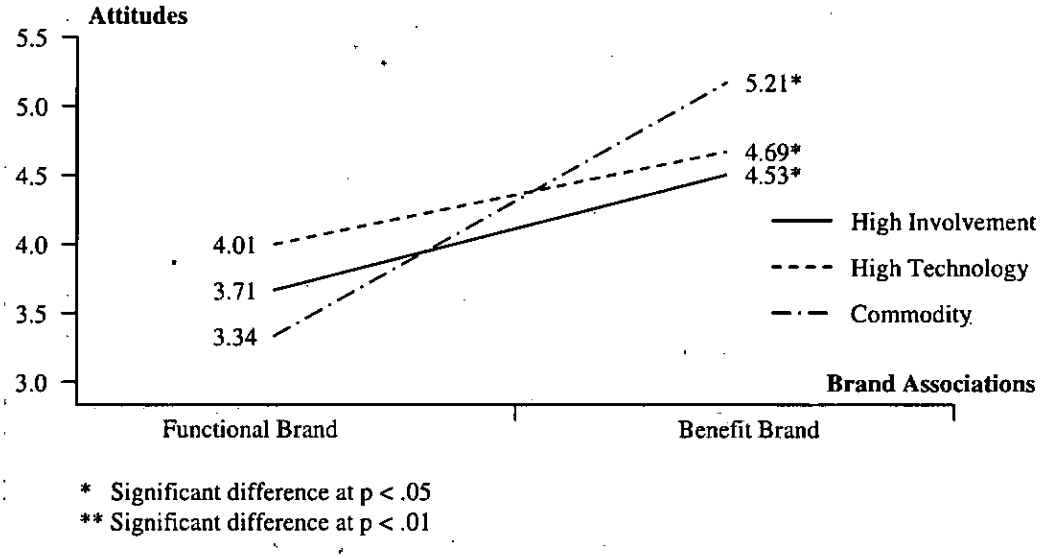
H		Sum of Squares	df	Mean Square	F	Significance
$Fit_{Sports\ Car\ vs.\ Fit_{Mobility\ Concept}}$	Between Groups	7.546	1	7.546	4.125	.045
	Within Groups	173.761	95	1.829		
	Total	181.307	96			
$Fit_{Mobile\ Phone\ vs.\ Fit_{PDA\ Watch}}$	Between Groups	14.161	1	14.161	8.933	.004
	Within Groups	153.770	97	1.585		
	Total	167.932	98			
$Fit_{Laptop\ vs.\ Fit_{Wrist\ Computer}}$	Between Groups	6.614	1	6.614	4.410	.038
	Within Groups	145.497	97	1.500		
	Total	152.111	98			

H 1c		Sum of Squares	df	Mean Square	F	Significance
$Transfer_{Sports\ Car\ vs.\ Transfer_{Mobility\ Concept}}$	Between Groups	2.002	1	2.002	1.527	.001
	Within Groups	10.869	68	.160		
	Total	12.871	69			
$Transfer_{Mobile\ Phone\ vs.\ Transfer_{PDA\ Watch}}$	Between Groups	1.680	1	1.680	10.311	.002
	Within Groups	12.057	74	.163		
	Total	13.737	75			
$Transfer_{Laptop\ vs.\ Transfer_{Wrist\ Computer}}$	Between Groups	.678	1	.678	5.304	.024
	Within Groups	8.568	67	.128		
	Total	9.246	68			

Hypothesis 2a further differentiated the analysis by hypothesizing an interaction between the parent brand's positioning and consumers' evaluations of brand extensions into RNPs. It argued that if the parent brand is a benefit brand, then brand extensions will be evaluated significantly more favorably than if the parent brand is a functional brand.

An ANOVA was employed to test the hypothesized effect between the group of participants evaluating a RNP extension based on a benefit parent brand and the group of subjects assessing the same extension based on a functional parent brand. The pattern of results supported Hypothesis 2a across the different categories.

Figure 5: Results Hypothesis 2a – Attitudes towards RNP Extensions Across Brands



* Significant difference at $p < .05$
** Significant difference at $p < .01$

As Figure 5 reveals, the extension into the mobility concept was evaluated significantly more favorable ($F = 4.400$, $p = .041$) when the parent brand was Mercedes ($E_{Mercedes} = 4.53$) than when the parent brand was BMW ($E_{BMW} = 3.71$). The same pattern of results was observed in the two other categories. The extension into the PDA / mobile phone watch was perceived significantly more favorable ($F = 7.195$, $p = .011$) with Nokia ($E_{Nokia} = 5.21$) as the parent brand than with Siemens Mobile ($E_{Siemens\ Mobile} = 3.34$) as the parent brand.

And the wrist PC was assessed significantly more favorably (F = 6.343, p = .015) with Apple (E_{Apple}= 4.69) as the parent brand than with IBM (E_{IBM}= 4.01) as the parent brand. Therefore, Hypothesis 2a was supported (Table 10 summarizes the results).

Table 10: ANOVA Results – Hypotheses 2a

H 2a		Sum of Squares	df	Mean Square	F	Significance
$E_{Sports\ Car\ vs.}$ $E_{Mobility\ Concept}$	Between Groups	9.361	1	9.361	4.400	.041
	Within Groups	114.885	54	2.128		
	Total	124.246	55			
$E_{Mobile\ Phone\ vs.}$ $E_{PDA\ Watch}$	Between Groups	22.100	1	22.100	7.195	.011
	Within Groups	113,649	37	3.072		
	Total	135.749	38			
$E_{Laptop\ vs.}$ $E_{Wrist\ Computer}$	Between Groups	6.863	1	6.863	6.343	.015
	Within Groups	62.757	58	1.082		
	Total	69.620	59			

Hypothesis 2b then examined the impact of a parent brand's positioning on the used learning processes by analyzing the transferred information. In more detail, Hypothesis 2b proposed that if the parent brand is a benefit brand, participants will engage in an analogical learning process and hence transfer significantly less attribute transfer than if the parent brand is a functional brand. An ANOVA supported this reasoning (see Table 11). Pitting again the group of participants evaluating a RNP extension with a benefit parent brand and the group of subjects assessing the same RNP with a functional parent brand against each other, it was revealed that participants transferred significantly less attribute information if the parent brand was a benefit brand.

Specifically, in the high involvement category it was observed that subjects transferred significantly less attributes (F = 4.329, p = .044) if the parent brand was Mercedes than if the parent brand was BMW. In the commodity category, a similar pattern of results was observed with participants recalling significantly less attributes (F = 11.914, p = .002) if the parent brand was Nokia than if the parent brand was Siemens Mobile. And in the high technology

category subjects also recalled significantly less attributes (F = 4.425, p = .041) if the parent brand was Apple than if the parent brand was IBM. Thus, Hypothesis 2b was supported.

Table 11: ANOVA Results – Hypotheses 2b

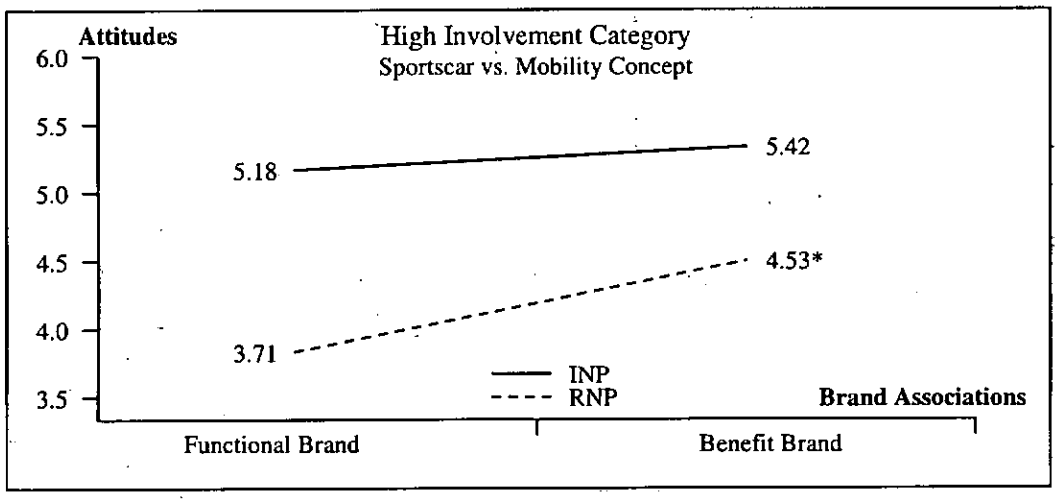
H 2b		Sum of Squares	df	Mean Square	F	Significance
$Transfer_{Sports\ Car\ vs.}$ $Transfer_{Mobility\ Concept}$	Between Groups	.967	1	.967	4.329	.044
	Within Groups	8.938	40	.223		
	Total	9.905	41			
$Transfer_{Mobile\ Phone\ vs.}$ $Transfer_{PDA\ Watch}$	Between Groups	1.774	1	1.774	11.914	.002
	Within Groups	4.019	27	.149		
	Total	5.793	28			
$Transfer_{Laptop\ vs.}$ $Transfer_{Wrist\ Computer}$	Between Groups	.970	1	.970	4.425	.041
	Within Groups	9.211	42	.219		
	Total	10.182	43			

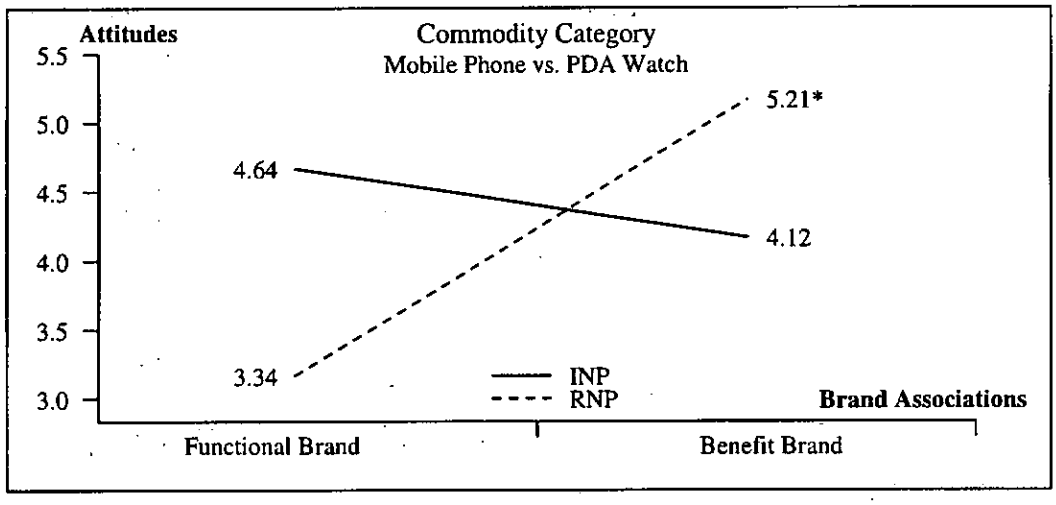
Finally, Hypothesis 2c proposed that the in Hypothesis 2a tested impact of using a benefit brand as a parent brand in brand extensions is significantly more positive for brand extensions into RNPs than for brand extensions into INPs.

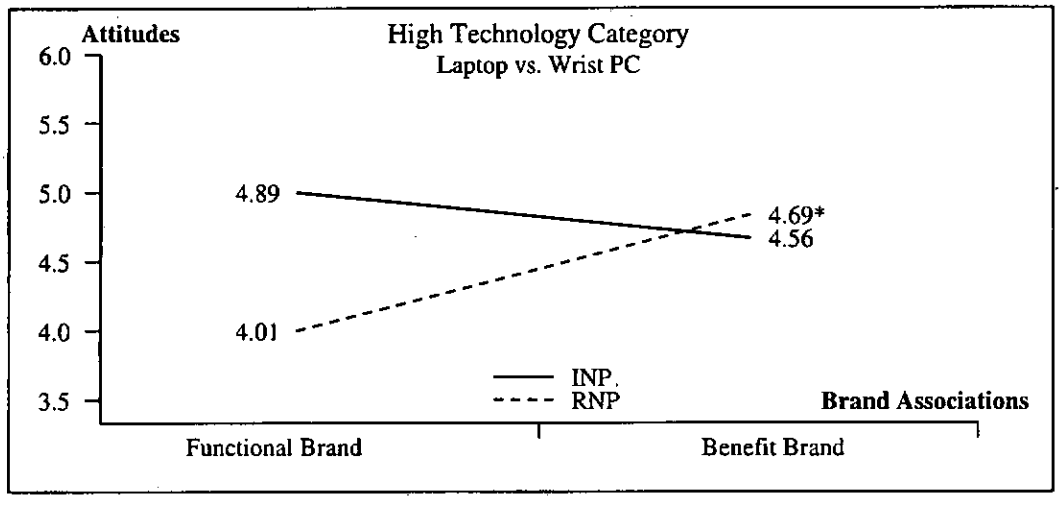
Underlying reasoning hereby is that while in the ladder group a knowledge transfer between parent brands and extensions into INPs can successfully be performed with categorization effects, it has been shown that the characteristics of RNPs defy this form of learning between the extension and the parent brand. Therefore, it is likely that the benefit of having a benefit brand that can induce analogical learning is comparably higher for extensions into RNPs. Because while RNP extensions tend to defy learning by categorization effects and hence rely on analogical learning for knowledge transfers, extensions into INPs support learning based on categorization effects and hence do not profit from the stimulation of an alternative learning process.

Figure 6 visualizes the results. As proposed by Hypothesis 2c, the impact of having a benefit brand was indeed significantly higher when the extensions was a RNP.

Figure 6: Results Hypothesis 2c – Impact of Brand Associations Across Categories







* Significant difference at $p < .05$ / ** Significant difference at $p < .01$

In detail, it was shown that, on the one hand, there were no significant differences in participants' evaluations of the extensions into INPs independent of the used parent brand over all three used categories (high involvement category: F = .228, p= .636; commodity category: F = 1.997, p= .163; high technology category: F = .584, p= .449), and on the other, participants evaluated brand extensions into RNPs significantly more favorable if the parent brand was a benefit brand (high involvement category: F = 4.400, p= .041; commodity category: F = 7.195, p= .011; high technology category: F = 6.343, p= .015). Thus, the pattern of results supported Hypothesis 2c by revealing that the proposed impact of using a benefit brand is indeed more elaborated for brand extensions into RNPs compared to INPs. Table 12 summarizes testing for Hypothesis 2c.

Table 12: ANOVA Results – Hypothesis 2c

	H 2c			Sum of Squares	df	Mean Square	F	Significance
High Involvement Category	INP	BMW vs. Mercedes	Between Groups	.340	1	.340	.228	.636
			Within Groups	52.075	35	1.488		
			Total	52.414	36			
Sports Car vs. Mobility Concept	RNP	BMW vs. Mercedes	Between Groups	9.361	1	9.361	4.400	.041
			Within Groups	114.885	54	2.128		
			Total	124.246	55			
Commodity Category	INP	Nokia vs. Siemens Mobile	Between Groups	4.154	1	4.154	1.997	.163
			Within Groups	126.855	61	2.080		
			Total	131.009	62			
Mobile Phone vs. PDA Watch	RNP	Nokia vs. Siemens Mobile	Between Groups	22.100	1	22.100	7.195	.048
			Within Groups	113.649	37	3.072		
			Total	135.749	38			
High Technology Category	INP	IBM vs. Apple	Between Groups	.764	1	.764	.584	.449
			Within Groups	51.024	39	1.308		
			Total	51.789	40			
Laptop vs. Wrist Computer	RNP	IBM vs. Apple	Between Groups	6.863	1	6.863	6.343	.015
			Within Groups	62.757	58	1.082		
			Total	69.620	59			

IV.3 Discussion

The in Study 1 presented results have revealed that brand extensions into RNPs are in general evaluated less favorably than brand extensions into INPs (Hypothesis 1a) and that one of the

main reasons for this situation is a significantly worse fit between the parent brand and the extension product (Hypothesis 1b). Moreover, it has been shown that categorization effects have been the obligatory learning mechanism (Hypothesis 1c). Thus, at a first (undifferentiated) glance, the results of Study 1 have supported conventional brand management wisdom's proposition that brand extensions should be positioned perceptually close to the parent brand to ensure a high fit and hence favorable evaluations of the consumers. By this means, they have supported the view that RNPs' inherited distance to their parent brand may lead to unfavorable outcomes in consumers' evaluations and hence to an disadvantage of these products in brand extension strategies.

However, a more differentiated look at the outcomes revealed that perceptually distant brand extensions into RNPs may not necessarily be evaluated less favorably compared to extensions into INPs, but might well be successful regarding consumer evaluations dependent on the parent brand's positioning.

As mentioned earlier, the assessment of participants' evaluations of brand extensions across all presented extension products and parent brands has revealed that INPs were evaluated more favorably compared to RNPs as proposed by conventional wisdom and Hypothesis 1a. However, this analysis treated all parent brands as equal and hence did not acknowledge the impact of different parent brand's positioning strategies. Yet, a closer look at the outcomes of participants' extension evaluations (differentiated based on the underlying positioning strategies) revealed significant differences in results. Specifically, the results supported the herein proposed positive impact of relational associations on evaluations of brand extensions into RNPs. They revealed that while participants generally evaluated brand extensions into RNPs based on functional brands less favorably than brand extensions into INPs, such a behavior was not found when the RNPs were presented as extensions of the benefit brands. In this case, no significant differences between the outcomes of subjects' evaluations between INP and RNP extensions were found. This outcome hence supported the

herein proposed beneficial impact of relational associations when it comes to extending a brand into RNPs (Hypothesis 2a).

Clearly, these outcomes stand in sharp contrast to previous research in this field. They reveal that participants do not have to necessarily evaluate perceptually distant brand extensions into RNPs unfavorable as suggested by today's brand management theory. Since extensive pretesting as well as the present manipulation checks ensured a high comparability of participants' attitudinal predisposition towards the employed brands, these outcomes could not be explained by divergent perceptions regarding the underlying brands. Therefore, the central question was, where did the differences arrive from?

The answer was found in the analysis of consumers' learning processes. The results revealed that participants, who evaluated a brand extension into a RNP with a benefit brand as the parent brand, engaged in analogical processing. While participants, who evaluated the same brand extension with a functional brand as the parent brand, learnt based on categorization effects (Hypothesis 2b and c). By tracing the transferred information from the parent brand to the extension, it was shown that benefit brands were capable of refocusing participants' attention from a rather attribute dominated similarity comparison to a comparison, which was merely based on the relational associations of the brand. The benefit brands were hence capable of overriding the lack of fit on the classic fit dimensions by inducing analogical learning processes into consumers' minds (Hypothesis 2b). These results were observed across the different categories, confirming the impact of RNPs' characteristics on consumer evaluations across contexts.

In sum, the results of Study 1 supported the hypotheses of this dissertation regarding a brand's extensibility into RNPs. It was shown that brand extensions into RNPs are not necessarily equipped with an inherited disadvantage regarding consumer evaluations because of their perceptual distance. Thus, it was revealed that today's conventional wisdom in brand management theory may stop short in adequately addressing brand extensions into RNPs.

Chapter V: Study 2

Study 1 has revealed three key findings: first, in an undifferentiated analysis it indeed appears as if consumers would generally evaluate brand extensions into radical innovations less favorably than brand extensions into incremental innovations. Second, the dominant learning mechanism in brand extension evaluations are categorization effects. Third and probably most important for the present reasoning, it was shown that participants' associations with the underlying parent brands can have a significant impact on participants' evaluations as well as their learning preferences. One of the central suggestions of Study 1 has hence been that relational associations are capable of overriding the (by previous research) assumed inherent disadvantage of RNPs, thus allowing companies to consider this type of innovations as valuable growth opportunities.

Yet, the pitfall of these findings is that not every company willing to extend its product portfolio with a RNP may initially have a brand with these sort of associations. However, establishing these associations requires huge investments in brand building programs as well as a considerable amount of time, which often means time and money a lot of companies do not have (Aaker and Joachimsthaler 2000). Thus, the identification and assessment of alternative approaches to growing a benefit brand has to be considered a research priority in the context of brand-driven growth strategies.

Consequently, it has been decided to devote Study 2 to an alternative brand-driven growth strategy, brand alliances. The central question of this study has hence been if the presence of a second benefit brand as part of a brand alliance effort might be capable of adding relational associations to a functional parent brand, which initially lacks these associations. The main purpose of Study 2 hence is to analyze if a brand alliance strategy may offer an alternative to having a benefit brand in making brand extensions into RNPs a success in consumers' evaluations.

To test this reasoning, Study 1 first analyzes if adding a benefit brand to an individual functional brand may help to increase consumers' favorability ratings of brand extensions into RNPs (Hypothesis 3a). Second, the transferred information is analyzed regarding the question whether the hypothesized beneficial effect is caused by the second brand's ability to seduce consumers into analogical learning processing (Hypothesis 3b). Third, it is tested if the impact of adding a benefit brand is more elaborate for brand extensions into RNPs than for brand extensions into INPs (Hypothesis 3c). And finally fourth, the effectiveness of adding a benefit brand to a parent brand is scrutinized for different sorts of parent brands (Hypothesis 3d).

V.1 Method

Similar to Study 1, subjects were asked to evaluate two extension pairs from two different consumption areas (one pair from a high involvement category and one pair from a high technology category) that varied systematically in their degree of innovativeness (RNP vs. INP). Yet, in contrast to Study 1, this study not only tested individual brands as potential parent brands of these extensions, but also brand alliances.

The employed measures as well as the sampling and pretesting procedures resembled the ones used in Study 1. The only difference was that the present study also included additional measures and pretests for the brand alliance issue.

V.1.1 Subjects

115 graduate students (39 females and 76 males), enrolled in a large German university, participated on a voluntarily basis in this study. It was ensured that these subjects had not participated in the previous study.

V.1.2 Design

The design of Study 2 was a 2 (RNP vs. INP) x 2 (Benefit Brand vs. Functional Brand) x 3 (Functional Brand/ Benefit Brand – Brand Alliance vs. Functional Brand/Functional Brand – Brand Alliance vs. Benefit Brand/Benefit Brand – Brand Alliance) mixed factorial design.

The manipulation of the extension product's degree of innovativeness primarily relied on the results of the stimulus selection section of Study 1. The innovative sports car vs. the futuristic mobility concept incorporated the extension pair in the high involvement category, the state-of-the-art mini laptop vs. the revolutionary wrist computer was used as the extension pair in the high technology condition.

Regarding the selection of the individual brands, the present study relied on 3 brand names that were already used in Study 1, as well as identified 5 new brand names that were primarily aimed at fulfilling the requirements of the brand alliance manipulation. In the end, the study pitted Sony, Mercedes, Apple, and Jaguar as more benefit driven brands vs. IBM, Audi, Dell, and Lexus as more functional driven brands.

For the brand alliance manipulation, interbrand collaborations had to be identified that were evaluated equally favorable by consumers independent of their associations with the individual brands. Moreover, to ensure a high comparability between the results of the selected brand alliances and the employed individual brands, it was decided to build the alliances based on combinations of the previously selected individual brands. Finally, IBM-Dell and Audi-Lexus were selected to represent the functional brand/functional brand – brand alliances, IBM-Sony and Audi-Mercedes to embody the benefit brand/functional brand – brand alliances, and Sony-Apple and Mercedes-Jaguar to incorporate the benefit brand/benefit brand – brand alliance.

The stimuli in the questionnaires were once again arranged following a Latin square design, minimizing the danger of carry-over effects between the presented innovations. Each subject has only rated two extensions, reflecting one member from each category. In the end, 6 different types of brand alliances as well as 4 different individual parent brands were tested for their extensibility into two different degrees of product innovativeness (RNPs vs. INPs) with every questionnaire including two brand/product combinations, finally resulting in 10 different versions of the questionnaire.

Following the same procedure as in Study 1 and aimed at reducing the risk of incorrectly answered questionnaires, the order of the brands as well as the anchoring of the used scales were randomly changed within the questionnaires (Judd, Smith, and Kidder 1991). Moreover, once again the extensions' order was counterbalanced to minimize presentation-order effects (Greenwald 1976).

V.1.3 Stimulus Selection

The majority of the herein employed products and individual brands were identical with the ones used in Study 1. Thus, the primary goal of this stimulus selection section was to identify brand alliances that showed a comparable level in consumers' attitudinal predisposition and matched the requirements of the experimental manipulations. Since the literature review has revealed that consumers' evaluations of brand alliances primarily depend on (a) their pre-attitudes towards the involved individual brands, (b) their perception of fit between the involved product categories, and (c) their evaluation of the degree of complementarity between the images of the selected brands, the stimulus selection for the brand alliances focused on these three dimensions.

Three stages of pretesting were conducted: Pretest 1 focused on the selection of individual brands for the brand alliances, which had to be evaluated comparably favorable and positioned in the same product categories. Pretest 2 then tested logical combinations of these brands regarding the complementarity of their brand images and product categories. Pretest 3 tested the selected stimuli and measures for potential problems before applying them to a broader audience.

V.1.3.1 Pretest 1

The aim of Pretest 1 was to identify individual brands with significantly different brand associations (benefit vs. functional). These brands had to be positioned in the same product categories (car manufacturer and/or PC producer), as well as evaluated equally favorable by

consumers. To achieve this objective, 8 student subjects were asked to generate a list of brands that come to their mind when they think about car manufacturers and PC producers. The resulting lists were then compared and analyzed regarding their cohesiveness. Every brand that was mentioned by at least 62% of the participants was considered for further testing. 7 brands of car manufacturer (Mercedes, BMW, Audi, Lexus, Jaguar, VW, and Porsche) as well as 5 brands of PC producers (IBM, Apple, Hewlett-Packard, Dell, and Sony) met this criterion and hence entered the next stage of pretesting.

Next, it was necessary to analyze consumers' pre-attitudes and associations with these brands. 12 students were asked to evaluate the presented brands on four seven-point bipolar scales regarding their perception of familiarity (from 1 = "not at all familiar" to 7 = "very familiar"), favorability (from 1 = "unfavorable" to 7 = "favorable"), quality (from 1 = "low" to 7 = "high"), and prestige (from 1 = "not at all" to 7 = "very much"; Aaker and Keller 1990; Bottomley and Holden 2001; Park, Milberg, and Lawson 1991). Subsequently, they were asked to write down all associations that came to their minds upon presentation of these brand names. These associations were then categorized by two coders into more functional- and more benefit-driven associations. A comparison between the two coders revealed an agreement of 75 % regarding the classifications of the associations into these two categories.

As a result of this examination and the assessment of participants' attitudinal predisposition towards the presented brands (for details see Table 13), the following brands were identified as adequate for further testing: in the high technology category, Sony, Hewlett-Packard, and Apple were selected as benefits brands ($Ass_{Benefit\ Brands}$= 1.81) and pitted against IBM, Dell, and Toshiba which were chosen as functional brands ($Ass_{Functional\ Brands}$= 1.47; t = 3.633, p = .004). In the high involvement category, Mercedes, Porsche, and Jaguar were chosen as benefit brands ($Ass_{Benefit\ Brands}$= 1.75), while Audi, VW, and Lexus were selected to embody the functional brands ($Ass_{Functional\ Brands}$= 1.42; t = 4.062, p = .002).

V.1.3.2 Pretest 2

In Pretest 2 these brands were then combined in plausible brand alliance constellations and subsequently presented to student subjects to analyze the brand fit within these alliances. 10 participants were confronted with 6 fictive brand alliances, including IBM-Dell and Audi-Lexus representing the functional brand/functional brand - brand alliances, IBM-Sony and Audi-Mercedes embodying the functional brand/benefit brand – brand alliances, and Apple-Sony and Mercedes-Jaguar reflecting the benefit brand/benefit brand – brand alliances.

Participants were asked to indicate on three seven-point bipolar scales their evaluation of the brand images' consistency within the presented brand alliances (from 1 = "not at all consistent" to 7 = "very consistent"), their overall perception of the brand fit within the alliance (from 1 = "low fit" to 7 = "high fit"), and their evaluation of the complementarity between the presented brands in the brand alliances (from 1 = "not at all complementary" to 7 = "very complementary" / Simonin and Ruth 1998). In accordance with findings in previous research (Simonin and Ruth 1998) and a reliability analysis (Cronbach's Alpha = .8260), the outcomes of these measures were averaged to provide a single measure of brand fit.

Based on the results in the high involvement category, Audi and Lexus were identified to embody the functional brand/functional brand – brand alliance ($BF_{A\text{-}L}$= 5.17), Audi and Mercedes to embody the functional brand/benefit brand – brand alliance ($BF_{A\text{-}M}$= 5.31), and Mercedes and Jaguar to represent the benefit brand/benefit brand – brand alliance ($BF_{M\text{-}J}$= 5.40). In the high technology category, IBM and Dell were selected to embody the functional brand/functional brand – brand alliance ($BF_{I\text{-}D}$= 5.29), IBM and Sony chosen to incorporate the functional brand/benefit brand – brand alliance ($BF_{I\text{-}S}$= 5.19), and Apple and Sony selected to be the benefit brand/benefit brand – brand alliance ($BF_{A\text{-}S}$= 5.60). Table 13 summarizes the results.

After having examined the presented brand alliances regarding the brand fit, the next aspect that had to be analyzed was consumers' perception of cohesiveness between the

involved product categories within the selected brand alliances, the so called product fit. Participants had thus to answer three question regarding their perception of the degree of consistency between the product categories in the presented brand alliances (from 1 = "not consistent at all" to 7 = "very consistent"), their assessment of the complementarity of the involved product categories (from 1 = "not complementary at all" to 7 = "very complementary"), and finally their evaluation of the necessity of the brands for each other (from 1 = not necessary at all to 7 = very necessary / Simonin and Ruth 1998).

Taking again the overall mean of the three different questions (Cronbach's Alpha = .8240), the results revealed that in the high involvement category Audi and Lexus (PF_{A-L}= 5.38) as well as Audi and Mercedes (PF_{A-M} = 5.33) and Mercedes and Jaguar (PF_{M-J}= 5.12) were equally good fitting on these dimensions. For the high technology category, the analysis of participants' evaluations of the product fit revealed that IBM and Dell (PF_{I-D}= 5.26), IBM and Sony (PF_{I-S}= 5.45), as well as Apple and Sony (PF_{A-S}= 5.26) showed no significant differences on the tested dimensions (for details see Table 13).

Table 13: Summary Pretest 1 and 2

			Mercedes	Porsche	Jaguar	Audi	VW	Lexus	Significance
High Involvement Product Pair	**Brands**	Evaluation	5.25	5.35	5.22	5.29	5.08	5.19	F = .100, p = .768
		Quality	5.08	5.25	5.00	5.33	5.25	5.08	F = .372, p = .575
		Status	5.17	5.33	5.08	4.92	5.00	5.08	F = .750, p = .435
		Familiarity	5.33	5.17	5.25	4.92	5.42	4.97	F = .862, p = .406
Sports Car vs. Mobility Concept			**Audi/Lexus**		**Audi/Mercedes**		**Mercedes/Jaguar**		**Significance**
	Brand Alliances	Brand Fit	5.17		5.31		5.40		F = .143, p = .721
		Product Fit	5.38		5.33		5.12		F = .103, p = .761

			Sony	Apple	HP	IBM	Dell	Toshiba	Significance
High Technology Product Pair	**Brands**	Evaluation	5.31	5.35	5.06	5.29	5.14	5.08	F = .205, p = .675
		Quality	5.58	5.33	5.25	5.33	5.29	4.92	F = 1.455, p =.294
		Status	5.25	5.17	5.33	5.08	5.00	5.00	F = .400, p = .561
		Familiarity	5.00	4.97	5.33	5.08	5.33	5.17	F = .284, p = .622
UPC vs. Wrist Computer			**IBM/Dell**		**IBM/Sony**		**Sony/Apple**		**Significance**
	Brand Alliances	Brand Fit	5.29		5.19		5.60		F = .377, p = .562
		Product Fit	5.26		5.45		5.26		F = .125, p = .739

V.1.3.3 Pretest 3

Pretest 3 finally tested the selected stimuli regarding their appropriateness for the main study. 8 student subjects were asked to participate in informal face-to-face interviews, which were again based on the designated questionnaire of the main study. The feedback of these interviews confirmed that questions and scales were easily understood. Moreover, the examination of participants' responses to the question asking for the true purpose of the study indicated that no subject guessed the hypotheses. As a result, it was concluded that the selected stimulus materials and measurements were appropriate for hypotheses testing.

In the end, the following brand alliances met the criteria for the present analysis: Audi and Lexus as well as IBM and Dell embodying the functional brand/functional brand – brand alliances, Audi and Mercedes as well as IBM and Sony representing the functional brand/benefit brand – brand alliances, and Mercedes and Jaguar as well as Sony and Apple reflecting the benefit brand/benefit brand – brand alliances.

All of these brand alliances were combined with extension products that had already proven their adequateness in Study 1. In the high involvement category, the futuristic mobility concept (RNP) was pitted against the innovative sports car (INP). In the high technology category, the hand wrist computer (RNP) was pitted against the ultra small laptop (INP).

V.1.4 Procedure

Subjects were again told that they were participating in an international branding study and asked to complete a questionnaire. Within this questionnaire, they faced 38 questions regarding their attitudes towards the presented brands, brand alliances and the proposed extension products. These questions had to be answered on seven-point bipolar scales and were accompanied by two open thought listings and two innovativeness scales, which examined subjects' associations with the brands as well as the transferred information from the brands and/or brand alliances to the extensions (see Appendix IV).

Specifically, subjects were first asked to indicate their perception of favorability, quality, familiarity, status and innovativeness of the presented brands. Subsequently, they had to write down their associations with these brands in a open thought listing task.

Afterwards, subjects were confronted with an announcement that two pairs of these brands are planning to engage in a brand alliance to introduce a new product into the market place ("Brand A and Brand B have decided to expand their existing product portfolios by introducing new innovations. Therefore, they are planning to engage in a brand alliance. Specifically, ..." / Simonin and Ruth 1998). Following this brief proclamation, subjects had to indicate on four seven-point bipolar scales their perception of the complementarity between the two involved brand images as well as their attitudes towards the brand alliance.

Similar to Study 1, subjects were then exposed to the extension products in the previously crafted ads. Each extension was presented on an own page and accompanied by one innovativeness scale and 15 question. Finally, to trace the transferred information, participants were asked to explain the presented products to a friend and hence to reveal their learned information about them. The questionnaire again ended with a brief section dealing with demographics. The entire procedure to fill in the questionnaire took about 25 minutes.

V.1.5 Measures

The set of questions used in the present study was almost identical to the one used in Study 1. Specifically, Study 2 applied the same constructs for the measurement of consumers' attitudinal predisposition towards the used brands, for assessing the adequateness of the stimulus selection, as well as the battery of questions analyzing consumers' perception of the presented brand extension. Alongside these measures, subjects in Study 2 had to additionally indicate their perception of fit between the brands in the presented brand alliances as well as their attitudes towards the presented brand alliances on two seven-point scales.

In detail, in the former case participants were asked to indicate their perception of the complementarity of the images of the presented brands (from 1 = "not at all complementary" to 7 = "very complementary"), as well as their overall perception of brand fit in the presented brand alliances (from 1 = "low fit" to 7 = "high fit"; Simonin and Ruth 1998). In the latter case, they were asked to indicate their overall evaluation (from 1 = "unfavorable" to 7 = "favorable") as well as their quality perception of the presented brand alliances (from 1 = "low" to 7 = "high"; Simonin and Ruth 1998).

Table 14 summarizes these additional measures as well as highlights the Cronbach's alphas for the different measurement constructs, which were again sufficiently high, indicating a sufficiently high reliability of the selected measurement tools.

Table 14: Reliability Checks of the Employed Multi-Item Measures

Measure/Items	**Reliability** (Cronbach's Alpha)
Attitudes towards the Extension (7-point bipolar scales)	a = .8155
Overall Evaluation	
Likelihood to try	
Perceived Quality	
Attitudes towards the Brand Alliances (7-point bipolar scales)	a = .8071
Overall Evaluation	
Quality Perception	
Attitudes towards the Brands (7-point bipolar scales)	a = .8360
Overall Evaluation	
Quality Perception	
Status	
Brand Fit (7-point bipolar scales)	a = .8382
Consistency of the brand images	
Complementarity/fit of the brands	

V.2 Results

Analyses of variance (ANOVAs) were used to assess the adequateness of the selected stimuli as well as to test for the hypothesized effects.

V.2.1 Manipulations Checks

The analysis of the appropriateness of the selected products, summarized in Table 15, yielded results that were highly consistent with those found in Study 1. Participants rated the futuristic mobility concept ($I_{Mobility\ Concept}$= 86.23) significantly more innovative (F = 139.145, p < .001) than the innovative sports car ($I_{Sports\ Car}$= 48.98), and the wrist computer ($I_{Wrist\ Computer}$= 74.11) significantly more innovative (F = 42.716, p < .001) than the ultra small laptop (I_{Laptop}= 48.05).

The assessment of the question if participants may have had difficulties in evaluating the selected products revealed no significant differences within the different product pairs (high involvement product pair: F = 1.551, p = .216; high technology product pair: F = .969, p = .327). And the examination of potential differences in participants' perception of uncertainty also showed no significant differences (high involvement product pair: F = 1.598, p = .209 / high technology product pair: F = .059, p = .809).

Regarding the appropriateness of the employed ads, the results revealed comparable favorability ratings across the different product pairs (high involvement product pair: F = .725, p = .396; high technology product pair: F = 3.126, p = .080), and no significant differences in participants' understanding of the product descriptions (high involvement product pair: F = .840, p = .362; high technology product pair: F = .095, p = .758). Moreover, participants' perception of the ad's complexity (high involvement product pair: F = .438, p = .509; high technology product pair: F = 1.210, p = .274), as well as possible difficulties to comprehend the ad were analyzed and no significant differences found (high involvement product pair: F = 3.089, p = .082; high technology product pair: F = .152, p = .697). Last, subjects were asked to indicate their perception of the degree of realism of the presented ads. Once again no significant differences were observed (high involvement product pair: F = .699, p = .455 / high technology product pair: F = .108, p = .743). Table 15 summarizes the outcomes of the manipulation checks of the employed products, ads, and descriptions.

Table 15: Manipulation Checks - Products, Ads, and Descriptions

		Measures	INP/ Functional	RNP/ Benefit	Significance
High Involvement Product Pair Sports Car vs. Mobility Concept	**Product**	Innovativeness	48.98	86.23	F = 139.145, p < .001
		Difficulty to Evaluate	3.88	3.50	F = 1.551, p = .216
		Perceived Uncertainty	4.57	4.17	F = 1.598, p = .209
	Ads & Descriptions	Overall Evaluation	4.87	4.62	F = .725, p = .396
		Understandability	5.37	5.11	F = .840, p = .362
		Complexity	4.00	4.20	F = .438, p = .509
		Comprehensibility	4.56	4.00	F = 3.089, p = .082
		Realism	3.49	3.19	F = .699, p = .455
High Technology Product Pair UPC vs. Wrist Computer	**Product**	Innovativeness	48.05	74.11	F = 42.716, p < .001
		Difficulty to Evaluate	2.89	3.03	F = .969, p = .327
		Perceived Uncertainty	4.09	4.02	F = .059, p = .809
	Ads & Descriptions	Overall Evaluation	5.09	4.63	F = 3.126, p = .080
		Understandability	5.30	5.23	F = .095, p = .758
		Complexity	3.30	3.59	F = 1.210, p = .274
		Comprehensibility	4.00	4.47	F = .152, p = .697
		Realism	3.61	3.71	F = .108, p = .743

The assessment of subjects' ratings of the selected brands, summarized in Table 16, revealed a comparable attitudinal predisposition towards the brands (high involvement category: F = .735, p = .676; high technology category: F = .961, p = .477), and no significant differences in the familiarity ratings with these brands (high involvement category: F = .758, p = .655; high technology category: F = 1.350, p = .221).

Regarding participants' perception of the brands' innovativeness as well as their associations with the selected brands, the results revealed the desired outcomes. Regarding the former, it was shown that participants perceived the different brands as equally innovative within the different categories (high involvement category: F = .990, p = .453; high technology category: F = 1.243, p = .277). Regarding the latter, open thought listings were employed in which participants had to write down their associations with the presented brands. Two graduate student, who were blind to the real purpose of the study, then coded independently from each other the results regarding the amount of benefit and/or functional associations that were reflected in participants thoughts. The results showed that participants

had significant more benefit-driven associations with Mercedes ($Ass_{Mercedes}$= 1.82) and Jaguar (Ass_{Jaguar}= 1.73) compared to Audi (Ass_{Audi}= 1.25) and Lexus (Ass_{Lexus}= 1.23; F = 5.053, p = .004) in the high involvement category, and comparably more benefit associations with Apple (Ass_{Apple}= 1.80) and Sony (Ass_{Sony}= 1.67) compared to IBM (Ass_{IBM}= 1.13) and Dell (Ass_{Dell}= 1.10; F = 8.862, p < .001) in the high technology category.

Finally, participants' attitudinal predisposition towards the presented brand alliances had to be assessed as well as participants' fit perception of the brand images in these alliances. The results revealed that participants' evaluations of the alliances were comparable within the different categories (high involvement category: F = .579, p = .716; high technology category: F = .105, p = .991), and that their ratings of the brand fit showed no significant differences (high involvement category: F = .298, p = .912; high technology category: F = .137, p = .983).

Table 16: Manipulation Checks - Brands and Brand Alliances

High Technology Product Pair

UPC vs. Wrist Computer

		IBM	Sony	Apple	Dell	Significance
Brands	Evaluation	5.15	5.31	5.24	5.05	F = .961, p = .477
	Quality	5.32	5.52	5.50	5.41	F = .550, p = .650
	Status	5.24	5.13	4.96	5.15	F = .802, p = .499
	Familiarity	4.53	4.80	4.18	4.08	F = 1.350, p = .221
	Innovativeness	5.26	5.71	5.61	5.28	F = 1.243, p = .277

		IBM/ Dell	IBM/ Sony	Sony/ Apple	Significance
Brand Alliances	Overall Evaluation	4.74	4.90	4.92	F = .105, p = .991
	Brand Fit	4.73	4.82	4.96	F = .137, p = .983

High Involvement Product Pair

Sports Car vs. Mobility Concept

		Mercedes	Audi	Jaguar	Lexus	Significance
Brands	Evaluation	5.93	5.81	5.71	5.60	F = .735, p = .676
	Quality	5.26	5.15	5.60	5.16	F = .502, p = .683
	Status	6.35	6.06	6.35	5.89	F = .417, p = .742
	Familiarity	5.00	4.75	4.64	4.39	F = .758, p = .655
	Innovativeness	5.36	5.25	4.91	4.91	F = .990, p = .453

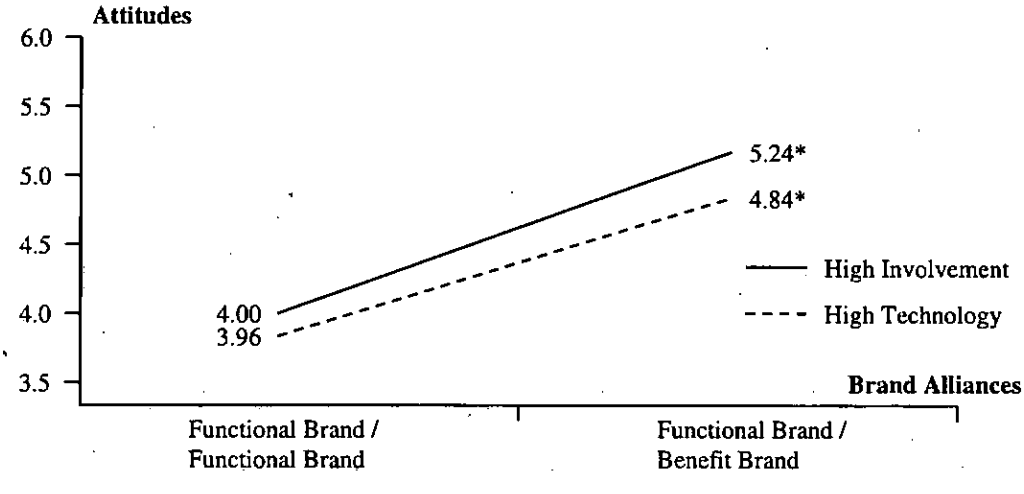
		Audi/ Lexus	Audi/ Mercedes	Mercedes/ Jaguar	Significance
Brand Alliances	Overall Evaluation	5.15	5.31	5.24	F = .961, p = .477
	Brand Fit	4.98	5.21	5.00	F = .298, p = .912

V.2.2 Test of Hypotheses

This study focused its attention on the analysis of consumer evaluations of brand extensions into RNPs when the parent brand is a brand alliance.

Hypothesis 3a proposed that an extension into a RNP will be evaluated significantly more favorably if the parent brand alliance consists of a functional brand and a benefit brand than if it consists of two functional brands (Hypothesis 3a). In order to test this hypothesis, an ANOVA was run on participants' evaluations of the presented RNP brand extensions. It analyzed participants' favorability ratings when the brand alliance consisted of a functional brand and a benefit brand compared to the case when the brand alliance consisted of two functional brands. As Figure 7 visualizes, the results of this analysis revealed that RNP brand extensions were indeed evaluated more favorably in the former case.

Figure 7: Results Hypothesis 3a – Attitudes towards RNP Extensions Across Alliances



* Significant difference at $p < .05$
** Significant difference at $p < .01$

Specifically, participants who evaluated the futuristic mobility concept in the high involvement category revealed significantly higher favorably ratings when the Mercedes-Audi brand alliance was the basis of the extension ($E_{A\text{-}M}$= 5.24) compared to the case when the basis was the Lexus-Audi brand alliance ($E_{A\text{-}L}$= 4.00; F = 5.843, p = .022). Similarly, in

the high technology category subjects evaluated the hand wrist computer more favorably when the Sony-IBM alliance ($E_{I\text{-}Sh}$= 4.84) was the extension basis compared to the case when the Dell-IBM alliance was the basis ($E_{I\text{-}D}$= 3.96; F = 5.686, p = .024). Thus, the results of Study 2 supported Hypothesis 3a (for details see Table 17).

Table 17: ANOVA Results – Hypothesis 3a

H 3a		Sum of Squares	df	Mean Square	F	Significance
$E_{Audi/Mercedes\ vs.}$ $E_{Audi/Lexus}$	Between Groups	11.615	1	11.615	5.843	.022
	Within Groups	55.659	28	1.988		
	Total	67.274	29			
$E_{Sony/IBM\ vs.}$ $E_{Dell/IBM}$	Between Groups	6.222	1	6.222	5.686	.024
	Within Groups	32.833	30	1.094		
	Total	39.056	31			

Similar to Hypothesis 1b, Hypothesis 3b analyzed the transferred information in order to assess the underlying learning processes. It predicted that if a brand alliance contains at least one benefit brand, participants will engage in analogical learning and hence transfer significantly less attribute information than if the brand alliance consists of two functional brands. The results, summarized in Table 18, supported this reasoning and hence Hypothesis 3b. The participants indeed transferring significantly less attribute information to the extension product if one of the partner brands was a benefit brand.

In detail, in the high involvement category subjects recalled significantly less attributes when the brand extensions was based on the Mercedes-Audi brand alliance compared to the case when the product was presented as an extension based on the Lexus-Audi brand alliance (F = 9.211; p = .009). And in the high technology category a similar pattern of results was found with participants recalling significantly less attributes of the PDA watch when the extension was attributed to IBM and Sony then when the extension was attributed to IBM and Dell (F = 5.200; p = .040).

Table 18: ANOVA Results – Hypothesis 3b

H 3b		Sum of Squares	df	Mean Square	F	Significance
$E_{Audi/Mercedes\ vs.}$ $E_{Audi/Lexus}$	Between Groups	1.563	1	1.563	9.211	.009
	Within Groups	2.375	14	.170		
	Total	3.938	15			
$E_{Sony/IBM\ vs.}$ $E_{Dell/IBM}$	Between Groups	.686	1	.686	5.200	.040
	Within Groups	1.714	13	.132		
	Total	2.400	14			

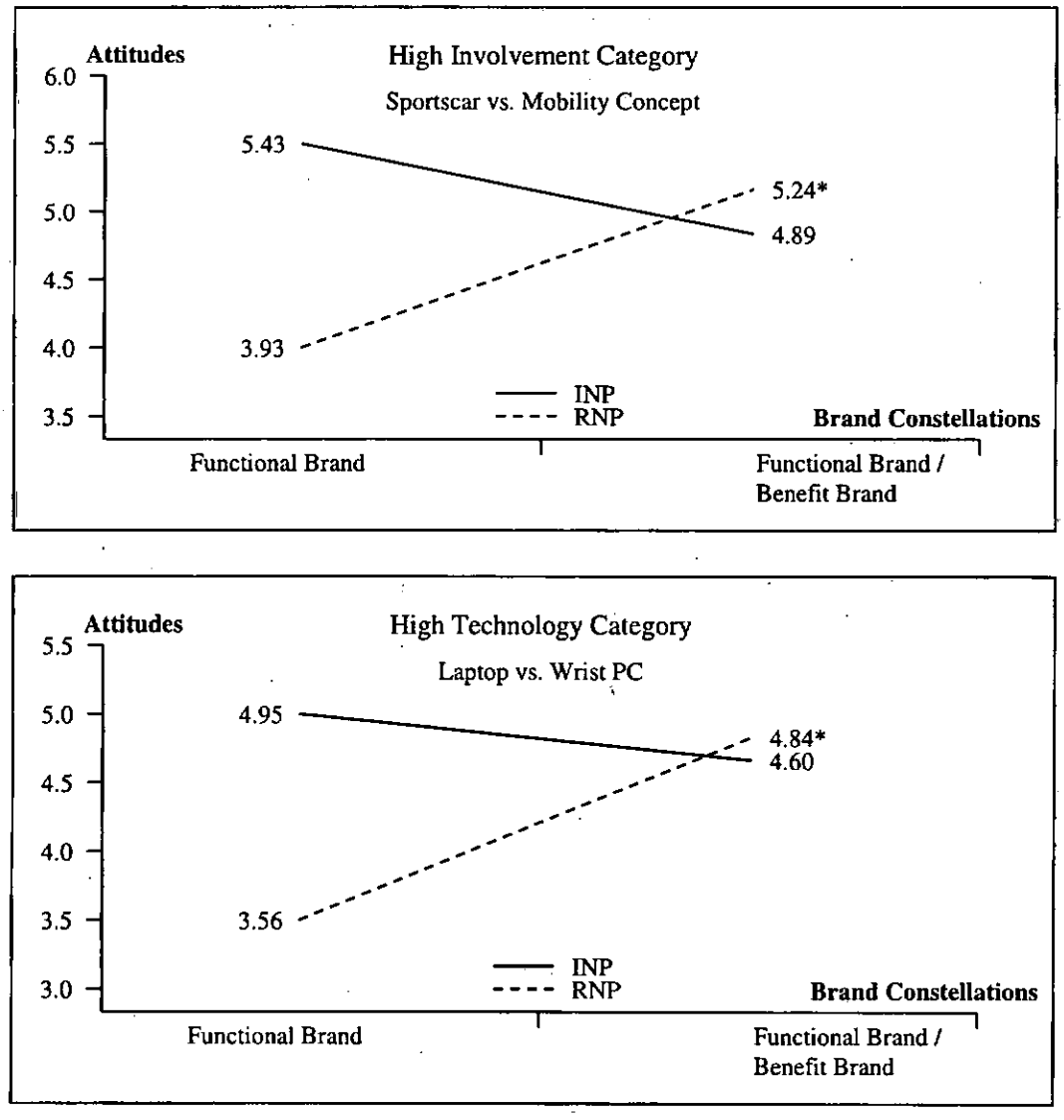
Finally, the aim of Hypothesis 3c and Hypothesis 3d was to combine the findings of Study 1 with the present reasoning about brand alliances. Hypothesis 3c hence argued that the impact of adding a benefit partner brand to a functional brand is significantly more positive for brand extensions into RNPs than INPs. And Hypothesis 3d dealt with the question if the impact of adding a benefit brand to a parent brand on consumer evaluations is significantly more positive for brand extensions from benefit brands than from functional brands.

As Figure 8 shows, both hypotheses were supported by the results. The starting point of analysis for Hypothesis 3c were participants' evaluations of the extension products based on the individual brands. In line with Hypothesis 1a, subjects evaluated the extensions of a functional parent brand into INPs significantly more favorably compared to extensions into RNPs (Audi: INP = 5.43 vs. RNP = 3.93; F = 4.586, p = .049 | IBM: INP = 4.95 vs. RNP = 3.56; F = 4.917, p = .044). Now it was hypothesized that if these functional brands engage in an interbrand collaboration with benefit brands (in this study represented by Mercedes and Sony), the resulting impact is significantly more elaborate for brand extensions into RNPs than INPs.

As Figure 8 reveals, the findings supported this proposition. While adding a benefit brand to a functional brand did not significantly impact evaluations when the proposed extension was a INP (high involvement category: $Audi_{INP}$= 5.43 vs. $Audi/Mercedes_{INP}$= 4.89;

F = .426, p = .527 | high technology category: IBM_{INP}= 4.95 vs. $IBM/Sony_{INP}$= 4.60; F = .565, p = .469), it had a significant impact when the extension product was a RNP.

Figure 8: Results Hypothesis 3c – Impact of Brand Constellations Across Categories



* Significant difference at p < .05 / ** Significant difference at p < .01

In detail, it was observed that consumers' evaluations of the proposed extensions into RNPs significantly increased when a benefit brand was added to the functional parent brand (high involvement category: $Audi_{RNP}$= 3.93 vs. $Audi/Mercedes_{RNP}$= 5.24; F = 5.793, p = .025 | high technology category: IBM_{RNP}= 3.56 vs. $IBM/Sony_{RNP}$= 4.84; F = 5.787, p = .025). This

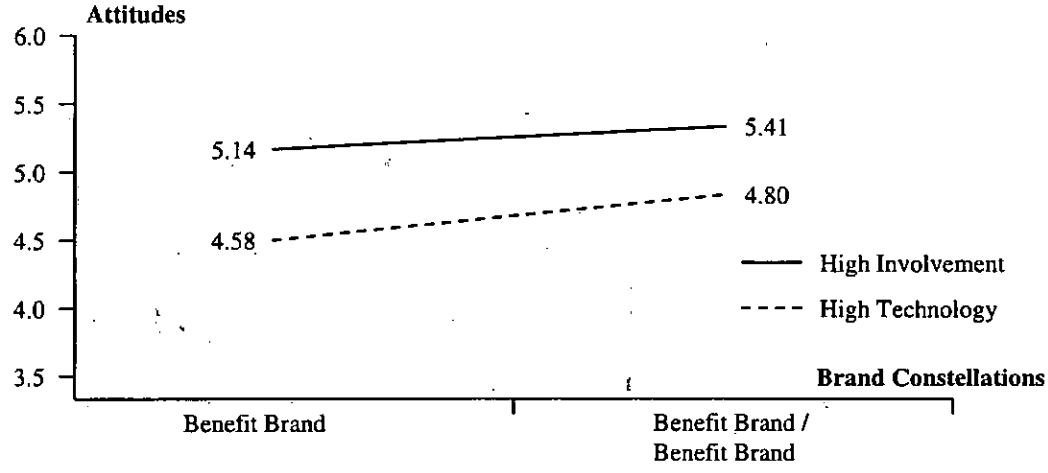
outcome supported the in Hypothesis 3c proposed impact of adding a benefit brand to a functional brand in the context of consumer evaluations of RNP extensions (see Table 19).

Table 19: ANOVA Results – Hypothesis 3c

	H 3c		Sum of Squares	df	Mean Square	F	Significance
$E_{Audi\ vs.\ Audi/Mercedes}$	INP	Between Groups	.941	1	.941	.426	.527
		Within Groups	24.307	11	2.210		
		Total	25.248	12			
	RNP	Between Groups	10.314	1	10.314	5.793	.025
		Within Groups	40.948	23	1.780		
		Total	51.262	24			
$E_{IBM\ vs.\ IBM/Sony}$	INP	Between Groups	.362	1	.362	.565	.469
		Within Groups	6.406	10	.641		
		Total	6.769	11			
	RNP	Between Groups	9.344	1	9.344	5.787	.025
		Within Groups	35.526	22	1.615		
		Total	44.870	23			

Last, Hypothesis 3d stated that the impact of adding a benefit brand to a parent brand in the RNP condition is significantly more pronounced for parent brands with functional associations compared to parent brands with benefit associations. To test this hypothesis potential differences in the outcomes of subjects' evaluations of brand extensions into RNPs based on parent brands with divergent brand associations had to be assessed. As seen earlier, the pattern of results has revealed that adding a benefit brand to a functional brand had a beneficial impact on consumer evaluations of brand extensions into RNPs in the high involvement as well in the high technology category. However, in both cases the underlying individual parent brands were functional brands. Thus, the question remained what happens if the parent brand already is a benefit brand. To answer this question differences in participants' evaluations of the RNP brand extensions were analyzed, yet, this time the underlying parent brands were with Jaguar and Apple benefit brands. As Figure 9 visualizes, the results supported the reasoning of Hypothesis 3d.

Figure 9: Results Hypothesis 3d – Attitudes towards RNP Extensions



* Significant difference at $p < .05$
** Significant difference at $p < .01$

In detail, starting point of the analysis this time were participants' evaluations of the proposed RNP extensions based on benefit brands ($Jaguar_{RNP}$= 5.14; $Apple_{RNP}$= 4.58). It was now tested if adding a benefit brand to these brands had the same beneficial impact like the previously observed impact when functional brands were the starting point. In line with Hypothesis 3d, such a beneficial effect was not observed. Even though participants' rated the extensions slightly more favorable (high involvement category: 5.14 vs. 5.41 | high technology category 4.58 vs. 4.80), these differences were no significant (high involvement category: F = .303, p = .588 | high technology category: F = .434, p = .517).

Table 20: ANOVA Results – Hypothesis 3d

	H 3d		Sum of Squares	df	Mean Square	F	Significance
$E_{Jaguar\ vs.\ E_{Jaguar/Mercedes}}$	RNP	Between Groups	.383	1	.383	.303	.588
		Within Groups	26.554	21	1.264		
		Total	26.937	22			
$E_{Apple\ vs.\ E_{Apple/Sony}}$	RNP	Between Groups	.296	1	.296	.434	.517
		Within Groups	15.704	23	.683		
		Total	16.000	24			

V.3 Discussion

As mentioned earlier, in brand management research a significant body of literature has developed around the issue of how consumers may assess brand extensions. A key insight to arise from this research is that consumers' perception of fit between the parent brand and the extension product appears to be the critical component when it comes to the formation of consumers' reactions to brand extensions. Consequently, it has been assumed that if an extension is perceived as close to a parent brand, consumers provide more favorable evaluations compared to the case when the extension is perceived to be distant (Keller and Aaker 1992). Study 1 has looked into this central idea of brand extension research in the context of RNPs. The outcome of this analysis has shown that these form of extension, which are by definition incongruent, are indeed evaluated less favorably than brand extensions into incremental innovations. However, the results have also revealed that relational brand associations were capable of overriding this disadvantage of radical innovations, hence making favorably evaluated brand extensions into radical innovations possible.

Starting point of Study 2 has now been the question of what a company can do if it wants to introduce a RNP into the market place but lacks relational associations. Since establishing these brand associations requires huge investments in brand building programs as well as a considerable amount of time, this study focused its efforts on the assessment of an alternative approach to growing a parent brand with relational associations. Namely to gain these associations through coupling the existing parent brand with a benefit brand through a brand alliance effort. Accordingly, the main purpose of Study 2 was to analyze whether and how co-branding strategies might be capable of impacting brand extensions into radical innovations.

The present study tested the same RNP extensions as Study 1. However, this time the extension basis were not individual brands, but brand alliances representing all plausible combinations of benefit and functional brands. The central question was whether and how

these different combinations of brand associations may impact consumer evaluations of the proposed extension products.

The results showed that the associations of the involved brands had the proposed significant impact on consumer evaluations of these brand extensions. Specifically, it was revealed that brand extensions into RNPs were generally evaluated more favorably if they were based on a brand alliance, which included at least one benefit brand (Hypothesis 3a).

To assess the reasons of this phenomenon, once again the transferred information was analyzed. The pattern of results resembled the one observed in Study 1. Subjects transferred significantly less attribute information when the extensions was introduced by a brand alliance that contained at least one benefit brand (i.e., it was shown that participants transferred significantly less attributes when they evaluated a RNP based on a parent brand alliance consisting of a functional and a benefit brand compared to a brand alliance consisting of two functional brands). These results again indicated that participants engaged in different information processing procedures dependent on the underlying brand alliance type (Hypothesis 3b).

Study 2 moreover directly analyzed the hypothesized beneficial influence of co-branding approaches by examining the effect of adding a benefit brand to a parent brand with functional associations compared to adding a benefit brand to a parent brand with relational associations (Hypothesis 3d). To do so, this work analyzed the difference between participants' evaluations of a RNP extension based on an individual brand versus participants' evaluations of the same extension based on different brand alliance constellations involving this brand. In line with the findings of Study 1, the impact in the former case was bigger, because in this case the brand was capable of inducing consumers in analogical processing, while in the latter case consumers already processed information in this way.

Once again, the transferred information was assessed to scrutinize the reasons for this phenomenon. Last, the present study also found results, revealing that this impact of adding a

benefit brand to a functional brand compared is significantly more positive for brand extensions into RNPs compared to INPs (Hypothesis 3c). Once again, the findings supported the notion that the main reason for the beneficial impact of co-branding strategies lies in the ability to add relational associations to a parent brand that lacks these associations, because in this case only the RNPs strongly rely on relational associations.

In sum, the results of Study 2 supported the herein presented hypotheses and hence demonstrated for the first time that adding a second brand to an individual parent brand can have a beneficial impact in the context of brand-driven growth strategies into RNPs.

Chapter VI: Study 3

The focus of this dissertation has so far been on the analysis of the adequateness of two of the most popular brand-driven growth strategies, brand extensions (Study 1) and brand alliances (Study 2), for launching RNPs into the marketplace. In doing so, the present work has not only introduced with analogical learning theory a new learning paradigm to the field of brand research, but also revealed ways of how brand management's theory and practice might be capable of dealing with the specifics of RNPs.

So far this dissertation has treated brands as stand alone entities, neglecting the fact that brands often possess multi-product portfolios. However, following latest findings in brand portfolio research, the characteristics of these portfolios might be capable of influencing a brand's extensibility (Aaker 2004; Dacin and Smith 1994; DelVecchio 2000; Meyvis and Janiszewski 2004). Therefore, it has been decided that it is necessary to devote some efforts to this issue in the present dissertation.

Consequently, Study 3 is primarily devoted to the question of how the parent brand's product portfolio characteristics may impact consumers' use of analogical learning processes in brand extensions and hence influence a brand's ability to extend into RNPs. The following paragraphs hence analyze if consumer evaluations of brand extensions into RNPs are affected by the broadness of the parent brand's product portfolio (Hypothesis 4). Moreover, this study is also aimed at replicating the results of Study 1 with different brands and new extensions, enhancing the external validity of the herein presented findings.

VI.1 Method

Subjects were asked to evaluate four extensions, representing one product pair and one service pair from changing parent brands. The product pair was the from Study 1 and 2 already known state-of-the-art mini laptop vs. the revolutionary wrist computer. The service pair was new to the analysis. The study pitted a new digital Pay-TV service vs. a highly

innovative digital home entertainment service. Both extension pairs systematically varied in their degree of innovativeness (INPs vs. RNPs) and were associated with divergent parent brands. In contrast to the two previous studies, this time the breadth of the parent brands' product portfolios was systematically varied (Narrow Product Portfolio vs. Broad Product Portfolio).

VI.1.1 Subjects

124 graduate students (38 females and 86 males), enrolled in a large German university, took part in Study 3 on a voluntary basis and were randomly assigned to one of the experimental conditions. Subjects, who had already participated in one of the previous studies, were excluded from the analysis.

VI.1.2 Design

Study 3 incorporates a 2 (RNP vs. INP) x 2 (Benefit Brand vs. Functional Brand) x 2 (Narrow Product Portfolio vs. Broad Product Portfolio) mixed factorial design. The manipulation of the experimental conditions was mainly based on pretesting and the findings in Study 1 and 2.

For the manipulation of the extension, two pairs were necessary: a product pair that was already employed in both earlier studies and hence ensured a high comparability between the results of this study and the two previous studies. And a service pair that was new to the analysis and primarily aimed at broadening the external validity of the present reasoning. For the former, the state-of-the-art mini laptop vs. the revolutionary wrist computer were chosen based on the promising results in the two earlier studies,. For the latter, a new digital Pay-TV service vs. a highly innovative digital home entertainment service were selected.

The manipulation of the parent brand's associations as well as their underlying product portfolios resulted in the selection of 8 brands, reflecting two different levels of brand associations (benefit vs. rational) as well as two different levels of product portfolio broadness

(narrow vs. broad) in two different categories. Pretesting ensured comparable levels of attitudinal predisposition and finally resulted in the selection of Apple (benefit/narrow), Samsung (benefit/broad), Intel (functional/narrow), and IBM (functional/broad) in the high technology category. And AOL (benefit/narrow), Sony (benefit/broad), Microsoft (functional/narrow), and Siemens (functional/broad) in the entertainment services category.

The stimuli in the questionnaires were again arranged following a Latin square design. Altogether the present efforts resulted in 8 different versions of the questionnaire, since there were two different types of brand associations (benefit brands vs. functional brands), two different sorts of product portfolios (narrow product portfolio vs. broad product portfolio), and two different degrees of product innovativeness (RNPs vs. INPs). Similar to the two previous studies, the order of the brands and the presented extensions as well as the anchoring of the used scales were randomly changed within the questionnaires (Greenwald 1976; Judd, Smith, and Kidder 1991).

VI.1.3 Stimulus Selection

The stimulus selection procedure for the third study was similar to the procedure used in the first study, with two exceptions: first, this time one of the extensions had to be a service rather than a product. Second, for the portfolio manipulation brands had to be identified that differed regarding consumers' associations with them and also revealed significant differences in the broadness of their underlying product portfolios.

Three stages of pretesting were hence conducted with the first pretest focusing on identifying appropriate extensions for the manipulation of the RNP vs. INP condition in the service category. The second pretest was then aimed at identifying appropriate brands for the selected extensions serving the experimental manipulations regarding the brands' product portfolios as well as being comparable regarding participants attitudinal predisposition.

Finally, Pretest 3 was again targeted at examining potential problems with the selected stimuli before applying them to a greater audience.

VI.1.3.1 Pretest 1

Three academic experts in the field of services were asked to generate a list of services under development that matched the previously discussed criteria. The three resulting lists were then compared between subjects. Services that appeared on at least two of the lists were considered for further testing. These services were then examined to ensure an akin level of chronological newness and services that were already introduced into the marketplace such as laser-supported eye surgery, supermarket home delivery services, ring-tone provider, and Botox treatments excluded from further testing (Hoeffler 2003). Services that could not be coupled in INP vs. RNP pairs were also dropped from the list. As a result, only two pairs of services were identified as appropriate for further testing: a new digital Pay-TV service vs. a highly innovative digital home entertainment service, and a progressive life insurance vs. a radically new deinsurance service.

Standardized ads for these services were developed, capable of preventing any kind of potential bias in the study caused by the ads. The concept remained the same as in the previous studies with the descriptions consisting of a brief paragraph listing two significant attributes of the service and the corresponding benefit, as well as keeping constant the number of times the service itself was mentioned. This description was accompanied by a picture, which was, given the immaterial status of services, a decoder box for the entertainment services and a contract for the deinsurance representing key elements of these services.

10 student subjects were recruited and asked to indicate their perceptions of these ads regarding their overall evaluation (from 1 = "dislike" to 7 = "like"), their favorability towards the ad (from 1 = "unfavorable" to 7 = "favorable"), their difficulty to evaluate the service based on the ad (from 1 = "very difficult" to 7 = "very easy"), their difficulty to generally

comprehend the ad (from 1 = "very difficult" to 7 = "very easy"), and the realism of the ad (from 1 = "very unrealistic" to 7 = "very realistic").

The results revealed no significant differences between the created advertisements for the entertainment service pair (Favorability: t = .937 p = .373; Evaluation: t = -1.406, p = .193; Difficulty to comprehend: t = .818, p = .434; Realism: t = 1.103, p = .299; Difficulty to evaluate: t = -1.868, p = .095) as well as for the insurance/deinsurance pair (Favorability: t = -1.152, p = .279; Evaluation: t = -.514, p = .619; Difficulty to comprehend: t = 1.922, p = .087; Realism: t = .612, p = .555; Difficulty to evaluate: t = .176, p = .864). Hence the adequateness of the advertisement development was confirmed.

After having revealed the appropriateness of the ads, 15 subjects were asked to indicate their attitudinal predisposition towards the presented services on three seven-point bipolar scales, including overall evaluation, likelihood to try, and perception of quality. The results, summarized in Table 21, revealed no significant differences between the presented entertainment services (Favorability: t = .774 p = .452; Likelihood to try: t = -1.468, p = .164; Quality: t = -1.193, p = .253) as well as between the proposed insurance/deinsurance services (Favorability: t = -.155 p = .879; Likelihood to try: t = .315, p = .758; Quality: t = -.180, p = .860). Finally, participants were also asked to rate these services regarding their degree of innovativeness. The results revealed that the new digital Pay-TV service ($I_{Pay\text{-}TV}$ = 43.67) was evaluated as significantly less innovative (t = 3.839, p = .002) than the digital home entertainment service ($I_{Digital\ Home}$ = 71.00), and the progressive life insurance ($I_{Life\ Insurance}$= 42.33) was perceived as significantly less innovative (t = 5.846, p = .000) compared to the radically new deinsurance ($I_{Deinsurance}$ = 70.67).

Last, it had to be ensured that participants had the same levels of uncertainty in their evaluation of the presented services (Hoeffler 2003). Participants were therefore asked to indicate how certain they were while evaluating these services (from 1 = "very uncertain" to 7 = "absolutely certain"). Only the new digital Pay-TV service vs. the highly innovative digital

home entertainment service passed this final test, because participants were equally certain in their evaluation of the members of this pair ($Uncertainty_{RNP}$ = 4.13 vs. $Uncertainty_{INP}$= 4.07; t = -.151, p = .882), while being significantly more confident in their evaluations of the progressive life insurance compared to the radically new deinsurance ($Uncertainty_{RNP}$ = 5.26 vs. $Uncertainty_{INP}$= 4.27;t = 2.236, p = .042).

As a result, a new digital Pay-TV service vs. a highly innovative digital home entertainment service were selected to serve as new extension category in the present study. Table 21 summarizes the results of Pretest 1.

Table 21: Summary Pretest 1

	Measures	INP	RNP	Significance
Service Pair I Entertainment Service vs. Digital Home Television	Innovativeness	43.67	71.00	t = 3.839, p = .002
	Attitudes	5.13	4.87	t = .774, p = .452
	Difficulty to comprehend	4.90	4.60	t = .818, p = .434
	Perceived Realism	4.40	3.90	t = 1.103, p = .299
	Difficulty to evaluate	4.20	5.10	t= -1.868, p = .095
	Uncertainty	4.07	4.13	t = -.155, p = .879
Service Pair II Progressive Life Insurance vs. Desurance Service	Innovativeness	42.33	70.67	t = 5.846, p < .001
	Attitudes	4.07	4.13	t = -.155, p = .879
	Difficulty to comprehend	5.10	4.30	t = 1.922, p = .087
	Perceived Realism	4.30	3.90	t = .612, p = .555
	Difficulty to evaluate	4.20	4.10	t = .176, p = .864
	Uncertainty	5.26	4.27	t = 2.236, p = .042

VI.1.3.2 Pretest 2

The aim of Pretest 2 was to identify appropriate brands for the selected extensions fitting the experimental manipulations by (a) showing no significant differences in consumers' attitudinal predisposition, (b) embedding significantly different associations, and (c) revealing significant differences in the broadness of their underlying product portfolios.

To do so, a three-step procedure was necessary. First, a general list of suitable brand names for the previously selected product/service pairs had to be identified. Second, these

brands had to be ordered regarding their underlying brand portfolios. Third, they had to be analyzed regarding subjects' attitudinal predisposition as well as, if possible, ordered and paired following their different positioning strategies.

In the first step, 4 academics were interviewed as well as one focus group (N = 4) employed to generate a list of 8 equally favorable and familiar brands that come to their mind when they think about these products and/or services. The results revealed an agreement of 61% between academics and the focus group. 16 brands were finally identified for further pretesting (high technology category: Apple, IBM, HP, Sony, Intel, Dell, Toshiba, Fujitsu; service category: Time Warner, AOL, Microsoft, Siemens, Samsung, Sony, Yahoo, Google).

In the second step, 7 brand experts (4 marketing academics and 3 marketing professionals) were asked to analyze and group these brands based on two dimensions (Aaker 2004; Dacin and Smith 1994; Meyvis and Janiszewski 2004), namely (a) the number of products associated with the brand (from 1 = "1 product" to 5 = "> 20 products"), and (b) the similarity between the products in the portfolio (from 1 = "very dissimilar" to 7 = "very similar").

Based on the results of this assessment, Siemens, Sony, IBM, HP, Toshiba, and Samsung were categorized as brands with a broad product portfolio, and Apple, Intel, Time Warner, AOL, Microsoft, Fujitsu, Yahoo, Google, and Dell were chosen to embody the brands with a narrow product portfolio. Statistical tests provided support for the significance of the differences between these two groups ($Nr_{Broad\ Portfolio} = 4.49$ vs. $Nr_{Narrow\ Portfolio} = 3.12$; $t = -12.364$, $p < .001$ | $Sim_{Broad\ Portfolio} = 2.95$ vs. $Sim_{Narrow\ Portfolio} = 5.23$; $t = 18.427$, $p < .001$).

In the third step, a sample of 20 students was employed to test the selected brands regarding consumers' attitudinal predisposition, and to assess consumers' associations with these brands. Specifically, participants were asked to indicate their perception of familiarity (from 1 = "not at all familiar" to 7 = "very familiar"), favorability (from 1 = "unfavorable" to 7 = "favorable"), quality (from 1 = "low" to 7 = "high"), and prestige (from 1 = "not at all" to

7 = "very much") with these brands (Aaker and Keller 1990; Bottomley and Holden 2001; Park, Milberg, and Lawson 1991).

Then, once again a free association task was used to scrutinize participants' associations with the presented brands (Brozniarzyk and Alba 1994). Two coder, who were unaware of the real purpose of the study, were asked to classify the outcomes into more functional- or more benefit-driven associations. A comparison between the two coders revealed an agreement of 69% regarding the classifications of the associations.

4 pairs of brands were identified to be especially suitable for further testing. In the high technology category, Apple (benefit brand) and Intel (functional brand) were selected to incorporate the brands with a narrow product portfolio, while Samsung (benefit brand) and IBM (functional brand) were selected to embody the brands with a broad product portfolio. The ratings, summarized in Table 22, showed that subjects held comparable attitudinal predisposition towards these brands ($F = 1.696$, $p = .208$) and were equally familiar with them ($F = .729$, $p = .549$), but significantly differed regarding their associations with them ($Ass_{Apple} = 1.60$ and $Ass_{Samsung} = 1.50$ vs. $Ass_{Intel} = 1.15$ and $Ass_{IBM} = 1.25$ / $t = 3.036$, $p = .007$).

In the service category, AOL (benefit brand) and Microsoft (functional brand) were chosen to incorporate the brands with a narrow product portfolio, while Sony (benefit brand) and Siemens (functional brand) were chosen to embody the brands with a broad product portfolio. The results revealed the desired patterns.

Subjects' attitudinal predispositions towards these brands ($F = .995$, $p = .422$) and their familiarity with them were comparable ($F = .750$, $p = .538$), while their associations showed significant differences ($Ass_{Sony} = 1.50$ and $Ass_{AOL} = 1.50$ vs. $Ass_{Siemens} = 1.25$ and $Ass_{Microsoft} = 1.15$ / $t = -2.689$, $p = .014$).

The results of Pretest 2 are summarized in Table 22.

Table 22: Summary Pretest 2

	Measures	Apple	Intel	Samsung	IBM	Significance
High Technology Brands	Favorability	5.33	4.87	4.60	5.27	F = .545, p = .481
	Quality	4.35	4.75	4.35	4.50	F = .562, p = .648
	Status	4.65	4.70	4.80	4.55	F = .048, p = .833
	Familiarity	4.20	4.80	4.00	4.40	F = 1.800, p = .217

	Measures	AOL	Microsoft	Sony	Siemens	Significance
Service Brands	Favorability	3.83	4.07	4.60	4.27	F = 1.280, p = .291
	Quality	4.25	4.35	5.05	4.90	F = 1.455, p = .262
	Status	4.35	4.25	4.90	4.85	F = .615, p = .455
	Familiarity	4.20	4.80	4.60	4.20	F = .900, p = .371

VI.1.3.3 Pretest 3

Once again a third pretest was conducted to test the chosen stimulus material before applying it to a larger audience. 10 subjects (4 academics and 6 students) were asked to test the appropriateness of the selected stimuli. The interviews were carried out face-to-face, based on the designated questionnaire of the main study, including the selected stimulus material. The informal feedback of these interviews showed that questions and scales were easily understood and that the true purpose of the study remained undetected.

VI.1.4 Procedure

The general procedure in this study resembled the one employed in Study 1. Once again participants were asked to complete a questionnaire as part of an international branding study by marking their answers on seven-point bipolar scales as well as by writing down their thoughts in two thought listing tasks (for the complete questionnaire see Appendix V). The main difference was that subjects in Study 3 were moreover asked to indicate their perception of the broadness of the brands' product portfolios by answering three questions regarding the product portfolios (Dacin and Smith 1994). In average, participants needed about 25 minutes to complete the questionnaire.

VI.1.5 Measures

The set of questions was similar to the one used in Study 1. Yet, the present study moreover included a battery of questions dealing with the parent brands' product portfolios. Specifically, alongside with the from Study 1 well-known constructs for the measurement of consumers' attitudinal predisposition, the measures assessing the adequateness of the stimulus selection, as well as the constructs analyzing consumers' perception of the presented brand extension, participants had to answer three questions regarding the brands' product portfolios. They were asked to indicate (a) on a five-point scale their estimation of the number of products in the parent brand's product portfolio (from 1 = "1 product" to 5 = ">20 products"), (b) on a seven-point scale (from 1 = "low variance" to 7 = "high variance") their perception of quality variance between the offered products of the parent brand, and finally (c) on a seven-point semantic differential scale (from 1 = "dissimilar" to 7 = "similar") the similarity of these products (Dacin and Smith 1994).

As Table 23 shows, Cronbach's alphas of the multi-item measures were sufficiently high, revealing the high reliability of the selected measurement tools.

Table 23: Reliability Checks of the Employed Multi-Item Measures

Measure/Items	**Reliability** (Cronbach's Alpha)
Attitudes towards the Extension (7-point bipolar scales)	a = .8499
Overall Evaluation	
Likelihood to try	
Perceived Quality	
Perceived Fit (7-point bipolar scales)	a = .8049
Similarity	
Complementarity	
Logic	
Skills	
Attitudes towards the Brands (7-point bipolar scales)	a = .8635
Overall Evaluation	
Quality Perception	
Status	

VI.2 Results

Analyses of variance (ANOVAs) were used to assess the adequateness of the selected stimuli as well as to test for the hypothesized effects. Moreover, a linear model was employed to scrutinize the impact of a parent brand's product portfolio on consumer evaluations of brand extensions into RNPs.

VI.2.1 Manipulations Checks

The manipulation checks, summarized in Table 24 and 25, revealed results that were in line with the findings of the earlier studies as well as the pretests. Regarding the degree of innovativeness of the chosen extensions, the outcomes of participants' innovativeness ratings showed that the subjects evaluated the wrist computer ($I_{\text{Wrist Computer}}$= 77.11) significantly more innovative (F = 80.503; p < .001) than the ultra small laptop (I_{Laptop}= 49.61), and the entertainment service ($I_{\text{Entertainment}}$= 75.17) significantly more innovative (F = 84.276; p < .001) than the new digital home TV service ($I_{\text{Digital TV}}$= 44.88).

The test for the adequateness of the selected extension pairs concerning consumers' perception of the difficulty to evaluate these extensions (from 1 = "difficult" to 7 = "easy") revealed no significant differences between the INP and the RNP within the high technology pair (F = 2.246, p = .137), as well as no significant differences between the services within the service pair (F = .160, p = .690). Similarly, subjects showed no significant differences regarding their judgments of how uncertain they felt while evaluating the presented extensions (high technology pair: F = .463, p = .497; service pair: F = .090, p = .765).

Regarding the appropriateness of the developed product descriptions and ads, the results revealed no significant differences on the previously discussed dimensions between the extensions in the high technology category (overall evaluation of the product description: F = .822, p = .366; potential problems in understanding the product description: F = .159, p = .691; perception of the ad's complexity: F = .197, p = .658; difficulty to comprehend the ad: F

= 1.610, p = .207; evaluation of the degree of realism of the ad: F = 1.490, p = .225) as well as no significant differences for the services within the service category (overall evaluation of the service description: F = 2.347, p = .128; potential problems in understanding the service description: F = 2.025, p = .157; perception of the ad's complexity: F = .046, p = .831; difficulty to comprehend the ad: F = .874, p = .352; evaluation of the degree of realism of the ad: F = .325, p = .570). Table 24 summarizes these outcomes.

Table 24: Summary Manipulation Checks - Products, Ads, and Descriptions

		Measures	INP/ Functional	RNP/ Benefit	Significance
High Technology Product Pair UPC vs. Wrist Computer	**Product**	Innovativeness	49.61	77.11	F = 80.503, p < .001
		Attitudes	4.25	4.17	F = .060, p = .807
		Difficulty to Evaluate	3.32	2.90	F = 2.246, p = .137
		Perceived Uncertainty	4.06	3.87	F = .463, p = .497
	Ads & Descriptions	Overall Evaluation	5.15	4.93	F = .822, p = .366
		Understandability	3.38	3.27	F = .159, p = .691
		Complexity	3.62	3.75	F = .197, p = .658
		Comprehensibility	5.38	5.03	F = 1.610, p = .207
		Realism	4.13	3.76	F = 1.490, p = .225
Service Pair Entertainment Service vs. Digital Home Television	**Product**	Innovativeness	44.88	75.17	F = 84.276, p < .001
		Attitudes	4.59	4.70	F = .121, p = .729
		Difficulty to Evaluate	4.25	4.36	F = .160, p = .690
		Perceived Uncertainty	4.27	4.36	F = .090, p = .765
	Ads & Descriptions	Overall Evaluation	5.18	5.55	F = 2.347, p = .128
		Understandability	3.56	3.97	F = 2.025, p = .157
		Complexity	4.50	4.57	F = .046, p = .831
		Comprehensibility	5.24	5.46	F = .874, p = .352
		Realism	4.36	4.52	F = .325, p = .570

Regarding the adequateness of the selected brands, the manipulation checks showed no significant differences in participants' favorability ratings in the high technology category (F = .583, p = .447) as well as in the service category (F = 1.581, p = .262). Similarly, participants evaluations of the brands' quality (high technology category: F = 2.056, p = .154; service category: F = 1.300, p = .256) as well as their perception of the brands' status (high technology category: F = 1.387, p = .241; service category: F = .272, p = .603) revealed no significant differences between the chosen brands. Finally, an analysis of participants'

familiarity showed that participants were equally familiar with these brands (high technology category: $F = .158$, $p = .692$; service category: $F = .538$, $p = .465$).

Next, participants had to indicate how innovative the presented brands are and what they associate with these brands. Regarding the former, the results again revealed no significant differences for the high technology brands ($F = .838$, $p = .362$) as well as for the service brands ($F = .148$, $p = .701$). Regarding the latter, the outcomes also revealed the desired pattern of results. In detail, the analysis of the previously discussed open thought listings revealed that subjects had significantly more benefit associations ($F = 27.585$, $p < .001$) with Apple ($Ass_{Apple} = 1.40$) and Samsung ($Ass_{Samsung} = 1.38$) compared to Intel ($Ass_{Intel} = 1.18$) and IBM ($Ass_{IBM} = 1.02$), as well as significantly more benefit associations ($F = 6.125$, $p = .015$) with Sony ($Ass_{Sony} = 1.35$) and Microsoft ($Ass_{Microsoft} = 1.47$) compared to Siemens ($Ass_{Siemens} = 1.07$) and AOL ($Ass_{AOL} = 1.14$).

Finally, it had to be ensured that the manipulation of the brands' portfolio perception was successful. Therefore, participants were asked to first estimate the number of products in the portfolios of the presented parent brands, and then to indicate their opinion regarding the quality variance as well as the similarity of the products in these portfolios. The results revealed the desired patterns. On the previously discussed 7-point scale, participants estimated that the portfolios of Sony, Samsung, IBM, and Siemens include significantly more products than the portfolios of Apple, AOL, Intel, and Microsoft ($F = 11.724$, $p = .001$). Regarding the quality variance between the product in the portfolios, the analysis revealed that subjects evaluated the portfolios as having an comparable variance in the quality of the included products ($QV_{Apple} = 4.90$, $QV_{AOL} = 4.64$, $QV_{Intel} = 4.87$, $QV_{Microsoft} = 4.50$, $QV_{Sony} = 4.85$, $QV_{Samsung} = 4.68$, $QV_{IBM} = 4.69$ $QV_{Siemens} = 4.63$; $F = 1.086$, $p = .300$).

Regarding the similarity between the products in the portfolio, it was revealed that participants evaluated the similarity between the products in the portfolios of Sony ($Sim_{Sony} = 3.82$), Samsung ($Sim_{Samsung} = 3.77$), IBM ($Sim_{IBM} = 3.88$) and Siemens ($Sim_{Siemens} = 3.60$) as

significantly lower (F = 6.948, p = .010) compared to the products in the portfolios of Apple (Sim_{Apple}= 4.75), AOL (Sim_{AOL}= 4.87), Intel (Sim_{Intel}= 4.74), and Microsoft ($Sim_{Microsoft}$= 4.72).

Table 25: Summary Manipulation Checks - Brands

			Apple	Samsung	Intel	IBM	Significance
High Technology Product Pair UPC vs. Wrist Computer	**Brands**	Evaluation	4.58	5.03	4.85	4.80	F = 2.090, p = .158
		Quality	5.48	5.23	5.20	5.07	F = .791, p = .382
		Status	5.29	5.15	5.21	4.87	F = 1.180, p = .286
		Familiarity	4.16	4.82	4.47	4.26	F = 1.487, p = .232
		Innovativeness	5.37	5.24	5.14	5.37	F = .185, p = .670
		Portfolio	3.56	4.38	3.24	4.33	F = 20.204, p < .001
			AOL	**Sony**	**Microsoft**	**Siemens**	**Significance**
Service Pair Entertainment Service vs. Digital Home Television	**Brands**	Evaluation	4.83	5.00	4.66	4.88	F = .409, p = .528
		Quality	4.85	5.13	4.82	5.11	F = .325, p = .573
		Status	4.90	5.14	5.03	5.00	F = .272, p = .603
		Familiarity	4.75	4.97	4.92	4.67	F = .304, p = .585
		Innovativeness	4.47	4.62	4.66	4.56	F = .158, p = .692
		Portfolio	3.19	4.63	3.47	4.67	F = 52.942, p < .001

VI.2.2 Test of Hypotheses

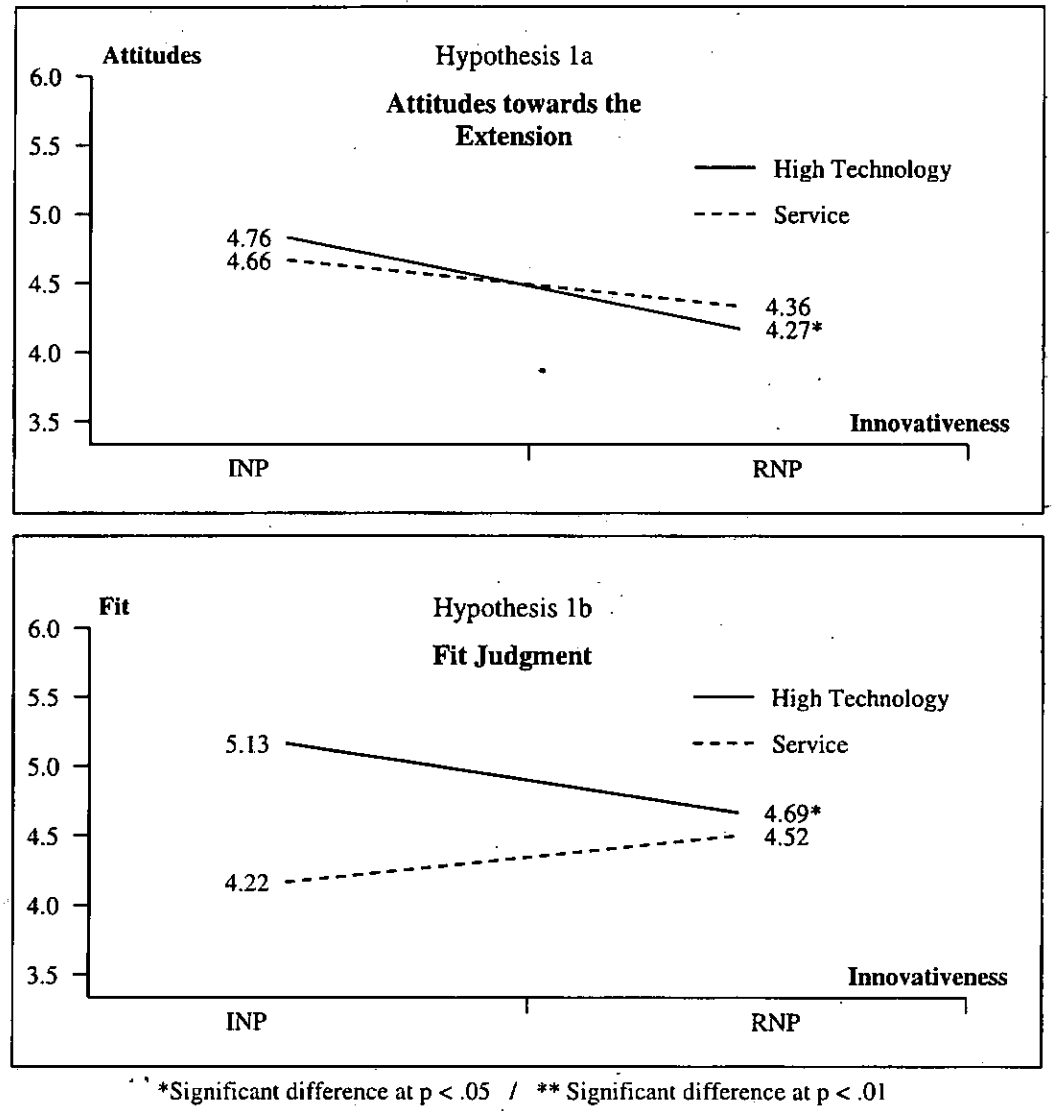
This study had two major aims: first, it analyzed the possible impact of a parent brand's product portfolio on consumer evaluations of brand extensions into RNPs. Second, it was aimed at replicating the results of Study 1. Regarding the latter, the outcomes showed that participants' responses indeed followed the same pattern of behavior as the one observed in Study 1 as long as the proposed extension was a product. However, when the extension was a service almost none of the effects observed in Study 1 were replicated.

As Figure 10 reveals, regarding Hypothesis 1a it was observed that participants in both categories evaluated the extension into a RNP less favorably than the extensions into a INP (high technology category: $E_{Wrist\ Computer}$= 4.27 vs. E_{Laptop}= 4.76; service category: $E_{Entertainment\ Service}$= 4.36 vs. $E_{Digital\ TV}$= 4.66). Yet, only the difference in the high technology category was

significant (F= 5.591, p = .020), while the difference in the service category was not (F = 1.269, p = .262). Thus, Hypothesis 1a was only supported in the high technology category.

The analysis of subjects' fit evaluations revealed similar outcomes. Again the results of Study 1 were replicated in the high involvement category, with participants evaluating the RNP extension (Fit_{RNP}= 4.69) as significantly less fitting (F = 5.893, p = .017) compared to the INP extension (Fit_{INP}= 5.13). However, in the service category no significant differences in subjects' fit evaluations of the INP (Fit_{INP}= 4.22) and the RNP (Fit_{RNP}= 4.52) was found (F = 1.342, p = .249). Hypothesis 1b was hence only supported in the high technology category.

Figure 10: Results Hypothesis 1a and 1b across Categories



*Significant difference at p < .05 / ** Significant difference at p < .01

As Table 26 shows, only the analysis of the transferred information revealed similar results in the different categories. In the high technology category, subjects recalled significantly more attributes when they had evaluated the laptop compared to the wrist computer ($F = 10.261$, $p = .002$). And in the service category, subjects also transferred significantly more attribute information from the parent brand to the extension if the extension was a INP ($F = 12.518$, $p = .001$). Consequently, Hypothesis 1c was supported in both categories and hence the results of Study 1 regarding participants' transfer of information replicated.

Table 26: ANOVA Results – Hypotheses 1a-c

	H 1a		Sum of Squares	df	Mean Square	F	Significance
Product Pair	$E_{Laptop\ vs.}$ $E_{Wrist\ Computer}$	Between Groups	7.248	1	7.248	5.591	.020
		Within Groups	158.153	122	1.296		
		Total	165.401	123			
Service Pair	$E_{Pay\ TV\ vs.}$ $E_{Entertainment}$	Between Groups	2.569	1	2.569	1.269	.262
		Within Groups	236.940	117	2.025		
		Total	239.509	118			

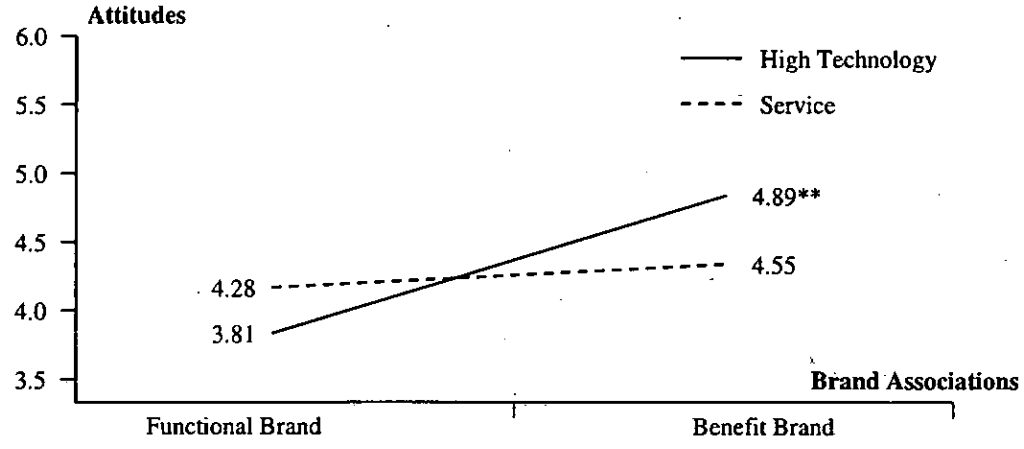
	H 1b		Sum of Squares	df	Mean Square	F	Significance
Product Pair	$Fit_{Laptop\ vs.}$ $Fit_{Wrist\ Computer}$	Between Groups	5.846	1	5.846	5.893	.017
		Within Groups	118.033	119	.992		
		Total	123.878	120			
Service Pair	$Fit_{Pay\ TV\ vs.}$ $Fit_{Entertainment}$	Between Groups	2.577	1	2.577	1.342	.249
		Within Groups	215.177	112	1.921		
		Total	217.754	113			

	H 1c		Sum of Squares	df	Mean Square	F	Significance
Product Pair	$Transfer_{Laptop\ vs.}$ $Transfer_{Wrist\ Computer}$	Between Groups	1.684	1	1.684	10.261	.002
		Within Groups	12.803	78	.164		
		Total	14.487	79			
Service Pair	$Transfer_{Pay\ TV\ vs.}$ $Transfer_{Entertainment}$	Between Groups	2.191	1	2.191	12.518	.001
		Within Groups	12.253	70	.175		
		Total	14.444	71			

These divergent outcomes found their continuation in the testing of the in Hypotheses 2a-d proposed effects. In the high technology category subjects evaluated the extension into the wrist computer significantly more favorable when the parent brand was a benefit brand

($E_{Benefit}$= 4.89) compared to a functional brand ($E_{Functional}$= 3.81), hence supporting Hypothesis 2a (F = 14.756, p < .001). Yet, if the extension was from a service category, no significant differences in participants' evaluations were found (F = .452, p = .504). They evaluated the proposed revolutionary entertainment service only slightly more favorable if the parent brand was a benefit brand ($E_{Benefit}$= 4.55) compared to the case when the parent brand was a functional brand ($E_{Functional}$= 4.28). Figure 11 visualizes the different outcomes.

Figure 11: Results Hypothesis 2a – Attitudes towards RNP Extensions Across Brands



* Significant difference at p < .05
** Significant difference at p < .01

Hypothesis 2b, which hypothesized that if the parent brand is a benefit brand, brand extensions into RNPs will result in significantly less attribute transfer, was also only supported in the high technology category (F = 6.808, p = .013). In the service category, participants' transfer of attribute information was not significantly affected by the parent brand's positioning (F = .062, p = .805).

Finally, Hypothesis 2c was tested. Since no support for the effects proposed in Hypothesis 2a were found in the service category, testing for Hypothesis 2c, which postulated that the in Hypothesis 2a proposed positive effect of using a benefit brand over a functional

brand as the parent brand on consumer evaluations is significantly more positive for brand extensions into RNPs than for brand extensions into INPs, was superfluous. In the high technology category, the findings replicated the results of Study 1. The outcomes showed that participants evaluated extensions into INPs significantly more favorably ($F = 4.866$, $p = .033$) when the used parent brand was a functional brand ($E_{Functional} = 4.96$) compared to a benefit brand ($E_{Benefit} = 4.32$). If the parent brand was a benefit brand ($E_{Benefit} = 4.89$), participants evaluated brand extensions into RNPs significantly more favorable ($F = 14.756$, $p < .001$) compared to a functional brand ($E_{Functional} = 3.81$). Thus, Hypothesis 2c was supported in the high technology category. Table 27 summarizes the results of testing for Hypotheses 2a through c.

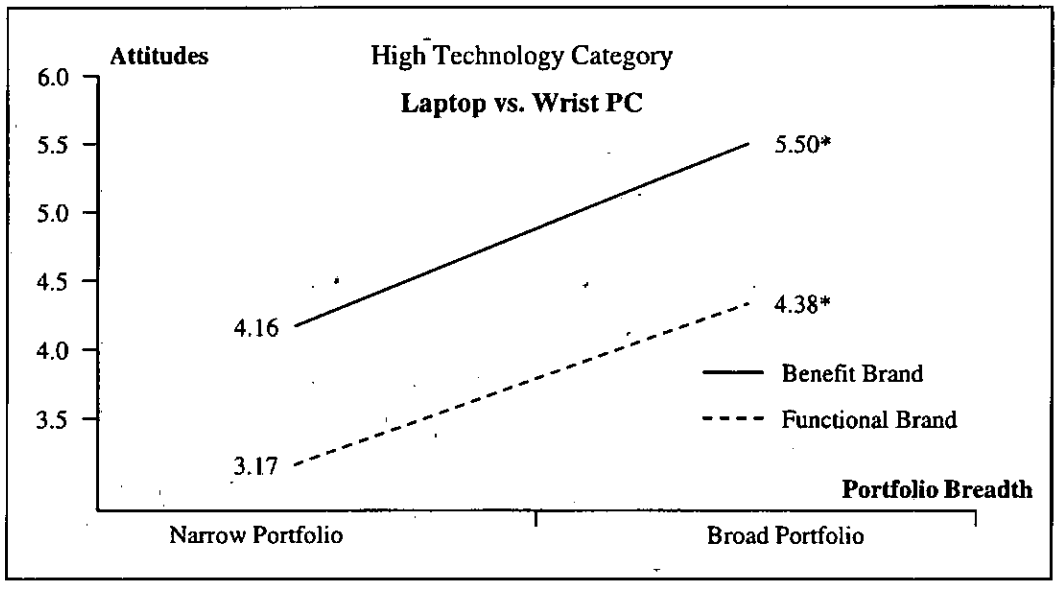
Table 27: ANOVA Results – Hypotheses 2a-c

	H 2a		Sum of Squares	df	Mean Square	F	Significance
Product Pair	$E_{Laptop\ vs.}$ $E_{Wrist\ Computer}$	Between Groups	19.115	1	19.115	14.756	.000
		Within Groups	84.202	65	1.295		
		Total	103.317	66			
Service Pair	$E_{Pay\ TV\ vs.}$ $E_{Entertainment}$	Between Groups	1.148	1	1.148	.452	.504
		Within Groups	159.940	63	2.539		
		Total	161.087	64			
	H 2b		**Sum of Squares**	**df**	**Mean Square**	**F**	**Significance**
Product Pair	$Transfer_{Laptop\ vs.}$ $Transfer_{Wrist\ Computer}$	Between Groups	1.459	1	1.459	6.808	.013
		Within Groups	8.141	38	.214		
		Total	9.600	39			
Service Pair	$Transfer_{Pay\ TV\ vs.}$ $Transfer_{Entertainment}$	Between Groups	.016	1	.016	.062	.805
		Within Groups	8.044	31	.259		
		Total	8.061	32			
	H 2c		**Sum of Squares**	**df**	**Mean Square**	**F**	**Significance**
Product Pair	$E_{Functional\ Brand\ vs.}$ $E_{Benefit\ Brand}$	Between Groups	3.836	1	3.836	4.866	.033
		Within Groups	30.744	39	.788		
		Total	34.580	40			

The second major aim of Study 3 was the analysis of the impact of the parent brands' product portfolios on consumer evaluations of extensions into RNPs. Since the analysis of this

sort of extensions into services has revealed no effects, it was decided to focus the analysis on the high technology category. Hypothesis 4 proposed that the favorability of consumer evaluations of RNP brand extensions will be positively related to the breadth of the parent brands' product portfolios. As Figure 12 reveals, the results supported this reasoning.

Figure 12: Results Hypothesis 4 – Attitudes towards RNPs across Brand Portfolios



* Significant difference at $p < .05$
** Significant difference at $p < .01$

In detail, participants evaluated the proposed extension into a wrist PC significantly more favorable ($F = 26.218$, $p < .001$) when the parent brand was Samsung ($E_{Benefit/Broad} = 5.50$), representing a benefit brand with a broad portfolio, compared to Apple ($E_{Benefit/Narrow} = 4.16$), embodying a benefit brand with a narrow portfolio. Similar outcomes were observed with functional brands as parent brands. Specifically, subjects' ratings of the wrist PC were significantly more favorable ($F = 12.447$, $p = .001$), if the parent brand was IBM ($E_{Functional/Broad} = 4.38$), incorporating a functional brand with a broad portfolio, compared to Intel ($E_{Functional/Narrow} = 3.17$), representing a functional brand with a narrow portfolio. Table 28 reveals the details.

Table 28: ANOVA Results – Hypothesis 4

H 4				Sum of Squares	df	Mean Square	F	Sig.
Benefit Brand	$E_{Wrist\ Computer}$	Narrow vs. Broad Portfolio	Between Groups	14.869	1	14.869	26.218	.000
			Within Groups	17.582	31	.567		
			Total	32.451	32			
Functional Brand	$E_{Wrist\ Computer}$	Narrow vs. Broad Portfolio	Between Groups	14.024	1	14.024	12.447	.001
			Within Groups	40.561	36	1.127		
			Total	54.585	37			

Moreover, a linear model supported this reasoning. It revealed that only the parent brand's associations (F = 6.133, p = .013) as well as the parent brand's portfolio broadness (F = 6.909, p = .017) had a significant impact on consumer evaluations of the wrist PC, while classic favorability indicators such as the fit between the extension and the parent brand stopped short of explaining participants' evaluations (F = 1.327, p = .268). Interestingly, the analysis also revealed an only slightly insignificant positive interaction between the parent brand's portfolio broadness and its associations (F = 3.313, p = .085), supporting the present argumentation that a broad portfolio might be helpful in abstracting a brand's associations.

Table 29: Linear Model – Hypothesis 4

Dependent Variable: Consumer Evaluations

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	83,587	44,000	1,900	2,178	.034
Intercept	729,986	1,000	729,986	836,907	.000
ASSOC * PORTFOL	2,890	1,000	2,890	3,313	.085
ASSOC * FIT_HT	7,965	8,000	0,996	1,141	.382
PORTFOL * FIT_HT	5,930	8,000	0,741	0,850	.572
ASSOC	5,349	1,000	5,349	6,133	.023
PORTFOL	6,026	1,000	6,026	6,909	.017
FIT_HT	25,471	22,000	1,158	1,327	.268
Error	16,573	19,000	0,872		
Total	1284,667	64,000			
Corrected Total	100,160	63,000			

R^2 = .835

VI.3 Discussion

Study 3 had two major aims. On the one hand, it was aimed at answering the question of how a parent brand's product portfolio characteristics may moderate consumers' use of analogical learning processes in brand extensions and hence influence a brand's ability to extend into RNPs. On the other, it was aimed at replicating the results of Study 1 with different brands as well as with services as a new extension category, hence enhancing the external validity of the present dissertation's findings.

Regarding the former, the present analysis was intended at extending the findings of Study 1, which has focused itself on testing brands with comparable product portfolio. By this means, it has neglected the potential impact of differences in the broadness of the brands' product portfolios on the herein examined extensibility into RNPs. However, since today's brands are most often affiliated with a portfolio of diverse products or services, the influence of a parent brand's product portfolio on its extensibility into RNPs deserved some further elaboration in Study 3.

The results of the present analysis supported this reasoning. They revealed that participants indeed rated extensions into RNPs more favorably if the underlying parent brand had a broad brand portfolio compared to the case when the parent brand had a narrow product portfolio. It was also shown that participants evaluating an extension from a parent brand with a broad portfolio transferred significantly less attribute information than their counterparts evaluating the same extension from a parent brand with a narrow portfolio.

Regarding the latter, however, the findings were mixed. While the results in the high technology category resembled the results of Study, the results in the service category did not. In more detail, for the high technology category the results basically replicated the findings of Study 1: participants evaluated brand extensions across all presented extensions more favorable for INPs compared to RNPs. The analyses of participants' perception of fit between the extension products and the parent brands showed that RNPs were indeed evaluated as less

fitting than INPs. And the analysis of the transferred information revealed that one of the main reasons for this outcome was a lack of attribute similarity between the two entities. Regarding the potential impact of brand associations it was shown that participants evaluated brand extensions into RNPs as well as the underlying fit between the extension product and the brand more positive if the parent brand was a benefit brand rather than a functional brand. And the analysis of participants' processing behavior revealed that participants, who evaluated a brand extension into a RNP with a benefit brand as the parent brand, engaged in significantly more analogical processing compared to participants, who evaluated the same brand extension with a functional brand as the parent brand (Hypothesis 2c). In doing so, the benefit brands were again capable of overriding the lack of fit on the classic fit dimensions by inducing analogical learning processes into consumers' minds.

In the service category, however, the pattern of results revealed a different picture: first, subjects' evaluations of brand extensions in this category were equally favorable for INPs and RNPs and hence stood in contrast to the previously postulated view that RNPs' inherent distance to their parent brand may lead to unfavorable outcomes in consumers' evaluations. Second, the differences of participants' judgments of the extensions' fit were not significant between the INS and RNS, contradicting previous research's proposition that INS will have significantly lower fit scores. And third, the analysis of the transferred information also revealed a high similarity regarding the transferred information. Consequently, the question appeared, what is so special about service extensions?

The analysis of the transferred information points to a possible answer to this question. As seen in the literature review of analogical learning theory, one of the characteristics of analogical learning is that it needs to be activated, because consumers intuitively rely on categorization effects when they learn about new products (Gick and Holyack 1980; Gregan-Paxton and Moreau 2003). In the present study, as long as the extensions had been products, participants followed this pattern of behavior and indeed relied on categorization effects when

they evaluated the herein presented extensions. However, in the case the extensions were services, a different pattern of behavior was observed. Participants suddenly evaluated radical service innovations equally favorable than their incremental counterparts. They perceived both groups as equally good fitting. And they transferred the same information, i.e., despite theory's predictions, analogical learning has taken place without the specific activation by a benefit brand.

Therefore, the central question in the present context has become what happens if the object of interest activates the analogical learning processes without the help of a benefit brand or the like. This means what happens if the object has a stimulating character per se and invites the subject to pay attention to its relational aspects. Apparently in the present context, the activation was necessary if the extension was a product and unnecessary if the extension was a service. So, what could be the essential difference between these two groups?

Taking a closer look at the most common characteristics of these two groups of extensions gives a hint of the underlying processes that may have caused these differences. It appears that the product has a more functional, material character while the service has a more relational, immaterial character. And this exactly means that consumers, when analyzing an extension into a service, cannot rely on a material object but have to think about what this immaterial good does for them, i.e., how it relates to them. And this may have automatically activated the analogical learning processes in the present case, which would explain the non-significant differences between RNPs and INPs in this category.

The data supports this reasoning. As mentioned earlier, one of the most effective ways to analyze consumers' learning preferences is to scrutinize the processed information. In this study, it was revealed that in the case if the extension was a product, people transferred more functional information and neglected the relational aspects. However, in the case if the extension was a service, this difference was not detected, pointing to the fact that there were no significant differences in subjects' learning mechanism for the INP and the RNP, hence

supporting the present reasoning. Similarly, while participants evaluating the fit between the parent brand and a product extension showed significant differences in their evaluations of the RNP compared to the INP, such a difference was not found when the extension as a service.

In sum, the outcomes of Study 3 revealed three key findings: first, the findings of the present dissertation hold across different brands and extensions categories if the extension object is a product. Second, they do not hold for extensions into services. Finally third, the broadness of a parent brand's product portfolio has a significant positive impact on participants' evaluations of brand extensions into RNPs and hence can be indeed a key factor when it comes to the success potential of these extensions.

Chapter VII: Concluding Section

As mentioned in the introduction to this work, today the importance of brands is undisputed in companies as well as in academic literature. Ever since Aaker (1996) and several other researchers in the field of branding have unveiled the real value of a brand to a broader audience, there is an ever-increasing awareness that an established brand can be one of a company's most valuable assets (Buchanan, Simmons, and Bickart 1999; Keller 1993; Park and Srinivasan 1994). Consequently, a significant body of research has developed around the issue of how a company can fully leverage the potential of this asset. A key focus has been on the question of how far a brand can be stretched (Bottomley and Holden 2001).

The fundamental insight to arise from these past efforts is that consumer's perception of similarity and resemblance between the parent brand and the extension product is the crucial determinant for the success of brand leveraging strategies. This is because, following previous research, it is finally the product's classification as a member of the parent brand's category that determines the essential transfer of knowledge between the two entities, which then significantly impacts consumers' reactions to the extension (Aaker and Keller 1990; Keller and Aaker 1992; Park, Milberg, and Lawson 1991).

Influencing brand theory and the field over the past decades, this central proposition of brand research has been bad news for growth-oriented managers, because it has suggested that only extensions that are close to the parent brand are fruitful growth opportunities. The herein discussed radical innovations, in contrast, have been assumed to be rejected by brand-driven growth approaches, because they are by definition like nothing consumers may have seen before and hence cannot be categorized as being close in proximity to the parent brand's product category. Thus, following previous research, this makes them unlikely to benefit from any affect spill-over from the parent brand and hence unattractive growth opportunities (Aaker and Keller 1990).

The question yet remains, if this insight from brand research is really accurate how could one possibly explain the previously mentioned highly successful examples of RNP extensions? How can an iPod introduced by Apple become the market leader in portable music devices, even though the company is ultimately known to be a computer maker? How can a consumer electronics producer like Bang & Olufson be so successful with a medical innovation like the Insulin pen? And why is Virgin, a company that originated from the music industry, conquering space with a travel service that does not even exist yet?

Clearly, there appears to be a discrepancy between theory and field regarding the question of how far a brand can be extended. All of the herein presented examples have indicated that brand extensions into RNPs can be more rewarding as brand theory has so far suggested. As a result, more research on a brand's extensibility into RNPs was needed. Consequently, the primary aim of this dissertation has been to cast new light into this impending question by analyzing brand-driven growth strategies into RNPs. Starting from a comprehensive analysis of existing literature on brand leveraging strategies as well as extant theory on RNPs, this work started with an assessment of the current status quo. Based on this analysis several hypotheses were generated as well as a new learning paradigm introduced. Three studies were conducted, representing the first empirical examinations of brand-driven growth strategies into radical innovations.

The purpose of this concluding section now lies in summarizing the results of these efforts. The following paragraphs will thus sum up the outcome of the theoretical discussion as well as present the results of the empirical part of this work. Theoretical and practical implications will be highlighted before possible limitations and future areas of study will be discussed. Finally, a brief conclusion will recapitulate the findings.

VII.1 Overall Discussion

The findings of this dissertation arise, broadly speaking, from two areas: first, a comprehensive discussion of theory, which assessed today's accepted practices of brand leveraging strategies in the light of radical innovations and reviewed latest developments in consumer learning theory. Second, the results of three empirical studies, in which the theoretical assumptions and hypotheses of this work were tested.

VII.1.1 The Theoretical Analysis

As the literature review has revealed, a considerable amount of research has been conducted around the issue of how far a company can successfully leverage its brand. One of this work's opening tasks was therefore to examine whether the outcome of those research efforts are capable of dealing with RNPs.

Certainly on the positive side of this analysis, lies the fact that research on brand-driven growth strategies as well as radical innovations is today regarded as one of the top priorities in marketing academia. This means that these fields do not only offer rich guidelines for the present analysis, but also allow this argumentation to be built on an exceptional solid theoretical foundation.

With research interests ranging from consumer evaluations of brand extensions (Aaker and Keller 1990; Brozniarzyk and Alba 1994; Dacin and Smith 1994; Keller and Aaker 1992; Park, Milberg and Lawson 1991) to context effects of brand alliances (Levin and Levin 2000; Simonin and Ruth 1998) as well as the assessment of potentially harmful effects of leveraging strategies on parent brands (Gürham-Canli and Maheswaran 1998; Loken and Roedder John 1993; Rao, Qu, and Rueckert 1999), the examination of brand-driven growth strategies has been one of the most dominant streams in marketing research for the last decade (Bottomley and Holden 2001; Klink and Smith 2001; Lane 2000; Meyvis and Janiszewski 2004). As a

result, today's brand theory offers rich insights into cognitive as well as emotional aspects of consumers' reactions to brand leveraging strategies.

Research on radical innovations on the other hand, has recently occupied top positions in the annual research priority lists of the leading marketing research institutes. With the ever-accelerating pace of technological change pushing an increasing number of highly innovative product introductions into the market, awareness about the importance of research on these type of innovations in marketing issues has tremendously increased over the last years (Gregan-Paxton, Hibbard, Brunel, and Azar 2002; Hoeffler 2004). Today, topics span such diverse issues as consumer reluctance towards adaptation (Aggrawal, Cha, and Wilemon 1998; Mahajan, Muller, and Bass 1990), difficulties in pre-market forecasting (Hoeffler 2004), as well as consumer knowledge development about these products (Gregan-Paxton, Hibbard, Brunel, and Azar 2002; Urban, Weinberg, and Hauser 1996). Clearly, even though research on radical innovations has only started to pick up, the already existing studies with their findings regarding consumers' reactions to RNPs offer a sufficient basis for the present analysis.

With both underlying fields being regarded as top research priorities and subject to numerous empirical examinations, this dissertation could build its argumentation on an exceptionally solid theoretical foundation. From information processing aspects (Anand and Sternthal 1990; Cohen and Basu 1988; Reddy, Holak, and Bhut 1991) to information selection issues (Alba and Hutchinson 1987; McGill and Anand 1989), from cognitive elaboration (Petty and Cacioppo 1986; Nisbett and Ross 1988) to emotional impact (Bagozzi, Gopinath, and Nyer 2004; Holbrook and Hirschman 1982), from high involvement buying decisions to impulsive buying behavior (Furse, Punj, and Stewart 1984), the present reasoning could rely on rich methods and guidelines in two extensively researched fields in marketing.

However, on the negative side, it has to be stressed that despite the large amount of research on brand leveraging strategies and the classification of RNPs as top research

priorities, no attempts have so far been made to bring these two research streams together. In doing so, it has been implicitly suggested that the existing brand theory can be adapted one by one to the RNP field and that hence no tailored propositions of how to handle radical innovations in the context of brand-driven growth strategies are needed.

To recall, the central idea behind leveraging an existing brand into a new product has been that consumers learn about an extension by using their existing knowledge of the parent brand. By doing so, they are assumed to transfer their associations and affect with the brand to the extension based on the belief that the latter is a member of the brand's category. The underlying learning paradigm to explain this behavior has been categorization theory, which proposes that the knowledge transfer between the parent brand and the extension primarily depends on the level of product fit between these two entities: i.e., if an extensions is regarded as fitting, it will be categorized in the parent brand's category. And only if it is categorized in the parent brand's category, can knowledge be transferred between the two entities (Aaker and Keller 1990; Cohen and Basu 1987).

Radical innovations are by definition non-fitting in this classic sense, because they tend to defy straightforward classification in existing product categories (Gregan-Paxton and Moreau 2003). As a result, today's theory has suggested to neglect this type of innovation when it comes to brand-driven growth strategies and to focus efforts on incremental and hence fitting extensions (Aaker and Keller 1990; Smith and Andrews 1995). However, by doing so, brand theory has nurtured a strong tendency towards incrementalism in the field, putting stringent restrictions on companies' growth ambitions by preventing them from exploiting the full continuum of growth opportunities (Lane 2001; Smith and Andrews 1995).

In general, there is nothing wrong about launching incremental new products under an existing brand name into the marketplace. Modest improvements of existing products and services have often generated solid revenues (Reddy, Holak, and Bhut 1991). Yet, it is the exclusive focus on this side of the innovativeness continuum paired with the complete neglect

of the other side that has to be questioned. Given that recent studies have indicated that it might be radical innovations which can give companies a competitive advantage and hence the opportunity to stay healthy and grow throughout the years, to ignore this sort of innovations in brand-driven growth strategies is likely to result in shortcomings and lead to an environment in which the biggest innovations will be rejected for an existing brand despite the company's need for innovation (Christensen 2002; Hamel and Getz 2004; Nalebuff and Ayres 2003; Slywotzki and Wise 2002).

So, why not simply overcome this deficiency of brand theory by adapting today's branding guidelines to the requirements of radical innovations? Why not simply modify existing brand theory, so that it can cope with all alternatives along the innovativeness continuum? Put succinctly: it is not possible based on the existing theoretical underpinnings.

In detail, as mentioned earlier, at the very core of today's brand leveraging theory is a learning paradigm that explains learning as a by-product of the way consumers categorize information: categorization theory (Cohen and Basu 1987). It suggests that consumers cope with the daily information load by categorizing the incoming information in existing categories in their minds, using their obtainable knowledge to facilitate learning about the new stimuli. Thus, the central prerequisite for categorizational learning is that the new stimuli are perceived as similar to an existing category in a consumer's mind. This similarity is determined in the mapping stage of the learning process, in which it is decided whether already existing knowledge can be transferred from the familiar base to the target (Gregan-Paxton and Roedder John 1997). And here lies one of the main problems of existing theory: with its focus on a literal similarity comparison at this stage, today's theory is unable to explain learning between disparate knowledge structures and hence to deal with RNPs.

Considered in more detail, categorization theory proposes a consumer learning that maximizes within category similarity and minimizes between category similarity based on attributes and relations. As a result, categorization theory favors knowledge transfer between

categories that are close to each other and rejects consumer learning between categories that are rather distant to each other. RNPs, however, are by definition distant, because they are like nothing consumers may have seen before and hence tend to defy straightforward classification in any existing category (Aaker and Keller 1990; Gregan-Paxton and Roedder John 1997; Keller and Aaker 1992; Park, Milberg, and Lawson 1991). Consequently, despite several contradicting examples in the field, categorization theory denies any significant learning effects between brands and this type of extensions, because it simply cannot explain them. Brand practice has hence relied on a learning paradigm that is, by definition, not capable of dealing with them. Therefore, it is likely that today's theory stops short in providing an adequate theoretical framework to explain these type of innovations.

In sum, this work has reviewed the dominant theoretical guidelines of how a successful extension should look like. On the positive side of this analysis, it has been revealed that the present dissertation can build on literature in one of the richest research streams in brand management and addresses with RNPs one of the current research priorities in the marketing field. On the negative side, however, it has been shown that, despite the considerable amount of research on brand leveraging strategies, no attempts have so far been made to analyze RNPs in this context. Moreover, it has been revealed that today's brand guidelines have been developed based on a learning paradigm that is incapable of explaining knowledge transfers between disparate structures. Thus, previous research has not only left this dissertation without any customized suggestions of how to handle radical innovations in the context of brand-driven growth strategies, but also with a learning paradigm that is, by definition, unable to explain brand leveraging strategies into RNPs.

VII.1.2 The Empirical Results

This dissertation has presented the results of three studies. Study 1 tested today's conventional brand management wisdom in the context of radical innovations and examined the impact of

certain brand associations on a brand's extensibility into RNPs. Study 2 broadened the empirical analysis to also include co-branding strategies, hence analyzing the potential of coupling a brand with another brand in the context of RNPs. Study 3 replicated the results of Study 1, extended the field of study to radical services, and moreover examined the impact of product portfolio breadth on brand-driven growth strategies into radical innovations.

Considered more closely, the aim of Study 1 was first to empirically analyze current brand management's proposition that brand extensions into RNPs will generally be evaluated less favorably than extensions into INPs. Second, the study scrutinized if differences in evaluation can be explained by a perceived lack of fit as well as a significantly lower transfer of attribute information between the parent brand and the extension as suggested by previous research (Aaker and Keller 1990; Cohen and Basu 1987). Third, the impact of different brand associations on the outcomes was assessed. And fourth, participants' information processing behavior and learning preferences were scrutinized.

Six extensions ranging from incremental innovations including a state-of-the-art mobile phone, an innovative sports car and an ultra small laptop to radical innovations including a PDA/mobile phone watch, a futuristic mobility concepts and a revolutionary wrist PCs were analyzed for six different parent brands with Apple, Nokia, and Mercedes incorporating the benefit brands and IBM, Siemens Mobile and BMW incorporating the functional brands.

At a first glance, the results appeared to support previous research's central propositions: participants indeed evaluated RNP extensions less favorably compared to their INP counterparts, the underlying fit perception was worse for the former compared to the latter, and subjects also transferred significantly less attribute information for the RNP extensions compared to the INP extensions.

Yet, a more differentiated analysis of the outcomes, that acknowledged differences in participants' associations with the parent brands, showed that previous research's propositions

may have been too rudimentary to reflect all facets of brand-driven growth and RNPs. This is because after the outcomes were divided into two groups based on participants' associations with the underlying parent brands (benefit brands vs. functional brands), the analysis revealed a different picture. The pattern of results now showed that the previously discussed differences between RNP extensions and their INP counterparts disappeared if the parent brand was a benefit brand. Clearly, these divergent outcomes in the two groups indicated that the parent brand's positioning may play a so far neglected yet decisive role in the present context.

To further investigate this phenomenon, a closer look at consumers' learning preferences as the main determinant in consumer evaluations of brand extensions was necessary. Two of the most important indicators of consumers' learning preferences were analyzed, the transferred information and participants' fit perceptions (Gregan-Paxton and Moreau 2003). The results of this analysis revealed that participants' learning preferences indeed changed dependent on the parent brand's positioning. It was observed that subjects who evaluated a RNP extension based on a benefit parent brand transferred significantly less attribute information between the two entities, compared to the case when the parent brand was a functional brand. Moreover, participants also evaluated the presented RNP extensions as significantly better fitting if the underlying parent brand was a benefit brand. Both outcomes indicated that participants no more evaluated the similarity between the two entities based on attributes and relations as proposed by categorization theory, but rather solely based on relations as proposed by analogical learning theory (Gregan-Paxton 2001).

These findings stood in contrast to existing research which has suggested that extensions into RNPs are very likely to be evaluated less favorably than their INP counterparts (Aaker and Keller 1990). Moreover, they challenged the supremacy of categorization effects as the predominant learning paradigm in brand extension research (Bottomley and Holden 2001) and hence indicated that the similarity between an extension

and its parent brand might not always be a sufficient predictor of consumer reactions to a RNP extension. The parent brand's positioning may play an equally crucial role in this context.

Study 2 was devoted to the assessment of a second, strongly emerging brand leveraging strategy: co-branding. Starting point of reasoning in this study were the findings of Study 1 regarding the beneficial impact of relational associations. The main purpose of Study 2 was to analyze the question whether the presence of a second brand might be capable of adding relational associations to a parent brand, which initially lacks these associations. The motivation herein was to understand whether and how different combinations of brand associations within a co-branding effort may impact consumer evaluations of brand extensions into RNPs.

The results showed that participants' associations with the brands in the alliance indeed had a significant impact on consumer evaluations of the presented RNP extensions. Specifically, it was revealed that brand extensions into RNPs were evaluated more favorably if the underlying brand alliance included at least one benefit brand. In addition, the concrete impact of adding a benefit brand to a functional parent brand compared to adding a benefit brand to a benefit parent brand was analyzed. The results showed that the effect for the former case was significantly more elaborate than for the latter.

To examine the underlying reasons, Study 2 again analyzed participants' transfer of information. The results of this assessment resembled the pattern of results of Study 1 when subjects transferred significantly less attribute information if the parent brand was a benefit brand. This time, however, it was not a benefit brand being responsible for these effects, but rather a brand alliance containing a benefit brand. The outcomes indicated that the main reason for this beneficial impact of co-branding strategies lay in their ability to add relational associations to a parent brand which lacks these associations.

Study 3 then replicated the results of Study 1 and assessed whether and how a parent brand's product portfolio characteristics may impact consumers' use of analogical learning in brand extension evaluations and hence influence a brand's ability to extend into RNPs. The central research question was whether consumer evaluations of brand extensions into RNPs will be affected by the breadth of the parent brand's product portfolio.

The results of the analysis supported this idea. It has been shown that participants rated extensions into RNPs more favorably if the underlying parent brand had a broad brand portfolio such as Siemens or Sony compared to the case when the parent brand had a narrow product portfolio such as Intel or Dell. Moreover, it was revealed that subjects, who evaluated an extension from a parent brand with a broad portfolio, transferred significantly less attribute information than subjects, who evaluated the same extension from a parent brand with a narrow portfolio.

Besides the replication of the results of Study 1 and the examination of the impact of the breadth of a parent brand's product portfolio on the herein observed results, Study 3 also analyzed brand extensions into radical service innovations (RNS), which was incorporated by a highly innovative entertainment service. Interestingly, the pattern of results revealed significant differences between RNSs and their RNP counterparts. In contrast to the results in the RNP group, subjects' evaluations of brand extensions into services were equally favorable independent of the services' degree of innovativeness. Moreover, the analysis of participants' evaluations of the extensions' fit revealed no significant differences between RNSs and INSs and a high resemblance regarding the transferred information.

The reason for these divergent results between RNPs and RNSs in brand extension strategies appeared to be that the latter are capable of automatically activating an analogical learning process independent of the underlying parent brand. The pattern of results suggested that in the instance when the extension was a service, participants did not reveal the previously observed tendency to initially focus on categorization effects in their learning

preferences. In contrast, the finding actually indicated that participants learnt about RNSs by engaging in analogical reasoning independent from the fact if the parent brands had relational or functional associations. This proposition was supported by the analysis of participants' fit evaluations that revealed no significant differences between the RNP services and their INP counterparts.

In sum, the empirical analysis of the present dissertation has led to several key findings: first, it has been revealed that the often proposed positive relationship between the perceived fit and consumer evaluations of brand extensions as one of the most cited findings in brand extension research is not necessarily an adequate predictor of consumer evaluations when it comes to extensions into RNPs. Second, the results have indicated that the key to a successful introduction of a RNP extension into the market place lays in consumers' associations with the parent brand. Third, it has been revealed that there is another learning paradigm besides categorization theory that is better suited to explain consumer learning in the context of RNPs. Fourth, it has been shown that co-branding can be an attractive strategic option for brand extensions into RNPs, because adding a brand with relational associations can significantly influence consumers' learning preferences. Fifth, the importance of the breadth of a product portfolio on a brand's extensibility has been emphasized by revealing that parent brands with broader portfolios were better suited for extensions into RNPs. And finally sixth, it has been revealed that the success of extensions into RNS does not rely on the parent brand's associations, because this form of extensions is capable of inducing analogical learning processes without the help of relational brand associations.

All in all, the empirical results of this dissertation have not only challenged today's conventional wisdom of how a fitting extension has to look like, but also provided one of the first empirical proofs that a knowledge transfer between seemingly distant parent brands and extensions is possible.

VII.2 Theoretical Implications

This dissertation represents the first empirical analysis of brand-driven growth strategies and radical innovations. It has examined consumer reactions to these form of innovations as well as introduced with analogical learning theory a new learning paradigm to the field of branding that is capable of explaining knowledge transfer between disparate knowledge structures. It is strongly believed that the herein presented results will significantly impact today's brand theory. They will not only change today's theoretical understanding of branding and RNPs, but also push consumer learning beyond categorization theory and offer researchers a radically new understanding of the elasticity of brands.

VII.2.1 Branding and RNPs

As mentioned previously, earlier research on brand leveraging strategies has almost exclusively focused its efforts on examining growth strategies into incremental new products (Aaker and Keller 1990; Bottomley and Holden 2001; Park, Milberg, and Lawson 1991). In contrast, RNPs as potentially valuable extensions on the other side of the innovativeness continuum have been widely neglected, because categorization theory as the dominant learning paradigm in branding has categorized them as incongruent and hence unattractive growth opportunities (Aaker and Keller 1990; Smith and Andrews 1994).

Yet, the results of this dissertation have shown that today's brand theory may need some overhauling regarding its attitude toward RNPs. The herein presented results have revealed that extensions into RNPs do not necessarily fail to support knowledge transfer from the parent brand as suggested by categorization theory, but may actually benefit from consumer learning if only some prerequisites are fulfilled. The critical component to make these learning processes possible appeared to be participant's associations with the parent brand. Whenever participants had relational associations with the parent brand, learning between a RNP extension and the parent brand took place.

But how could learning take place if previous research has explicitly denied consumer learning between disparate learning structures in the context of brand-driven growth strategies (Aaker and Keller 1990; Bottomley and Holden 2001)? Clearly, while being of undisputed value for explaining consumer learning for incremental innovations, today's dominant learning paradigm, categorization theory, apparently stopped short of providing an adequate explanation for the herein observed phenomena. Thus, to understand learning in context of brand-driven growth and RNPs, it was indispensable to introduce with analogical learning a new learning paradigm to the field that does not stop short in explaining knowledge transfer between disparate structures. With this new learning theory in place, it was thus for the first time possible to explain learning between a parent brand and a RNP extension. By this means, the herein presented pattern of results showed that the main reason for previous research's denial of brand extensions into RNPs has not been the special characteristics of these innovations, but rather the incapability of the predominant learning paradigm to explain learning between disparate knowledge structures.

For brand theory these findings have far reaching implications: first, they suggest that RNPs can offer attractive opportunities when it comes to brand-driven growth strategies. Second, they emphasize that categorization theory is not the only learning paradigm capable of explaining learning in brand-driven growth strategies. Third, they reveal that fit between an extension and a parent brand's product category - as the main prerequisite of consumer learning following categorization theory - is not necessarily an adequate predictor of learning when it comes to extensions into RNPs. And finally fourth, with the herein presented results and especially with the newly introduced learning paradigm, brand theory is for the first time able to explain learning between disparate knowledge and hence consumer learning between a parent brand and an incongruent extension.

VII.2.2 Consumer Learning Beyond Categorization Theory

This dissertation has shown that brands can support extension into RNPs if only some prerequisites are fulfilled. Unfortunately, it has also suggested that existing theory and guidelines are of not much help to identify these prerequisites. The key to understand when exactly RNPs might be valuable growth opportunities consequently lies in the herein newly introduced learning paradigm: analogical learning theory.

As mentioned earlier, research on brand-driven growth strategies has so far primarily relied on categorization theory to explain consumer learning in the context of brand-driven growth. Categorization theory however, only supports learning between similar structures and hence suggests that incongruent extensions should not be undertaken. Following categorization theory a knowledge transfer between two disparate entities such as an incongruent extension and a parent brand is not feasible (Cohen and Basu 1987).

This work has now suggested that this hitherto dominant learning paradigm may provide a rather limited direction about consumer learning between parent brands and their extensions throughout the whole innovativeness continuum. It contradicts several successful examples of brands that have extended into RNPs, and stands in clear contrast to the herein observed empirical results. The main reason for the inability of categorization theory to deal with RNPs appears to be its focus on literal similarity comparisons when it comes to the mapping phase in consumer learning: by proposing a consumer learning that maximizes within category similarity and minimizes between category similarity based on attributes and relations, categorization theory favors knowledge transfer between entities that are close to each other and rejects consumer learning between entities that are rather distant to each other (Cohen and Basu 1987).

However, in this dissertation results were observed which indicate that learning between a parent brand and a RNP extension can take place despite the disparate knowledge structures of the two entities. Categorization theory rejected such a knowledge transfer,

because the closely related knowledge structures as the critical catalyst were missing, and hence stopped short in explaining the observed knowledge transfer in the empirical studies of this dissertation. Consequently, one of the main aims of this thesis was to identify and establish a new learning theory that is capable of explaining consumer learning beyond categorization theory.

A review of the literature on consumer learning revealed that there actually is a powerful consumer learning paradigm that appears to be especially suitable to explain knowledge transfer between disparate structures. Similar to categorization theory, this so called analogical learning theory deals with knowledge transfer from one domain to another as a function of the correspondence between the two. However, in contrast to categorization theory, it also allows for knowledge transfer between seemingly disparate knowledge structures, because it relies on a similarity comparison based on relations (Gentner 1989; Gentner and Holyoak 1997; Gregan-Paxton, Hibbard, Brunel, and Azar 2002; Gregan-Paxton and Roedder John 1997). It thus can explain knowledge transfer in situations when there is quasi no face similarity between the base domain and the target object.

The empirical results in this dissertation supported the adequateness of analogical learning theory to elucidate learning in the context of brand-driven growth and RNPs. The analysis of the open thought listings revealed a knowledge transfer between some of the parent brands and the RNP extensions, even though categorization theory suggested that learning between these two entities is impossible. A closer analysis of the transferred information as well as participants' fit perceptions clearly showed that subjects transferred information from the parent brand to the extension based on analogical learning rather than learning by categorization effects.

The central question was now, what finally determines participants' learning preferences? The answer to this question was found in the analysis of the impact of the parent brands' associations. The results indicated that consumers changed their learning behavior

dependent on their association with the parent brand. If the parent brand was a functional brand, they relied on categorization effects to learn about the RNP extension, i.e., they asked themselves what is this and to what is it comparable. If the parent brand was a benefit brand, they engaged in analogical learning, i.e., they asked themselves how does this extension relate to me and my life. This essentially means that based on the parent brand's associations participants appeared to change their similarity comparison procedure from a classic similarity matching approach, as proposed by categorization theory, to an inference process, as proposed by analogical learning theory. In this inference process, consumers then focused their attention less on the face similarity between the parent brand and the extensions, but rather assessed the parent brand's ability to deliver the desired benefits in the extended category.

This means that consumers' perception of the extension basically changed from a rather abstract bundle of attributes to being a means to fulfill an end. And the matching mechanism changed from a literal similarity comparison to the simple question whether the parent brand is capable of delivering the promised benefit of the extension product (Broniarczyk and Alba 1994; Cohen and Basu 1987).

Taken as a whole, the results of this work showed that consumers do not always rely on categorization effects to learn about brand extensions. They are also capable to learn about them with analogical reasoning. These results however, do not imply that categorization theory will become obsolete in brand extension research in the future. On the opposite, it is still a reliable predictor of brand extensions' success for incremental new products. However, what has to be criticized is today's overstated focus on this theory and hence the restrictions introduced to the field (Broniarczyk and Alba 1994; Dacin and Smith 1994; Smith and Andrews 1994). Following the herein observed pattern of results, brand managers have to acknowledge both learning theories if they want to leverage their brands beyond conventional wisdom.

VII.2.3 Towards a New Typology of Fit

Clearly, if consumers are capable of learning about brand extensions into RNPs, as suggested by the empirical results of this study, then it is likely that the current definition of what characterizes a fitting extension has to be reconsidered. Specifically, it is recommended that the emphasis placed today on product-level similarity as the central predictor of learning effects between an extension and its parent brand, has to be revised to incorporate the possibility of a fit that is solely based on relational similarities.

Until today, the starting point of reasoning about brand extension evaluations has been the classic product fit construct, which has been developed based on the assumption that categorization effects are the only relevant learning mechanism in brand research (Aaker and Keller 1990; Bottomley and Holden 2001). Following this classic learning paradigm, which emphasizes the necessity of a cohesiveness between the parent brand and its extensions regarding attributes and relations, a knowledge transfer between RNP extensions and their parent brands is impossible. This is because RNPs tend to defy straightforward classification in any existing product category which makes it unlikely that they are perceived as members of the parent brands' categories.

However, the herein reported empirical results have shown that consumers can transfer information from a parent brand to a RNP extension, even though these two entities do not fit on the classic product fit dimensions. The crucial determinant of this transfer of information has here been the identification of a relational fit between the presented extensions and their parent brands. If participants perceived the two entities as fitting on a relational basis, they transferred their knowledge from the parent brand to the extension. The outcomes of this study have therefore indicated that past research may have ignored a dimension of fit and thus may stop short of offering a sufficient explanation for the learning effects in the present case. But if participants could not learn about the presented extensions based on categorization effects, how could knowledge transfers take place?

As seen earlier, the answer to this question arrives from analogical learning theory which proposes a learning based on a matching procedure that primarily relies on relational aspects. This means that instead of a similarity comparison that looks at attributes and relations as postulated by the classic fit paradigm, analogical learning theory suggests that it is also possible that an extension only fits on a purely relational basis (Gregan-Paxton and Moreau 2003). The results of this dissertation have supported this reasoning by revealing that relational associations can indeed override aspects of low fit on functional attributes.

Consequently, this work suggests that it is time to move today's understanding of fitting brand extensions beyond existing theory. In this new understanding both dimensions have to be respected, functional as well as relational aspects. This is because different kind of fits are of concern in that they are dependent on the underlying learning mechanism. In the case of incremental extensions, when categorization effects determine learning and consumers evaluate the cohesiveness of the extension based on a literal similarity comparison, extensions have to fit on attributes and relations. In the case of radical innovations, when analogical learning theory explains learning and consumers' cohesiveness perception is primarily determined by the similarity between the relations of the two entities, the focus is on relational aspects.

VII.3 Lessons for the Field

Besides these theoretical implications, the results of this dissertation impact very important areas of marketers' responsibilities and decision making. They not only imply that marketers have to change their thinking in terms of how far a brand can be extended, but also reveal insights to the question of what kind of prerequisites need to be fulfilled to make RNP extensions work. The significance of this study for the field is thus that it redefines a brand's extensibility into RNPs, emphasizes the importance of benefit brands, explains whether and

how interbrand collaborations may offer a strategic option, and reveals how the broadness of a brand's portfolio may impact its extensibility into radical innovations.

VII.3.1 Leveraging Brands Along the Whole Innovativeness Continuum

When companies consider introducing a new product or service they can, generally speaking, choose from a pool of opportunities along an innovativeness continuum ranging from incremental innovations on the one side to radical innovations on the other.

Yet, following today's brand theory and practice not every opportunity along this continuum has the same prospects to become a success. The main suggestion has so far been that companies should primarily focus on incremental innovations when they consider growth based on their existing brands. And the underlying logic has been that a brand's ability to stretch is assumed to be limited by the fit or consistency between the brand and the extension, which has been proposed to finally determine the essential knowledge transfer between these two entities and hence dictate consumers' reactions to the extension (Aaker and Keller 1990).

Accordingly, these days brand managers have often forgotten about the other, the more innovative end of the continuum when they consider their growth opportunities (Smith and Andrews 1994). And as a result, brand management has since been dominated by strategies that merely focused on keeping the status quo by introducing incremental new products (Reddy, Holak, and Bhut 1991).

However, companies are in constant need for organizational innovation and renewal if they are to survive and prosper in today's ever-accelerating environment with its fast changes in consumers, technologies, and competition (Danneels 2002; Schumpeter 1942). And radical innovations have been recognized as one primary means of corporate innovation and renewal (Bowen 1994; Dougherty 1992). This indicates that brand management has not only neglected a very important potential source of growth, but may have also ignored a crucial means to ensure corporate survival in the current fast-changing business settings.

Yet, this work offers uplifting news for the innovation- and growth-oriented company. It has presented results which strongly suggest that brand management's self-induced focus on incremental innovations is misleading and that leveraging a brand into RNPs can be a feasible option. It hence provides CEOs and brand managers with the first theoretical justification as well as a practical tool kit to successfully extend their brands into RNPs. By doing so, the present thesis goes far beyond solely adding another facet to brand extension research. It not only indicates that brands may have more inherent stretch than prior research would suggest, but also explains the most relevant prerequisites to make these stretches possible. In doing so, it opens the door to a space full of new growth opportunities.

This research thus suggests a refocus of brand management's attention towards innovation and growth that has implications reaching beyong pure brand management. Evidently, companies will only be capable of staying competitive in today's environment of ever-accelerating technological pace if they maintain a stream of innovative, profitable products or services (Urban, Weinberg, and Hauser 1996). One prerequisite to introduce these innovations is a brand management capable of handling them. This dissertation has shown that leveraging brands into RNPs is possible and thus supported a reorientation of brand theory towards innovation and growth. Now it is brand practice's turn to change its mindset and accept RNPs as sources to generate large scale, long term growth.

VII.3.2 Brand Positioning: The Importance of Relational Associations

Regarding the positioning of their brands, companies have to make a host of decisions including amongst others, the choice of an adequate value proposition (Kotler 1994), the selection of relevant points of difference and similarity (Keller 1997), and the creation of a holistic communication campaign (Aaker and Joachimsthaler 2000). Following the herein presented results, the key to successful brand-driven growth strategies and hence the most important positioning decision lies in the choice of the right brand associations. The central

question hereby is whether the brand's associations should finally reflect what a brand does for the consumer (functional associations) or how a brand relates to a consumer in her everyday life (relational associations).

During the last years, this question has been the subject of a controversial discussion in branding literature (Aaker 1991; Broniarczyk and Alba 1994; Cardona 2004; Kapferer 1997; Light 2005; Loken and Roedder John 1993). On the one side there have been the Positionistas, who reflect the traditional brand management system and today's practice (Aaker 1991; Keller and Aaker 1992; Loken and Roedder John 1993). They emphasize the importance of functional associations when it comes to the positioning of a brand. Following their reasoning, only associations between a brand and a functional attribute will directly translate into reasons to buy the brand and hence provide a significant sustainable competitive advantage (Aaker 1991). Thus, the primary objective for brand managers is to differentiate the brand by positioning it as superior to competitors on one or two functional attributes (Aaker 1991; Loken and Roedder John 1993; Sujan and Bettman 1989).

The brand journalism approach, on the other side, is part of a recently emerging, more progressive movement in brand management that follows a more strategic, growth-oriented philosophy (Brozniarzyk and Alba 1994; Cardona 2004; Kapferer 1997; Light 2005). Following its reasoning the Positionistas' approach falls short, because it unnecessarily limits a brand's growth opportunities by putting a box in form of functional associations around it. They argue that a strong association with a product attribute narrows a company's brand-driven growth opportunities, because it merely associates the brand with a product category rather than all potential growth opportunities. In their opinion, a brands means different things to different people and hence cannot be positioned with only one functional association. They propose that a brand needs to be positioned broader based on what the brand does for the consumer and hence relational associations.

Which approach to apply? Clearly, back in the 80s and early 90s the choice between the two approaches was easy. Finding a product attribute that was important in a product category and not already claimed by a competitor was still possible, and most of the new product introductions were incremental and hence clearly associated with a product category. At that time, the approach of the Positionistas was suitable for most of the extensions. Today, however, times have changed. With every product attribute being occupied by one or more competitors, detecting a unique product association is comparable with finding a needle in a hay stack. And the ever-accelerating pace of innovation pushes a considerable amount of highly innovative and hence disruptive products into the market, so that the question of what approach might be better suited is more difficult to answer.

This dissertation is one of the first empirical studies capable of casting some light into this controversial discussion from a growth perspective. With their emphasis on functional attributes, the Positionistas reflect what this work has referred to as conventional brand management wisdom. Their reasoning is clearly based on categorization theory. The underlying idea has been that if a company associates its brand with a functional attribute, it will facilitate consumers literal similarity comparison between the brand and the extension. This will enhance their fit judgments and hence lead to more favorable consumer reactions toward the extension. The reasoning in the brand journalism approach, on the other hand, is implicitly driven by analogical learning theory. Here the underlying idea has been that if a company associates its brand with relational associations, it will seduce consumers into analogical learning and hence similarity comparisons that are solely based on relations. This will enable favorable fit judgments even between disruptive knowledge structures, which will finally positively impact consumers' favorability judgments of incongruent extensions.

So, what is the more relevant approach today? The outcomes of this dissertation suggest that the answer depends on the strategic approach that the underlying company is pursuing. If it pursues a rather conservative growth strategy that primarily focuses on

incremental innovations, the Positionistas' approach should better fit its needs. In this context, categorization theory is the dominant learning paradigm and hence a positioning strategy that supports literal similarity comparisons between extensions and product categories should be the first choice. If the company, however, pursues a more progressive, growth-oriented approach and wants to introduce a considerable number of RNPs into the market place, then the brand journalism approach is the better choice. In this context, categorization theory stops short of explaining learning. Consequently, a positioning strategy is needed that highlights relation aspects and hence helps consumers to engage in analogical learning.

What are the implications for brand positioning practice? Put succinctly, it has to acknowledge the value of positioning a brand based on relational associations. Far too often brand managers still solely focus on the Positionistas' approach and hence their efforts on establishing functional associations. However, as seen earlier, if the company is also interested in extending its brands into disruptive extension such as RNPs, positioning a brand based on a product attribute is counterproductive. Knowledge transfer between disparate knowledge structures calls for analogical learning. Analogical learning, however, needs to be triggered. One primary means of doing this is to position the parent brand based on relational associations. In this way, growth-oriented companies have to reconsider their branding strategies and position their brands based on what the brand does for the consumer (relational associations) and not on what the brand is for the consumer (functional associations).

VII.3.3 Opportunities Through Interbrand Collaborations

The previous paragraphs have emphasized the importance of positioning a brand as a benefit brand based on relational associations. Unfortunately, previous research has shown that establishing relevant brand associations requires huge investments in brand building programs and a considerable amount of time (Aaker and Joachimsthaler 2000). This means time and money that a lot of companies do not have. The results of this dissertation, however, have

revealed an option for companies which do not have a benefit brand in their portfolio, but still want to extend their portfolios into RNPs: inter-brand collaborations with benefit brands.

It has been shown that a brand alliance approach can be capable of assisting functional brands to signal relational associations only due to the presence of a benefit partner brand. In the case presented herein, a co-branding strategy enabled the functional brands IBM and Audi to extend into RNPs by using participants' associations with the benefit brands Sony and Mercedes. Specifically, the pattern of results revealed that brand extensions into RNPs were in general evaluated more favorably if they were based on a brand alliance that included at least one benefit brand.

The practical implications of these findings are straightforward. The results have conclusively shown that extending a brand into a RNP does not necessarily require that a functional brand image undergoes prior change. In fact, the brand image need not to change at all before the introduction of a RNP extension. Instead, this study has shown that coupling the brand with a partner brand, which already possesses the relevant associations is sufficient to significantly impact consumers' learning preferences and hence to positively impact their evaluations. This is again good news for growth-oriented companies, because it indicates that their growth ambitions might not necessarily be limited by the associations of their brands. If their brands lack the relevant relational associations, they can simply 'borrow' them from a partner brand in a joint brand extension approach.

VII.3.4 The Role of Product Portfolios' Breadth

As a consequence of marketers' tendency to leverage brands into multiple categories, we are facing a considerable amount of brands that are affiliated with a portfolio of diverse products. Just recall the Virgin example. Initially founded as a discount music retailer (Virgin Music), the company has leveraged its brand equity into several industries worldwide, including the airline business (Virigin Atlantic), financial services (Virgin Direct), mobile phone services

(Virgin Mobile), books (Virgin Books), and even bridal needs (Virgin Bride). Or think off Yamaha. Starting as a pure organ manufacturer in 1887, the company has today extended its activities into manufacturing semiconductors, distributing ring tones, producing hifi, and even building motorbikes. Indisputably, today's companies are revealing a tendency towards broadening their product portfolios.

However, what is still unclear is whether and how a broad portfolio may impact a brand's extensibility (Dacin and Smith 1994). Several authors have raised the concern that broadening a product portfolio with repeated extensions into loosely related product categories may weaken the parent brand by diluting its core associations and diminishing the fit between the brand and potential extensions (Aaker 1991; Keller 1997; Keller and Aaker 1992). Other researchers however, have emphasized that multiple extensions might not always be harmful, but rather capable of making a brand association more abstract and hence more extendable (Dacin and Smith 1994; Milberg, Park, and McCarthy 1997).

Meyvis and Janiszewski (2004) were the first to find a unifying pattern behind these divergent outcomes. They have argued that the impact of a portfolio's broadness depends on the process that consumers employ during their evaluation of a brand extension. If consumers use an inference process based on a similarity comparison as suggested by categorization theory, broad brands will indeed be at a disadvantage for incremental extensions. However, if consumers focus on the most accessible and diagnostic associations to infer the benefits offered by the extension, broad brands may have an advantage over narrow brands (Meyvis and Janiszewski 2004).

In the context of brand-driven growth and radical innovations, this reasoning implies that broad portfolios should be especially beneficial if consumers assess the extension based on a relational similarity comparison as in the case of analogical learning theory. If, however, they engage in a literal similarity comparison as in the case of categorization effects, the impact of having a broad portfolio should diminish. The results support this reasoning. They

reveal that broader product portfolios indeed have a positive impact on consumer evaluations of INP and RNP extensions, and that this impact was more elaborated in the latter case.

For practitioners, this reasoning has far-reaching implications. It reveals that they have to acknowledge that today's brands are rarely stand-alone entities but have to be managed as part of a portfolio. The here presented results have shown that broad portfolios can help to abstract the brand's association and hence enhance its extensibility. In doing so, this dissertation has clearly contradicted the often heard notion, that progressively extending a product portfolio automatically harms the brand by weakening consumers' functional associations with the brand which diminishes their fit judgments (Keller and Aaker 1992). The results found in this work have shown that despite the fact that the number of brands indeed often weakens consumers' fit judgments on the classic dimensions, this does not always translate into unfavorable outcomes. In contrast, the outcomes have suggested that the number of products associated with a brand can in fact improve consumers' favorability judgments and hence enhance the extensibility of the brand.

The herein presented results have conclusively emphasized the importance of carefully managing brand extension strategies, because it has been revealed that a brand can be strengthened through systematic extension. A series of brand extensions into gradually differing product categories can help to abstract brand associations and hence broaden a brand's opportunity space. This means that a strategy of gradual extensions can make a brand more extendable in the future (Dacin and Smith 1994).

VII.4 Limitations and Future Research

Although this dissertation is based on a broad literature review and extensive pretesting, some important limitations have to be pointed out. Foremost, it has to be stressed that the herein presented results are based on experiments rather than real life data. Thus, the interpretation of the outcomes must be tempered by an understanding of how well the experimental task

represented the real issues investigated (Boush and Loken 1991; Cook and Campbell 1979; Dipboye 1990; Greenberg and Folger 1988). Apart from this more general limitation, the following paragraphs outline some specific areas of potential limitations for this dissertation, which may also point to some prospective areas of future research.

First, this work employed brands that were equally familiar to participants. This means that it cannot be guaranteed that the herein observed results can be extended to brands with divergent familiarity ratings. Previous research has shown that familiarity with a base may facilitate the analogical learning process by helping subjects to recognize common structural relations in the absence of surface attribute cues (Novick 1988). Consequently, it is possible that heavy brand users and/or experts may have advantages in activating their knowledge to access and understand available structural relations between a base and a target (Alba and Hutchinson 1987; Chi, Feltovich, and Glaser 1981). Since the activation of existing knowledge is one of the critical moments in analogical learning processes (Gregan-Paxton and Roedder John 1997), it cannot be ruled out that different familiarity ratings may impact the herein observed use of analogical learning and hence lead to different outcomes. Thus, more research with brands that vary in participants' familiarity judgments could be helpful to further extend the external validity of the herein presented results.

Second, all of the employed brand alliances were constructed. Thus, it is hitherto not possible to predict the impact of using well-known brand alliances on the herein observed effects (Park, Jun, and Shocker 1996; Samu, Krishnan, and Smith 1999; Simonin and Ruth 1998). Especially the fact that previous findings revealed a moderating impact of familiarity on consumers' weighting of brand and product information in evaluations of brand alliances points to potential interactions between consumers' familiarity with brand alliances and their information processing preferences (Simonin and Ruth 1998). As a result, shortcomings or unexpected modifications of the effects observed in this study cannot be completely ruled out

in real life settings. A replication of the present study with genuine brand alliances may therefore further contribute to this research.

Third, the presented INPs and RNPs were all hypothetical. While the use of hypothetical INPs and RNPs provided the benefit of focusing attention on the variables of interest, it may have also impacted the external validity of this work by limiting the ability to generalize the outcomes beyond initial reactions to extension concepts (Hoeffler 2003). Especially given the fact that participants had a restricted supply of information about the products in the studies, while consumers in real life situation have almost unrestricted access to a larger amount of information may have lead to shortcomings. Since previous research has shown that as the amount of information increases, the weight given to any single piece may decrease, it thus cannot be guaranteed that the herein observed magnitude of effects may not be greater than ones existing in reality (Alba and Hutchinson 1987; Dacin and Smith 1994; Slovic and McPhillamy 1974). More research on consumer reactions to RNPs in real life situations is therefore needed.

Fourth, this work has regarded consistency as a fixed property and hence treated the topic of brand-driven growth from a static perspective. However, it has to be acknowledged that recent examinations of the impact of advertising on consumer perceptions of incongruent extensions has revealed that consistency might not necessarily be a fixed property, but rather a subjective perception that can change under the influence of advertising (Lane 2000). Clearly, research on brand-driven growth strategies has so far not adequately addressed the possibility that advertising may influence consumer perceptions of these incongruent extensions. Thus, what is needed is more research handling brand extensions into RNPs from a dynamic perspective.

Fifth, the use of college students, representing only parts of the whole population, may hold some limitations with regard to the generalizability of some of the herein presented results. Several researchers have emphasized that such non-randomized samples might merely

be a convenient way of doing research, that in the end cause shortcomings regarding a study's external validity. Common concerns range from sample-driven differences in the choice of selection models (Barr and Hitt 1986; Ferber 1977; Kruglanski 1975) to divergent information selection and processing behavior caused by demographic differences (Singer and Sewell 1989). However, extensive reviews of research on consumer behavior ranging from participants' processing of information and impressions of content to judgments and accuracy of perception have failed to reveal convincing results that would justify the assumption that studies containing student samples will necessarily lead to outcomes with a troubling external validity (Bernstein, Hakel, and Harlan 1975; Dipboye 1990; McGovern, Jones, and Morris 1979; Olian, Schwab, and Haberfeld 1988; Peterson 2001). Nevertheless, differences in outcomes cannot completely be ruled out. Consequently, more research on brand-driven growth and RNPs with random samples appears desirable.

Finally, sixth, it has to be acknowledged that while scrutinizing consumer decision making in terms of consumer learning and information processing has attracted numerous researchers over the last decades, there is also a considerable number of researchers who warn of a too strong emphasis of cognitive approaches in consumer behavior (Holbrook and Hirschman 1982; Holbrook and Batra 1987). Consumers do not engage in cognitive processing for every single purchase and hence focusing all attention on consumers' cognition might lead to shortcomings (Bagozzi, Gopinath, Nyer 2004). Therefore, it might be fruitful to also analyze the herein presented issues from a less cognitive driven perspective, acknowledging the potential impact of emotions in the present context.

VII.5 Conclusion

Given the herein presented results and the ever-accelerating contemporary environment with "breakthrough innovations" hiding behind almost every corner, it is upon time for brand management to face a considerable make-over to prepare it for the challenges of the 21st

century. Today, consumers see an ever-larger array of new products with a growing percentage of these introductions representing innovations that create entirely new categories and markets, so called "really new products" or radical innovations (Urban, Weinberg, and Hauser 1996). As this work has revealed, the advent and the success of these innovations, have not only shaken today's business environment, but particularly caught current brand management's practice on the wrong foot. With categorization theory as its dominant learning paradigm, brand theory has so far been unable to acknowledge consumer learning between disparate knowledge structures and hence incapable of explaining the success of RNPs in brand-driven growth strategies.

This work has started with the question to what extent extensions into RNPs can be potentially fruitful growth opportunities. It has revealed results that have contradicted current brand research's predictions regarding RNPs and introduced with analogical learning theory a new learning paradigm to the field of branding capable of explaining learning effects between incongruent entities. Brand leveraging strategies into RNPs can be fruitful growth opportunities, if only the right prerequisites are fulfilled. The problem are not RNPs as incongruent extensions per se, but rather current brand management's learning paradigm that cannot explain learning between disparate structures.

Yet, despite these findings, this dissertation does not suggest that today's brand management is necessarily wrong. Quite the opposite, it acknowledges that the classic brand management system may have worked well for many decades for P&G and a host of imitators. It is certainly very capable of predicting the success of incremental extensions and providing guidelines for incremental growth. However, when it comes to dealing with all growth opportunities along the innovativeness continuum, the herein presented findings suggest that the existing guidelines fall short.

Thus, in drawing to a final conclusion, the present dissertation suggests that if brand management wants to become more than a conservative platform for incremental growth, and

more than a strategy to introduce incremental innovations, if it wants to go beyond being merely a tactical tool of the marketing departments, it has to be subject to a considerable overhaul. As Larry Light, CMO of McDonald's, put it once: "if you believe in small is beautiful, then adopt the view of one brand, one product, one position" (Light 2004). If however, branding is understood as one primary means of growth in a company, brand management has to change in order to understand consumer learning beyond categorization theory and finally to include all growth opportunities along the innovativeness continuum. Only by doing so, will brand management be able to face the challenges of today's dynamic environment and become more than a sheer source of incremental growth.

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Appendix

Appendix I: Stimuli Descriptions

Stimuli Descriptions

All product descriptions were accompanied by a picture and designed following findings in previous research (Hoeffler 2003). They contained one sentence that provided a general description of the products:

> ***The here presented product ...(one sentence general description)***

This general description was then followed by two attributes describing the specifics of the product and two corresponding benefits:

> ***It incorporates/uses*** *... (Attribute 1).* ***This allows/enables users to*** *... (Benefit 1).* ***In addition, this product possesses*** *... (Attribute 2).* ***This allows/enables*** *... (Benefit 2).*

Employed Descriptions

1. High Technology Category

a) RNP

This product is a lightweight portable computer with voice recognition software strapped to the wrist and linked to a head mounted display. It incorporates a strap mounted LCD display that will be set into a flexible display in one lens of an ordinary pair of eye glasses. This enables users to enjoy an augmented visual display with information of their choice. In addition, this product includes a voice recognition software which can manipulate text material via spoken instructions. This allows the entire document creation task to be accomplished with spoken language.

b) INP

This product is an innovative mini laptop that offers the performance of a state-of-the-art laptop in the size of a palm. It incorporates a display with sensors underneath for digital encoding. This enables users to capture notes with a digital pen on the display in a natural format while the notes are automatically converted to text computer code. In addition, it has a light emissive display. This allows not only a viewing angle of 180 degrees, but also an unrestricted use in sunlight.

2. Service Category

a) RNP

This service is a highly innovative digital entertainment service that is based on transmissions of digital information by satellite at 560 k. It incorporates a newly developed decoder that can handle a variety of applications simultaneously. This allows users to customize their TV programs to their individual needs and to eliminate advertising from their daily TV program. In addition, this service allows a camera to be included into the sporting environment. This allows users to view the action from the perspective of players on the field.

b) INP

This service is an improved Pay-TV service that uses a digital signal that significantly improves the resolution of current TV broadcasts. It uses a technology that transmits a full 525 lines of screen image every sixtieth of a second which is twice as many images as current TV broadcasts. This allows the service to offer twice the resolution of current TV broadcasts on the existing TV sets. In addition, this service incorporates a full scale email software stored on the decoder. This will allow for both sending and receiving of email messages on the TV set.

3. High Involvement Category

a) RNP

This product is a mobility concept that almost does not require a driver. It incorporates a radar guidance system that can identify neighboring vehicles as well as other obstructions in the road. This allows the product to adjust to traffic and to facilitate the driver's life. In addition, the product incorporates a technology that can generate electricity from the chemical breakdown of gasoline, with the chief by-product being water vapor. This allows the product to use conventional gasoline at existing gas stations to create clean energy.

b) INP

This product is a sports car that represents the latest technology in the automotive industry. It incorporates an innovative V10 bi-turbo engine with a special titanium coating. This allows to get twice the miles per galloon as conventional cars. In addition, this product possesses a newly developed adaptive alloy chassis. This enables it to combine comfort and performance in a unique way.

4. Commodity Category:

a) RNP

The here presented product is a high-tech mobile communication and PDA device which integrates a variety of applications in one product. The product uses continuous speech recognition software to convert spoken words into concrete actions. This enables users to dial, arrange their agenda, and compose e-mails just through the use of their voice. In addition, the product possesses kinetic motion generators and hence retrieves power through natural body motion. This allows users to forget about charging batteries because it is obsolete.

b) INP

The here presented product is a mobile phone that combines state-of-the-art technology with elegant design. The product incorporates a MP3 player and 2GB data storage for MP3 tracks supporting all popular music files. This enables users to play their favorite songs whenever they want with their cell phone. In addition, the product has a newly developed lithium battery and an energy saving mode. This allows users to use the product 10 days in a row without charging its battery.

Appendix II: Cover Story

Cover Story

This study is conducted as part of a doctoral thesis in the area of marketing. The aim of this questionnaire is to examine consumer attitudes towards product innovations in several product categories. If you agree to take part in this research, you will be asked to answer some questions regarding your attitudinal predisposition towards some brands as well as to indicate your perception of three innovations that will be presented as potential extension products.

Most of the questions can be answered on 7-point scales (except of the open questions). To answer these questions please choose the most appropriate field of the scale and mark it with an "x". Please be aware that the order of the scales and the brand names may change within the questionnaire.

The participation in this research is voluntary and will take approximately 20 minutes. All of your answers will be treated with absolute confidentiality and evaluated on an anonymous, purely statistical basis. Only the researcher and his committee will have access to the data. After you have finished the questionnaire you will receive a more detailed explanation of the study.

If you have any questions concerning the study or the questionnaire please do not hesitate to contact Christoph Koestring (jan.kostring@uni-bocconi.it).

Appendix III: Questionnaire Study 1

Questionnaire Study 1 (translated)

I. Please indicate your favorability toward the following brands.

	unfavorable -3	-2	-1	0	+1	+2	favorable +3
Apple	☐	☐	☐	☐	☐	☐	☐
BMW	☐	☐	☐	☐	☐	☐	☐
Nokia	☐	☐	☐	☐	☐	☐	☐
IBM	☐	☐	☐	☐	☐	☐	☐
Mercedes	☐	☐	☐	☐	☐	☐	☐
Siemens Mobile	☐	☐	☐	☐	☐	☐	☐

II. Do you think the following brands stand for a high or a low quality?

	High Quality +3	+2	+1	0	-1	-2	Low Quality -3
Nokia	☐	☐	☐	☐	☐	☐	☐
Mercedes	☐	☐	☐	☐	☐	☐	☐
IBM	☐	☐	☐	☐	☐	☐	☐
Apple	☐	☐	☐	☐	☐	☐	☐
BMW	☐	☐	☐	☐	☐	☐	☐
Siemens Mobile	☐	☐	☐	☐	☐	☐	☐

III. How familiar are you with these brands?

	familiar +3	+2	+1	0	-1	-2	unfamiliar -3
Mercedes	☐	☐	☐	☐	☐	☐	☐
Siemens Mobile	☐	☐	☐	☐	☐	☐	☐
Apple	☐	☐	☐	☐	☐	☐	☐
BMW	☐	☐	☐	☐	☐	☐	☐
Nokia	☐	☐	☐	☐	☐	☐	☐
IBM	☐	☐	☐	☐	☐	☐	☐

IV. Do you think the following brands stand for a high or a low status?

	low						high
	-3	-2	-1	0	+1	+2	+3
Apple	☐	☐	☐	☐	☐	☐	☐
BMW	☐	☐	☐	☐	☐	☐	☐
Siemens Mobile	☐	☐	☐	☐	☐	☐	☐
Mercedes	☐	☐	☐	☐	☐	☐	☐
IBM	☐	☐	☐	☐	☐	☐	☐
Nokia	☐	☐	☐	☐	☐	☐	☐

V. When you think about the following brands, which associations come first to your mind?

Mercedes :

Nokia :

IBM :

BMW :

Siemens Mobile :

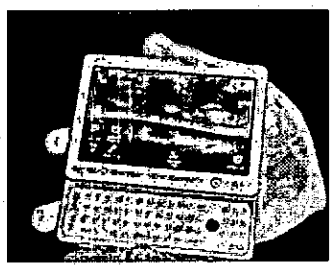
Apple :

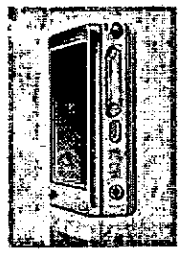
VI. How innovative are the following companies/brands?

	not innovative at all						highly innovative
	-3	-2	-1	0	+1	+2	+3
Apple	☐	☐	☐	☐	☐	☐	☐
BMW	☐	☐	☐	☐	☐	☐	☐
Siemens Mobile	☐	☐	☐	☐	☐	☐	☐
Mercedes	☐	☐	☐	☐	☐	☐	☐
IBM	☐	☐	☐	☐	☐	☐	☐
Nokia	☐	☐	☐	☐	☐	☐	☐

Apple, **Mercedes** and **Nokia** have decided to expand their existing product portfolios by introducing new innovations. On the following pages you will be confronted with three potential product extensions. Please read the presented descriptions carefully and evaluate the products on the provided scales.

Apple plans to extend its current product portfolio with the following innovation.





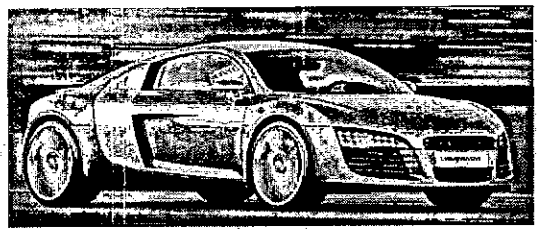
This product is an innovative mini laptop that offers the performance of a state-of-the-art laptop in the size of a palm. It incorporates a display with sensors underneath for digital encoding. This enables users to capture notes with a digital pen on the display in a natural format while the notes are automatically converted to text computer code. In addition, it has a light emissive display. This allows not only a viewing angle of 180 degrees, but also an unrestricted use in sunlight.

Enter a number between 0 and 99 that reflects the relative newness of the product described above?

Not innovative at all — 0 ——— 100 — Implanted body PC

		-3	-2	-1	0	+1	+2	+3	
Please indicate your favorability toward this Apple product.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Is it likely that you will try this product?	not at all likely	☐	☐	☐	☐	☐	☐	☐	likely
Do you think the presented product stands for a high or a low quality?	low	☐	☐	☐	☐	☐	☐	☐	high
How difficult was it for you to evaluate this product?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How certain are you about your evaluation of the product?	uncertain	☐	☐	☐	☐	☐	☐	☐	sure
Please indicate your favorability toward the presented product description.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Please evaluate the understandability of the presented description?	confusing	☐	☐	☐	☐	☐	☐	☐	understandable
How realistic is the presented ad?	unrealistic	☐	☐	☐	☐	☐	☐	☐	realistic
How complex is the presented ad?	complex	☐	☐	☐	☐	☐	☐	☐	easy
How difficult was it for you to comprehend the presented ad?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How complementary is the presented product with Apple's existing product portfolio?	not complementary at all	☐	☐	☐	☐	☐	☐	☐	very complementary
How similar is the presented product to Apple's existing product portfolio?	dissimilar	☐	☐	☐	☐	☐	☐	☐	similar
Is the presented product a logical extension of Apple's product portfolio?	illogical	☐	☐	☐	☐	☐	☐	☐	logical
Can Apple use its existing knowledge for the presented product?	unhelpful	☐	☐	☐	☐	☐	☐	☐	helpful

Mercedes plans to extend its current product portfolio with the following innovation.



This product is a sports car that represents the latest technology in the automotive industry. It incorporates an innovative V10 bi-turbo engine with a special titanium coating. This allows to get twice the miles per galloon as conventional cars. In addition, this product possesses a newly developed adaptive alloy chassis. This enables it to combine comfort and performance in a unique way.

Enter a number between 0 and 99 that reflects the relative newness of the product described above?

Not innovative at all — 0 ——— 100 — Fully automatic car

		-3	-2	-1	0	+1	+2	+3	
Please indicate your favorability toward this Mercedes product.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Is it likely that you will try this product?	not at all likely	☐	☐	☐	☐	☐	☐	☐	very likely
Do you think the presented product stands for a high or a low quality?	low	☐	☐	☐	☐	☐	☐	☐	high
How difficult was it for you to evaluate this product?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How certain are you about your evaluation of the product?	uncertain	☐	☐	☐	☐	☐	☐	☐	sure
Please indicate your favorability toward the presented product description.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Please evaluate the understandability of the presented description?	confusing	☐	☐	☐	☐	☐	☐	☐	understandable
How realistic is the presented ad?	unrealistic	☐	☐	☐	☐	☐	☐	☐	realistic
How complex is the presented ad?	complex	☐	☐	☐	☐	☐	☐	☐	easy
How difficult was it for you to comprehend the presented ad?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How complementary is the presented product with Mercedes' existing product portfolio?	not complementary at all	☐	☐	☐	☐	☐	☐	☐	very complementary
How similar is the presented product to Mercedes' existing product portfolio?	dissimilar	☐	☐	☐	☐	☐	☐	☐	similar
Is the presented product a logical extension of Mercedes' product portfolio?	illogical	☐	☐	☐	☐	☐	☐	☐	logical
Can Mercedes use its existing knowledge for the presented product?	unhelpful	☐	☐	☐	☐	☐	☐	☐	helpful

Nokia plans to extend its current product portfolio with the following innovation.

The here presented product is a high-tech mobile communication and PDA device which integrates a variety of applications in one product. The product uses continuous speech recognition software to convert spoken words into concrete actions. This enables users to dial, arrange their agendas, and compose e-mails just through the power of their voices. In addition, the product possesses kinetic motion generators and hence retrieves power through natural body motion. This allows users to forget about charging batteries, because it is obsolete.

Enter a number between 0 and 99 that reflects the relative newness of the product described above?

Not innovative at all — 0 — 100 — Cell phone integrated into an ear piece

		-3	-2	-1	0	+1	+2	+3	
Please indicate your favorability toward this Nokia product.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Is it likely that you will try this product?	not at all likely	☐	☐	☐	☐	☐	☐	☐	very likely
Do you think the presented product stands for a high or a low quality?	low	☐	☐	☐	☐	☐	☐	☐	high
How difficult was it for you to evaluate this product?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How certain are you about your evaluation of the product?	uncertain	☐	☐	☐	☐	☐	☐	☐	sure
Please indicate your favorability toward the presented product description.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Please evaluate the understandability of the presented description?	confusing	☐	☐	☐	☐	☐	☐	☐	understandable
How realistic is the presented ad?	unrealistic	☐	☐	☐	☐	☐	☐	☐	realistic
How complex is the presented ad?	complex	☐	☐	☐	☐	☐	☐	☐	easy
How difficult was it for you to comprehend the presented ad?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How complementary is the presented product with Nokia's existing product portfolio?	not complementary at all	☐	☐	☐	☐	☐	☐	☐	very complementary
How similar is the presented product to Nokia's existing product portfolio?	dissimilar	☐	☐	☐	☐	☐	☐	☐	similar
Is the presented product a logical extension of Nokia's product portfolio?	illogical	☐	☐	☐	☐	☐	☐	☐	logical
Can Nokia use its existing knowledge for the presented product?	unhelpful	☐	☐	☐	☐	☐	☐	☐	helpful

A friend of yours has just come to you and said 'Hey, I just heard about this new product, but I don't understand what it is. Can you explain it to me?'

a) Apple's computer:

_____

_____

_____

b) Mercedes' sports car:

_____

_____

_____

c) Nokia's wrist PDA:

_____

_____

_____

Demographics:

Please indicate your gender:

Male ☐ Female ☐

What is your profession?

Administrative ☐	Student ☐	Unemployed ☐
Own company ☐	Government ☐	Other ☐

How old are you?

...-20 ☐	21-25 ☐	26-30 ☐
31-35 ☐	36-40 ☐	40-... ☐

What is your marital status?

Single ☐ Married ☐ Divorced ☐

Thank you very much for your cooperation!

If you have any questions concerning the study or the questionnaire, please contact Christoph Koestring (jan.kostring@uni-bocconi.it).

Appendix IV: Questionnaire Study 2

Questionnaire Study 2 (translated)

I. Please indicate your favorability toward the following brands.

	unfavorable						favorable
	-3	-2	-1	0	+1	+2	+3
Apple	☐	☐	☐	☐	☐	☐	☐
Audi	☐	☐	☐	☐	☐	☐	☐
Sony	☐	☐	☐	☐	☐	☐	☐
IBM	☐	☐	☐	☐	☐	☐	☐
Mercedes	☐	☐	☐	☐	☐	☐	☐

II. Do you think the following brands stand for a high or a low quality?

	High Quality						Low Quality
	+3	+2	+1	0	-1	-2	-3
Sony	☐	☐	☐	☐	☐	☐	☐
Mercedes	☐	☐	☐	☐	☐	☐	☐
IBM	☐	☐	☐	☐	☐	☐	☐
Apple	☐	☐	☐	☐	☐	☐	☐
Audi	☐	☐	☐	☐	☐	☐	☐

III. How familiar are you with these brands?

	familiar						unfamiliar
	+3	+2	+1	0	-1	-2	-3
Mercedes	☐	☐	☐	☐	☐	☐	☐
IBM	☐	☐	☐	☐	☐	☐	☐
Apple	☐	☐	☐	☐	☐	☐	☐
Audi	☐	☐	☐	☐	☐	☐	☐
Sony	☐	☐	☐	☐	☐	☐	☐

IV. Do you think the following brands stand for a high or a low status?

	low						high
	-3	-2	-1	0	+1	+2	+3
Apple	☐	☐	☐	☐	☐	☐	☐
Audi	☐	☐	☐	☐	☐	☐	☐
Sony	☐	☐	☐	☐	☐	☐	☐
Mercedes	☐	☐	☐	☐	☐	☐	☐
IBM	☐	☐	☐	☐	☐	☐	☐

V. When you think about the following brands, which associations come first to your mind?

IBM : _____

AOL : _____

Sony : _____

Samsung : _____

IBM and **Audi** have decided to expand their existing product portfolios by introducing new innovations. Therefore, IBM as well as Audi are planning to engage in a brand alliance. Specifically, IBM wants to introduce the new product together with Sony as IBM-Sony, and Audi wants to introduce the new product together with Mercedes as Audi-Mercedes. On the following pages you will be confronted with two potential extensions. Please read the presented descriptions carefully and evaluate the products on the provided scales.

VI. Please evaluate the consistency of the images of the following brands in a potential brand alliance?

	not at all consistent						very consistent
	-3	-2	-1	0	+1	+2	+3
IBM-Sony	☐	☐	☐	☐	☐	☐	☐
Audi-Mercedes	☐	☐	☐	☐	☐	☐	☐

VII. How innovative are the following companies/brands?

	not innovative at all						highly innovative
	-3	-2	-1	0	+1	+2	+3
Samsung	☐	☐	☐	☐	☐	☐	☐
AOL	☐	☐	☐	☐	☐	☐	☐
Sony	☐	☐	☐	☐	☐	☐	☐
Apple	☐	☐	☐	☐	☐	☐	☐

VIII. Please indicate your overall perception of fit between the following brands in the proposed brand alliances?

	high						low
	+3	+2	+1	0	-1	-2	-3
IBM-Sony	☐	☐	☐	☐	☐	☐	☐
Audi-Mercedes	☐	☐	☐	☐	☐	☐	☐

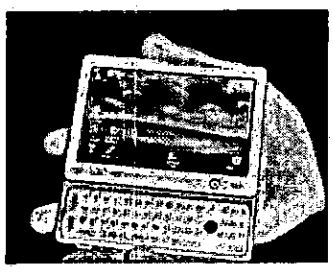
IX. Please indicate your favorability toward the proposed brand alliances?

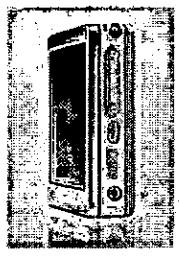
	low						high
	-3	-2	-1	0	+1	+2	+3
IBM-Sony	☐	☐	☐	☐	☐	☐	☐
Audi-Mercedes	☐	☐	☐	☐	☐	☐	☐

X. Do you think the following brand alliances stand for a high or a low quality?

	high						low
	+3	+2	+1	0	-1	-2	-3
IBM-Sony	☐	☐	☐	☐	☐	☐	☐
Audi-Mercedes	☐	☐	☐	☐	☐	☐	☐

IBM-Sony plans to extend its current portfolio with the following innovation.





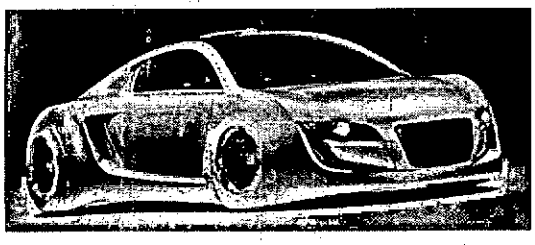
This product is an innovative mini laptop that offers the performance of a state-of-the-art laptop in the size of a palm. It incorporates a display with sensors underneath for digital encoding. This enables users to capture notes with a digital pen on the display in a natural format while the notes are automatically converted to text computer code. In addition, it has a light emissive display. This allows not only a viewing angle of 180 degrees, but also an unrestricted use in sunlight.

Enter a number between 0 and 99 that reflects the relative newness of the product described above?

Not innovative at all — 0 ——— 100 — Implanted body PC

		-3	-2	-1	0	+1	+2	+3	
Please indicate your favorability toward this IBM-Sony product.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Is it likely that you will try this product?	not at all likely	☐	☐	☐	☐	☐	☐	☐	likely
Do you think the presented product stands for a high or a low quality?	low	☐	☐	☐	☐	☐	☐	☐	high
How difficult was it for you to evaluate this product?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How certain are you about your evaluation of the product?	uncertain	☐	☐	☐	☐	☐	☐	☐	sure
Please indicate your favorability toward the presented product description.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Please evaluate the understandability of the presented description?	confusing	☐	☐	☐	☐	☐	☐	☐	understandable
How realistic is the presented ad?	unrealistic	☐	☐	☐	☐	☐	☐	☐	realistic
How complex is the presented ad?	complex	☐	☐	☐	☐	☐	☐	☐	easy
How difficult was it for you to comprehend the presented ad?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How complementary is the presented product with the companies' existing product portfolios?	not complementary at all	☐	☐	☐	☐	☐	☐	☐	very complementary
How similar is the presented product to the companies' existing product portfolio?	dissimilar	☐	☐	☐	☐	☐	☐	☐	similar
Is the presented product a logical extension of the companies' product portfolios?	illogical	☐	☐	☐	☐	☐	☐	☐	logical
Can the companies use their existing knowledge for the presented product?	unhelpful	☐	☐	☐	☐	☐	☐	☐	helpful

Audi-Mercedes plans to extend its current portfolio with the following innovation.



This product is a mobility concept that almost does not require a driver. It incorporates a radar guidance system that can identify neighboring vehicles as well as other obstructions in the road. This allows the product to adjust to traffic and to facilitate the driver's life. In addition, the product incorporates a technology that can generate electricity from the chemical breakdown of gasoline, with the chief by-product being water vapor. This allows the product to use conventional gasoline at existing gas stations to create clean energy.

Enter a number between 0 and 99 that reflects the relative newness of the product described above?

Not innovative at all — 0 — 100 — Fully automatic car

		-3	-2	-1	0	+1	+2	+3	
Please indicate your favorability toward this Audi-Mercedes product.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Is it likely that you will try this product?	not at all likely	☐	☐	☐	☐	☐	☐	☐	very likely
Do you think the presented product stands for a high or a low quality?	low	☐	☐	☐	☐	☐	☐	☐	high
How difficult was it for you to evaluate this product?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How certain are you about your evaluation of the product?	uncertain	☐	☐	☐	☐	☐	☐	☐	sure
Please indicate your favorability toward the presented product description.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Please evaluate the understandability of the presented description?	confusing	☐	☐	☐	☐	☐	☐	☐	understandable
How realistic is the presented ad?	unrealistic	☐	☐	☐	☐	☐	☐	☐	realistic
How complex is the presented ad?	complex	☐	☐	☐	☐	☐	☐	☐	easy
How difficult was it for you to comprehend the presented ad?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How complementary is the presented product with the companies' existing product portfolio?	not complementary at all	☐	☐	☐	☐	☐	☐	☐	very complementary
How similar is the presented product to the companies' existing product portfolio?	dissimilar	☐	☐	☐	☐	☐	☐	☐	similar
Is the presented product a logical extension of the companies' product portfolios?	illogical	☐	☐	☐	☐	☐	☐	☐	logical
Can the companies' use their existing knowledge for the presented product?	unhelpful	☐	☐	☐	☐	☐	☐	☐	helpful

A friend of yours has just come to you and said 'Hey, I just heard about this new product, but I don't understand what it is. Can you explain it to me?'

a) IBM-Sony's computer:

_____

_____

_____

b) Audi-Mercedes' mobility concept:

_____

_____

_____

Demographics:

Please indicate your gender:

Male ☐ Female ☐

What is your profession?

Administrative ☐ Student ☐ Unemployed ☐
Own company ☐ Government ☐ Other ☐

How old are you?

...-20 ☐ 21-25 ☐ 26-30 ☐
31-35 ☐ 36-40 ☐ 40-... ☐

What is your marital status?

Single ☐ Married ☐ Divorced ☐

Thank you very much for your cooperation!

If you have any questions concerning the study or the questionnaire, please contact Christoph Koestring (jan.kostring@uni-bocconi.it).

Appendix V: Questionnaire Study 3

Questionnaire Study 3 (translated)

I. Please indicate your favorability toward the following brands.

	unfavorable						favorable
	-3	-2	-1	0	+1	+2	+3
Apple	☐	☐	☐	☐	☐	☐	☐
Samsung	☐	☐	☐	☐	☐	☐	☐
Nokia	☐	☐	☐	☐	☐	☐	☐
IBM	☐	☐	☐	☐	☐	☐	☐
Mercedes	☐	☐	☐	☐	☐	☐	☐

II. Do you think the following brands stand for a high or a low quality?

	High Quality						Low Quality
	+3	+2	+1	0	-1	-2	-3
Nokia	☐	☐	☐	☐	☐	☐	☐
Mercedes	☐	☐	☐	☐	☐	☐	☐
IBM	☐	☐	☐	☐	☐	☐	☐
Apple	☐	☐	☐	☐	☐	☐	☐
Samsung	☐	☐	☐	☐	☐	☐	☐

III. How familiar are you with these brands?

	familiar						unfamiliar
	+3	+2	+1	0	-1	-2	-3
Mercedes	☐	☐	☐	☐	☐	☐	☐
IBM	☐	☐	☐	☐	☐	☐	☐
Apple	☐	☐	☐	☐	☐	☐	☐
Samsung	☐	☐	☐	☐	☐	☐	☐
Nokia	☐	☐	☐	☐	☐	☐	☐

IV. Do you think the following brands stand for a high or a low status?

	low						high
	-3	-2	-1	0	+1	+2	+3
Apple	☐	☐	☐	☐	☐	☐	☐
Samsung	☐	☐	☐	☐	☐	☐	☐
Nokia	☐	☐	☐	☐	☐	☐	☐
Mercedes	☐	☐	☐	☐	☐	☐	☐
IBM	☐	☐	☐	☐	☐	☐	☐

V. When you think about the following brands, which associations come first to your mind?

Apple : _____

AOL : _____

Sony : _____

Samsung : _____

VI. Please estimate how many products belong to the product portfolios of the following brands?

	1	2-5	6-10	11-20	>20
Sony	☐	☐	☐	☐	☐
Samsung	☐	☐	☐	☐	☐
AOL	☐	☐	☐	☐	☐
Apple	☐	☐	☐	☐	☐

VII. How would you evaluate the quality variance in the product portfolios of the following brands?

	High Variance						Low Variance
	+3	+2	+1	0	-1	-2	-3
AOL	☐	☐	☐	☐	☐	☐	☐
Apple	☐	☐	☐	☐	☐	☐	☐
Samsung	☐	☐	☐	☐	☐	☐	☐
Sony	☐	☐	☐	☐	☐	☐	☐

VIII. How similar are the products in the product portfolios of the following brands?

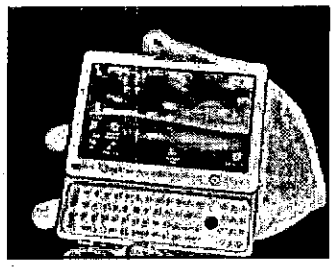
	dissimilar						very similar
	-3	-2	-1	0	+1	+2	+3
Samsung	☐	☐	☐	☐	☐	☐	☐
Sony	☐	☐	☐	☐	☐	☐	☐
AOL	☐	☐	☐	☐	☐	☐	☐
Apple	☐	☐	☐	☐	☐	☐	☐

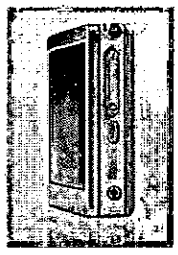
IX. How innovative are the following companies/brands?

	not innovative at all						very innovative
	-3	-2	-1	0	+1	+2	+3
Samsung	☐	☐	☐	☐	☐	☐	☐
AOL	☐	☐	☐	☐	☐	☐	☐
Sony	☐	☐	☐	☐	☐	☐	☐
Apple	☐	☐	☐	☐	☐	☐	☐

Apple and **Microsoft** have decided to expand their existing product portfolios by introducing new innovations. On the following pages you will be confronted with two potential extensions. Please read the presented descriptions carefully and evaluate the products on the provided scales.

Apple plans to extend its current portfolio with the following product innovation.





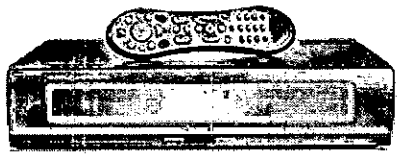
This product is an innovative mini laptop that offers the performance of a state-of-the-art laptop in the size of a palm. It incorporates a display with sensors underneath for digital encoding. This enables users to capture notes with a digital pen on the display in a natural format while the notes are automatically converted to text computer code. In addition, it has a light emissive display. This allows not only a viewing angle of 180 degrees, but also an unrestricted use in sunlight.

Enter a number between 0 and 99 that reflects the relative newness of the product described above?

Not innovative at all — 0 — 100 — Implanted body PC

		-3	-2	-1	0	+1	+2	+3	
Please indicate your favorability toward this Apple product.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Is it likely that you will try this product?	not at all likely	☐	☐	☐	☐	☐	☐	☐	likely
Do you think the presented product stands for a high or a low quality?	low	☐	☐	☐	☐	☐	☐	☐	high
How difficult was it for you to evaluate this product?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How certain are you about your evaluation of the product?	uncertain	☐	☐	☐	☐	☐	☐	☐	sure
Please indicate your favorability toward the presented product description.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Please evaluate the understandability of the presented description?	confusing	☐	☐	☐	☐	☐	☐	☐	understandable
How realistic is the presented ad?	unrealistic	☐	☐	☐	☐	☐	☐	☐	realistic
How complex is the presented ad?	complex	☐	☐	☐	☐	☐	☐	☐	easy
How difficult was it for you to comprehend the presented ad?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How complementary is the presented product with Apple's existing product portfolio?	not complementary at all	☐	☐	☐	☐	☐	☐	☐	very complementary
How similar is the presented product to Apple's existing product portfolio?	dissimilar	☐	☐	☐	☐	☐	☐	☐	similar
Is the presented product a logical extension of Apple's product portfolio?	illogical	☐	☐	☐	☐	☐	☐	☐	logical
Can Apple use its existing knowledge for the presented product?	unhelpful	☐	☐	☐	☐	☐	☐	☐	helpful

Microsoft plans to extend its current portfolio with the following service innovation.



This service is a highly innovative digital entertainment service that is based on transmissions of digital information by satellite at 560 k. It incorporates a newly developed decoder that can handle a variety of applications simultaneously. This allows users to customize their TV programs to their individual needs and to eliminate advertising from their daily TV program. In addition, this service allows a camera to be included into the sporting environment. This allows users to view the action from the perspective of players on the field.

Enter a number between 0 and 99 that reflects the relative newness of the product described above?

Not innovative at all — 0 — 100 — Imaginative TV

		-3	-2	-1	0	+1	+2	+3	
Please indicate your favorability toward this Microsoft product.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Is it likely that you will try this product?	not at all likely	☐	☐	☐	☐	☐	☐	☐	very likely
Do you think the presented product stands for a high or a low quality?	low	☐	☐	☐	☐	☐	☐	☐	high
How difficult was it for you to evaluate this product?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How certain are you about your evaluation of the product?	uncertain	☐	☐	☐	☐	☐	☐	☐	sure
Please indicate your favorability toward the presented product description.	unfavorable	☐	☐	☐	☐	☐	☐	☐	favorable
Please evaluate the understandability of the presented description?	confusing	☐	☐	☐	☐	☐	☐	☐	understandable
How realistic is the presented ad?	unrealistic	☐	☐	☐	☐	☐	☐	☐	realistic
How complex is the presented ad?	complex	☐	☐	☐	☐	☐	☐	☐	easy
How difficult was it for you to comprehend the presented ad?	difficult	☐	☐	☐	☐	☐	☐	☐	easy
How complementary is the presented product with Microsoft' existing product portfolio?	not complementary at all	☐	☐	☐	☐	☐	☐	☐	very complementary
How similar is the presented product to Microsoft's existing product portfolio?	dissimilar	☐	☐	☐	☐	☐	☐	☐	similar
Is the presented product a logical extension of Microsoft's product portfolio?	illogical	☐	☐	☐	☐	☐	☐	☐	logical
Can Microsoft use its existing knowledge for the presented product?	unhelpful	☐	☐	☐	☐	☐	☐	☐	helpful

A friend of yours has just come to you and said 'Hey, I just heard about this new product, but I don't understand what it is. Can you explain it to me?'

a) Apple's computer:

_____

_____

_____

b) Microsoft's entertainment service:

_____

_____

_____

Demographics:

Please indicate your gender:

Male ☐ Female ☐

What is your profession?

Administrative ☐ Student ☐ Unemployed ☐
Own company ☐ Government ☐ Other ☐

How old are you?

...-20 ☐ 21-25 ☐ 26-30 ☐
31-35 ☐ 36-40 ☐ 40-... ☐

What is your marital status?

Single ☐ Married ☐ Divorced ☐

Thank you very much for your cooperation!

If you have any questions concerning the study or the questionnaire, please contact Christoph Koestring (jan.kostring@uni-bocconi.it).