

Broad vs. Narrow Brand Strategies

The Effects of Association Accessibility on
Brand Performance

by

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Broad vs. Narrow Brand Strategies: The Effects of Association Accessibility on Brand Performance

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To my girls

“You see”, he explained, “I consider that a man’s brain originally is like a little empty attic, and you have to stock it with such furniture as you choose. A fool takes in all the lumber of every sort that he comes across, so that knowledge which might be useful to him gets crowded out, or at best is jumbled up with a lot of other things that he has a difficulty in laying his hands upon”.

Sherlock Holmes in Sir Arthur Conan Doyle’s “A Study in Scarlet” (1887)

Abstract

Brand managers focus on strategically positioning their brands and influencing the brands' associative networks in consumers' memory. Among different alternatives, brand managers can at least choose from two fundamentally different alternatives in building their brands: A. Focus on *many* favorable associations, pursuing a *broad brand strategy* or B. Focus on strengthening some *few* diagnostic associations, pursuing a *narrow brand strategy*. The current literature in brand management offers no guidance on which of these alternatives will most likely influence brand performance. However, according to the theory of the fan effect (Anderson, 1974), brands built using few associations should have stronger associations in consumers' memory and these associations should be activated faster from memory in judgment situations. The purpose of this dissertation is to investigate whether brands pursuing a narrow brand strategy perform better than brands pursuing a broad brand strategy.

Specifically, the dissertation asks whether associative strength influences a brand's ability to fight off new competitors (protective performance) and to enhance the evaluation of brand extensions from that brand (growth performance). This dissertation predicts that limiting the number of diagnostic brand associations for brand A (i.e., narrow brand strategy), increases the associative strength, measured as the accessibility of a target association (measured as response time latencies in milliseconds). Next, the increased accessibility of diagnostic associations would positively influence brand performance. Firstly, if brand A's associative strength is increased, brand A will more easily resist competition from brand B. And secondly, an extension of brand A into a new product category, in which the fit between the brand extensions and brand A is based on the target association, would be more favorably evaluated. In essence, if brand A pursues a narrow brand strategy, it will perform better.

Two studies were conducted in a computer lab to test these predictions. In Study 1, different brand strategies associated with differences in associative strength were manipulated by teaching the participants one (narrow strategy) or three (broad strategy) associations about a fictitious shampoo brand. The results showed that participants in the narrow brand strategy condition associated the target association in significantly shorter response times measured in milliseconds than did participants in the broad brand strategy condition. Next, the participants were told that a new fictitious brand was launched in the shampoo category positioned on the same target association used in the initial manipulations. The results showed that participants in the narrow brand strategy condition, in which the target association was more accessible, evaluated the new competitor less favorably than did the participants in the broad brand strategy condition.

These results provided evidence that narrow brands perform better than broad brands.

Study 2 built on these results and replicated the accessibility effects of one vs. three associations shown in Study 1. However, in Study 2, a new competitor was not introduced; instead, the fictitious shampoo brand was extended into a new product category. The extension, sun lotion, was based on the same target association as the brand was based on in the original category. The results showed that participants in the narrow brand strategy condition evaluated the extension more favorably than did participants in the broad brand strategy condition. To summarize, Study 1 and Study 2 provided evidence that narrow brands, with stronger associations, perform better than broad brands. Hence, brand managers should choose a narrow brand strategy as their preferred brand strategy.

Study 1 and 2's results were further extended in a third study. The first two studies were conducted in a lab environment using fictitious brands. To increase external validity, Study 3 used real chocolate brands and served as a replication and extension of Study 1. In addition, Study 3 utilized another type of associations. Study 1 and 2 used product benefits (i.e., intrinsic cues) as stimuli. In Study 3, usage situations (context associations) were utilized as stimuli. Specifically, Study 3 measured the situational accessibilities of two chocolate brands, positioned as either an outdoor activity chocolate or a film/cinema chocolate. It was expected that the outdoor situation chocolate more successfully had pursued a narrow brand strategy than the film/cinema chocolate. Consequently, the outdoor activity chocolate brand should enjoy higher situational accessibility. The first part of Study 3 confirmed these predictions, and showed that the outdoor activity chocolate had significantly shorter response times on the situational associations than did the film/cinema brand. In a second part, the two chocolates were attacked by a new (fictitious) competitor, attacking either in the outdoor situation or in the film/cinema situation. The results replicated those of Study 1, and showed that the new competitor was significantly less favorably evaluated as a new outdoor chocolate than as a new film/cinema chocolate. Hence, the pattern of results of Studies 1, 2, and 3 confirm that narrow brand strategies might perform better than broad brand strategies.

The results of these studies have several theoretical and managerial implications. First, the results contribute to branding practice by providing insight into how managers should focus their branding efforts. Specifically, the results show that a brand focusing on associative strength with a limited associative network (i.e., narrow brand strategy) will perform better than a brand with a large number of associations (i.e., broad brand strategy). Second, the dissertation applies for the first time the theory of the fan effect to branding research. Future studies could benefit by utilizing this theory on a range of different branding problems. Third, the dissertation also contributes to the psychology literature by studying how manipulating the

fans (i.e., number of associations) of a memory object affects other memory objects.

The managerial implications of the dissertation are also important. First, the results point to the importance of consistent brand management. Brand managers that focus on a few diagnostic brand associations (i.e., narrow brand strategy), and that consistently market these associations over time, will most likely succeed with their branding strategies. Specifically, they should be able to resist competition and grow the brand into new attractive categories. Second, the dissertation introduces response time latencies as a measure of associative strength in brand management. This measurement technique is well known in psychology, but until now most practitioners have used qualitative consumer interviews in measuring brand associations, labeling as strong associations those associations that are mentioned most frequently or first.

Acknowledgments

In Kevin Keller's highly influential textbook "Strategic Brand Management", he states that branding is not exactly rocket science. And he adds: "I am not a rocket scientist – but my dad was". My dad is not a rocket scientist, but I think branding, for him, appears to be rocket science.

I never expected to work in marketing. After graduating from NHH in Bergen, I was certain that I was supposed to work in management accounting. Yet, the recruiting presentation of the mayonnaise producer Mills seized my interest. I applied for a vacant position, and my later good colleague Adrian hired me as an assistant brand manager. During those first weeks at Mills I was hooked on branding – and I have never regretted my choice.

Practical brand management was fun and I learnt a lot during my Mills years. Yet, I never really understood the theories behind branding. What was the science of branding? Luckily, I got the opportunity to attend NHH's Executive MBA program in Brand Management – and those two years changed my career. Meeting Leif Hem, and his colleagues at NHH, opened up the academic world of marketing, and by the end of my MBA, I sacrificed nearly half my yearly wage and became a doctoral student. OK, I must confess that there have been some dark hours when I seriously have wondered whether this was a sane and sensible choice. (Ask my wife!) However, it has definitely been worth it.

There are a number of people that I would like to thank for their part in this journey. First, I thank Professor Leif Hem, who is probably to blame for my being in academia at all. In addition to luring me into academia, he has become a good friend. I look forward to cooperating with you on future research projects and executive branding programs. The second person I want to thank especially is my primary advisor Bendik Samuelsen. He has nursed me through this doctoral project, and is also my trusted co-author on other projects (both published and in process), primary academic discussant, business partner and good friend. For the moment we work at different schools, but who knows what the future will bring.... Third, Adrian Peretz. As you said in your own doctoral defense last year, "Our paths seem to cross". We first met at Mills, then at NHH and now at Markedshøyskolen (MH). You are extremely important part of my daily professional life. In fact, we *are* the consumer behavior research group at MH.

I must also thank the faculty, staff and doctoral students at both NHH and BI for their feedback, advice, doctoral courses and just being good colleagues

and conversation partners. In particular, I would like to thank my co-advisor Fred Selnes, Luk Warlop, Even Lanseng, Kristin Rogge Pran, Ingvild Kobberstad, Eirik Haus, and Tor Wallin Andreassen. Thank you also to Trond Blindheim and Line Christoffersen at MH, who have believed in my skills and hired me as associate professor last year.

I have always received strong family support working on this project. My father may think that branding is rocket science, but as a Professor of Medicine, he understands the world of science. In my family we have always discussed research, science and new knowledge with an academic perspective and critical sense of thought, and in later years I have been able to discuss many peculiarities of academia with my parents – experienced as they are with the sometimes strange ways of academic life. I think these experiences have helped me through the doctoral process, and certainly in my role as faculty member at MH. Thank you Mom and Dad.

My father-in-law, on the other hand, knows branding. He started his professional marketing career in the 1960s and as director of marketing at TINE was an important contributor to the success of the international cheese brand JARLSBERG. I am immensely grateful for all his advice, comments and ideas that we, including his wife and his daughter (my wife), have debated over the last years – especially at Humla. I would also like to thank my parents-in-law for carefully picking up my daughter at kindergarten once a week these last months, giving me the opportunity to work late and to write this dissertation.

Finally, two persons stand out and are the persons I dedicate this dissertation to – my wife, Hege, and daughter, Kajsa. Hege has been of great personal support, never giving up, always encouraging me to take another doctoral course in Bergen or to travel for a week to another conference. But, she has also, as a marketing professional herself, been able to provide me with very valuable input in the process. I am eternally grateful! Kajsa has not yet been giving me any direct intellectual support on branding – except by stating that PIPPI and PINGU are great TV fun. But, she is just by herself a source of inspiration. I love you both.

Oslo, June 20, 2010

Lars Erling Olsen

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1. Introduction

Brand managers make decisions about how to strategically position their brands and about how to influence their brands' associative networks in consumers' memory (Gardner and Levy, 1955). Every brand decision – for example, communication campaigns, and other changes in the marketing mix (McCarthy, 1960) – could potentially influence the brand's associative network (Anderson, 1983; Anderson and Bower, 1973; Keller, 1993; Roedder John, Loken, Kim and Monga, 2006). For example, at the end of the 1990s CORONA supplanted HEINEKEN as the number one imported beer brand in the United States (Deshpandé and Herrero, 2002). In those years, CORONA stayed focused on its “fun, sun, and beach” position among the consumers. HEINEKEN, on the other hand, tried to increase its customer base; it shifted its focus away from its image as an upscale beer for special occasions and instead focused on a younger consumer group and everyday drinking. In addition, HEINEKEN also targeted the Hispanic market, using ethnic campaigns, and tried to compete with CORONA by using humor and sex in its advertising. It is likely that as a result of these actions, HEINEKEN added new associations to its already established associative network, and consequently the associative network became relatively large in size. CORONA, on the other hand, focused on its already established core associations and ended up strengthening these associations. However, HEINEKEN did not succeed with its brand strategy, and by the end of 2001, CORONA was the seventh best-selling beer in the United States (Deshpandé and Herrero, 2002).

The HEINEKEN and CORONA example highlights that a brand manager can choose among different strategies in managing a brand's associative network. Among the alternatives, brand managers can choose between at least two fundamentally different strategic alternatives: A. *Broad brand strategy* – building the brand by using *many* favorable associations, and thus creating a brand with a rich set of associations, and B. *Narrow brand strategy* – focusing on brand concept consistency (Park, Jaworski, and McInnis, 1986) – and thus strengthening some *few* favorable and diagnostic associations in consumers' memory.

Figure 1 shows conceptually what the associative networks of brands pursuing narrow and broad brand strategies may look like. A broad brand will have relatively many associations connected to the brand name in consumers' memory. This characteristic of the network is a consequence of the brand manager's planned strategy of using many favorable associations in the brand building efforts or it can be the consequence of failed efforts to focus on few associations in a narrow brand strategy. In the latter case, the consumers link more associations to the brand than the brand manager strategically has intended. In any case, the associative network tends to be

relatively rich. A narrow brand, on the other hand, will have fewer associations in the network. The brand manager focuses on a consistent brand image, strengthening some few favorable associations. These examples make clear that, in the beer case, CORONA clearly followed a narrow brand strategy, and HEINEKEN followed a broad brand strategy.

However, the current literature and theories in brand management do not offer any guidance for how to choose between these two strategic alternatives (e.g., Keller, 1993; 2008). The important question is: Do these strategies lead to differences in brand performance? According to the theory of the *fan effect* (Anderson, 1974), a narrow brand with fewer associations in the associative network tends to have stronger associations and the consumers activate these associations faster from memory than they do for a brand with a broader set of associations. This difference in associative strength (Fazio, Powell, and Williams, 1989; Higgins, 1996; Keller, 1993; Pullig, Simmons, and Netemeyer, 2006) could potentially influence brand performance, and, if so, should guide managers' brand building decisions. The purpose of this dissertation is to show that narrow and broad brand strategies influence brand performance differently. Specifically, its purpose is to show that a narrow brand strategy is a better strategic alternative in the important goals of: 1. Defend the brand against new competitors, and 2. Grow the brand through brand extensions.

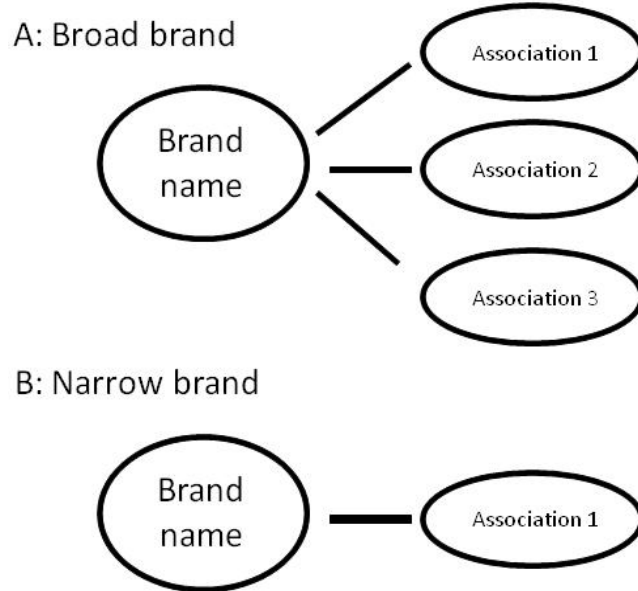


Figure 1: Associative networks caused by two alternative brand strategies

Broad brand strategies focus on increasing the size of the associative network by adding additional favorable and relevant brand associations. One example is the baking soda brand ARM & HAMMER, which has increased its associative network by adding usage associations in oral care and laundry care. More recent examples are the Chinese international beer brand TSINGTAO's move into the sports situation (e.g., adding sport to its associative network) (Popsop.com, 2009), KODAK's broadening the brand from photo equipment and printers to also include environmentally friendly associations by adding a green leaf to its logo (Shayon, 2010), and TWININGS's adding coffee to its tea-dominated associative network (Taylor, 2008).

There are several reasons why a broad brand strategy is chosen by managers. First, they expect that by increasing the brand's number of favorable associations in consumers' memory, it is likely that the general evaluation of the brand also increases. Second, an expected benefit of broad brands is that a brand with a larger number of favorable associations covers more market segments, and therefore can benefit from more differentiated market positions. For example, Teichert and Schöntag (2010) argue that a large number of associations increase the general accessibility of the brand from consumer memory. Because of these benefits, managers further believe that the brand more easily will fight off new competitors. Consequently, broad brand strategy can be perceived as a risk reducing strategy, since the brand is present in many usage situations and user groups. Third, a rich associative network will create many bases of fit relevant for succeeding with brand extensions or alliances (Aaker and Keller, 1990; Simonin and Ruth, 1998). Finally, since brands often change managers, new brand managers have a tendency to attempt "branding the brand", creating their personal imprint on the brand. Since it typically takes a long time to remove associations from consumers' memory, the easiest way of accomplishing this goal is to add new associations. To summarize, there are many valid reasons for brand managers to choose a broad brand strategy as their preferred brand building strategy, and consequently many brands tend to have rich associative networks.

Narrow brand strategies have traditionally been advocated, among others, by Park et al. (1986), and focus on the importance of brand concept consistency. Brand managers work to increase the strength of a few especially relevant brand associations (e.g., Unique Selling Proposition (USP)) (Reeves, 1961), instead of adding new favorable associations in their marketing efforts. A classic example is HEAD & SHOULDER's anti-dandruff position. The brand's choice of a narrow brand strategy has caused the size of the brand's associative network to remain relatively small, and the focus is on strengthening these few associations. Another example of a narrow strategy is the Norwegian coffee brand, EVERGOOD, which has

consistently repeated its core symbolic brand associations, the golden cup, the red color, and English aristocracy, during more than 30 years of campaigning.

There are also several reasons why a narrow brand strategy should be preferred by brand managers. First, narrow brands benefit from a clearer position in the target group than do broader brands. Since the brand utilizes fewer associations, it is likely that each of these associations is stronger (see Keller, 1993) and is activated more easily and faster (Anderson, 1974). Second, since a narrow brand has a smaller and more consistent associative network, it is more connected to the relevant cognitive category in consumers' memory (Meyvis and Janiszewski, 2004), and thus the brand is more easily identified as an alternative when the category is made salient. However, there are also several perceived risks with a narrow brand strategy. First, by focusing on only some few associations, the possibility of choosing the wrong associations increases. Second, brand managers perceive that the brand, since it covers only a small piece of the market with its associations, is vulnerable to competitors. Finally, a narrow brand strategy runs the risk of becoming outdated if consumer needs are changing or if large technological shifts take place in the market.

Both broad and narrow brand strategies can, depending on context, be superior brand strategies. Yet, because of the perceived risks of choosing the wrong associations in a narrow brand strategy, there seems to be a tendency amongst brand managers to prefer broad brands. In many situations this might be a wise decision. For example, when the brand covers many market segments and/or there are opportunities to extend the brand into many new product categories, it can certainly be beneficial to have a rich associative network. However, before researchers look into different market situations and investigate which strategy better suits different situations, it is important to investigate the basic theoretical effects of broad and narrow brand strategies. If the market situation holds constant across conditions, will broad and narrow brand strategies lead to different characteristics of the associative networks which ultimately influence brand performance? The purpose of this dissertation is to challenge the business tendency to choose broad brand strategies and thereby to show that a narrow strategy, focusing on the associative strength of a few relevant associations, at least in some situations can be the better strategy.

The evidence of whether broad or narrow brand strategies are the better alternative must be found in brand performance. In the remaining parts of the first chapter, I introduce two perspectives of brand performance, discuss the research question and contributions of this dissertation, and provide an overview of this dissertation's studies.

1.1. Brand performance

Two types of brand performance are important in brand management: *protective performance* (protect margins, markets, and customer base) and *growth performance* (brand extensions, brand alliances, price increases and licensing opportunities). (See Hoeffler and Keller, 2003, for an extensive list of the categories under each brand performance type.)¹

Protective performance. This term is associated with a brand's ability to reduce customer exit and brand switching behavior (i.e., to protect brand revenues) (Aaker, 1991; Keller, 2008). The brand's purpose is to protect brand revenues against attacks from existing and new competitors. Brand managers focus on activities aimed at serving existing customers of the brand (Johnson and Selnes, 2004), and at reducing the likelihood of brand switching behavior. If a brand is challenged and attacked in its current product category, then an important task is to defend the brand, fighting off the challenger. For example, KODAK did not manage to defend its market shares when attacked by FUJIFILM, but GILLETTE, on the other hand, successfully fought off the new challenger RUUD & RYE in the 1990s. In this context, brand performance is the ability to endure competition and to defend against competitors the brand's position in consumers' memory.

An important requirement for protective performance is that the consumer be able to access relevant and diagnostic information about the brand (e.g., Feldman and Lynch, 1988; Lynch, Marmorstein, and Weigold, 1988). When presented with a new competitor, brand B, the consumers will compare information about brand B with accessible (Higgins, 1996) associations of the established brand, brand A. If these associations are strong (i.e., accessible and diagnostic), the memory search for more information is terminated, and the consumers will most likely evaluate brand A more favorably than brand B (Fazio, Sanbonmatsu, Powell, and Kardes, 1986; Feldman and Lynch, 1988; Lynch et al., 1988). For example, if safety

¹ Many researchers use slightly different terminology. For example, Johnson and Selnes (2004) defined "defensive marketing" as activities aimed at the existing customers, and "offensive marketing" as activities aimed at increasing the size of the firm's customer base. These definitions are in line with Fornell (1992), who divided business strategy into: 1. Customer acquisitions, and 2. Reducing customer defections. Another example is Keller and Lehmann (2009), who argued that brand performance is driven by two key components: 1. Brand persistence, and 2. Brand growth. Brand persistence reflects the brand's ability to keep current customers, and brand growth reflects the extent to which current customers spend more money on the brand, either on existing products or new products (e.g., brand extensions), and also reflects the brand's ability to acquire new customers.

is an important association for the target group (e.g., families with babies/toddlers), VOLVO is for many people the first and maybe only car brand that is activated from memory. In general, brands with stronger associations have been shown to better withstand interference from competitive advertisements (Farquhar, 1989; Kent and Allen, 1994), and consumers with a high level of commitment to the brand (e.g., brand associations are formed under elaboration – thus they are stronger (see Petty and Wegener, 1999)) are more likely to reject negative information (Ahluwalia, Burnkrant, and Unnava, 2000). Finally, Erdem and Swait (1998) pointed out that brands can serve as signals of products' positions and thus decrease information costs and perceived risk in the choice. Hence, a brand that is able to signal a clearer brand image, consisting of relatively stronger associations in consumers' memory, will because of these features be more able to resist attacks from new competitors. In other words, brands pursuing a narrow brand strategy should, all else equal, demonstrate greater protective performance than brands pursuing a broad brand strategy.

Growth performance. Brand management is often considered to be a tool for business growth (Roberts, 2005; Samuelsen and Olsen, forthcoming). Growth performance includes the acquirement of additional customers, increased brand switching, and purchase frequency (i.e., increased brand revenues – Fornell and Wernerfelt, 1987). For example, it is generally believed that brands have the ability to stretch into new product categories (e.g., brand extensions – Hem, 2001; James, 2005; Olsen, Iversen, and Hem, 2008) and form alliances with other brands (Lanseng and Olsen, 2008; Rao and Ruekert, 1994; Simonin and Ruth, 1998). Or as Keller and Lehmann (2009, 6) put it:

“Given that the vast majority of new products are introduced as brand extensions, the ability of a strong brand to improve the odds for success of new products that are launched as line or category extensions is of significant importance”.

Research on both brand extensions (Aaker and Keller, 1990; Völckner and Sattler, 2006) and brand alliances (Lanseng and Olsen, 2008; Rao and Ruekert, 1994; Simonin and Ruth, 1998) has shown that the associative fit between the brand and the new product category or alliance partner is an important determinant of success. A clear link between the original brand category and the extension category enhances consumer evaluation of the extension (for reviews, Czellar, 2003; Grime, Diamantopoulos, and Smith 2002). For example, HARLEY DAVIDSON

leather jackets fit more with the brand and are probably more favorably evaluated than is a HARLEY DAVIDSON cake decor kit.²

When consumers are exposed to a new brand extension, an important requirement for evaluating fit between the extension and the brand's original product category is access to relevant and fit-diagnostic associations in memory (Feldman and Lynch, 1988; Lynch et al., 1988). Fit associations that are more accessible in memory determine the consumers' attention level and their interpretation of the information contained in the association (Loken, Ahluwalia, and Houston, 2010). Hence, consumers who more quickly can activate a fit association from memory will tend to evaluate the brand extension more favorably. In other words, brands pursuing a narrow brand strategy should display better growth performance than brands pursuing a broad brand strategy.

This overview of brand performance has also highlighted the importance of associative strength in choosing between narrow and broad brand strategies. I acknowledge that different market situations may moderate the performance effects of either of these two brand strategies. Yet, associative strength could potentially be the basic theoretical explanation of why a narrow brand strategy performs better than a broad strategy if the market situation holds constant across conditions. Theoretically, associative strength refers to how closely brand associations are related to the brand name in memory. This theoretical construct can be empirically observed as accessibility – or the speed at which an association becomes activated from memory (Higgins, 1996). For example, Pullig et al. (2006) used the term “aspect accessibility” to describe the likelihood that a given brand association comes to mind when the brand name is activated. By increasing this likelihood, the speed at which people access, recognize and verify brand associations, the relevant associations are strengthened (Higgins, 1996). On the other hand, reducing association accessibility, is what Jacoby (2001, 1049) referred to as:

“(...) the essence of a weakening of associations”.

Research on the fan effect has shown that as the number of linked nodes in the associative network increases, the time to activate a particular memory node also increases (Anderson, 1974). Based on this observation, this dissertation predicts that a brand pursuing a narrow brand strategy has more accessible associations in consumers' memory than does a brand pursuing a broad brand strategy. I will return to associative strength, accessibility and the fan effect in Chapter 2.

² This brand extension was actually voted 2005's “worst brand extension” in an annual poll by the consultant firm Tipping Sprung.

To summarize, despite the tendency of many brand managers to choose broad brand strategies in their brand building efforts, I argue that narrow brands might perform better, both in protective and in growth scenarios.

1.2. Research question

So far, the discussion has suggested that associative strength positively influences brand performance. The branding literature has discussed characteristics of the brand's associative network as important influencers of brand performance. Specifically, it has discussed the favorability, strength and uniqueness of brand associations (Keller, 1993; 2008). However, the branding literature has not been very specific about the relative importance of these individual characteristics. Or as Henderson, Iacobucci and Calder (1998, 307) put it:

“However, few papers in the marketing field have gone beyond the basic definitions of associative networks (...) Furthermore, we know of no research that has studied associative networks for the purpose of detecting branding effects and strategies”.

Characteristics of a brand's associative network have generally been perceived as important factors in explaining overall brand performance – its market share, potential price premiums and customer loyalty (Aaker, 1991; Keller, 2008). This dissertation seeks to investigate more specific parts of brand performance – the ability to protect brand revenues when attacked by a new competitor, and the ability to increase brand revenues by extending the brand into new product categories. The theoretical difference between broad and narrow brand strategies is predicted to be differences in the associative strength of some key associations. Consequently, the dissertation builds on previous theories and findings in psychology about the importance of information accessibility in judgment tasks (e.g., Feldman and Lynch, 1988; Lynch et al., 1988) and about the fan effect (Anderson, 1974), and utilizes these theories in a managerial branding context. Hence, a general research question can be formulated:

RQ: How do broad and narrow brand strategies, with different levels of associative strength, influence brand performance?
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This dissertation makes both theoretical and managerial contributions. Theoretically, it contributes to branding research by showing that increasing the associative strength of diagnostic associations influences brand performance. This finding applies both to intrinsic brand associations

(i.e., product benefits in Studies 1 and 2), and to context associations (i.e., usage situations in Study 3). The dissertation also contributes to the psychology literature. Anderson (1974) showed how increasing the size of associative networks influenced the accessibility of specific associations. However, in the psychology literature the effects of learning many or few associations of one memory object on the evaluation of another memory object have not been examined. Specifically, how do participants evaluate object B based on different associative structures of object A? In addition, the dissertation also provides insight into using a new methodology for measuring associative strength in brand management – computerized response time latency procedures. This procedure is well established in the psychology literature (e.g., the IAT literature – see for example Greenwald, McGhee, and Schwarz, 1998), but in the branding literature associative strength has mainly been measured (in qualitative consumer interviews) by using frequency of mentioning, order of mentioning (i.e., top of mind associations) etc. (see Oakenfull and McCarthy, 2010; Roedder John et al., 2006; Supphellen, 2000; Teichert and Schöntag, 2010). Finally, the dissertation contributes to branding practice by providing insight into how managers should focus their brand building efforts. Specifically, this dissertation will show that a brand focusing on associative strength with a limited associative network (i.e., narrow brand strategy) will perform better than a brand with a large number of associations (i.e., broad brand strategy).

1.2.1. Overview of studies

Three studies were designed to test the basic assumption that a brand with a narrow brand strategy performs better than a brand with a broad brand strategy. Associative strength was the crucial independent variable in these studies. Manipulations were therefore needed to establish differences in associative strength between the two conditions, representing the two alternative brand strategies, holding all other variables constant. In line with the theory of the fan effect (Anderson, 1974), participants were instructed to learn one association in condition 1 (narrow strategy) and three associations in condition 2 (broad strategy). This manipulation was intended to produce between groups differences in associative strength on a target association. Associative strength was measured using response time latencies (RT) according to established procedures outlined in the literature (Fazio, 1990; Ratcliff, 1993).

Study 1 focused on whether a narrow brand strategy was better than a broad brand strategy on protective brand performance. The basic premise was that increasing associative strength of a target association for brand A should lower the evaluation of a new competitor brand B, thereby positively influencing brand A's protective performance. If the theory of the fan effect

holds (Anderson, 1974), it is expected that by limiting the associative network, increased accessibility of the target association should be accomplished, which ultimately leads to decreased evaluation of the competitor (i.e., increased protective performance of brand A).

Study 2 focused on brand performance in growth strategies. The same stimuli and associative strength manipulations developed in Study 1 were also used in Study 2. However, a growth scenario was developed by telling the participants that brand A was extended into a new and related product category. As in Study 1, if the fan effect holds, a brand focusing on only one association (i.e., narrow strategy) should benefit from increased associative strength of the target fit association, which ultimately should influence evaluation of the new extension (i.e., increased growth performance of brand A).

The purpose of Studies 1 and 2 was to establish the basic effect that a brand with a narrow brand strategy performs better than a brand with a broad brand strategy, and to establish that this performance difference can be explained by differences in associative strength. Thus, the focus in these studies was entirely on internal validity (Shadish, Cook, and Campbell, 2002).³ Study 3 relaxed this requirement and introduced real brands as stimuli in a real-life application of the theory. In addition, the types of associations used in Study 3 were different from the types used in Studies 1 and 2. In those studies, the participants learnt about concrete product benefits (i.e., intrinsic cues). In Study 3, the accessibility of usage associations was measured. Therefore, Study 3 also served the purpose of generalizing the performance effects of narrow brands to settings with other types of associations (see Keller, 1993).

The remaining parts of this dissertation are organized as follows. To establish a psychological foundation for understanding why narrow brands might perform better, Chapter 2 focuses on human associative memory and on associative strength. Specifically, theories of associative networks, spreading activation, the accessibility-diagnostics model and the fan effect are thoroughly presented. Chapters 3–5 describe the three studies in more detail, including hypotheses, methodologies, and findings. Lastly, Chapter 6 concludes this dissertation with a general discussion of the results with regard to the research question, limitations of the current research and avenues for future research.

³ Or to put it another way: without internal validity, there is no validity to externalize (Shadish et al., 2002).

2. Human Associative Memory

A widely accepted theory in brand management is the associative network model of human associative memory (see Keller, 1993; Roedder John et al., 2006; Teichert and Schöntag, 2010). It proposes that brand associations are organized in memory networks, and that consumers use brand names as retrieval cues about product attributes and benefits and other diagnostic information stored in memory (Van Osselaer and Janiszewski, 2001). According to the associative network model or human associative memory theory (HAM) (Anaki and Henik, 2003; Anderson, 1983; Anderson and Bower, 1973; Collins and Loftus, 1975; Keller, 1993; Wyer and Srull, 1989), information about the brand is stored in the semantic memory (e.g., memory of meanings, understandings, and other fact-based knowledge – Tulving, 2002) as a network of concept nodes connected by associative links varying in strength (Roedder John, Loken, and Joiner, 1998; Roedder John et al., 2006; Supphellen, 1998).

The purpose of this chapter is to review the main HAM theories applied in the branding literature – associative network models and theories of spreading activation. Thereafter, these insights will be used to understand the role of associative strength in consumers' judgment tasks. Thus, the last parts of the chapter will focus on the accessibility of brand associations in consumers' memory and how it influences subsequent judgment tasks.

2.1. Associative networks

Pratkanis (1989) argued in his model of a “fully developed attitude” that attitudes consist of three parts: 1. An attitude object (e.g., skinheads or a brand). 2. An evaluative summary (e.g., favorable or unfavorable), and 3. A supporting knowledge structure (i.e., associations) (e.g., skinheads are stupid or the brand contains vitamins). This dissertation focuses on the final part of Pratkanis's structure – the supporting knowledge structure, or the associations in consumers' memory, that influence brand evaluations and brand extension evaluations. An individual can create (i.e., learn), retain and access associations of a memory object. Once accessed, these associations can be used by an individual in various ways. For example, the individual's associations of his neighbor contain his feelings towards the neighbor and beliefs about the neighbor. These associations next influence how the individual describes the neighbor to a friend, evaluates the neighbor as a potential babysitter, and decides how to behave when the neighbor throws a wild party at 2 AM (Smith and Queller, 2001). Associations can be explicit – intentionally retrieved from memory – or implicit – influence attitudes below

conscious awareness (Greenwald and Banaji, 1995). Smith and Queller (2001, 112) mentioned as examples:

“We rely on explicit memory when remembering a friend’s phone number (...),” and: *“It is implicit memory, on the other hand, that causes us to avoid approaching a person who looks like our childhood tormentor (...).”*

The word association points to understanding the term as a relationship between two pieces of information in memory. Hence, a generally acknowledged model of consumer memory is the idea that associations are stored as a *network organization* of memory nodes which are connected by links varying in strength (Anderson, 1983; Anderson and Bower, 1973; Collins and Loftus, 1975; Keller, 1993; Quillian, 1962). *Nodes* are stored pieces of information – e.g., concepts, words, perceptual features etc. – and the *links* connect and relate these nodes to each other (Anderson, 1983; Bargh, 1984; Baker, 2003). As such, it is important to note that parts of the meaning contained in each node must be derived from the pattern of linkages to other nodes (Smith and Queller, 2001). For example, if the node SERVICE is connected with MCDONALD’S in memory, linking nodes like FAST, CONSISTENT and CLEAN to the network increases the information value of SERVICE (Roedder John et al., 2006). In essence, these associations may be thought of as *chunks*, as a collection of information pieces having strong associations with one another, and simultaneously activated (Bettman, 1979; Miller, 1956). Some links are stronger, or have a length that makes it shorter to cross them than to cross others. For example (adapted from Hutchinson, 2003), the node CHERRY may be connected to the word RED in the associative network, since red is a strongly connected feature of cherries. Yet, since CHERRY is part of the more superordinate network FRUIT, APPLE might also be connected to CHERRY, but these nodes are further apart and more weakly linked than CHERRY and RED.

Generally, the links in the associative network are strengthened when the memory nodes are experienced or thought about simultaneously (e.g., experience the service level at a MCDONALD’S restaurant). For example, Berger and Fitzsimons (2008, Study 4) found that participants who had been exposed to pictures of dogs significantly evaluated PUMA sneakers more favorably than other sneaker brands. The researchers argued that the reason for these findings is that “dogs” and “cats” (e.g., Pumas) are strongly associated in memory. When one of these concepts is primed, for example “dogs”, the activation should spread to “cats”, thus making the PUMA brand more accessible in a later judgment task.

In a branding context, the brand name serves as the central node (Baker, 2003) around which the associations form the associative network (Punj and Hillyer, 2004). Exposure to an exemplar, associate or conceptual feature of a brand node (e.g., a brand element – see Keller, 2008) “activates” the node and any adjacent nodes linked in the network (Mantonakis,

Whittlesea, and Yoon, 2008). For example, the brand name VOLVO may be linked to memory nodes like SAFE and FAMILY. Furthermore, when VOLVO is activated, other nodes like SOLID and BORING, linked to VOLVO, are subsequently activated. Figure 2 conceptually displays a possible associative network of VOLVO (adapted and translated from Samuelsen, Peretz, and Olsen, 2007).

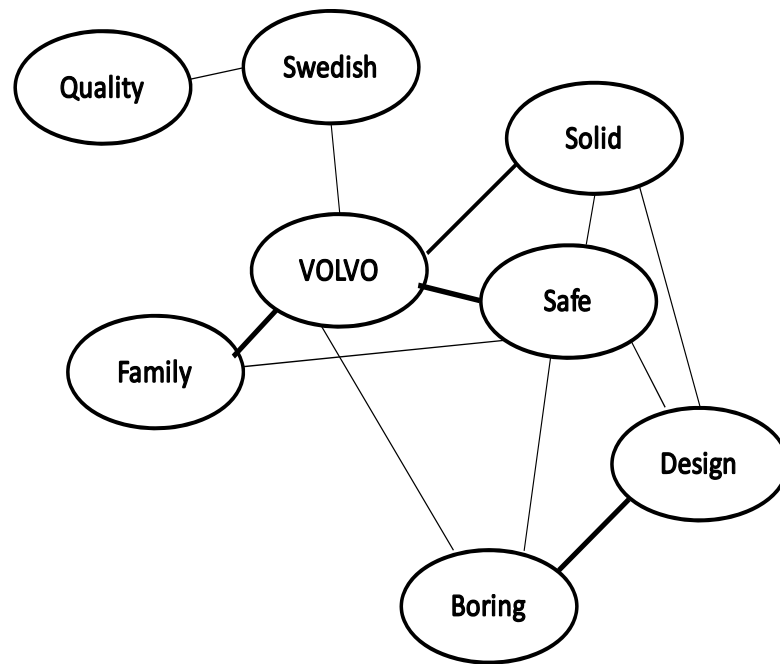


Figure 2: A possible associative network of VOLVO

Higgins (1996) distinguished between available and accessible knowledge structures. The associations can be available, implying that they are stored in memory and have the potential to be activated, whereas accessibility refers to their readiness to be activated at a particular point in time. An individual may have a lot of information about the brand available in the associative network, but it is not necessarily accessible at all times, having the potential to influence evaluative responses (Eagly and Chaiken, 1993).

2.1.1. Spreading activation

The process of how associations are activated and remembered by the consumers is commonly called a *spreading activation* process (Collins and Loftus, 1975; Quillian, 1962). Node after node in the associative network is accessed when the consumers are exposed to the brand name.⁴ The activation spreads automatically from the brand node to semantically linked neighbors. For example, being exposed to the word “DOG”, will activate nodes like BARK, LEASH and even CAT (Hutchinson, 2003; see also Berger and Fitzsimons, 2008). The process is automatic, indicating that it occurs quickly and unintentionally even when the consumer is engaged in other activities (Posner and Snyder, 1975).

Collins and Loftus (1975) pointed out that associative networks have three important properties:

1. *Non-hierarchical*. The strength of the links between the memory nodes represents closeness in memory. Search time will depend on the associative strength between nodes in memory.
2. *Spreading activation*. Activation of one node leads to parallel spread to other nodes in the network. Research by Kahana (2002) indicated that the principle of associative symmetry, whereby each member of an associated pair of nodes can activate the entire network independent of the order of presentation, is favored over the independent association hypothesis, which postulates that the order of presentation matters (see also Lei, Dawar and Lemmink (2008) on the asymmetric effects of spillover between brands in brand portfolios).⁵
3. *Activation decreases over time*. Further activation of memory nodes demands a renewed activation (Ratcliff and McKoon, 1981).

⁴ In addition, brand-related information can also be activated by exposure to the broader product category (cf. Nedungadi, 1990) or by realizing a consumer goal/need which next can activate the brand (i.e., can satisfy the need) (Ratneshwar, Pechmann, and Shocker, 1996).

⁵ Consider the two memory nodes VOLVO and SAFE, which likely are closely connected in memory. The independent association hypothesis proposes that the connection between the two nodes is separately modifiable and independent. Activation of VOLVO can activate SAFE through spreading activation, but an activation of SAFE does not necessarily mean that VOLVO is accessed by the consumer. Associative symmetry, on the other hand, proposes that associative strength between the nodes is equal in nature. Therefore, activation spreads in both directions at equal speed.

2.2. Associative strength

The discussion so far points to the important insight that consumers' memory can be thought of as consisting of associative networks, in which brand associations are activated through spreading activation. Yet, an important question is whether the speed of activation causes superior brand performance. Therefore, an important goal of brand management is to create associations that readily come to mind and are diagnostic in judgment situations. Brand managers are primarily interested in how to influence the associative network to increase the likelihood of higher brand evaluations which subsequently cause brand choice.

The strength and the number of links between memory nodes in associative networks determine the extent of the spreading activation process – or the amount of information about the brand that is retrieved from memory (Ratcliff and McKoon, 1981). The level of associative strength between a brand and a memory node depends on the frequency⁶ (Fazio, 1986), the uniqueness of the memory node (Meyers-Levy, 1989), the recency of last activation, and the extent to which the link between the two nodes has been cognitively elaborated upon (Greenwald and Leavitt, 1984). For example, it is reasonable to believe that there is a strong link in memory between the memory nodes SALT and PEPPER and the nodes BREAD and BUTTER, since these nodes often are activated together (i.e., frequency). Hence, strong associations are accessed faster and more fluently than weaker associations in the network (see Fazio, Chen, McDonel, and Sherman, 1982; Neely, 1976). For example (see Figure 2), it is likely that SAFE is accessed relatively faster than is BORING when a consumer is exposed to VOLVO. Even though both information nodes certainly are part of VOLVO's associative network, SAFE is linked more strongly to VOLVO than is BORING.

These mechanisms of associative strength can explain the predicted differences of narrow and broad brand strategies. In narrow brand strategies, the associations are more frequently activated, the individual associations are relatively more unique and each specific association is more recently activated than is the case for broad brand strategies. In broad brand strategies, each individual association is less frequently activated and in some cases only parts of the associative networks are activated in a choice situation. Consequently, it can generally be expected that narrow brands have stronger and more accessible associations in the consumers' memory than do broad brands.

⁶ An often used metaphor is that frequency of activation is a walk down a new path in a dense forest. With frequent walks in the forest, the path will become more visible (accessible) on the ground and the journey through the forest will become faster.

Associative strength is conceptually related to *attitude strength*. There is no general agreement regarding the precise definition of *attitude strength* (see Bohner and Wänke, 2002; Krosnick and Petty, 1995; Priester, Nayakankupam, Fleming, and Godek, 2004). However, many researchers have agreed that attitude strength is the result of cognitive elaboration (Petty, Haugtvedt, and Smith, 1995), and that *attitude strength* can be defined according to its consequences (Bohner and Wänke, 2002). Krosnick and Petty (1995, 3) defined attitude strength as⁷:

“The extent to which attitudes manifest the qualities of durability and impactfulness”.

Hence, there is general agreement that attitude strength positively influences (see Glasman and Albarracín, 2006; Miller and Peterson, 2004; Wegener, Downing, Krosnick, and Petty, 1995):

- The persistence of the attitude over time
- The resistance to persuasion (e.g., to information about competitors)
- The capacity of the attitude to predict behavior.

According to Keller (1993; 2008), attitudes are part of the associative network in the same manner as are attributes and beliefs about the brand. Therefore, it is reasonable to argue that associative strength shares the same capabilities as those of attitude strength. Regarding both attitude and associative strength, it is assumed that strength is caused by frequent repetition of the association and of connected links (Fazio, 1986), by the recency of the last activation in memory, and by cognitive elaboration of associations and attitudes towards the attitude object (Greenwald and Leavitt, 1984; Petty and Cacioppo, 1986). Important implications are that stronger associations are more resistant to competitor actions (e.g., marketing communication), and that it is more likely that stronger associations are accessible in brand evaluations and judgment tasks. Hence, if narrow brands have stronger associations than broader brands, they should perform better.

⁷ In a review article about attitude strength, Miller and Peterson (2004) noted that accessibility has become the dominant and seemingly default indicator of attitude strength, even though other measures like attitude certainty (Krosnick and Schumann, 1988) and attitude importance (Krosnick, 1988) have been used. This finding is further supported in a meta-analysis by Glasman and Albarracín (2006), who found that accessible attitudes correlated more strongly with future behavior. Accessibility, measured as response time latencies, is therefore employed as a measure of associative strength in this dissertation (see Fazio, 1986). In the methodology section, this choice is further accounted for.

Essentially, associative strength can be measured by level of accessibility (Bohner and Wänke, 2002; Fazio, 1986; Smith and Queller, 2001; Wyer, 2008). Hence, the empirical observation of consumer's associative strength measures the speed at which they activate a target association – the level of accessibility. Next, this construct is further addressed.

2.2.1. Accessibility

In the literature, *accessibility* – the ease with which an association comes to mind in processing an input (Bohner and Wänke, 2002) – is often used as an empirical manifestation of associative strength. Wyer (2008) suggested that there are four determinants of accessibility:

1. The strength of the association between the information node to be accessed and other related nodes that have been already been activated
2. The recency with which the memory node has been acquired and used
3. The frequency with which the memory node has been activated
4. The amount of cognitive processing of the memory node and linked nodes.

A careful inspection of these four determinants reveals that accessibility shares many of the same proprieties as attitude strength, and thus of associative strength. Increased associative strength can be the result of recent activation of a particular association and of more frequent use of that association. The more a memory node is thought about in relation to other nodes, the stronger and more accessible are the links between corresponding nodes (Smith and Queller, 2001). Since activation occurs more easily when links are strong, the retrieval of stronger associations via spreading activation is more likely. For example, Fazio (1986) suggested that if an attitude (or association) is expressed frequently, the link between the attitude and the attitude object can get so strong that merely perceiving the object can result in automatic activation of the evaluation (e.g., research on stereotypes). Hence, these associations and attitudes are more accessible.

Researchers have identified that associations can be chronically or temporarily accessible in memory (see Bohner and Wänke, 2002). For example, a professor deeply involved in hunger research may think of food frequently during a normal work day because he frequently discusses food and hunger with his colleagues, and thereby these concepts are linked to many memory nodes (Higgins, King, and Mavin, 1982). Food and food-related concepts are therefore more likely to be accessible in memory than other associations. More interestingly, some associations might be temporarily accessible in specific situations (for a review see Lord and

Lepper, 1999; see also Study 3 in this dissertation). This temporary accessibility is mainly influenced by the recency of the last activation. Semantic priming (see Sherman, Mackie, and Driscoll, 1990) is one way to make a particular association more accessible in memory. For example, research by Berger and Fitzsimmons (2008, study 1) showed that orange candies and soft drinks (e.g., REESE'S and SUNKIST) were more accessible in memory one day before Halloween than one week after Halloween. Thus, the orange environment primed the node ORANGE, making orange products more accessible in choice situations.

To summarize, the essence of accessibility is that it makes a particular association more available in memory and increases its influence on judgments and decisions (Biehal and Chakravati, 1983). Thus, that particular association is strong.

2.2.2. Accessibility-diagnosticsity

Association accessibility is important, but is not the only factor that influences how associations are used in judgment situations. The availability-valence model (Kisielius and Sternthal, 1986) and *accessibility-diagnosticsity model* (Feldman and Lynch, 1988) both define determinants of the likelihood that memory nodes will be used as input in judgment tasks. The accessibility-diagnosticsity model (Lynch et al., 1988) suggests that if two associations – A and B – enjoy the same accessibility in consumers' memory, any factor that increases the diagnosticsity of A will increase its use in the subsequent judgment and will decrease the use of association B. Furthermore, increasing the diagnosticsity of association A will increase the likelihood that memory search will terminate if A comes to mind before B is considered. For example, if you are in the market for a new car and VOLVO quickly pops up as an alternative, it is likely that SAFE also will be very accessible in memory. If SAFE is diagnostic (i.e., relevant for the decision) the memory search terminates and BORING DESIGN will probably not be retrieved. Hence, a brand that follows a narrow brand strategy focusing on diagnostic associations should experience higher accessibility of these associations relative to brands pursuing a broad brand strategy.

According to Dick, Chakravati, and Biehal (1990) information that is more reliable and relevant receives more weight in a judgment task. A brand association is therefore perceived as diagnostic to the degree that the consumers subjectively believe that the judgment caused by the association will accomplish a decision goal (e.g., maximize utility – Lynch et al., 1988). Feldman and Lynch (1988) postulated that any input (e.g., association) will be used to influence a judgment as a function of:

1. The accessibility of the input in memory
2. The accessibility of alternative inputs
3. The diagnosticity of the input and alternative inputs.

An important implication is that when multiple diagnostic associations exist in consumers' memory, increasing the accessibility of one association decreases the accessibility of other associations. Furthermore, the most accessible association will be used as input in a subsequent judgment task

2.2.3. The fan effect

Accessibility and diagnosticity are important determinants of whether a specific association is important in a judgment task. However, the pattern of the associative network is also an important determinant of the use of individual associations in judgment tasks. Anderson (1974) let participants study twenty-six facts about people in locations. For example *a hippie is in a park, a hippie is in the church, a fireman is in a park* etc. Each participant studied one, two, or three facts about each person and location (e.g., the memory nodes of the persons were linked with one, two or three other memory nodes in the associative network). The participants were drilled on the stimuli material to a point where they knew the material well. Hence, the associative networks across conditions were well established. After studying the material, the participants were tested on how quickly they could recognize the sentences they had studied (target) and on their ability to reject foil sentences which were novel to them. The results showed that the latency scores in recognizing the sentences increased as the number of links increased: one fact =1.11 seconds, two facts =1.17 seconds, and three facts =1.22 seconds. In other words, response times increased as the number of facts learnt increased.

This effect has been labeled the *fan effect* (Anderson and Reder, 1999). The term *fan* refers to the number of facts, or linked nodes, that “fan out” of a specific memory node. Research on the fan effect has shown that as the number of linked nodes increases, the time to activate a particular memory node also increases (see Sohn, Anderson, Reder, and Goode, 2004). As more links are attached to the node, the amount of activation that is spread down any link from the node is reduced, requiring more time to access a particular node or association. In essence, the strength of individual associations (i.e., accessibility) weakens. The fan effect has been shown in psychological research on face recognition (Anderson and Paulson, 1978), on retrieval of real-world knowledge (Lewis and Anderson, 1976), on effects of aging (Radvansky, Zacks, and Hasher, 1996), and on effects of working memory capacity (Cantor and Engle, 1993). However, the fan effect has, to

my knowledge, never been applied in branding research. Specifically, it can be expected that broader brands have more fans (i.e., more associations) than do narrow brands. Thus, it takes a longer to activate a particular association of brand when pursuing a broad brand strategy than it does when pursuing a narrow brand strategy. In the next chapter, the fan effect theory will be utilized in hypotheses generation.

2.2.4. Accessibility influences judgments

If an association is both accessible and diagnostic for the judgment task, it is likely that the consumers find the task easier and more fluent to perform (Novemsky, Dhar, Schwartz, and Simonson, 2007; Schwartz, 2004). This subjective feeling of ease and fluency will ultimately influence the judgment favorably. For example, in an initial study by Higgins, Rholes and Jones (1977), the authors found that participants were significantly more likely to use trait-related information about a person, primed in the first part of the experiment (i.e., increasing the accessibility of the traits), to categorize a target person's behaviors as positive or negative in a second "reading comprehension" task. Wyer (2008) concluded that consumers' judgments and decisions are typically based on the knowledge that is accessible at the time of the decision. The accessible information is not necessarily the most relevant or reliable, but is the information that comes most easily and fluently to mind (see Bargh, 1997; Higgins, 1996; Wyer, 2008).

The *fluency* literature (for a review see Winkielman, Schwarz, Fazendeiro, and Reber, 2003) shows that consumers' subjective feelings regarding the ease of processing information about an object are positively related to their evaluations of that object. Lee and Labroo (2004) and Labroo and Lee (2006) have shown that increasing the information accessibility of an object – via prior exposure to the same or related information (i.e., priming) – causes participants to develop more favorable evaluations of that object (see also Shen, Jiang and Adaval, 2010 for an updated review on the effects of processing fluency). Labroo, Dahr, and Schwartz's (2008, study 1) research on frog-labeled wines showed one example of this effect. The participants in the test group were asked to visualize a test word ("frog") in the first phase of the study, with the intent of making the word more accessible in memory. Then in a second phase, the participants were asked to choose between two wines – where one of the wines had a frog on the label. The results showed that the target wine was significantly more chosen in the test group than in the control group, in which the participants were exposed to a neutral test word in phase one. Exposure to the concept node FROG, made frogs more accessible in the participants' memory, and thus increased its influence on subsequent evaluations. Or as Labroo et al. (2008, 820) put it:

“We suggest that the semantic accessibility of constructs that match the perceptual features of the target make the target easier to process visually, thereby increasing its aesthetic appeal and liking of the target”.

2.3. Summing up human associative memory

The preceding discussion of human associative memory theories shows that these theories are fundamental in understanding how brands are positioned and stored in consumers’ memory. Brands are built upon positions in consumers’ memory, and since brands are memory nodes, equal to all other semantic knowledge structures (Tulving, 2002), research on associative memory is important in understanding how brands should be built and managed (Keller, 1993).

To summarize, the likelihood that a specific brand association might influence a judgment task (e.g., acceptance of a brand extension and evaluation of a new competitor), depends on several variables:

- 1 The strength of the association or the accessibility of that particular association in consumers’ memory
- 2 The diagnosticity of the specific association for the judgment task
- 3 The pattern of the associative network, in which the fan effect postulates that the accessibility of a specific association is negatively correlated with the number of linked brand associations (Anderson, 1974).

Consequently, this chapter suggests that brands could benefit from focusing on the accessibility of only a few diagnostic brand associations in consumers’ memory (Feldman and Lynch, 1988; Lynch et al., 1988). If these target associations are strengthened, the consumers would more likely access diagnostic information in a judgment situation (e.g., accepting the new brand extension or rejecting the new competitor). In addition, research on the fan effect (Anderson, 1974; Anderson and Reder, 1999) has further highlighted the importance of strengthening some few diagnostic brand associations. In essence, brand managers should consider a narrow brand strategy instead of the apparently more popular broad brand strategy.

However, no studies have empirically shown how brands pursuing different brand strategies perform based on associative strength as the explaining variable. The purpose of this dissertation is therefore to empirically test the performance effects of broad and narrow brand strategies. Specifically, Studies 1 and 2 test whether narrow brands perform better than broad brands.

3. Study 1: Protective Performance

The research question in this dissertation asks how narrow and broad brand strategies influence brand performance. Specifically, I argue that a narrow brand, with relatively stronger but equally diagnostic associations as those of a broad brand, will perform better in the market. I have argued that brand performance concerns both protective performance and growth performance, and in Chapter 2 I further argued that associative strength is the underlying variable that can explain differences in brand performance between the two brand strategies. To summarize, Chapter 2 provided the theoretical explanation of why brand managers should focus on strengthening a few relevant associations in consumers' memory and not choose the alternative strategy of continuously adding more favorable associations (i.e., choose narrow brand strategies over broad brand strategies).

Study 1 focuses on the first of type of brand performance – protective performance. Specifically, will a relatively narrow brand perform better in a protective scenario than a broad brand? This chapter is organized as follows. First, Study 1's hypotheses are specified based on the previous theory review. Second, Study 1's methodology is described, including stimuli development, pretests and a measurement section. Third, Study 1's findings are presented with an empirical test of the hypotheses. Finally, Study 1 is summarized and discussed.

3.1. Hypotheses

The purpose of Study 1 is to provide evidence that associative strength positively influences protective brand performance in a context where brand A is attacked by brand B. If the predictions derived from the theory of the fan effect and the accessibility-diagnostics model are supported, Study 1 should show that:

- Focusing on a few diagnostic associations in the associative network increases the accessibility of individual associations for brand A
- Increasing association accessibility for brand A negatively influences evaluation of a new competitor, brand B.

Associations can vary in strength. Some associations are strongly linked to the brand and others are weakly linked. The important point is that associative strength manifests itself empirically as the degree of consumer accessibility of the specific association in a judgment task (Higgins, 1996).

Stronger associations are more accessible in memory, and thus they are more likely to influence judgment. However, accessibility is just one of the variables that influence whether a specific association is retrieved by the consumers when faced with a judgment task. Feldman and Lynch (1988) also showed that diagnosticity of the associations is important for judgments. If an accessed association is deemed to be diagnostic, further memory search is brought to an end, and weaker associations are not retrieved from memory. Therefore, it is important for brand managers to ensure that the strongest, most accessible associations in consumers' memory also are the most diagnostic for judgments.

The fan effect (Anderson, 1974) postulates that as the associative network increases in size (i.e., more fans), the relative accessibility of individual associations weakens. Specifically, with more associations linked to a brand, the response time latency in retrieving an individual association increases. This finding can be employed in brand management. Brand managers should focus on increasing the strength of only a few diagnostic brand associations in their effort to succeed with protective strategies. By frequent repetition of these few associations in their marketing efforts (i.e., consistent marketing communication), brand managers should over time be able to build a brand with accessible, diagnostic and favorable brand associations among consumers. In essence, brand managers should focus on narrow brand strategies. When a new competitor is launched in the product category, consumers should have fewer reasons to elaborate on information about the new competitor, since the current brand already is accessible and diagnostic in memory. For example, if a narrow brand A possesses 1–3 strong associations that satisfy consumers' needs, then as these associations are accessed and judged diagnostic by the consumers, there is no further need to continue the memory search that could potentially have made the broad brand B accessible (Lynch et al., 1988). When later asked explicitly about their evaluation of brand B, consumers would most likely evaluate this brand less favorably than they would brand A.

Furthermore, Hawkins and Hoch (1992) discussed the *truth effect*, which can further support this prediction. The truth effect postulates that repeated statements – thus making them stronger and accessible in memory (i.e., frequency – Wyer, 2008) – were more likely to be judged as true than were similar non-repeated statements (Hasher, Goldstein, and Toppino, 1977). This effect does not depend on the actual and objective truth value of the statements, and the effect is observed even when participants are instructed at the first encounter to remember the statements (Schwartz, 1982). Thus, the effect of repeated brand associations should further impact evaluations and make a narrow brand, with few, but repeated associations (i.e., more accessible), more favorably evaluated than a broad brand with many and less repeated associations (i.e., less accessible). Hence, the two hypotheses in Study 1 are:

H1: *A narrow brand with relatively few favorable associations in consumers' memory enjoys higher levels of associative strength on a specific target association (i.e., more accessible association) than does a broad brand with relatively many equally favorable associations.*

H2: *A new competitor will be more favorably evaluated when it challenges a broad brand with low associative strength on a target association (i.e., less accessible association) than when it challenges a narrow brand with high associative strength on a target association (i.e., more accessible association).*

3.2. Methodology

In this section Study 1's research design is discussed. First, the experimental procedure is outlined, and then details of measurements and manipulations of the independent and dependent variables are discussed, including pretests.

3.2.1. Overview of research design

Study 1 was conducted in six steps. First, to be able to manipulate narrow and broad brand strategies associated with different levels of associative strength, the participants should have no prior associations to the target brand used in Study 1. In addition, it is important that the target brand's product category is not dominated by a few very salient brands that block new competitors in the category (Nedungadi, 1990; Van Osselaer and Alba, 2000). Since, the participants undoubtedly have associations to product categories and real-world brands, it was deemed necessary to pretest several potential product categories with the goal of finding a product category with brands at equal recall and top-of-mind awareness levels. In addition, a fictitious brand was developed as stimuli.

Second, in the first pretest participants were also asked to provide general associations with the product category. These associations were used as a source to choose associations to be included in later stimuli development. The participants were instructed to write down all thoughts that came to mind when thinking about the product category (see Greenwald, 1968; Petty, Ostrom, and Brock, 1981; Supphellen, 2000). Each individual cognitive response was coded into explicit statements and grouped together with other similar thoughts. Essentially, this procedure created a list of associations for each product category included in the pretest.

Third, in a second pretest, the goal was to establish the diagnosticity (Lynch et al., 1988) of the elicited associations. An important requirement in

Study 1's design is that the associations used in the manipulations do not differ in diagnosticity across conditions. If they were to, this difference would produce an alternative explanation of the later reported results. Participants rated each association on an unimportant/important-for-choice scale, and the results of this pretest were used as input in the stimuli development.

Fourth, consistent with theories of the fan effect (Anderson, 1974) and of the truth effect (Hawkins and Hoch, 1992), level of associative strength was manipulated between conditions. The participants were taught either one (i.e., narrow brand strategy) or three associations (i.e., broad brand strategy) about the fictitious target brand. Since Study 1's purpose was to test the performance effects of associative strength, and not participants' abilities to learn the provided information, it was important to control for different levels of message rehearsal. Therefore, an experimental procedure was installed to make sure that participants in both conditions memorized the associations, and they were not allowed to proceed in the questionnaire until they could satisfactorily elicit the learnt associations from memory.

Fifth, the main study was carried out in a computer lab. Participants were randomly assigned to one of two experimental conditions. Table 1 shows the design of Study 1. After participants were exposed to manipulations of associative strength, accessibility of the learnt associations was measured. Computerized response time latencies (in milliseconds) were recorded using the MediaLab software (MediaLab software, v2008, Empirisoft) with specialized push-sensitive keyboards as technical equipment. This procedure was used to test Hypothesis 1.

Associative strength	Strong	Condition A: Narrow brand strategy (One association)
	Weak	Condition B: Broad brand strategy (Three associations)

Table 1: Design of Study 1

Sixth, participants were informed of a new competitor entering the product category. The fictitious brand's protective brand performance was tested using the evaluation of the new competitor as dependent variable. That is, the evaluation of the new competitor served as a measure of the incumbent brand's protective performance, in which more favorable evaluations of the new competitor indicated less protective performance of the incumbent brand. This measurement provided a test of Hypothesis 2. Details of the pretests, manipulations, and measurements are presented next.

3.2.2. Pretests

The purpose of the first pretest was to find a product category in which no dominant brands (i.e., one or two brands have large proportions of market share) block⁸ the category (Nedungadi, 1990). It was important to minimize the likelihood that the product category in itself influenced associative strength, and thus interfered with the establishment of narrow and broad brand strategy conditions. For example, if the fast-food category had been chosen as product category, it was very likely that MCDONALD'S, being the dominant actor, would have influenced the results, independent of associative strength manipulations.

To solve this problem, several product categories (sun lotions, shampoos, DVD players, and digital cameras), in which the author by Internet search and general market knowledge could not identify any dominant brands, were pretested. Forty-one undergraduate business students (29.3% males; 70.7% females; median age 21 years old) were recruited from the same population as were participants for the main study, and participated voluntarily in a large lecture hall. Upon arrival, participants were told that they should evaluate different product categories, and were given a booklet with stimuli and measures. The order of the product categories was randomized across participants and the participants provided answers on all measures of each product category before moving on to the next category. After participants completed the questionnaire, their age and gender were recorded and they were thanked, debriefed, and dismissed.

The questionnaire contained two measures – unaided recall and cognitive responses. First, participants were told to think about the product category and write down the names of every brand that came to mind – one

⁸ Laurent, Kapferer, and Roussel (1995) reported that when the average recall of two market leaders is 95%, a theoretical level of 75% aided-recall (recognition) translates into 13% unaided-recall (recall). If the average aided-recall of two market leaders is 50%, the same level of recognition produces a theoretical recall of 44%. These findings illustrate the potential blocking problem of nr. 3 and 4 brands in a category.

brand per line (Aaker, 1991; Keller, 2008). The first brand mentioned was recorded as the top-of-mind awareness brand, and all the rest of the brands on the list, including the top-of-mind brand were recorded as recalled brands in the category.

Second, when turning the page of the booklet, participants were again told to think about the product category. However, this time they were required to list all thoughts that came to mind when thinking about the category, one thought per line on a single page (Gotlieb and Dubinsky, 1991; Harkins and Petty, 1987; Petty et al., 1981). Each thought was coded into explicit statements by the researcher, grouped together with other related thoughts, and reported as individual category associations. Pretest 1's results are presented in Tables 2 and 3.

	Sun lotions	Shampoos	DVD players	Digital cameras
Total number of recalled brands	32	38	34	18
Mean number of brands recalled (std. deviation)	3.83 ^a (2.09) ^b	5.67 (3.17)	3.80 (1.93)	3.30 (1.35)

a=mean value; b=std.deviation

Table 2: Recall results of Pretest 1

	Sun lotions	Shampoos	DVD players	Digital cameras
Total number of unique associations listed	30	34	30	25
Mean number of associations listed (std. deviation)	6.23 ^a (2.91) ^b	4.51 (2.13)	4.72 (1.92)	5.43 (2.61)

a=mean value; b=std.deviation

Table 3: Number of associations elicited in Pretest 1

These results established that all four product categories could potentially serve as host of the fictitious target brand. However, since Study 2 introduces a brand extension, perceived category fit between categories was deemed important (Aaker and Keller, 1990; Völckner and Sattler, 2006). Shampoo and sun lotions were therefore chosen as product categories, using shampoo as product category for the fictitious target brand in both Studies 1 and 2, and using sun lotion as extension category in Study 2.

There were two reasons for this choice. First, the shampoo produced the highest mean number of recalled brands ($M=5.67$), indicating that no individual brands dominated the category. Further analysis showed that the three top brands in the category had 16–22% top-of-mind recall⁹, that seven brands were above 20% in unaided recall, and that fifteen brands were above 10%. Second, in the other potential group of categories, DVD players and digital cameras, the total number of digital camera brands (18) recalled was much lower than in the other categories (see Table 2). In addition CANON dominated the category with 61% top-of-mind recall with the second brand in the category, SONY, at only 19%. Based on these results, the conclusion drawn from Pretest 1 was to use the shampoo category as host for a fictitious target brand in Study 1.

The purpose of Pretest 2 was to identify which associations to use in the manipulations, and to establish the level of diagnosticity of the elicited associations. Unimportant or very important associations have the potential to influence general brand evaluations. Consumers will most likely evaluate an unknown brand solely on these extreme associations if they are present and the influence of less extreme associations will be reduced. The presence of extreme associations could therefore increase the likelihood that measured associative strength can be attributed to the use of stronger arguments or more diagnostic associations, not to the amount of cognitive processing and rehearsal by the consumers. In addition, extreme associations have the potential to activate other real-world brands in the test category, and in this way produce an unwanted confound in the analysis. To reduce this potential problem in the design, it was important to identify diagnostic, but also not very important associations, to use in the manipulations. Finally, it was important to identify associations that had the same level of diagnosticity across the experimental conditions. Hypothesis 1 predicts differences in associative strength based on the theory of the fan effect and not on differences in diagnosticity. Hence, the level of diagnosticity should not differ across conditions.

Thirty-two undergraduate business students (65.6% females, 34.4% males; median age 21 years old), recruited from the same population as were the participants in the main study, rated each elicited association from Pretest 1 (presented as statements – e.g., *Has good PH-values*) one by one on a seven-point semantic differential scale with scale anchors: “unimportant” (1) and “very important” (7). The three middle associations (i.e., the rated mean association, plus one above and one below the mean: $M=3.94$, $Std.Dev=1.69$) were selected as stimuli. These associations were: *Has good PH-values* ($M=4.03$, $Std.Dev=1.93$), *Is more durable than other shampoos* ($M=3.94$; $Std.Dev=1.69$), and *Protects against dangerous UV*

⁹ HERBAL ESSENCE 22%, L’OREAL 16 % and WELLA 16 %

rays ($M=3.90$; $Std.Dev=1.66$). The mean values of these associations also indicated that they were equal in level of diagnosticity.

Altogether, these pretests should make sure that Study 1 utilizes a category in which no real-world brands dominate and hence potentially influence the results. The pretests also helped identifying associations that were equally diagnostic for judgment, but still relatively neutral to the participants. This procedure should reduce the influence of strong arguments as a potential alternative explanation of the hypothesized findings.

3.2.3. Participants and procedures

In Study 1, sixty-three undergraduate business students served as participants (males: 55.6%; females: 44.4%, median age 23 years old). They were recruited in the school's library; all participated voluntarily and received a gift certificate (100 NOK) upon completion of the test session. They participated in groups of up to ten persons in a computer lab. Upon arrival the participants were told that the purpose of the experiment was to test the effects of learning about new consumer products, hence disguising the true purpose of the experiment. Each participant was seated in front of a computer, which ran the MediaLab software (v2008, Empirisoft). The participants were randomly assigned to the different conditions, and instructed by the experimenter to enter the assigned condition to run the experiment.

First, after reading a short introduction text, the participants were exposed to the manipulation: an information text about the new shampoo brand, ZELL, in one of two versions. Since, it was important that the participants cognitively processed and learnt the information provided about ZELL, they were instructed to read carefully. Second, in a rehearsal exercise the participants were not allowed to proceed in the questionnaire until they had correctly identified which statements in a series of statements were true about ZELL. This procedure was employed to ensure that the participants learnt ZELL's associations on an equal level across conditions, and thereby ruled out the alternative explanation that differences in learning abilities influenced the effects on the dependent variable. More details of the manipulations will be provided in the next section.

Third, the participants were told that a series of statements would appear, one by one, on the screen (e.g., *Moscow is a country*; *Copenhagen is the capital of Denmark*), and that their task was to press the appropriate keys (1=true, 9=false) to indicate whether the statement was true or false. This filler task had two purposes. First, to reduce hypothesis guessing and to control for differences in mere remembrance of ZELL's associations, a temporary delay to clear out working memory was deemed important (see Nayakankuppam and Mishra, 2005). Second, the response times measured in

this filler task served as measures of the individual participant's natural response time latencies.¹⁰ The next section will outline the importance of this measure in more detail. The participants were instructed to work as quickly as possible without sacrificing accuracy (Fazio, 1990). In total, eighteen statements appeared on the screen (nine true, and nine false statements) in randomized order. This block was repeated once, so that each respondent provided answers on a total of thirty-six true-false statements.

Fourth, ZELL's associative strength was tested as a test of Hypothesis 1. The participants were instructed that a series of statements regarding ZELL would appear on the screen, and that their task was to indicate as quickly and accurately as possible, by pressing an assigned key, whether the statement was true or false. In essence, this procedure was similar to the filler task procedure. In total, eighteen statements appeared in randomized order, and this procedure was repeated once, so that the each participant in total provided answers on thirty-six statements. However, in this last procedure, the ratio of true to false statements was not 50:50. Depending on the assigned experimental condition, one or three statements in each block of eighteen statements appeared to be true to the participants. Yet, since the purpose of this task was to measure response time latencies, that is, how quickly the participant provided a response and not the actual response score, this potential flaw in the design was not considered to be a major problem.

Fifth, the participants rated their attitudes towards ZELL. Sixth, the participants were exposed to another brand entering the shampoo market – SHIKA – well known for its good PH values. Immediately, after learning about the second brand, the participants rated the new brand on the *Overall Brand Equity scale (OBE-scale)* (Yoo and Donthu, 2001), which served as dependent variable in testing Hypothesis 2. Finally, the participants stated their age and gender and were thanked, debriefed, paid, and dismissed.

3.2.4. Manipulations and measurements

Manipulation

Two text boxes were developed equally in all respects except for the number of associations associated with the fictitious brand ZELL. In the narrow brand strategy condition, only one association was listed: *has good PH values*. In the broad brand strategy condition, three associations were listed: 1. *Has good PH values*, 2. *Protects against dangerous UV rays*, and

¹⁰ Some people are just quicker in expressing their responses. Or as “The Wolf” character in Quentin Tarantino’s film “Pulp Fiction” (1994) puts it: “I think fast, I talk fast”.

3. *Is more durable than other shampoos.* Appendix 1 presents the stimuli used in Study 1.

Response time latencies

A measure of associative strength was needed both as a manipulation check and as a dependent variable to test Hypothesis 1. Associative strength has traditionally been measured by either the order of reported associations (top-of-mind) or the frequency of mentioning (Keller, 2008; Miller and Peterson, 2004; Oakenfull and McCarthy, 2010; Roedder John et al., 2006; Supphellen, 2000; Teichert and Schöntag, 2010). However, these procedures do not in a reliable way measure how strongly the different memory nodes are linked together in memory (see Meyvis and Janiszewski, 2004 for a similar call for more specific measures of association accessibility). Therefore, to measure associative strength, a more sophisticated instrument was needed.

Recently the Implicit Association Test (IAT) (Greenwald et al., 1998) has increased in popularity. The IAT measures relative associative strength between two opposite categories.¹¹ In a typical IAT procedure, the participants use two keys to sort out stimuli of four categories, two target categories (e.g., flowers and insects) and two associative categories (e.g., evaluative associations: pleasant and unpleasant). The stimulus appears in the center of the screen, and the participants must quickly categorize it into one of two categories using one of two designated keys. For example, a picture of a rose may appear, and the respondent must quickly categorize it into either insects or flowers. The critical procedures in an IAT are those concerning the combinations of target categories and associative categories – called combined blocks. During these blocks, one target category and one associative category share the same key (e.g., flower and pleasant vs. insects and unpleasant). After participants provide responses in the first block, the assignment is switched for the target, but not for the associative categories (now insects and pleasant share the same key). The critical measure is the difference in average response time latencies (response time latencies measured as milliseconds) between these two blocks. If the response is faster and more accurate for flower and pleasant than for flower and unpleasant, even when the order of presentation is reversed, a relative preference for flowers over insects is inferred.

Some associations do not have a natural opposite that can be used in IAT measures. For example, the association “red” has no natural opposite.¹²

¹¹ In principle all categories that can be considered to be opposite may be used. For example, males/females, black/white, favoring Stravinsky over Shoenberg and favoring tiramisu over zabaglione (see Kilhstrom, 2004.)

¹² Red is actually one of the three primary colors (the others are yellow and blue). On color wheels, the color opposite red is green.

Nosek and Banaji (2001) have proposed a Go/No-Go Association Task (GNAT) for these situations. This procedure closely resembles the IAT procedure, but instead of sorting target objects and associations into two separate categories, the GNAT measures the response times of singular targets only. The participants respond with “GO” (a button on the keyboard), if the stimulus belongs to the category, and do nothing in response to other stimuli. In a GNAT the target object usually is presented by using several different exemplars of the object (e.g., pictures, logos, words etc.) as stimuli. The response time latencies of the “GO” responses serve as a measure of associative strength.

GNAT and IAT seem to be more complicated than necessary for this dissertation’s purpose. First, there is no natural opposite category to the manipulated stimuli, making the IAT procedure impossible. Second, there are problems in presenting the fictitious target brand ZELL using different exemplars of the brand (e.g., fruit =apples, bananas, oranges etc.), which makes it difficult to use the GNAT procedures. For those two reasons, a much simpler response time latency procedure to determine associative strength was chosen (see Fazio, Herr, and Powell (1992) for a conceptually similar argument for the use of response time latencies as a measure of associative strength).

Specifically, response time latencies were measured on a series of statements to be judged as true or false. For example, the participants responded “true” or “false” to the statements: *ZELL contains proteins* and *ZELL thickens the hair*. If they believed that the statement was correct, they should press the assigned “true” key as fast as possible, or if the opposite was perceived to be correct, they should press the “false” key. If ZELL was more strongly associated in memory with *contains proteins* than with *thickens the hair*, then the response time latencies (measured in milliseconds) should be significantly shorter for the first statement than for the second statement. The conclusion should be that *contains proteins* is a stronger association (more accessible) in the participants’ memory.

However, there are some problems in using response time latencies as dependent variables. First, these measures are notorious for their departures from the normality assumption and are usually skewed with a long right tail (Fazio, 1990; Ratcliff, 1993). Second, in analyzing response time latencies, outliers are often a problem. Outliers, that is, very short or very long reaction times¹³, are usually the results of the participants guessing the correct responses, of inattention to instructions or of participants’ failures to respond (Ratcliff, 1993). To deal with these shortcomings of response

¹³ Ratcliff (1993, 511) summarized this problem stating that: “Short outliers stand alone; long outliers hide in the tail”. In essence, he pointed out that there are usually no problems to identify short outliers, but long outliers must be dealt with more carefully.

time data, a three-step procedure as, recommended by Fazio (1990), was conducted. First, an outlier analysis on the response time latencies was conducted. This analysis can be done in several ways: eliminating all observations higher than a specific cutoff value, transforming the data according to a fixed rule, trimming the mean by eliminating the longest response times in each condition, calculating medians instead of means, eliminating response times above some value determined by standard deviation, or “windorizing” – that is, replacing all observations *above* two standard deviations above the mean by the *exact* value of two standard deviations above the mean (i.e., replacing all extreme values with the highest “acceptable” value – see Ratcliff (1993) for a detailed account of the different procedures). In the IAT literature, most researchers have dealt with outliers in accordance with Greenwald et al. (1998), recoding reaction times shorter than 300 milliseconds and larger than 3000 milliseconds into 300 milliseconds and 3000 milliseconds, respectively. Ratcliff (1993) simulated and tested several elimination procedures and concluded that this procedure, using fixed cut-off values, is the preferred methodology. Therefore, each response time latency (RT) was examined closely, and RTs shorter than 300 milliseconds and longer than 3000 milliseconds were recoded according to the described rule.

Second, after carefully scrutinizing the response time latencies for potential outliers, the response time latencies for each association should be averaged and subjected to a logarithmic transformation (*Ln transformation*) to meet the normality assumption (Fazio, 1990).

Third, Fazio (1990) recommended that individual differences in RTs should be controlled for. This can be done in different ways. One way is to use each participant’s mean RT on the filler exercise as a covariate to isolate variance due to individual differences (Pullig et al., 2006). Another method is to use the procedures advocated by Priester et al. (2004). In these procedures the logarithm of the average response time latencies for all the statements in the filler task for each individual participant are calculated – called the *baseline response time latency*. This measure serves as the individual participant’s chronic and natural response time latency. Then, the baseline response time latency is subtracted from the logarithm of the average of each brand association to construct an adjusted response time latency index for each association. Consequently, this procedure ends up with an index of the average response time latency for each association on a participant by participant basis (Fazio, 1990; Van Zandt, 2002). Hence, an adjusted RT index was constructed as an index of each participant’s RT for each individual association statement. Mathematically, the following equation represents the dependent variable testing Hypothesis 1:

$$\text{Adjusted RT Index of Association}_x = \text{Ln}(\text{RT Association})_x - \text{Baseline RT}$$

Dependent variable

The dependent variable testing Hypothesis 2, the evaluation of the attacker brand SHIKA, was measured using the Overall Brand Equity scale (OBE) (Yoo and Donthu, 2001). The scale consists of four, seven-point Likert-type statements (1=strongly disagree, 7=strongly agree), measuring the value of a specific brand compared with the value of similar competing brands in the product category. The OBE scale items are:

1. *It makes sense to buy SHIKA instead of any other brand, even if they are the same.*
2. *Even if another brand has the same features as SHIKA, I would prefer to buy SHIKA.*
3. *If there is another brand as good as SHIKA, I prefer to buy SHIKA.*
4. *If another brand is not different from SHIKA in any way, it seems smart to purchase SHIKA.*

There were several reasons for the choice of the OBE scale as dependent variable. First, the participants were asked to compare the fictitious target brand with an unbranded counterpart. The comparison of similar objects (e.g., same features, no brand names) creates an excellent means to measure potential acceptance of the new brand (Yoo, Donthu, and Lee, 2000). Second, the OBE scale emphasizes the intention to buy the target brand. Hence, it caused the participants to actively consider switching from real-life established brands to the fictitious brand. Third, this dissertation focuses on brand performance. The use of the OBE scale should therefore allow the participants to more realistically evaluate and compare the new offer with the established brands in the market. Finally, the alternative to using the OBE scale could have been to use a semantic differential scale with positive and negative scale anchors (e.g., 1=unfavorable, 7=favorable). However, semantic differential scales do not compare two objects simultaneously and thus provide measures of only one object at a time.

However, it can be argued that the OBE scale is more relevant for comparing established brands and not fictitious brands on brand performance, because the participants lack knowledge about the fictitious brand and therefore should have problems in comparing it with real world competitors. On the other hand, the current study focuses on the relative differences between the conditions, not the actual scores on the scales. Therefore, the OBE scale was used as a dependent variable in testing Hypothesis 2.

However, brand attitudes towards ZELL, used as a covariate in Study 1, were measured using semantic differential scales, because the participants were not required to compare ZELL with any other brands. Brand attitudes were measured with three seven-point scales with

instructions and scale anchors: “To what extent did you find the brand... *bad – good, negative – positive, unfavorable – favorable*” (see Haugtvedt, Petty, and Cacioppo, 1992).

3.3. Findings

This section presents Study 1’s results and tests of Hypotheses 1 and 2.

3.3.1. Manipulation check and test of Hypothesis 1

Hypothesis 1 predicted that a brand pursuing a narrow brand strategy with few favorable associations would enjoy higher levels of associative strength on a specific target association than would a brand pursuing a broad brand strategy with many favorable associations. Specifically, it was expected that the accessibility (i.e., associative strength) of the target association – *has good PH values* – measured as response time latencies should be lower in condition A (one association) than in condition B (three associations).

Fazio’s (1990) three-step procedure described in the last section was used to calculate the dependent variable, in which the RTs recorded in the filler task were used as measures of individual response time latencies. Consequently, an adjusted RT index as an index of each individual participant’s RT for each specific statement (i.e., association) was constructed.

A one-way MANOVA on these measures showed that the target association – *has good PH values* – was significantly more accessible by the participants in the narrow brand condition A than by those in the broad brand condition B ($M_A=1479$ ms vs. $M_B=1741$ ms, $F(1, 61)=7.30$, $p<.05$). This result supports Hypothesis 1.

Furthermore, as expected, the two associations provided only in the broad brand condition were significantly more accessible by the participants in this condition than by the participants in the narrow brand condition – *Protects against dangerous UV rays* ($M_A=1786$ ms vs. $M_B=1461$ ms, $F(1, 61)=5.60$, $p<.05$) and *Is more durable than other shampoos* ($M_A=1747$ ms vs. $M_B=1328$ ms, $F(1, 61)=9.50$, $p<.05$). These results also served as a manipulation check of the differences in accessibility between conditions A and B, in testing Hypothesis 2. Figure 3 shows these results graphically.¹⁴

¹⁴In line with the practice used in the IAT literature (see Greenwald et al., 1998), Figures 3, 4, and 5 show the mean (untransformed) RT values of each association.

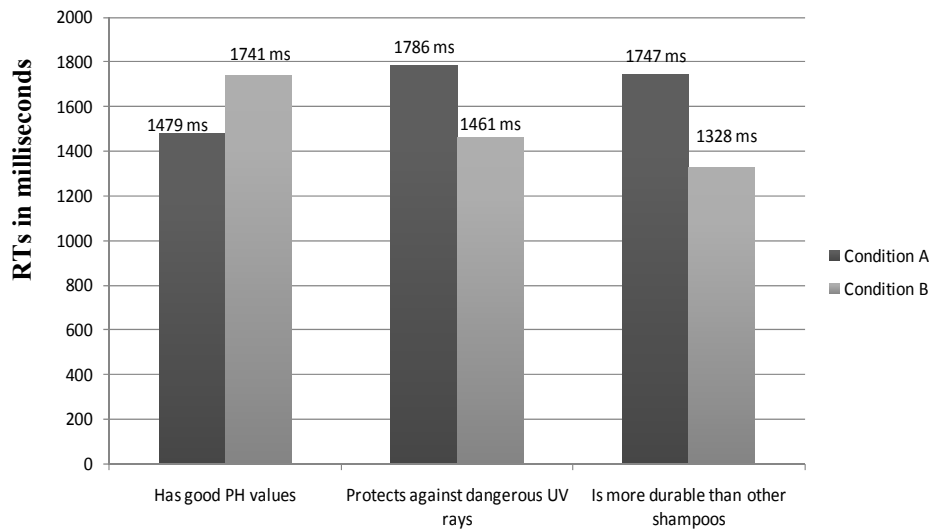


Figure 3: Study 1 - RTs in milliseconds on target associations (mean values)

3.3.2. Test of Hypothesis 2

Hypothesis 2 predicted that a new competitor, brand B, would be more favorably evaluated when it challenged brand A if brand A pursued a broad brand strategy (i.e., low associative strength) than if brand A pursued a narrow brand strategy (i.e., high associative strength). The test of Hypothesis 1 established that there are differences in associative strength between conditions A and B on the target association – *Has good PH values*. Specifically, Hypothesis 2 predicted that participants in condition A (i.e., ZELL with one association – narrow strategy) would respond less favorably to SHIKA (the new competitor) than would participants in condition B (i.e., ZELL with three associations – broad strategy).

Study 1’s design utilized two fictitious brands – ZELL and SHIKA. Therefore, it is not likely that any of the participants have attitudes towards the fictitious brands, prior to exposure, that could influence the results. Essentially, the brands appear to be almost similar – both focusing on PH values. However, ZELL in condition B has three associations whereas SHIKA has only one association. This difference in the amount of information could potentially influence the participants’ attitudes towards both ZELL and SHIKA. For example, in the ELM literature (Elaboration Likelihood Model) it has been shown that the number of arguments could influence attitudes in low-effort processing contexts (i.e., peripheral route to persuasion – see Petty and Cacioppo, 1986). A second potential problem is what Pandelaere, Millet, and Van den Bergh (2009) called the “first

exposure effect”. Although, ZELL and SHIKA are both fictitious brands, the order of presentation could influence attitudes. More specifically, Pandelaere et al. (2009) demonstrated that first encountered stimuli may be more liked than later encountered stimuli. In other words, “the first exposure effect” could favorably benefit ZELL. These findings build on works concerning the pioneering advantage of brands that enter markets first (Carpenter and Nakamoto, 1989).

To summarize, an alternative explanation of the predicted effects of different brand strategies in Hypothesis 2, could be attitude differences towards the first presented brand ZELL. Consequently, it was important to control for attitudes towards ZELL in the analysis of Study 1. Therefore, pre-attitudes towards ZELL (i.e., attitudes measured before presenting the new competitor SHIKA) were used as covariates in the analysis.

ZELL’s brand attitude index was constructed as the average scale of three highly interrelated attitude items (Cronbach’s $\alpha=.964$). The OBE scale was constructed by forming an averaged index from the four highly interrelated scale items (Cronbach’s $\alpha=.946$). This index served as the dependent variable in a between-subjects ANCOVA. Details of the ANCOVA analysis are presented in Table 4.

Levene’s test was not significant ($F(1, 61) = .005, p > .05$), indicating that the assumption of homogeneity of variance across conditions holds. The analysis showed that SHIKA was evaluated less favorably in condition A (i.e., one association – narrow strategy) than in condition B (i.e., three associations – broad strategy) ($M_A=2.51$ vs. $M_B=3.16, F(1, 60) = 4.03, p < .05$,) (see Table 4). The effect size, measured as eta squared, approached moderate strength ($\eta^2=.056$).¹⁵

In other words, ZELL’s single association in condition A was more accessible in memory when participants were presented with SHIKA, and thus ZELL in the narrow condition was more able to resist the attacker than in the broad condition B with three, and less accessible, associations. In addition, the covariate, pre-attitudes towards ZELL, was also significant ($F(1, 60) = 7.41, p < .05$), indicating that attitudes towards ZELL had a significant effect on the evaluation of the new competitor. However, the covariate did not influence the differential effects of the conditions on the dependent variable (the ANCOVA produced mean scores in the same direction as did an ANOVA in an analysis without covariates). These results support Hypothesis 2.

¹⁵ Cohen (1988) provided the following guidelines on eta squared values: .01=small effect, .06=moderate effect, and .14=large effect.

<i>Dependent Variable:</i> <i>OBE Index (SHIKA)</i>		Mean	Std. Error	N
Condition	A (one association)	2.51 ^a	.225	32
	B (three associations)	3.16 ^a	.228	31

- a. Covariates appearing in the model are evaluated at the following values:
Attitude Index (ZELL) = 4.1746.

Table 4: Study 1 - ANCOVA - Descriptive statistics

3.4. Summary and discussion of Study 1's findings

The purpose of Study 1 was to provide evidence that associative strength positively influences protective brand performance. Specifically, if a brand focuses on a narrow brand strategy with a few diagnostic associations, these associations should be relatively more accessible than the associations of a broad strategy brand with relatively many associations in consumers' memory (H1). In addition, this difference in associative strength should influence protective brand performance, and a new competitor should be evaluated less favorably (H2). Consequently, narrow brand strategies cause better protective performance than do broad brand strategies.

The underlying rationale behind these predictions was that stronger associations are more accessible in memory. When a new competitor attacks the incumbent brand on one of these associations, the incumbent brand is more easily activated, and if the accessed brand associations are diagnostic, further memory search is not needed. Essentially, brands with stronger associations would be more resistant when attacked on those strong associations than would be brands with weaker associations. Anderson's (1974) fan effect was used to theoretically explain how associative strength is the consequence of the two alternative brand strategies. According to the fan effect, when the size of the associative network increases, the relative accessibility of individual associations is reduced. Hypothesis 1 therefore predicted that a narrow brand with one association would enjoy higher accessibility of that particular association by the participants than would a broad brand with three associations, and Hypothesis 2 predicted that participants in the narrow strategy condition would evaluate the new competitor less favorably than they would evaluate it in the broad strategy condition.

The findings supported these hypotheses. First, in accordance with research on the fan effect, it was shown that fewer associations in the

network increase the accessibility of a target association. Participants in the one-association condition had significantly shorter response time latencies than in the three-associations condition. Furthermore, evidence was found to support the prediction that increasing associative strength of a target association also increases the protective brand performance. Specifically, the new competitor SHIKA was evaluated less favorably in the narrow brand strategy condition than in the broad brand strategy condition. Study 1 therefore suggests that protective brand performance, measured as the capability to resist competition, increases with increasing accessibility of key diagnostic associations. In essence, managers should choose a narrow brand strategy rather than the alternative broad brand strategy, if the alternative strategies are evaluated on protective brand performance.

However, protective brand performance is only one dimension of brand performance. Study 2 therefore focuses on the second of these performance dimensions – growth performance.

4. Study 2: Growth Performance

Study 2 examines the effects of broad and narrow brand strategies on growth performance. It focuses on how the choice of brand strategy influences the evaluation of a brand extension from ZELL. In other words, Study 2 examines whether a brand extension by a brand built upon few, but strong, associations (i.e., narrow brand strategy) is more favorably evaluated than is an extension by a brand built upon many associations (i.e., broad brand strategy).

This chapter is organized as follows. First, Study 2's hypothesis is specified based on the previous theory review. Second, Study 2's methodology is described, including stimuli development and a measurement section. Third, Study 2's findings are presented with an empirical test of the hypothesis. Finally, Study 2 is summarized and discussed.

4.1. Hypotheses

The purpose of Study 2 was to test the assumption that narrow brands, associated with stronger associations, perform better in growth scenarios than do broad brands. Specifically, if associative strength influences growth performance, Study 2 should show that:

- A brand extension of a narrow brand, A, associated with few and accessible associations, should be more favorably evaluated than a brand extension of a broad brand, B, associated with many and less accessible associations.

Brands can pursue growth in many ways (see for example Aaker, 1991; Samuelsen and Olsen, forthcoming). Among different alternatives, one important growth strategy for brands is to extend the brand into new product categories. Brands pursuing extension strategies look for ways to ease access to new categories and customers. Research on brand extensions has shown the importance of associative fit between the brand and the potential extension category (Aaker and Keller, 1990; Völckner and Sattler, 2006). However, an important determinant of fit judgments is the accessibility of diagnostic associations necessary to establish perceptions of fit. If the consumer does not quickly and accurately retrieve the diagnostic association from memory (Lynch et al., 1988), lack of perceived fit could be the result. Next, this lack of fit could influence extension evaluations making them less favorable.

Meyvis and Janiszewski (2004) argued that the accessibility and diagnosticity of associations determine the success of brand extensions. Diagnostic brand associations in the existing product category could be used to infer potential benefits in the extension category. Therefore, if these benefits are more accessible in consumers' memory, it is more likely that the extension will be favorably evaluated. Specifically, Meyvis and Janiszewski (2004; H1) predicted that if two brands have equally desirable benefit associations, consumers will prefer the extension from the brand with the most accessible associations. Essentially, when two brands have equally fitting associations with an extension category, the brand with stronger associations, that are more accessible in consumers' memory, will have more success than will the brand with weaker associations. Therefore, a brand's growth performance is based not only on the perception of fit between the brand and the new category, but also on the accessibility of those associations underlying the fit.

Study 1 found, based on the fan effect (Anderson, 1974), that a broad brand strategy, which increases the number of associations in the associative network, reduced associative strength of a specific target association. It can therefore be expected that in an extension scenario where two brands share the same fit-diagnostic association, a brand extension by a narrow brand with higher associative strength of this particular association should be more favorably evaluated than will be an extension from a broad brand (i.e., an extension adding more, non-diagnostic associations to the broad brand). Hence, Hypothesis 3 in Study 2 is:

H3: A brand extension will be more favorably evaluated if the brand pursues a narrow brand strategy with higher associative strength (i.e., is more accessible) on the diagnostic fit association than if the brand pursues a broad brand strategy with lower associative strength on the fit association (i.e., is less accessible).

In addition, Study 2's findings should replicate the findings in Study 1 on the accessibility effects of the target association in narrow vs. broad brand strategies. Hence, Study 2's findings should also replicate the findings in relation to Hypothesis 1 in Study 1.

4.2. Methodology

In this section, Study 2's design is discussed. First, the experimental procedure is outlined, and then details of measurements and manipulations of the dependent and independent variables are discussed.

4.2.1. Overview of research design

Essentially, Study 2's design replicated Study 1's design, using the same initial manipulations. ZELL – a new fictitious shampoo brand – was introduced to the participants in one of two conditions. In the narrow brand strategy, condition A, the participants were instructed to rehearse that ZELL had one key association – good PH value. In the broad brand strategy, condition B, in a similar procedure, the participants were told that ZELL had three associations – good PH value, protected against dangerous UV rays and was more durable than other shampoos.

The participants were exposed to the stimuli and answered the questionnaire in a computer lab (MediaLab software, v2008, Empirisoft). After participants were exposed to the initial stimuli, a similar procedure as the one used in Study 1 was carried out to measure the participants' individual response time latencies on a filler task and to measure the associative strength (i.e., accessibility) of the target associations.

So far, the procedures were similar to those of Study 1. However, the next step in Study 2 was to expose the participants to ZELL's new growth initiative. The participants were told that ZELL had plans to launch a new product in Norway, ZELL sun lotion with optimal PH values. Hence, ZELL sun lotion based its fit with the original category, shampoo, on the same association (i.e., PH values) in both conditions (see Aaker and Keller, 1990). After learning about the brand extension, the participants provided answers on how they evaluated the new sun lotion on the OBE scale. This measurement provided a test of Hypothesis 3. Details of the participants, procedure and measurements are presented next.

4.2.2. Participants and procedure

In Study 2, sixty-nine undergraduate business students (males: 49.3%; females: 50.7%, median age 22 years old), recruited from the same population as was used for the pretests and Study 1, served as participants. They were recruited in the school's library; all participated voluntarily and received a gift certificate (100 NOK) upon completion of the test session. The participants were randomly assigned to the different conditions, and instructed by the experimenter to enter the assigned condition to run the experiment.

The first part of the experiment was similar in all respects to the first part of the experiment in Study 1. The participants were exposed to the manipulation, in one of two versions, the manipulations were rehearsed, the participants provided responses to the filler task (individual response time latencies), the accessibilities of ZELL's associations were measured, and finally attitudes towards ZELL were recorded.

Then, however, Study 2's course diverged from that of Study 1. The participants were told that ZELL had plans to extend the brand into a new product category in Norway. Specifically, the participants were exposed to information about the new ZELL sun lotion – with optimal PH values. Immediately after exposure, the participants filled out the OBE scale for the extension, stated their age and gender and were thanked, debriefed, paid, and dismissed. Appendix 1 presents the stimuli used in Study 2.

4.3. Findings

This section presents Study 2's findings and the test of Hypothesis 3.

4.3.1. Manipulation check and replication test of Hypothesis 1

Fazio's (1990) three-step procedure described in Chapter 3 was used to recode the recorded RT measures. Consequently, an adjusted RT index as a logarithmically transformed index of each participant's RTs, adjusted for individual response time latencies, was constructed for each specific statement (i.e., association).

A one-way MANOVA on these measures showed that the target association – *Has good PH values* – was significantly more accessible by participants in condition A (narrow strategy) than in condition B (broad strategy) ($M_A=1526$ ms vs. $M_B=1716$ ms, $F(1, 67) = 5.06$, $p < .05$). As expected, the two associations provided only in condition B were significantly more accessible by the participants in condition B than in condition A (*Protects against dangerous UV rays* ($M_A=1933$ ms vs. $M_B=1577$ ms, $F(1, 67) = 5.75$, $p < .05$) and *Is more durable than other shampoos* ($M_A=1910$ ms vs. $M_B=1625$ ms, $F(1, 67) = 5.25$, $p < .05$). The results are graphically shown in Figure 4.

These results replicated the results in Study 1 and provided further support for Hypothesis 1. Additionally, these results served as Study 2's manipulation check.

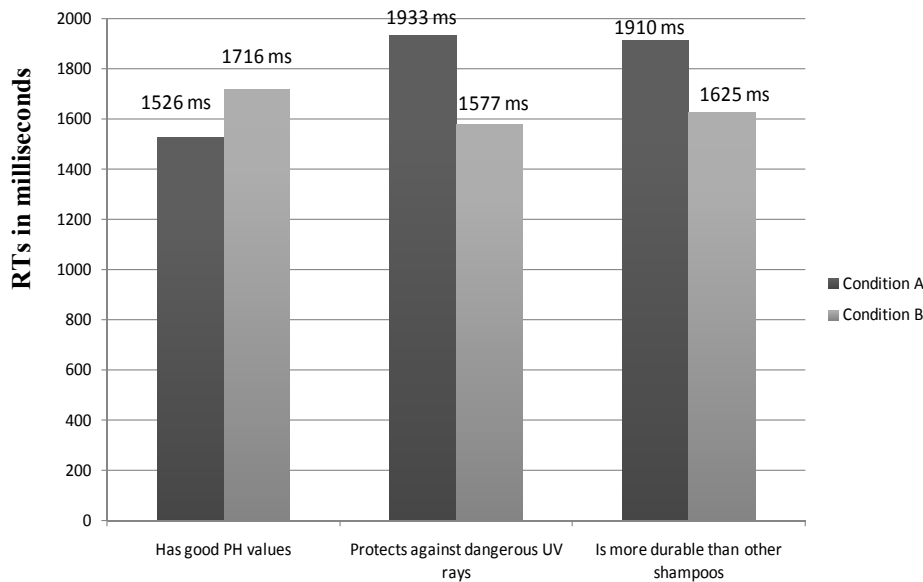


Figure 4: Study 2 - RTs in milliseconds on target associations (mean values)

4.3.2. Test of Hypothesis 3

Hypothesis 3 predicted that a brand extension will be more favorably evaluated if it is launched by a narrow brand with stronger fit associations than if it is launched by a broad brand with weaker fit associations. The manipulation check established differences in associative strength between conditions A and B on the target association – *Has good PH values*. Specifically, Hypothesis 3 predicted that participants in the narrow brand strategy condition (i.e., A – ZELL with one association) would evaluate ZELL’s brand extension more favorably than would participants in the broad brand strategy condition (i.e., B – ZELL with three associations).

ZELL’s brand attitude index was constructed as the average scale of three highly interrelated attitude items (Cronbach’s alpha=.897), and was used as a covariate in the analysis. The dependent variable, OBE scale, was constructed by forming an averaged index from the four highly interrelated scale items (Cronbach’s alpha=.871). This index served as the dependent variable in a between-subjects ANCOVA.

Levene’s test was not significant ($F(1, 66) = .046, p > .05$), indicating that the assumption of homogeneity of variance across conditions holds. The analysis showed that the brand extension (i.e., ZELL sun lotion) was evaluated less favorably in the broad brand strategy condition than in the narrow brand strategy condition ($M_A = 3.97$ vs. $M_B = 3.22, F(1, 66) = 6.18,$

$p < .05$) (see Table 5). The effect size, measured as eta squared, was moderate in strength ($\eta^2 = .070$) (Cohen, 1988). In other words, participants in the narrow brand strategy condition were more positive to the extension than were participants in the broad brand strategy condition. In addition, the covariate, pre-attitudes towards ZELL, was also significant ($F(1, 66) = 16.53, p < .05$). This finding indicates that attitudes towards ZELL had a significant effect on the evaluation of the extension. However, the covariate did not influence the differential effects of the conditions on the dependent variable (the ANCOVA produced mean scores in the same direction as did an ANOVA in an analysis without covariates). These results support Hypothesis 3.

<i>Dependent Variable: OBE Index (ZELL extension)</i>		Mean	Std. Error	N
Condition	A: Narrow brand strategy (one association)	3.97 ^a	.204	36
	B: Broad brand strategy (three associations)	3.22 ^a	.214	33

a. Covariates appearing in the model are evaluated at the following values:
Attitude Index (ZELL) = 4.2415.

Table 5: Study 2 - ANCOVA - Descriptive statistics

4.4. Summary and discussion of Study 2's findings

Study 2's purpose was to provide evidence that narrow brands perform better in growth scenarios than do broad brands. Specifically, the narrow brand strategy's increase in associative strength should favorably influence the evaluation of a brand extension that fit with the parent brand on that specific association. In other words, if a brand manager utilizes a strong association, association A, as a basis for fit with a new extension, the likelihood of extension success will be greater than if the brand manager utilizes a weaker association, association B. At the same time, based on the result of Study 2, if the brand manager takes steps to increase the strength of association B, an extension based on this association will also be more likely to succeed.

In addition, the results of Study 1 and Study 2 provided a pattern of results supporting Hypothesis 1, that a brand pursuing a narrow brand strategy, with fewer associations in consumers' memory, enjoys higher strength on a specific target association than does a brand pursuing a broad brand strategy. These results show strong support for using the theories of the fan effect (Anderson, 1974) in brand management.

The established literature on brand extensions has shown that fit between the parent brand and the extension category (Aaker and Keller, 1990; Völckner and Sattler, 2006) is an important determinant of extension success. The underlying rationale behind Study 2's prediction was that stronger associations are more accessible in memory. The analysis showed that in the narrow brand strategy condition, the target association was more accessible than in the broad brand strategy condition. Furthermore, if the association that most quickly came to mind when participants were presented with a new brand extension was diagnostic for the fit judgment, further memory search was not necessary, and this ease of processing was attributed to the extension. Consequently, the brand extension was more favorably evaluated. These findings supported the prediction that as associative strength of the target association increases, the growth performance of the brand, measured as extension evaluation, also increases.

To summarize, Study 1 and Study 2 provided evidence for the prediction that associative strength, measured as accessibility, is increased by choosing a narrow brand strategy in building the brand, and that the increased accessibility associated with this strategy next influences brand performance. Study 1's findings supported the prediction that associative strength increases protective brand performance. A brand with relatively more accessible key associations is more able to resist attacks from new competitors when attacked on these associations than is a brand with less accessible associations. Study 2's findings supported the prediction that associative strength makes important fit associations more accessible in consumers' memory. When asked to evaluate a new brand extension, based on these accessible associations, the participants evaluated the extension more favorably than if the extension had been based on the same, but weaker association. Consequently, Studies 1 and 2 provide evidence of the basic favorable performance effects of narrow brands.

However, the results in both Study 1 and Study 2 were obtained in an experimental lab, using fictitious brands and product benefits (i.e., intrinsic cues) as type of associations. This choice was important to establish initial empirical support of the predictions, and to provide research designs with high internal validities (Shadish et al., 2002). An important question is thus: Can the performance of narrow brand strategies be replicated and found in real-life contexts with real brands and other types of associations? A logical extension of Studies 1 and 2 is therefore to test their predictions on established brands. Consequently, this was the purpose of Study 3.

5. Study 3: Protective Performance of Real-World Brands

The purpose of Studies 1 and 2 was to investigate the basic effects described in the dissertation's research question. Studies 1 and 2 have established that narrow brands perform better than broad brands, and that these effects can be explained by differences in associative strength. Yet, these effects were obtained in a controlled lab environment. Study 3's goal was to relax this strict experimental control and find empirical support for the dissertation's main predictions in a real-life application of the theory. In addition, Study 3 utilized another type of associations (Keller, 2008) – usage situations or context associations – to further generalize the contributions of this dissertation.

Two well-known chocolate brands, expected to differ in their success of pursuing a clear brand strategy and marketed in different consumption situations (see Barsalou, 1982; Ratneshwar et al., 1996; Ratneshwar and Shocker, 1991), were utilized as stimuli. Study 3 was conducted in two parts. In part one, actual differences of the chocolate brands' associative strengths in relation to the two context associations were measured, using the RT methodology described in Chapter 3. This measurement served as an indication of the brands' success in pursuing a brand strategy. In part two, participants were exposed to a fictitious chocolate brand. The participants were told that the new competitor was marketed in one of two consumption situations that matched the consumption situations of the two well-known chocolate brands used in the study. Attitudes towards this new competitor were used as a measure of the incumbent brand's protective performance. Specifically, lower attitudes towards the new competitor indicated better protective performance for the incumbent brand, and higher attitudes indicated worse protective performance. The purposes of Study 3 were thus to conceptually replicate Study 1 and to show the performance effects of a narrow brand strategy in a real-life context.

This chapter is organized as follows. First, Study 3's hypothesis is specified based on the previous theory review. Second, Study 3's methodology is described. Third, Study 3's findings are presented with an empirical test of the hypothesis. Finally, Study 3 is summarized and discussed.

5.1. Hypotheses

The purpose of Study 3 was to provide evidence that brands successfully pursuing a narrow brand strategy are more resistant against new

competitors than are brands with broad or less successful narrow brand strategies. Specifically, if associative strength influences protective brand performance, in this case through strong context associations, Study 3 should show that:

- Narrow brands with high situational accessibility should negatively influence evaluation of a new competitor marketed towards the same consumption situation as the incumbent brand.

Keller (1993) argued that brands can have different types of associations. One way to distinguish among brand associations is by their level of abstraction (Del Rio, Vasquez, and Iglesias, 2001). Thus, a consumer can associate a brand with very concrete associations like attributes and benefits, but also more abstract associations like attitudes (Keller, 1993; Ng and Houston, 2006). In general, there are no limits to what a consumer can associate with a brand in memory (Collins and Loftus, 1975). Among these many possibilities, a brand's consumption and usage situations are also important brand associations, which can vary in associative strength across brands. Research has shown that associative networks or memory categories can be very flexible in consumers' memory, and do not take the same form across situations or contexts. For example, Barsalou (1982) showed that goals that are accessible at a particular time influence perceived categorization. A second example is Ratneswahr and Shocker's (1991; Study 3) research on the snack category, in which they found that priming the context influenced which products were recalled as a snack. When the participants were primed with "snacks that people might eat when they don't have time for a regular breakfast", apples and bagels were accessible in memory. On the other hand, when primed with "snacks that people might eat at a Friday evening party with friends while drinking beer or other beverages", potato chips, pretzels and popcorn were the most accessible snacks. A third example, is Ratneswar, Barsalou, Pechmann, and Moore (2001) which showed that priming personal consumption goals influences which brands are recalled and grouped together as similar products. For example, by priming *convenience*, apples and doughnuts are regarded as similar products, but oranges (because you need two hands to peel an orange) belong to another cognitive category.

These research examples show the importance of contextual and goal-derived category accessibility. Brands recalled when a relevant need and situation are made salient should be chosen more often, and if the accessibility-dominance over competitors is substantial, block competitors from consumers' memory (see Nedungadi, 1990). Increasing the accessibility of a consumption situation should therefore increase category membership judgments when the specific choice situation is made salient (Holden and Lutz, 1992; Hutchinson and Alba, 1991). Brands that pursue a

narrow brand strategy might, due to consistent branding efforts, be closely associated to specific contexts. It is therefore likely that if a specific context or consumption situation (Lynch et al., 1988) is primed, brands strongly associated with this specific context will be relatively more accessible in consumers' memory. And as soon as a brand that satisfies the consumption goals or is diagnostic in the context is accessed, further memory search will be terminated (Feldman and Lynch, 1988). Furthermore, accessibility influences the perceptions of how easy it is to recall a diagnostic brand (Schwarz, 2004). Next, these ease-of-retrieval perceptions influence subsequent brand evaluations.

Previous research has shown the effects of increasing context match on evaluation and choice of a brand (see Loken, Barsalou, and Joiner, 2008 for a review). Some brands focus extensively on increasing their accessibility and diagnosticity in specific and profitable consumption situations. For example, the situation "early morning meeting" may evoke the need for caffeine and subsequently COKE is the only soft drink that is accessible from memory (adapted from Holden and Lutz, 1992). Or, when the need for a snack that "provides energy" is made salient, SNICKERS would be more accessible in memory than other chocolate brands.

However, an important question is: Does a strong context match influence protective brand performance? Specifically, if an established brand has pursued a narrow brand strategy which includes having a specific consumption situation strongly linked in its associative network, then how will a new competitor in the same consumption situation be evaluated? A new competitor would not have the same level of associative strength regarding the consumption situation as the established brand would. On the other hand, other established brands have not succeeded in their efforts of pursuing a narrow brand strategy or they have followed a broad brand strategy. Consequently, situational associative strength may differ across brands in the same category.

Based on the accessibility-diagnosticity model (Feldman and Lynch, 1988), when a consumer finds himself in a specific consumption situation associated with specific needs, he will search memory for brands that can satisfy these needs. It is likely that as soon as the first situation-diagnostic brand is recalled, further memory search will be terminated and the accessible brand will be chosen. Therefore, when a new competitor positions itself in a situation in which an established brand has a high level of associative strength, the evaluation of the new competitor should be relatively lower than if the same competitor positions itself in a consumption situation without strongly associated brands. In other words, a brand that successfully pursues a narrow brand strategy based on situational associations should perform better than a brand pursuing a broad brand strategy. Hence, the following hypothesis can be formulated:

H4: *A new competitor will be more favorably evaluated when it challenges a brand in a consumption situation weakly associated (i.e., is less accessible) with the established brand than if the new competitor challenges a brand strongly associated with the consumption situation (i.e., is more accessible).*

5.2. Methodology

In this section Study 3's design is discussed. First, the experimental procedure is outlined, and then details of measurements and manipulations of the independent variable are discussed.

5.2.1. Overview of research design

Study 3 was conducted in two parts. First, to be able to test the protective performance of different levels of situational associative strength, relevant brands had to be identified. Two suitable brands were found in the chocolate category. The first brand, KVIKK LUNSJ, was launched in 1938 and has for 70 years consistently been marketed as the best chocolate brand to be consumed during recreational sports activities like mountain hiking and skiing.¹⁶ The second brand, M, a chocolate-covered peanut candy, has been marketed as the "film-chocolate" since the 1980s. Even though both brands focus on a specific consumption situation, it can be expected that they differ in associative strength towards these situations.

First, there is a historical difference. KVIKK LUNSJ is part of Norwegian heritage, closely connected to widely popular recreational activities like mountain hiking and skiing and especially consumed in these situations during the Easter holiday. M, the film chocolate, on the other hand, has been introduced as a situational brand mainly through advertising. According to Bettman (1979) no object can be strongly associated with a context *unless* the object was originally encoded in terms of that context. A recent review article further supports this suggestion, in which the authors state (Danker and Anderson, 2010:87):

"An increasingly popular view in cognitive neuroscience is that remembering a particular experience involves the partial reactivation of the widespread network of regions that were active during the episode itself".

Many Norwegians associate M with cinema visits, but most Norwegians still consume a variety of other chocolates and candies at the cinema, and M is also consumed in many situations other than the cinema. In

¹⁶ KVIKK LUNSJ's main consumption situation can be labeled "outdoor sport activities" and this label is used throughout the rest of this dissertation.

addition, activities like mountain hiking or skiing are much more specific and concrete consumption contexts than is the film context. Films can be enjoyed in the cinema, in the living room, in airplanes, on electronic devices (e.g., Apple's new iPad) etc., and therefore the film context is a much more heterogeneous consumption context than is the outdoor activity context. In essence, I predict that KVIKK LUNSJ successfully has pursued a narrow brand strategy. M, on the other hand has not succeeded in pursuing a clear strategy. It could be that M unsuccessfully has tried to be a narrow brand (e.g., non-consistent advertising), or they have historically used a broader strategic approach. In any case, it cannot be expected that M has ended up with an associative network consisting of a few strong associations as predicted of successful narrow brands, but rather have many relatively weak associations, usually associated with broad brand strategies. Consequently, KVIKK LUNSJ should have very accessible and strong associations connected to the outdoor activity context. M, on the other hand, should certainly be associated with films and cinemas, but most likely be more weakly linked to the film context than KVIKK LUNSJ is to the outdoor activity context. Hence, the first part of Study 3 aimed to test the associative strength of these context associations.

Second, in part two of Study 3, the brands' protective brand performances were tested. A new fictitious chocolate brand, BENS DORP, was introduced to the participants in one of two versions. Participants were randomly assigned to one of two experimental conditions. Half of the participants were told about the new *film chocolate BENS DORP* and half were told about the new *outdoor activities chocolate BENS DORP*. Then the participants provided responses concerning their attitudes towards BENS DORP. This measure was used as a test of Hypothesis 4. Details of participants, procedures and measurements are provided next.

5.2.2. Participants, procedures and measurements

In Study 3, sixty-two undergraduate business students served as participants (males: 46.8%; females: 53.2%, median age 22 years old). They were recruited through advertising (i.e., posters) in the business school; all participated voluntarily and received a gift certificate (100 NOK) upon completion of the test session. They participated in groups of up to eight persons in a computer lab. Upon arrival, the participants were told that the purpose of the experiment was to conduct a market survey on chocolate brands, hence disguising the true purpose of the experiment. Each participant was seated in front of a computer, which ran the MediaLab software (v2008, Empirisoft). The participants were randomly assigned to the different conditions, and instructed by the experimenter to enter the assigned condition to run the experiment.

First, after reading a short introduction text, the participants were exposed to the same true/false statements filler task used in Studies 1 and 2, and described in detail in Chapter 3's methodology section (see Nayakankuppam and Mishra, 2005). These statements served as a measure of the participants' individual response time latencies. Second, the participants were told that a series of statements regarding chocolate brands would appear, one by one, on the screen, and their task was to press the appropriate keys (1=agree, 9=disagree) to indicate whether they agreed with the statements. The participants were instructed to work as quickly as possible without sacrificing accuracy (Fazio, 1990). In total, fourteen statements were randomly presented to the participants (see Table 6 – the four target statements in bold and italics):

Statements:

- ***KVIKK LUNSJ is great with outdoor activities.***
- ***M is great with outdoor activities.***
- ***M is great at the cinema.***
- ***KVIKK LUNSJ is great at the cinema.***
- FREIA is the original milk chocolate.
- FREIA has blue packaging.
- STRATOS contains air bubbles.
- STRATOS contains peanuts.
- TROIKA does not contain marzipan.
- KINDER EGGS offer three things – all in one chocolate.
- SNICKERS contain peanuts.
- SNICKERS are typically served as an after dinner delight.
- HOBBY is filled with banana jelly.
- JAPP contains nougat.

Table 6: Chocolate statements in Study 3

The four target statements were randomly presented among the statements appearing on the screen. Specifically, these four statements tested the strength of M and KVIKK LUNSJ's associations with the two consumption situations. The purpose of this task was to measure response time latencies (RT), that is, how quickly the participants associated the brand with the consumption situation. As described in Chapter 3, Fazio's (1990)

three-step methodology was used to adjust each statement's RT to each individual's natural response time latency.

Third, the participants were asked about their attitudes towards a range of chocolate brands. Among these brands were KVIKK LUNSJ and M. Attitudes were measured with three seven-point semantic differential scales with instructions and scale anchors: "To what extent did you find the brand... *bad – good, negative – positive, unfavorable – favorable?*" (Haugtvedt et al., 1992).

Fourth, the participants were exposed to a new chocolate brand and were told that this brand was about to enter the Norwegian market. The brand, BENS DORP, was presented in one of two versions: *the new film chocolate* or *the new outdoor activities chocolate*. The manipulation consisted of a short text, informing the participants that the new BENS DORP chocolate was about to be launched in the Norwegian market. Appendix 1 presents the details of these texts.

Fifth, attitudes towards the new chocolate brand were recorded as a measure of KVIKK LUNSJ and M's protective brand performance. In Studies 1 and 2 the OBE index (Yoo and Donthu, 2001) was used as dependent variable. In Study 3, a more conventional approach to measuring brand evaluations was used. The main reason for this change in measurement is that Study 3 utilizes real brands, and not fictitious brands as used in 1 and 2. If the participants were to evaluate the new competitor BENS DORP and compare it with the established brands (i.e., KVIKK LUNSJ or M) in their respective product categories, as the OBE scale items ask them to do, it is likely that BENS DORP would receive very unfavorable evaluations across conditions. In general, these biased evaluations are to be expected when real brands are compared with fictitious brands. In Studies 1 and 2, however, this comparison was important to increase the level of relevance and to obtain a measure of comparable brand performance within the shampoo category. In Study 3, however, it was important to identify any potential differences between the conditions, and it was therefore important to limit the likelihood that the participants compared the new fictitious competitor with the established brand. Therefore, brand evaluation was measured using more conventional attitude items.

Attitudes towards the fictitious new competitor were also measured with three seven-point semantic differential scales with instructions and scale anchors: "To what extent did you find the brand... *bad – good, negative – positive, unfavorable – favorable?*" (Haugtvedt et al., 1992). These measures served as the dependent variable in Study 3. Finally, the participants stated their age and gender, were thanked, debriefed, paid, and dismissed.

5.3. Findings

The first part of Study 3 aimed to test whether the two brands used in the study, KVIKK LUNSJ and M, differed in associative strength in their respective consumption situations. That is, this part established which of the two brands successfully had pursued a narrow brand strategy. The adjusted RT measures of the four target statements (i.e., associations) regarding KVIKK LUNSJ and M were used as dependent variables (Fazio, 1990). Paired-samples t-tests were conducted to evaluate associative strength. The details of these tests are shown in Table 7 and Figure 5.

The results showed that KVIKK LUNSJ had significantly shorter RTs on the outdoor activities situation ($M_{KvikkL_outdoor_RT}=1591$ ms, Std.Dev=605 ms) than in the film situation ($M_{KvikkL_film_RT}=1956$ ms, Std.Dev=703 ms), $t(61)=5.28$, $p<.001$. The eta squared statistics ($\eta^2=.31$) indicated a large effect size. Furthermore, KVIKK LUNSJ had also significantly shorter RTs on the outdoor activities situation than M had in that situation ($M_{KvikkL_outdoor_RT}=1591$ ms, Std.Dev=605 ms vs. $M_{M_outdoor_RT}=1785$ ms, Std.Dev=693 ms, $t(61)=-2.645$, $p<.005$, $\eta^2=.10$). These results support the proposition that KVIKK LUNSJ is strongly associated with the outdoor activities consumption situation. In other words, when outdoor sports activities are primed, the consumers will more quickly access the KVIKK LUNJ brand than if the film/cinema situation is primed.

M on the other hand was not more strongly associated with either of the two consumption situations used in Study 3 ($M_{M_outdoor_RT}=1785$ ms, Std.Dev=693 ms vs. $M_{M_film_RT}=1822$ ms, Std.Dev=595 ms, $t(61)=1.54$, $p=.129$, $\eta^2=.04$). Furthermore, there was no significant difference on RTs between KVIKK LUNSJ and M in the film/cinema situation ($M_{M_film_RT}=1822$ ms, Std.Dev=693 ms vs. $M_{KvikkL_film_RT}=1956$ ms, Std.Dev=703 ms, $t(61)=.24$, $p=.814$, $\eta^2=.00$).

To summarize, these results show that in the two consumption situations tested in Study 3, outdoor sports activities and film/cinema, KVIKK LUNSJ has strong associations (i.e., high accessibility) to the first situation. M, on the other hand, has equal associative strength in both situations. Especially important is the finding that there was no difference in associative strength between KVIKK LUNSJ and M in the film/cinema situation. Hence, it can be concluded that KVIKK LUNSJ successfully has pursued a narrow brand strategy. M, on the other hand, might also have tried to pursue this strategy (or have pursued a broad brand strategy), but the lack of a strongly linked situational association indicates that M has been less successful in its efforts than KVIKK LUNSJ has been. Consequently, M's associative network resembles a network typical of a broad brand.

Paired Samples Test. Dependent variable: Adjusted RT

	Mean	Std. Deviation	t	df	Sig. (2-tailed)	Eta squared (η^2)
Pair 1 KvikkL_Outdoor – M_Film	-.182	.372	-3.855	61	.000	.196
Pair 2 KvikkL_Outdoor – M_Outdoor	-.103	.306	-2.645	61	.010	.103
Pair 3 KvikkL_Outdoor – KvikkL_Film	.194	.289	5.282	61	.000	.314
Pair 4 M_Outdoor – KvikkL_Film	.091	.247	2.909	61	.005	.122
Pair 5 M_Outdoor – M_Film	.080	.408	1.539	61	.129	.037
Pair 6 M_Film – KvikkL_Film	.012	.386	.237	61	.814	.001

Table 7: Study 3 – Results of the paired samples t-tests

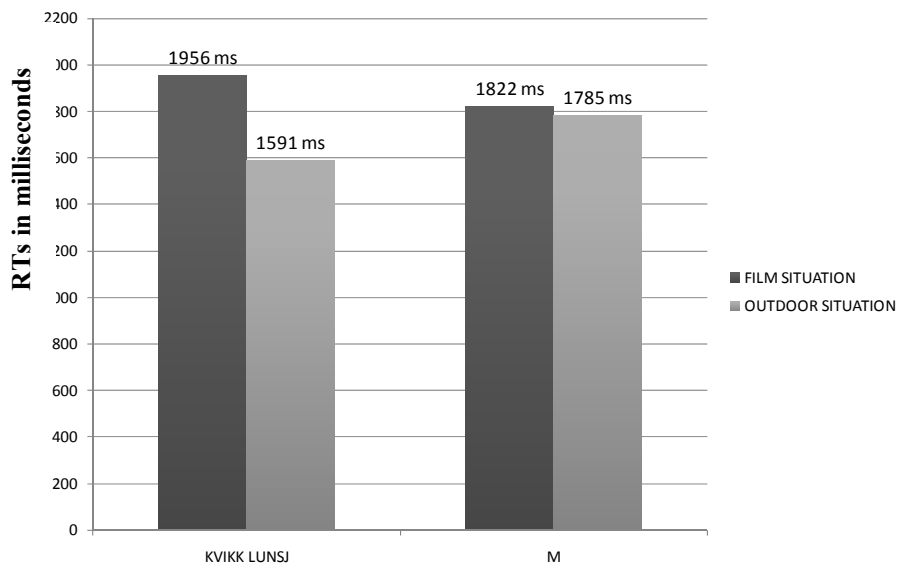


Figure 5: Study 3 – KVIKK LUNSJ and M’s response time latencies (RT)

5.3.1. Test of Hypothesis 4

Hypothesis 4 predicted that a new competitor would be relatively more favorably evaluated if it were to challenge a brand in a consumption situation weakly associated with the brand than if the new competitor were to challenge the brand in a consumption situation strongly associated with the brand. The findings presented in the last section established that KVIKK LUNSJ successfully has pursued a narrow brand strategy and enjoys relatively strong associations concerning the outdoor sports activities situation. M, on the other hand, is less strategically successful and is weakly associated with the film/cinema situation. Therefore, Hypothesis 4 specifically predicted that the new competitor would be more successful if it were launched as a film/cinema chocolate than if it were launched as an outdoor sports activities chocolate. This prediction indicates that KVIKK LUNSJ performs better than M.

The three brand attitude items (i.e., attitudes towards BENDSDORP) were all highly interrelated (Cronbach’s Alpha =.977). Thus, they were collapsed into an average index and used as a dependent variable in a between-subjects ANOVA.

A one-way analysis of variance (ANOVA) was conducted to compare attitudes towards the competitors marketed in the two consumption situations. Levene’s test was not significant ($F(1, 60) = .024, p > .05$), indicating that the assumption of homogeneity of variance across conditions

holds. The ANOVA on the brand attitude index produced the following results (see Table 8): BENS DORP marketed as a film chocolate was significantly more favorably evaluated than was BENS DORP marketed as an outdoor sports activities chocolate ($M_{\text{Bensdorp_film}}=3.72$ vs. $M_{\text{Bensdorp_outdoor}}=2.46$, $F(1, 60)=8.05$, $p<.01$, $\eta^2=.03$). Hence, KVIKK LUN SJ performs better than M. This result supports Hypothesis 4 and is shown graphically in Figure 6.

<i>Dependent variable:</i> <i>Brand attitude index</i>		Mean	Std. Deviation	N
Condition	BENS DORP – film	3.72	.225	30
	BENS DORP – outdoor	2.46	.228	32

Table 8: Study 3 – ANOVA – Descriptive Statistics

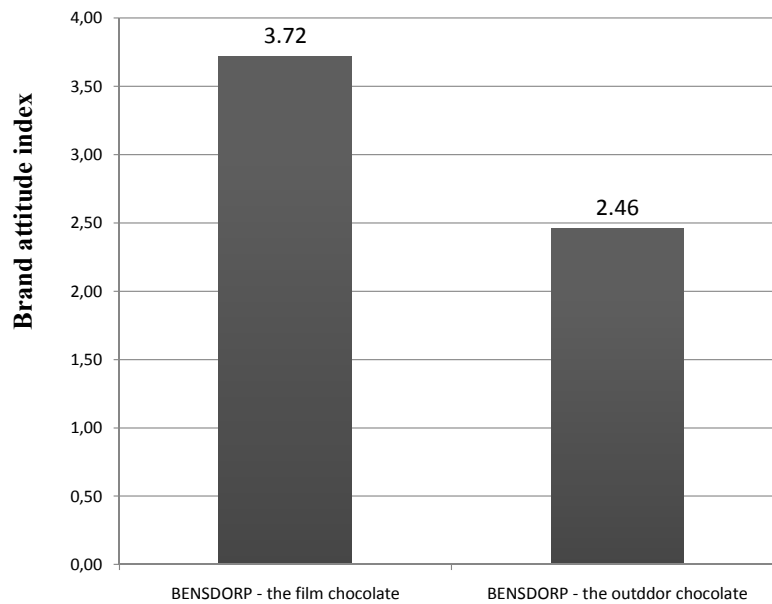


Figure 6: Study 3's main results

5.4. Summary and discussion of Study 3's findings

The purpose of Study 3 was to conceptually replicate Study 1 in a real-life context and generalize the pattern of results shown in Studies 1 and 2 with other types of associations (i.e., usage situations or context associations). Specifically, the purpose was to test whether a real-life brand pursuing a narrow brand strategy with strong associations towards a specific usage situation resisted a new competitor better than did a brand with a less clear brand strategy. As such, even though Study 3 tests the same conceptual brand strategies and builds on the same theories of associative strength as do Studies 1 and 2, the difference of associative strength between conditions in Study 3 is not because of fictional differences in manipulations of the associative network, but rather because of actual differences in contextual associative strength between the real-life brands KVIKK LUNSI and M.

Previous research has established that brands can be categorized in different ways (Barsalou, 1982, Loken et al., 2008). One way of categorizing brands is to use consumption situations. Consumers associate different brands with different consumption situations, varying in strength. In Study 3, it was shown that KVIKK LUNSI is strongly associated with outdoor sports activities, at least when compared with the film/cinema situation.¹⁷ More interestingly, an important finding in Study 3 is that associative strength influenced attitudes towards a new competitor. If the competitor was marketed as a new film chocolate, it was significantly more favorably evaluated than if it was marketed as a new outdoor sports activities chocolate, evidently, because KVIKK LUNSI more consistently has pursued a narrow brand strategy, and thus dominates the outdoor sports situation more than M dominates the film/cinema situation (Nedungadi, 1990). One explanation of this observation can be that KVIKK LUNSI's situational associations have been more homogeneously encoded through usage experiences in that particular situation than M's have been (Bettman, 1979), and because remembering the outdoor situation involves re-activating other networks that were active during these experiences (Danker and Anderson, 2010). To summarize, the situational accessibility benefits KVIKK LUNSI more than M in a protective performance scenario.

¹⁷ It is important to note that Study 3 did not test the associative strength of all possible consumption situations for KVIKK LUNSI and M. Study 3 provided evidence only that KVIKK LUNSI was relatively more strongly associated with the outdoor sports activities situation than with the film/cinema situation, and that M had equal associative strength in both situations. Essentially, Study 3 cannot tell whether the outdoor sport activities situation was the strongest situation for KVIKK LUNSI or alternatively if any untested consumption situations were stronger.

There are some alternative explanations of the presented results. First, Nedungadi (1990) established the important principle that some brands dominate the cognitive categories perceived by the consumers, and because of this dominance, block competitors from these categories. An alternative explanation of Study 3's results is that KVIKK LUNSJ dominates its specific usage situation relatively more than M dominates its. When the consumers activate their need for a chocolate in outdoor sports situations, only KVIKK LUNSJ is easily activated from memory. M, on the other hand, is just one of many brands that can be enjoyed while watching films. Therefore, it is a possibility that Study 3's findings are better explained by the blocking effect than by the theory of the fan effect and the accessibility-diagnostics model. On the other hand, the blocking effect is based on which brands the consumers access when a particular category is activated. Hence, in the broader picture this explanation also supports the importance of accessible associations for protective performance.

Second, the difference in evaluation of the new competitor can be explained by differences in pre-attitudes towards KVIKK LUNSJ and M. That is, BENDSORP the film chocolate was compared to M and BENDSORP the outdoor chocolate was compared to KVIKK LUNSJ, and if there were differences in attitudes towards the established brands, these differences could explain different evaluations of the new competitor.¹⁸ In an additional analysis, attitudes towards KVIKK LUNSJ and M were included as covariates in an ANCOVA.¹⁹ Two indexes were constructed as the average index of the three highly interrelated attitude items of, respectively, KVIKK LUNSJ and M (Cronbach's Alpha (KVIKK LUNSJ)=.977; Cronbach's Alpha (M)=.986), and these indexes were included as covariates in the analysis. The covariates did not influence the differential effects of the conditions on the dependent variable. More interestingly, none of the covariates had significant effects on the dependent variable (Brand Attitude Index (KVIKK LUNSJ), $F(1, 58) = 1.30, p = .258$; Brand Attitude Index (M), $F(1, 58) = 1.01, p = .32$). Thus, the alternative explanation that different

¹⁸ Another question is of course whether associative strength causes more favorable attitudes, or whether more favorable attitudes are the results of more cognitive processing of the brand (Petty and Cacioppo, 1986; Petty, Cacioppo, and Schumann, 1983), hence producing stronger associations.

¹⁹ In addition, two separate ANOVAs were run to test the effects of high vs. low attitudes towards KVIKK LUNSJ and M on the dependent variable. The participants were divided into groups (positive vs. negative attitudes) based on median split of the two brand attitude indexes (Median_{KVIKK LUNSJ}=5.83; Median_M=5.00). This resulted in 31 participants in the negative and positive brand attitudes towards KVIKK LUNSJ conditions, and 30 in the negative attitude towards M condition and 32 in the positive condition. None of the ANOVAs produced significant effects on the dependent variable (KVIKK LUNSJ: $F(1, 60) = .361, p = .55$ and M: $F(1, 60) = 1.671, p = .201$).

attitudes towards the established brands influenced the results can be ruled out.

Study 3's findings replicated and extended the findings of Study 1. Certainly, as Study 3 utilized real brands, the degree of experimental control (i.e., internal validity; Shadish et al., 2002) was lower and alternative explanations of the results were ample. For example, it could be that the amount of marketing communication was different between M and KVIKK LUNSJ in the periods preceding the data collection²⁰, and this potential difference, which the study did not control for, could explain differences in situational accessibility. Another potential confound could be differences in the relevance of consuming chocolate in the outdoor sports activities and cinema situations. When consumers engage in physical outdoor activities and need extra energy, the risk of choosing the wrong chocolate brand could potentially be higher than the risk involved in choosing which chocolate to consume while watching a film (see Petty and Cacioppo, 1986, for a discussion of relevance and involvement). This difference in relevance could influence the evaluation of a new competitor. These two potential confounds are two of many possible variables that could have influenced Study 3's results.

Therefore, it is important to view Study 3 in combination with Studies 1 and 2. The purpose of Study 3 was to conceptually replicate Study 1 and show that Study 1's results also could be found within a real-world context, with actual brands and by using other types of associations. As such, Study 3 served as an extension and generalization of the more controlled results found in Studies 1 and 2.

To summarize, Study 3 showed that brands pursuing narrow brand strategies associated with stronger associations towards the relevant usage situation resist new competitors better than do brands less successful in their brand strategies. Consequently, the pattern of results of Studies 1, 2, and 3 stresses that brand managers should choose a narrow brand strategy and focus on strengthening some few and diagnostic brand associations in their branding efforts.

²⁰ KVIKK LUNSJ is typically marketed heavily before and during the Easter holiday. Study 3's data was collected in November.

6. General Discussion

This chapter reviews the findings from Studies 1, 2, and 3, and discusses these findings in relation to the overall research question and related hypotheses. In addition, the chapter will discuss theoretical and managerial implications, will discuss limitations of the current studies and will address suggestions for future research.

6.1. Research question, hypotheses, and findings

The opening page of this dissertation had a description of the HEINEKEN and CORONA case from the 1990s; that case was described as an example of two fundamentally different strategic alternatives of how brand managers can build their brands. I argued that HEINEKEN pursued a broad brand strategy and CORONA a narrow brand strategy. Furthermore, I argued that narrow brands built by strengthening some few associations should experience that consumers access these associations faster and more fluently than they do the associations of broad brands built with many brand associations. These strategies, broad and narrow, offer brand managers both advantages and disadvantages. In this dissertation, my goal has not been to investigate the clearly large number of variables and contexts that could influence whether narrow strategies perform better than broad strategies, or vice versa. However, I have argued that because of the perceived risk associated with narrow brand strategies, many brand managers have a tendency to pursue a broad brand strategy in their branding efforts. The purpose of this dissertation has therefore been to show that narrow brand strategies, in some situations, might be the better brand building decision for managers. That is, the brand's ability to resist competition and grow through extensions, is improved if the brand manager focuses on strengthening some few, but diagnostic, associations. Furthermore, this dissertation has offered theoretical explanations of why narrow brand strategies should perform better than broad brand strategies. The key theoretical explanation of the presented results has been associative strength, the consumers' accessibility of diagnostic (Feldman and Lynch, 1988; Lynch et al., 1988) associations when faced with a judgment task.

Many consumer decisions are made quickly and without much time to cognitively process all available information. One such decision concerns choice of brands in super markets. The importance of accessible and diagnostic information in these choice situations and judgment tasks has been well established in the literature (e.g., Higgins, 1996; Wyer, 2008). However, to date few studies have explicitly manipulated associative

strength and tested how this variable actually influences brand performance. Such studies are important for brand managers in their efforts to optimize the effects of brand investments and to guide management decisions. This dissertation's research question was concerned with how broad and narrow brand strategies influence brand performance. Theoretically, this question related to whether increasing associative strength influences a brand's capabilities to protect its revenues and grow the brand. Hence, important contributions of Studies 1 and 2 are that they provide evidence that associative strength influences brand performance, and that, contrary to many assumptions and tendencies in business practice, it is better to focus on a narrow brand strategy and a few strong associations than on a broad brand strategy and a rich associative network.

Specifically, Study 1 was built on the theory of the fan effect in psychology (Anderson, 1974) and on the accessibility-diagnosticsity (Feldman and Lynch, 1988) model, and showed that increasing associative strength, measured as the accessibility of learnt associations in a computer lab, influenced resistance towards new competitors. Associative strength was manipulated by providing information to the participants about a fictitious brand in one of two versions. In the high accessibility condition, only one association was presented and in the low accessibility condition, three associations were learnt. The results showed that these manipulations were sufficient to produce significant differences in RTs on the target association. Next, a new competitor was introduced, attacking the incumbent brand on the target association. As predicted, participants in the high accessibility condition (i.e., narrow brand strategy) evaluated the new competitor significantly less favorably than did participants in the low accessibility condition (i.e. broad brand strategy). In conclusion, Study 1 provided evidence that narrow brands with stronger associations positively influence protective brand performance, measured as the ability to resist competition.

It can, however, be argued that in a real-world marketing context it is less likely that a new competitor will be launched based on only one association, and certainly not if an established brand already has a strong consumer position on that association. For example, it is unlikely that a new car brand will position itself solely on VOLVO's strong SAFETY position in its marketing efforts. Yet, although not conducted in a real-world marketing context, Study 1 offered an important theoretical contribution. Associative strength can be achieved by focusing on narrow brand strategy, and this increased associative strength influences the ability to resist competition in the market.

Study 2 was a logical extension of Study 1 and was based on the same theoretical arguments. According to Lynch et al. (1988), a consumer will search his memory for relevant information until the point when the accessed information is deemed to be diagnostic for the judgment task. That is, if a brand has relatively more accessible associations in the judgment

situation, and these associations are relevant for the decision the consumer will end the search process for alternative brands. In evaluating a new brand extension, it is thus likely that an extension based on accessible associations between the parent brand and the extension would be evaluated more favorably than would be an extension based on less accessible associations. The requirement is that the accessible associations be diagnostic for the judgment. In a brand extension context, diagnostic can be interpreted as associative fit between the original brand and the extension category (Aaker and Keller, 1990; Völckner and Sattler, 2006). In Study 2, this prediction was tested in a controlled lab environment. The results provided evidence that an extension based on a relatively more accessible association was more favorably evaluated than was an extension based on less accessible associations. Furthermore, Study 2 provided evidence that brand extensions from brands built by using a narrow brand strategy are more favorably evaluated than are brands built by using a broad brand strategy. Hence, these results help to guide brand managers' strategic growth decisions.

Previous brand extension research has found that extensions were more favorably evaluated if the consumers easily perceived fit between the brand and the extension (e.g., Aaker and Keller, 1990; Broniarczyk and Alba, 1994; Hem, 2001; Völckner and Sattler, 2006). Thus, it can be argued that a broad brand with a rich and differentiated associative network would more easily produce fit perceptions among the consumers for many different potential brand extensions – even when each of these associations individually is relatively weak (cf. Anderson, 1974). In other words, one could easily predict that broad brands perform better than narrow brands – or the opposite prediction of what was found in Study 2. However, Study 2 did not predict that associative strength in general produces higher evaluations on *all* possible brand extensions. It did however argue that the relative evaluation of a *specific brand extension*, which is based on a *specific fit association*, would increase in favorability with increasing associative strength (Meyvis and Janiszewski, 2004). Therefore, it could be the case that many associations, in which each specific association has low relative strength, could supply the brand manager with many brand extension alternatives. In other words, broad brands can more easily than narrow brands find new categories that fit with the brand. Yet, if the goal is to maximize evaluation of a specific brand extension, then increasing the strength of diagnostic associations should be a more successful approach.

Study 3 served as a real-life application of the controlled experiments conducted in Studies 1 and 2. In addition, Study 3 used other types of associations than were used in the first two studies – usage situations or context associations. This addition also served to further generalize the results of Studies 1 and 2, which used intrinsic brand associations (i.e., product benefits) as stimuli. The purpose was to test whether differences in situational associative strength between two chocolate

brands influenced these brands' resistance towards new competitors. In essence, the two chocolate brands in Study 3 differed on how successfully they pursued their respective brand strategies. Specifically, the purpose was to test whether KVIKK LUNSI, the more successful narrow brand, performed better in a protective scenario than did M. Hence, Study 3 served as a conceptual replication of Study 1.

Previous research has shown that products and brands differ in situational associative strength (Ratneshwar and Shocker, 1991; Ratneshwar et al., 1996). In the first part of Study 3, the situational associative strengths of the two target brands were measured. The results showed that KVIKK LUNSI was relatively more strongly associated with the outdoor sports activities situation than was M, and that M was not significantly more accessible than KVIKK LUNSI in either of the two consumption situations tested. I therefore concluded that KVIKK LUNSI had successfully pursued a narrow brand strategy and that M had been less successful in its brand strategy or could alternatively have pursued a broad brand strategy. In the second part of Study 3, a new fictitious competitor was introduced. The participants were informed that the new brand was to be consumed in one of the two consumption situations. Participants who were told that the new brand was an outdoor sports activities chocolate, proved to be significantly less favorable towards the new competitor than were participants in the film/cinema chocolate condition. In other words, if the incumbent brand was judged to be strongly associated with the consumption situation, the new competitor was relatively less favorably evaluated. Thus, Study 3's results further strengthened Study 1's results, and also provided evidence that narrow brands perform better than broad brands on protective brand performance.

In Study 3, situational associative strength was merely measured and this procedure might give an impression that consumption situations are stable characteristics of brands. Fazio and colleagues (Fazio et al., 1982; 1986; 1989) have shown that situations and consumption goals can be primed by using subtle stimuli and that these priming efforts influence evaluations. Therefore, in practice, brand managers should be able to influence situational associative strength by priming the consumers using different means of marketing communication and creative cues in advertising. However, this acknowledgement does not change the theoretical contribution of Study 3. The study's main contribution was to show that brand performance differed between real brands, as long as difference in associative strength could be measured. As such, Study 3 provided further evidence that the two brand strategies influence brand performance differently. Table 9 summarizes the hypotheses, empirical results and conclusions in this dissertation.

Hypothesis	Empirical result	Conclusion
H1: A narrow brand with relatively few favorable associations in consumers' memory enjoys higher levels of associative strength on a specific target association (i.e., more accessible association) than does a broad brand with relatively many equally favorable associations.	$M_A=1479$ ms vs. $M_B=1741$ ms, $F(1, 61)=7.30, p<.05$	Supported
H2: A new competitor will be more favorably evaluated when it challenges a broad brand with low associative strength on a target association (i.e., less accessible association) than a narrow brand with high associative strength on a target association (i.e., more accessible association).	$M_A=2.51$ vs. $M_B=3.16$, $F(1, 60)=4.03, p<.05$, $\eta^2=.06$	Supported
H3: A brand extension will be more favorably evaluated if the brand pursues a narrow brand strategy with higher associative strength (i.e., is more accessible) on the diagnostic fit association than if the brand pursues a broad brand strategy with lower associative strength on the fit association (i.e., is less accessible).	$M_A=3.97$ vs. $M_B=3.22$, $F(1, 66)=6.18, p<.05$, $\eta^2=.07$	Supported
H4: A new competitor will be more favorably evaluated when it challenges a brand in a consumption situation weakly associated (i.e., is less accessible) with the established brand than if the new competitor challenges a brand strongly associated with the consumption situation (i.e., is more accessible).	$M_{\text{Bensdorp_film}}=3.72$ vs. $M_{\text{Bensdorp_outdoor}}=2.46$, $F(1, 60)=8.05, p<.01$, $\eta^2=.03$	Supported

A=one association (strong target association), B=three associations (weak target association)

Table 9: Dissertation's hypotheses, empirical results, and conclusions

6.2. Theoretical and managerial implications

6.2.1. Theoretical implications

The branding literature (e.g., Aaker, 1991; Kapferer, 2004; Keller, 1993; 2008) has highlighted that strong associations, favorability and uniqueness are important dimensions of a brand's associative network. Yet, few efforts have been made to actually test how increasing associative strength influences brand performance (Henderson et al., 1998). This dissertation is therefore a contribution to the branding literature, as it is one of the first studies that uses accessibility as empirical evidence of associative strength, and tests the influence of associative strength on brand performance in a controlled experimental context. The important conclusion that can be drawn from the present research is that associative strength, measured as consumers' accessibility of brand associations, is an important predictor of brand performance. Indeed, other authors have argued that accessibility influences consumer judgment and choice (see Higgins, 1996), based on Feldman and Lynch's (1988) accessibility-diagnostics model and the priming literature (e.g., Fazio et al., 1989). However, this dissertation offers empirical evidence that this proposition holds in a brand management context.

The hypotheses and the design of the present research utilize psychological theories of human associative memory (e.g., Anderson, 1983; Anderson and Bower, 1973; Collins and Loftus, 1975). Specifically, Anderson's fan effect (1974) has been used as a rationale for manipulating associative strength. The fan effect, a theory predicting how increasing the amount of information connected to a memory object decreases accessibility of a specific piece of information, has previously not, to this author's knowledge, been used in the branding literature. Therefore, introducing this theory to the branding literature, could potentially contribute to new research ideas and offer new explanations to observed branding phenomena.

In addition, this dissertation also contributes to the basic understanding of the fan effect. Anderson (1974) showed how increasing the size of the associative network influenced the accessibility of a range of target associations. Yet, research on the fan effect has not investigated how association accessibility of one memory object influences evaluation of another memory object. This dissertation explicitly investigates this question, showing that increased association accessibility of one memory object negatively influences evaluation of another memory object. Consequently, the findings in this dissertation both replicate and extend the theory of the fan effect.

6.2.2. Managerial contributions

Brand managers focus in general on brand awareness and brand associations. Keller's (1993; 2008) propositions regarding favorable, strong and unique brand associations have been important guidelines for brand managers in the last two decades. However, to date, managers are not well advised on the relative importance of these dimensions of a brand's associative network. This dissertation offers practical insight on the importance of associative strength. Specifically, the current studies show that managers should focus on strengthening a few, but diagnostic, brand associations rather than on creating many associations in their branding efforts. In essence, this dissertation shows that narrow brand strategies in some situations might be a better choice than broad brand strategies. As such, this dissertation provides clear guidance on how brand managers should build their brands to increase brand performance.

The empirical results in the current research increase the importance of consistent, focused and long-term brand management (Park et al., 1986). Brand managers who stay focused over time, trying to ensure that a narrow and consistent associative network is perceived by the consumers, should benefit from increased brand performance. Examples of brands that have succeeded with this strategy are COCA-COLA and APPLE. On the other hand, consistent brand management must be balanced by the need for updating and change. A brand manager who fails to take changing consumer needs into account, and change his brand accordingly, will not experience long-term success (Keller and Lehmann, 2009). COCA-COLA and APPLE are therefore also examples of brands that manage to balance these requirements and stay relevant in the consumers' lives. Examples of such actions are APPLE's recent launch of the iPad and COCA-COLA's successful launch of COCA-COLA ZERO. However, although there are many reasons for these brands' success, consistency and strong associations are important reasons empirically supported in this dissertation.

Another aspect of the current research that has managerial implications is that it introduces response time latency measures to brand management. RTs are the most used accessibility measure in the social science literature (see Miller and Peterson, 2004). However, in the branding literature, strength of brand associations has traditionally been determined by qualitative measurement techniques. For example, by asking the consumers to indicate their subjective strength (e.g., using cards with single, double or triple lines to indicate the respective strengths of specific associations; see Roedder John et al., 2006), by the order of mentioning (top-of-mind) or by the frequency of mentioning the associations (Keller 2008; Oakenfull and

McCarthy, 2010; Supphellen 2000; Teichert and Schöntag, 2010).²¹ These measures of associative strength are problematic for several reasons. For example, Supphellen (2000) mentions: 1. Participants differ in their abilities to verbalize associations; thus, there is a risk that strong associations are underreported on frequency measures. 2. Strong associations can be reported late in an interview because the participant may have difficulties in describing the associations (e.g., non-verbal associations).

The RT measure, on the other hand, offers an “objective” methodology, in which the participants are unaware that associative strength is measured. In accordance with the benefits of RTs reported in the IAT literature (Greenwald et al., 1998), the RT methodology offers a procedure more consistent with the associative network model of human memory (Anderson, 1983; Anderson and Bower, 1973; Collins and Loftus, 1975). Specifically, the measurement technique taps into the actual time it takes a consumer to connect the brand with a specific association in memory. As such, the RT measure should be both a superior and a practical measure of associative strength, since investments in necessary computer software are relatively moderate.²²

Finally, Study 3 in the current research replicated and extended Study 1 and investigated the importance of situational associative strength for brand performance. Study 3 indicated that brands that pursue brand strategies with varying success also differ in associative strength, and thus performance, across situations. Brand managers should therefore be advised to investigate how their brands play different roles for the consumers in different situations, and pay attention to the process of how situational associations are formed (see Bettman, 1979). These ideas are generally not new to brand managers, and previous research has highlighted this issue (e.g., Nedungadi, 1990; Ratneshwar and Shocker, 1991; Ratneshwar et al., 1996). However, since associative strength might be influenced by priming situations and needs, associative strength cannot be regarded as a chronic condition across all situations and contexts. Consequently, managers searching for new growth opportunities or struggling to protect brand revenues should therefore benefit by investigating their brands’ situational associative strengths.

²¹ For a notable exception see Dawar (1996), who used response latencies to measure the strength of brand – product category associations.

²² The MediaLab software currently sells at \$ 475 (www.empirisoft.com).

6.3. Limitations and future research

6.3.1. Limitations

The current research has several limitations. First, the current studies were conducted in a controlled lab environment to maximize internal validity (Shadish et al., 2002). In the real world a whole range of variables might moderate the results. Two examples of such moderators are level of associative diagnosticity and involvement in the product category. In the current research, the effects were shown by increasing the strength of more or less neutral and equal diagnostic associations (see. Pretest 2). It could be that increasing or reducing the diagnosticity of the target associations would have moderated the effects of these findings. For example, an alternative finding could have been that increasing diagnosticity is more important than increasing associative strength on the effects on brand performance. To be more specific, if associative strength is above some threshold level, increasing diagnosticity could be more important than further improving associative strength. The current research does not address this issue.

A second, but connected limitation is involvement in the product category. The current research did not control for category involvement. It is likely that differences in consumer involvement could influence associative strength. If a consumer is more involved in a product category, it is more likely that he has invested more cognitive efforts in processing information about the product category and brands in that category (Petty et al., 1983; Petty and Cacioppo, 1986). Thus, an alternative explanation of the results in the current research could be that individual differences in product involvement, not the strength manipulations, influenced the results.

One could however argue that there often exist gender differences in product category involvement (see for example Eccles and Harold's (1991) results on the gender difference of sports activities involvement), which next could influence brand performance. For example, it could be that females are more involved with shampoos (Studies 1 and 2) and chocolate (Study 3) than are males. Further analyses of the data collected in Studies 1, 2, and 3 were therefore conducted to investigate whether males and females differed on the dependent variables. The analyses showed that there were no significant gender differences on the dependent variables (ANCOVA Study 1: $M_{\text{females}}=2.71$, $M_{\text{males}}=2.99$, $F(1, 60) = .714$, $p=.401$; ANCOVA Study 2: $M_{\text{females}}=3.57$, $M_{\text{males}}=3.65$, $F(1, 66) = .065$, $p=.800$; ANOVA Study 3: $M_{\text{females}}=3.27$, $M_{\text{males}}=2.85$, $F(1, 60) = .803$, $p=.374$). Yet, none of the studies in the current research contains an explicit measure of product involvement. Hence, the absence of such a measure could be regarded as a limitation of the current research's results.

Third, this dissertation conceptualizes brand performance in terms of resistance to new competitors and in terms of the ability to utilize the brand in growth strategies (e.g., brand extensions). However, previous research has established many other potential brand performance indicators (e.g., lower price elasticity, increased customer loyalty, higher market shares, effectiveness in marketing communication etc. – see Keller, 2008 for a list of potential indicators). It can therefore be argued that the present research did not provide answers concerning how broad and narrow brand strategies influence all forms of brand performance.

Finally, the RT methodology is dependent on the statements that are included in the research design. In Study 3 it was pointed out that the situational associative strength of only two consumption situations was measured, not all potential situations. Since Studies 1 and 2 utilized fictitious brands, these problems were limited, but the general limitations of the RT methodology should be acknowledged. In practice, with real brands, it is therefore difficult to use this methodology without the support of more qualitative techniques as input (see Suppehellen, 2000 for a discussion of qualitative elicitation techniques).

6.3.2. Future research

The current research was exploratory, in the sense that it proposed new theories and methodologies to those in the branding literature. Therefore, there are many avenues of further research.

First, the current research finds that narrow brand strategies might be better than broad brand strategies. However, this is a main effect of associative strength on brand performance. The current research does not focus on different contexts and other variables that might moderate these effects. One could, for example, speculate that in more heterogeneous product categories, a broader brand strategy might be better because the existence of more associations creates a more differentiated brand that stands out from equal competitors. On the other hand, in product categories with very homogenous products (e.g., shampoos) a narrow strategy would be better because the stronger and more accessible associations increase the likelihood that the consumers identify the brand. Future research should therefore extend the current research and investigate conditions that might decrease the superiority of narrow brand strategies, and that might even find that in some situations, a broad brand strategy is the best choice for brand managers. In general, there are many avenues for further research on the performance effects of narrow and broad brand strategies.

Second, the current research theoretically focused on how associative strength influences brand performance. However, previous research has also focused on favorability and uniqueness as dimensions of a

brand's associative network (e.g., Keller, 1993; 2008). In addition, other authors have focused on the content of the associative network. One of these content dimensions is level of abstraction – the degree of information summarized in the association (Ng and Houston, 2006; Del Rio et al., 2001; Keller, 1993; Johnson, 1989; Chattopadhyay and Alba, 1988; Paivio, 1969). For example, Ng and Houston (2006) grouped attitudes and benefits into “global beliefs” (e.g., fruit juice is part of a healthy lifestyle), that are relatively more abstract, and attributes (e.g., fruit juice contains vitamin C) as more concrete and specific thoughts, termed “exemplars”. The established branding literature has merely mentioned these different dimensions as important, but has offered no insight into the relative importance of these dimensions in influencing brand performance. An important avenue for future research is therefore to investigate other dimensions of the associative network – other types of associations, degree of favorability, and level of uniqueness – in addition to associative strength, and their relative importance in causing favorable brand performance.

Third, individual differences in associative strength could be an interesting avenue of future research. For example, differences in level of expertise in the product category could influence accessibility of diagnostic associations (see Alba and Hutchinson, 1987 for a discussion of expertise). It is likely that experts have stronger associations than do novices, because they have cognitively processed the available information more (Petty et al., 1983; Petty and Cacioppo, 1986). Another potential individual difference is chronic personality traits. For example, in the persuasion literature it has been shown that need for cognition (a chronic disposition to cognitively process information – Cacioppo and Petty, 1982) influences the processing of message elements (Haugtvedt et al., 1992). It is therefore likely that individuals who have high need for cognition display higher strength on diagnostic associations than do individuals who have low need for cognition. Hence, high-need-for-cognition individuals should, all else equal, evaluate a new competitor less favorably than do low-need-for-cognition individuals. Future research should investigate this issue in more depth. In addition, other chronic personality traits should also be included in future research, for example, need for closure (Kruglanski, Webster, and Klem, 1993) and need to evaluate (Jarvis and Petty, 1996).

Fourth, differences in the tendency to process information do not apply only to personality traits. Situational involvement, causing differences in cognitive processing, should also be manipulated in future research. Specifically, involvement in the product category (i.e., motivation and/or ability to process information) should be manipulated to influence cognitive processing (Petty et al., 1983; Petty and Cacioppo, 1986). It can be expected that involvement moderates the effects of narrow brand strategies of increasing associative strength. For example, higher levels of involvement should increase the effects on brand performance of narrow brand strategies.

Finally, this dissertation introduced the fan effect (Anderson, 1974) to the branding literature. However, does the fan effect apply in general to brands' associative networks or could it be that different parts of the associative network are active in different consumption situations? It could be that the effects predicted by the fan effect in the current research can be moderated by priming the participants with specific usage situations, consumption goals and needs. If so, the general applicability of the fan effect in brand management is reduced. On the other hand, if the effects of the fan effect are more general in nature, future research should use this theory to look into a range of other branding contexts.

One possible application could be to use this theory to explain the effects of brand portfolio decisions (Aaker and Joachimsthaler, 2000; Hill, Ettenson, and Tyson, 2005). For example, Dawar (1996) found in a pretest that the JOHNSON & JOHNSON brand (associated with multiple products) had slower response times than GUESS (strongly associated with jeans). Generally, the fan effect would predict that broad brand portfolios reduce the accessibility of individual products in the portfolio. If so, this could serve as an argument in favor of reducing the size of brand portfolios, pursuing a narrow brand portfolio strategy, theoretically explained by the fan effect (cf. Rao, Agrawal and Dahlhoff, 2004).

7. References

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8. Appendix 1: Stimuli Used in Studies 1, 2, and 3

In this survey, we are interested in how consumers learn and evaluate information about new products. It is therefore important that you read all information carefully and take your time.

Memorize all messages before continuing with the questionnaire. Several descriptions will be repeated to ensure that you really learn the content.

IMPORTANT!

- Take your time.
- Read all information and instructions carefully.
- A central goal of this study is that YOU learn all provided information.

The survey will take approximately 20 minutes to complete.

Press “spacebar” when you are ready to continue.

General instructions: Equal across conditions

IMPORTANT! Read carefully.

In 2008 a new shampoo brand will be launched in Norway. A well-known international company with a lot of competence in production and marketing of shampoos and hair products is behind the new brand.

The new shampoo is named ZELL.

ZELL has the following benefits:

- ZELL has good PH values.

Press “spacebar” when you are ready to continue.

Narrow brand condition: one association

IMPORTANT! Read carefully.

In 2008 a new shampoo brand will be launched in Norway.
A well-known international company with a lot of competence in production and marketing of shampoos and hair products is behind the new brand.

The new shampoo is named ZELL.

ZELL has the following benefits:

- ZELL has good PH values.
- ZELL protects against dangerous UV rays.
- ZELL is more durable than other shampoos.

Press “spacebar” when you are ready to continue.

Broad brand condition: three associations

In the next section you will read several statements.
Your task is to decide whether the statements are true or false.

For example: Carl is a boy. Correct answer: true.

It is important that you provide answers to the statements as fast as possible without sacrificing accuracy.

Put your left index finger on the 1 button and right index finger on the 9 button.

1=false, 9=true.

Good luck!

Filler task instructions: Equal across conditions

Kari is a girl. (true)
Per is a boy. (true)
Ola is a girl. (false)
Linda is a boy. (false)
Oslo is a city. (true)
New York is a city in the United States. (true)
Moscow is a city. (true)
Moscow is a country. (false)
Chicago is a city in India. (false)
India is a country. (true)
New York is a country. (false)
Russia is a city. (false)
Dogs are animals. (true)
Elephants are animals. (true)
Polar bears are humans. (false)
Copenhagen is the capital of Sweden. (false)
Sweden is the capital of Denmark. (false)
Copenhagen is the capital of Denmark. (true)

Randomized statements in the filler task: Correct answer in brackets

Think about what you learnt about the new shampoo brand ZELL.

In the next section you will read several statements.

Your task is to decide whether the statements are true or false, based on the information you read about ZELL.

For example: ZELL is a shampoo. Correct answer: true; ZELL contains aloe vera. Correct answer: false.

It is important that you provide answers to the statements as fast as possible without sacrificing accuracy.

Put your left index finger on the 1 button and right index finger on the 9 button.

1=false, 9=true.

Good luck!

Instructions ZELL accessibility task: Equal across conditions

ZELL has good PH values.
ZELL comes in practical packaging.
ZELL contains proteins.
ZELL softens the hair.
ZELL thickens the hair.
ZELL protects the hair against dangerous UV rays.
ZELL is more durable than other shampoos.
ZELL contains important vitamins.
ZELL prevents hair loss.
ZELL is effective against dandruff.
ZELL has a PH value of 4.5.
ZELL contains moisturizers.
ZELL is good for colored hair.
ZELL foams easily.
ZELL contains flower extracts.
ZELL contains natural oils.
ZELL smoothens the hair.
ZELL prevents fatty hair.

Randomized statements in the ZELL accessibility task

On the next page you will be informed of a new shampoo brand about to be launched in Norway.

Use your knowledge about ZELL in your evaluation of this brand.

Press “spacebar” when you are ready to continue.

NEW BRAND!

SHIKA shampoo is ready to be launched in Norway. SHIKA is produced by an American company, specialized in products with optimal PH values.

SHIKA is therefore a shampoo well known for its good PH values.

Press “spacebar” when you are ready to continue.

Study 1: Attack manipulation: Equal across conditions

On the next page you will be informed of a new ZELL product about to be launched in Norway.

Use your knowledge about ZELL in your evaluation of this brand.

Press “spacebar” when you are ready to continue.

NEW ZELL PRODUCT!

ZELL sun lotion is ready to be launched in Norway.

ZELL is owned by an international company, specialized in products with good PH values.

ZELL sun lotion is therefore well known for its good PH values for the skin.

Study 2: Extension manipulation: Equal across conditions

Imagine that a new chocolate brand is launched in Norway.

BENSDORP – the film chocolate

Best enjoyed at the cinemas

Press “spacebar” when you are ready to continue.

Study 3: Film condition

Imagine that a new chocolate brand is launched in Norway.

BENSDORP – the outdoor activities chocolate

Best enjoyed while skiing and mountain hiking

Press “spacebar” when you are ready to continue.

Study 3: Outdoor sports activities condition