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**Master Thesis in the areas of: Marketing and Industrial Economics (MIE) and Strategy and Management (STR)**

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**Consumer Evaluation of Multiple  
Brand Alliance Partners  
– The Moderating Roles of Consumer and Brand Gender**

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This thesis was written as a part of the Master of Science Program at the Norwegian School of Economics and Business Administration. The institution, the advisor, and the sensors are not – through the approval of this thesis – responsible for the theories and methods used, nor the results and conclusions in this work.

## **Abstract**

This thesis examines the concept of brand alliances and the effects of multiple partners. In addition, the moderating roles of consumer and brand gender are investigated in a brand alliance context. Results from the experimental study indicate that an increase in the number of alliance partners positively influences consumer evaluation of the focal brand. This effect was also more prominent for unknown brands than for well-known brands, which supports prior research within the field. Furthermore, there is a tendency that women evaluate brands that are engaged in several alliances more positively than men. In addition, the positive effect seems to be more prominent for feminine brands. Overall, the results support a notion that a brand participating in several alliances is displaying relationship-building abilities and care for its partners, which are perceived as feminine traits.

## **Preface**

This paper is a final and obligatory part of the Master of Science program at the Norwegian School of Economics and Business Administration.

Being two students from different master profiles, we have been fortunate to benefit from each other's core competencies. In our perception, the MIE and STR profiles are closely related and complementary in many ways. We feel that we have benefited from these complementarities and that it has contributed to a final product that we can be proud of. The fact that we have investigated a new concept within the field of brand management has made the process even more rewarding. In brand management terminology we deem this partnership as a successful student-alliance which has created synergy effects and positive spillover effects on both students involved. We therefore hope that this thesis will be appreciated as a valuable contribution to the existing papers within the field.

We would like to thank our supervisor, Helge Thorbjørnsen, for very constructive and fast feedback, and for structured and well organized supervision. He has supported us through the process and his presence has helped our work considerably.

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## **1.0 Introduction**

This year, Grohmann (2009) has developed a scale for measuring brand gender. This has been a great contribution to the existing literature because it is the first scale that has validated masculinity and femininity traits in a brand personality context. With this scale, it is thus possible to measure brands' masculinity and femininity and determine the brand gender. Prior research within the field has revealed that brands can have humanlike characteristics. If we can say that brands have personalities and the gender can be determined, which gender differences that apply to humans are also relevant for brands? This question imposes a search for the link between evolutionary biology and the concept of brand gender. Since the scale measuring brand gender is new, there has not been published any research yet on the impact of brand gender on brand alliances. This provides an opportunity for us to have a great contribution to the existing literature within the field.

### **1.1 Research Questions**

As the discipline of marketing is currently evolving, it is adopting concepts and theories from other disciplines. When concepts are transferred across scientific fields it is important to validate these concepts in the new contexts. Rather than using literature from evolutionary biology and sociology uncritically, Grohmann (2009) conducted extensive research to find gendered human personality traits that were applicable to brands. This permits us to investigate the impact of brand gender in a brand alliance context.

Based on the introduction above, we present three research questions:

**RQ1:** In what way do multiple alliance partners affect consumer evaluation of a brand?

**RQ2:** What is the interaction effect of consumer gender and multiple alliance partners on consumer evaluation of a brand?

**RQ3:** What is the interaction effect of brand gender and multiple alliance partners on consumer evaluation of a brand?



## **1.2 Outline of the Thesis**

This thesis is structured into six chapters. After the introduction we will present and discuss three different theoretical concepts relevant to our research questions. The links between the concepts will be explained and we will present a research model to visualize the connections. The model will be expanded as more theoretical concepts are discussed. The argumentation will culminate in specified hypotheses that will be investigated in our research.

Chapter 3 presents the methodology of the pretest and the main study. The objective of the pretest is to find two brands (one masculine and one feminine) that we can utilize in our main study. Therefore, the results from the pretest will be presented before we explain the methodology for the main study. Subsequently we will present the results from the main study in chapter 4. This part will be structured according to our hypotheses.

In chapter 5 we will analyze and discuss our results in relation to the three research questions. The first part will examine the main effects of the number of alliance partners. The second part will examine the impact of consumer gender while the third investigates the impact of brand gender. Based on these three discussion sections, we will provide some implications for managers. Finally, limitations and suggestions for further studies are presented in chapter 6.

## 2.0 Theoretical Concepts

### 2.1 Brand Alliances

#### 2.1.1 Defining Brand Alliances

In the literature published within the topic of brand alliance there are several definitions of the term. Aaker (2004) have stated the two following definitions; “*brand alliances involve brands from different firms that combine to engage in effective strategic or tactical brand building programs or to create co-branded market offerings*”, and “*the involvement of two or more firms that associate their brands together to create superior marketing offerings, or to engage in effective strategic or tactical brand-building programs*”. Simonin and Ruth (1998) define brand alliances as; “*short- or long-term association or combination of two or more individual brands, products, and/or other distinctive proprietary assets*”.

Washburn et al. (2004) suggest different types of brand alliances; Joint promotions, dual branding and co-branding. Joint promotions are partnerships where partner brands complement each other. Dual branding is when two or more trademarks are placed in a synergic setting to benefit each brand. E.g. if two restaurants share same space but are organized as two individual units. The third type of brand alliance is co-branding. Keller (2008) claims that *co-branding occurs when two or more existing brands are combined into a joint product or are marketed together in some fashion*. Keller, on the other hand, does not distinguish the different types of brand alliances like Washburn does. Keller suggests the same definition of co-branding, brand bundling and brand alliances. In this paper we will not distinguish between the three types of alliances. When we talk about brand alliances it could be any of the previously mentioned forms unless the type of collaboration is specified. In the main experiment for this thesis, we will create fictitious brand alliances. These could thus be joint promotions, dual branding or co-branding agreements.

As marketers try to capitalize on the complementary features of different brands, brand alliances have become more common within several product categories. Most of the research that has been done is related to the subjects of product fit, brand fit and spillover effects. Simonin and Ruth (1998) developed a framework for evaluating consumer attitude towards a brand alliance. They proposed different factors that influence the attitude towards each brand and evaluate possible spillover effects of these attitudes to the brand alliance. Their

conclusion supports that pre-existing consumer attitudes toward the individual brands are related positively to consumer attitude towards the constituted brand alliance. They also found that brand familiarity plays an important role in understanding evaluation of brand alliances and their spillover effects. This has great implications for our study. When we will conduct the main experiment, it is important to consider the brands' relative familiarity and consumers pre-existing attitudes toward the brands. When we create fictitious alliances, it is important that the familiarity and consumer evaluation of the partner brands are relatively similar. This is to prevent other factors from interacting with the results. If the manipulation will be on the number of alliance partners, then the brand partners should be held equal for all focal brands in the experiment to prevent spurious effects. We will elaborate on this in the methodology section. In addition to the pre-existing consumer attitudes toward the brands, Simonin and Ruth (1998) suggest two additional predictors of consumer attitude towards the brand alliance. These two variables are product fit and brand fit.

Product fit is the extent to which consumers perceive the product categories of the individual brands to be compatible. Simonin and Ruth (1998) argue that consumers' perception of product fit is expected to play a significant role in how consumers respond to the brand alliance. They also emphasize the importance of distinguishing the notion of product fit in the literature of brand extension from the description of fit in their article. In brand extension research, fit captures the similarity of product categories associated with an existing brand and its extension (Park et al. 1991). According to Park et al. (1991), brand fit is referred to as brand concept consistency. Based on this definition, brand fit is the extent to which consumers perceive the brand images of the individual brands to be compatible.

Related to this definition, Park et al. (1986) present a framework for brand concept management. Through this framework, marketers are able to select, implement and control a brand image over time. The method for maintaining a concept-image linkage depends on whether the brand concept is symbolic, functional or experiential. The authors claim that by maintaining such a linkage, the brand is more likely to enhance its market performance. Lanseng and Olsen (2008) examined brand concept consistency in brand alliance context. The authors' intentions were to examine the role of fit in attitudes toward brand alliances and how brand concept consistency might moderate the effect of product fit. They found a main effect of product fit on attitude toward the brand alliance. Attitudes toward the alliance of low fit were less positive than attitudes toward the alliance of high fit and moderate fit (Lanseng and Olsen, 2008). The authors also found evidence for the importance of brand concept

consistency on attitudes toward the brand alliance. Another interesting finding was that alliances consisting of two high-product fit functional brands were preferred to expressive (symbolic) brand alliances and mixed brand alliances. The aspects of brand and product fit are relevant for our study. When we create fictitious alliances, the perceived fit with the partner brands can affect consumer evaluation of the focal brands. It is therefore important that the selected partner brands are perceived as equally appropriate for all the focal brands. Furthermore, the product category should also be of equal relevance to the focal brands. If both brand fit and product fit are approximately similar for all the focal brands, then the risk of spurious effects decreases.

Simonin and Ruth (1998) explored the field of brand alliances and how they affect consumer brand attitudes. They argue that there is a “spillover effect” between the brands involved. In other words, the perception of one brand affects the other brand in the alliance. The authors also claim that all brands are not necessarily affected equally by their participation in the alliance. They found that there are positive effects on the individual brands when consumers rate the alliance positively. This statement was also supported by Washburn et al. (2004). They found that there exist synergy effects from alliances to the individual brands. By synergy effects they mean that consumers tend to rate the alliance more positively than they would do to each individual brand outside an alliance. The fact that brands can borrow consumer brand equity from more familiar brands implies a strategic marketing opportunity to add or alter a brand’s specific associations. Lassar et al. (1995) stated the following definition on brand equity: “...*brand equity stems from the greater confidence that consumers place in a brand than they do in its competitors. This confidence translates into the consumer’s loyalty and their willingness to pay a premium price for the brand*”. In the study of Washburn et al. (2004), the authors found that there was no negative spillover from the low-equity brand to the high-equity brand.

While many studies generated positive predictions, Janiszewski and van Osselaer (2000), as cited in Washburn et al. (2004), found that pairing two brands could cause both positive and negative effects on the participating brands. Observations showed that consumers expect higher quality from a brand alliance product than from a single-branded product. Those who had experienced a high-quality brand alliance valued the branding partner lower when it later was paired with another high-quality brand. They also conducted a study with brand ingredient in brownies. When consumers first tasted a branded product containing a non-branded ingredient, and later, tasted a branded muffin containing the low-quality chocolate

chip, they valued the ingredient brand more. Due to this, Janiszewski and van Osselaer concluded that brand alliances may or may not be beneficial to the partnering brands, depending on whether the consumers have first been exposed to the individual single brand versus the alliance.

While these studies focus on spillover effects between the involving brands, Votolato and Unnava (2006) conducted a study on spillover effects concerning negative information on brand alliances. They concluded that negative spillover effects seem to occur under some restricted conditions, although there are no systematic studies that predict when such spillover is most likely to occur. The authors determined the impact of two types of negative attributes: incompetence and immorality. They found that negative spillover from the partner brand to the host brand only occurred when the host was linked directly to the negative act. This provides useful information in our context because it explains that brands have to be careful when engaging in brand alliances. All aspects of the collaboration need to be considered. The specific activities a brand is engaged in can have important implications for the brand in a potential brand crisis situation.

Blackett and Boad (1999) argue that the highest level of co-branding is when two powerful and complementary brands combine their efforts to produce a better product than they individually would have been capable of. Both partners are here contributing with a selection of its core skills and competencies. Within the existing literature of brand alliances there is a lack of research on the effects of complementarity. There are several studies on the phenomenon within the area of brand extensions and we argue that similar logic can be transferred to brand alliances. Nkwocha et al. (2005) explain that complementarity, referring to brand extensions, is the extent to which consumers perceive the original and extension product categories as complements (e.g. computers with printers). In other words, by making printers, a company would not hurt the sales of computers. Instead, the company might even increase the sales of computers because consumers would be able to buy both products from the same brand. Transferring the logic to brand alliances (co-branding), one would imagine that both partners would benefit from making a product that is complementary to their existing product categories. This would especially be relevant for brands with products in low-involvement categories.

### **2.1.2 Multiple Brand Alliances**

When discussing the terms of brand alliances, most published studies have focused either on alliances between two well-known brands or on alliances between one unknown brand and one familiar brand. For our study it is essential to discuss the effects of brand alliances with more than just one allied partner. Voss and Gammoh (2004) investigated the effect of brand alliances, and whether a second ally had an effect on consumer evaluation of brands. The authors examined the effect of an alliance with zero, one or two well-known brand allies on evaluations of a previously unknown focal brand. This article is important to the discussion because it adds new information about the effect of the number of alliance partners. The authors found that the presence of a single brand ally significantly increased perceived quality and hedonic and utilitarian attitudes. While multiple alliances improved focal brand evaluations relative to the no ally condition, the second ally did not increase evaluations relative to the single ally condition (Voss and Gammoh, 2004).

The authors state that the decision to use multiple brand alliances depends on the purpose of the alliance. They argue that the signal effect has importance for how many allies the focal brand should have. E.g., if the main purpose of the brand alliance is to signal quality, one well-known ally is probably sufficient. If the goal is to signal the presence of two or more specific attributes, build brand awareness, build brand image or corporate reputation, or improve channel penetration, multiple brand alliances may still be warranted (Voss and Gammoh, 2004). Our study will differ from Voss and Gammoh (2004) in several ways. First, they examined alliances where a brand had multiple partners within the same alliance. We will create a scenario where a brand has several partners through separate alliances. In other words, brand A has an alliance with brand B and simultaneously brand A has an alliance with brand C which is independent of the first alliance. Secondly, while Voss and Gammoh (2004) studied the signal effect multiple alliances had on perceived quality and hedonic and utilitarian attitudes, we will examine the effect several partners has on brand reputation, corporate ability, brand trust and brand attitude. Finally, a major difference with our study is that we will implement brand gender. This will be explained further in the third section of the theory chapter when we introduce the brand gender concept.

Although there is a lack of literature that examines the impact of multiple alliance partners, there are several articles that investigate the impact of multiple brand extensions. Shine et al. (2007) examined the potential synergy effects of multiple brand extensions. The authors

explain the term synergy by “*the mutual beneficial effect of brand extensions on consumer evaluations*”. “*Synergy occurs when the value of a set of elements in combination exceeds the sum of the values that the elements would have if they occurred in isolation*”. They found that there exist synergy effects in relation to complementary extensions. In other words, when several extensions that complement each other, are introduced at the same time, they contribute to a synergy effect for the brand.

Even though a brand extension is a different concept to a brand alliance, we claim that several of the mechanisms are similar. In brand extensions, the company introduces a new brand and/or product. In brand alliances, the company engages in collaboration with another brand. This often leads to the introduction of a new product (co-branding). The difference with brand alliances is that it involves two different brands with different pre-existing consumer attitudes. However both concepts involve an expansion of the brand in some way. Transferring the synergy theory to brand alliances, one would expect that the presence of several alliance partners would create a synergy effect for the focal brand. This would be in accordance with Washburn et al. (2004) who found evidence for a synergy effect in a brand alliance setting. We do not intend to examine the complementarity of the alliances in this study. However, we believe that the “synergy theory” contributes with a valid argument in our context. When consumers are introduced to a brand with many alliance partners, it appears legitimate to claim that their evaluation of the focal brand would be more positive than if they only were exposed to one or two partners.

In light of the previous arguments, we will present our research model and four hypotheses. As we discuss more theoretical concepts, we will present additional hypotheses and expand the model.



Figure 1: Research model 1

*H1: an increase in a brand's number of alliance partners will positively influence consumer evaluation of **brand reputation***

*H2: an increase in a brand's number of alliance partners will positively influence consumer evaluation of the brand's **corporate ability***

*H3: an increase in a brand's number of alliance partners will positively influence consumer evaluation of **brand trust***

*H4: an increase in a brand's number of alliance partners will positively influence consumer evaluation of **brand attitude***

The hypotheses reflect our assumption that the spillover effects of the associations from the alliance partners will positively influence consumer evaluation (all four dependent variables) of the focal brand. One can imagine that if the number of alliance partners increases, there is a greater chance that the focal brand will receive positive spillover of associations. On the other hand, there is also an increased risk of negative spillover effects. However, we believe that an increase in alliance partners will have a positive effect on our dependent variables. For an unknown brand it is expected that the increase in positive evaluations will be higher as consumer hold no pre-existing attitudes towards the brand. For well-known brands, it is harder to measure the effect if the pre-existing attitudes are strong. This is due to a ceiling effect, where respondents are not able to rate the brands higher than they already do.



In terms of H1 we anticipate that the perception of the brand as “popular”, “liked” and “well-known” to increase when the number of alliance partners increases. The basic thought is that a brand that has many partners, must be perceived as be popular. There are several brands that want to cooperate with the brand and thus it must be liked. Even if the consumers have never heard about the focal brand, it is legitimate to assume that the presence of ten reputable allies will increase their perception of how “well-known” the brand is. Thus, we postulate a main effect on brand reputation.

H2 examines the effect on corporate ability. One of the questions in terms of corporate ability is “perceived quality”. In addition to this, we will ask the respondents whether the brand is a “leading company” and if it has “innovative products”. Voss and Gammoh (2004) found that an increase from one to two partners had no significant effect on perceived quality. We will compare two and ten partners. It could be that consumers do not change their perceptions of corporate ability on the basis of one additional partner. However, when the brand has eight additional partners it is legitimate to postulate a positive effect. One can imagine that the company would be perceived as a “leading company” if they had many well-known partners. By having several alliance partners, the company also signals a willingness to renew the brand. It is thus legitimate to anticipate that the perception of “innovative products” will increase when the brand engages in multiple alliances.

H3 is derived from the notion that a brand that has several partners must be perceived as trustworthy. The same argumentation applies for this hypothesis as for the two previous. The fact that the brands cooperate with many other brands can provide comfort and a sense of safety. If many other brands trust the focal brand, then why shouldn't consumers?

Finally, we expect a main effect on brand attitude, H4. The respondents will be asked whether they like or dislike the brand, whether they have a positive or negative impression of the brand, and whether they generally perceive the brand as good or bad. We expect that the presence of several reputable allies will have a positive spillover effect on the focal brand. On the other hand, some consumers might hold negative pre-existing attitudes to some of the partners in our study, which could lead to a negative spillover effect. Our intention is to select neutral but well-known partners. It is important that the brands we select as partners are neither loved by everyone, nor hated by everyone. In this way we can isolate the spillover effect of having additional partners. It will thus be the number of partners that influences

consumer evaluation and not the strong pre-existing attitudes to one of the selected partner brands.

## **2.2 Evolutionary Biological, Psychological, and Sociological Gender Differences**

### **2.2.1 The Relevance of Gender Differences for Brand Alliances**

Our intention is to examine the effects of the number of alliance partners on consumer evaluation of brands. Why are we interested in biological gender differences in this context? These theories are relevant because they discuss how humans are perceived when they have several sexual partners. Numerous articles explain how women and men are perceived differently when engaging in sexual activity. We are interested in transferring this logic onto brands. We will examine whether these differences between humans also are valid for brands. In other words, if men are more positively evaluated than women when having several sexual partners; will this also be the case for masculine and feminine brands when they engage with multiple partners? This brings us to the concept of brand gender. For someone not familiar with the literature on this topic, it might be a difficult concept to apprehend. The basic notion is that people often think in the same way about brands as they do about other people. They utilize many of the same psychological mechanisms. Therefore it can be relevant to our cause to use socio-psychological, sociological and evolutionary biological explanatory mechanisms to examine gender differences in a brand alliance setting.

In this section of the theory chapter we will examine gender differences between humans. First, we will look at literature within evolutionary biology and preferences in mate selection. We will investigate what makes men and women attractive as partners. Then we will examine Bem's (1974) Sex-Role Inventory, which provides a different theoretical viewpoint to the evolutionary biology. The final part of this section will elaborate on the "sexual double standard". This theoretical viewpoint will provide support to the argumentation from the evolutionary biology.

### **2.2.2 Evolutionary Biology and Preferences in Mate Selection**

Literature published through the years has discussed the phenomenon of sexual reproductivity. Both humans and animals reproduce offspring due to fertilization between the egg produced by the female, and the sperm produced by the male. Bateman (1948) and Trivers (1972) stated that since females invest more resources and energy into producing each egg than males invest in producing sperm, eggs become a limited resource for males compared to what sperm does for females. After birth, the infant is more dependent on its

mother, due to breast-feeding and baby-carrying. The authors therefore argue that males should compete more intensively to fertilize eggs than females should do to acquire sperm. Reynolds & Harvey (1994), Trivers (1985) and Darwin (1871) cited in Buss (2009) claim that females have more power in choosing, rejecting, and tempting their lover. The literature on evolutionary biological differences is interesting in our context because it explains some of the underlying reasons for gender stereotypes that exist in today's society.

Buss (2009) presented theory of Darwin and the Evolutionary Psychology. Darwin's theories of natural and sexual selection opened for understanding struggles for existence and struggles for mates. Darwin developed another evolutionary theory, the theory of sexual selection. "*Sexual selection depends on the advantages which certain individuals have over others of the same sex and species, in exclusive relation to reproduction*", (Darwin, 1871 as cited in Buss, 2009). Buss also presents male and female preferences in mate selection. While physical attractiveness is a determinant in male mate selection, women prefer men with economic resources or qualities that lead to economic resources, such as ambition, industriousness, social status, self-confidence and slightly older age (Buss, 1989; Kenrick & Keefe, 1992 cited in Buss, 2009).

Several studies have looked at the gender differences in mate preferences. According to Eastwick & Finkel (2008) it is a well established fact that men and women differ in their reports of certain characteristics in a romantic partner. The general thought is that men desire romantic partners that are physically attractive and women desire men that are intelligent and have a high earning potential (Eastwick & Finkel, 2008). "*These differences are often discussed as part of an evolutionary perspective on mate selection, which suggests that men and women possess different evolved, domain-specific psychological adaptations that guide their mate preferences accordingly*" (Buss, 1989, 1994; Buss & Kendrick, 1988; Buss & Schmitt, 1993 as cited in Eastwick & Finkel, 2008). Some research has confirmed that women and men converge in the strength of their preference for physical attractiveness in short-term contexts (Kenrick, Groth, Trost, & Sadalla, 1993; Li & Kendrick, 2006). Likewise, women tend to prioritize earning prospects when seeking a long-term compared with a short-term partner (Li & Kendrick, 2006 as cited in Eastwick & Finkel, 2008).

Eastwick & Finkel (2008) also claim that consistent sex-differences between men and women in mate preference might be due to predefined theories of which characteristics that will inspire their interest. In other words, men will report to be more interested in physical

attractiveness and women in intelligence because they believe that this is appropriate. The authors found no evidence for sex-differences in physical attractiveness, good earning-prospects and personable characteristics although they were all positively and significantly associated with romantic interest. This is thus a critique to previous studies that have predicted sex differences related to participants long-term versus short-term orientations (e.g. Buss & Schmitt, 1993). Eastwick & Finkel (2008) examined a speed-dating environment and found that a participant who claimed to value physical attractiveness highly in a romantic partner was not significantly more likely than other participants to like, feel chemistry with, or say “yes” to the dates he found physically attractive.

In contrast, Fisman et al. (2006) reported that men were more likely than women to say “yes” to a speed-dating partner they found physically attractive. The authors argue that women put greater weight on the intelligence and the race of the partner while men respond more to physical attractiveness. Eastwick & Finkel (2008) argue that although their results also indicate the same sex difference, it is not enough to conclude that physical attractiveness is more important to men. The authors explain that men may be more eager than women to obtain contact information of a physically attractive woman, but exchanging contact information is merely a one step on the road to relationship initiation (Eastwick & Finkel, 2008).

Feingold (1990) support the findings of Eastwick & Finkel who concluded that men put greater value on physical attractiveness than women do when selecting mates. Common for both sexes, are that they may underestimate the value they attribute to attractiveness. According to Berscheid & Gangestad, cited in Feingold (1990), women may attribute even more value to attractiveness than men do. Feingold claims that physical attractiveness is positively correlated with opposite-sex popularity for both sexes. Still there were some gender differences depending of the type of popularity. E.g. the correlation was stronger for women than it was for men concerning romantic popularity. An example of romantic popularity could be dating frequency. On the other hand, the correlation was larger for men than for women when it came to platonic popularity. Platonic popularity was measured by the number of opposite-sex friends, whether assessed by self-report or through sociometry, and also by social-interaction records that tallied total (rather than only romantic) interactions with the opposite sex (Feingold, 1990). The difference in correlation between physical attractiveness and platonic popularity may be explained by the gender differences in intimacy preferences.

Thus, women have stronger preferences of romances coming from friendships than men have. This may give women better incentives to make friends with attractive men (Feingold, 1990).

Several authors, who have studied the development of evolutionary theories of human social behavior, have presented theoretical frameworks for sex differences in mate selection criteria. One biological explanation of the differences was that women have limited number of offspring, while men can reproduce more times than their opposite sex (Buss, 1989; Cunningham, 1986; Kenrick, Sadalla, Groth, & Trost, 1990; Symons, 1979; Thiessen & Gregg, 1980; Trivers, 1985, cited in Feingold, 1990). It is therefore an assertion that men maximize reproductive success by being sexual responsive to a larger number of partners due to the attraction of attributes like youth and beauty. From this, it is suggested that there may be a genetic basis for men's preferences for physical attractiveness in partners. Women's preferences for mate selection are suggested to be affected by characteristics of men that enhance the probability of the survival of their offspring. From this theoretical viewpoint, one can claim that it is biologically natural for men to have more sexual partners than women. Several sexual partners appear to signal potency in men, thus making them attractive. This is interesting in our context because we want to examine the relationship between the number of partners a brand has, and how attractive it is perceived by consumers. According to the evolutionary theory on biological gender differences, it gives an indication that masculine brands with several alliance partners would appear more attractive than feminine brands with multiple partners. This is due to the potency the brand shows by "going to bed" with several other brands. We will elaborate on this aspect in the section of brand personality and gender.

Buss and Barnes (1986) cited in Howard et al. (1987) support the evolutionary theories of human behavior, but claim that the social perspective could also explain differences between sex preferences in human mate selection. Through the studies of Howard et al. (1987), the authors conclude that human mate preferences are better understood from a social perspective. They found that women preferred men that have high professional status, are kind, easygoing-adaptable and like children. Women also preferred partners who are considerate, honest, dependable, understanding and well liked among others. On the other side, they found that men preferred partners who are physically attractive, good looking, a good cook and frugal. Buss and Barnes (1986) also state that reproductive investment and structural power relationships can explain the sex differences. According to theory within reproductive investment, there is a close link between women's physical attractiveness and their age and

health, which indicate reproductive capacity. Physical appearance cannot explain men's evaluation of reproductive capacity. While women seek for an ambitious mate, men seek for an attractive mate. This shows that both sexes have some kind of reproductive concerns.

### **2.2.3 Sex-Role Inventory**

Bem (1974) developed a sex-role inventory (BSRI) that treats masculinity and femininity as two independent dimensions. This made it possible to characterize a person as masculine, feminine or "androgynous" (i.e. high score on both masculine and feminine traits). Bem (1975) conducted two college experiments that supported her hypothesis about "androgynous" individual behavior. The study examined the hypothesis that psychologically "androgynous" individuals might be more likely than either masculine or feminine individuals to display sex role adaptability across situations, engaging in situational-effective behavior without regard for its stereotype as more appropriate for one sex or the other.

Bem's Sex-Role Inventory (BSRI) contains different features that distinguish it from other masculinity-femininity scales. The BSRI characterizes a person as masculine, feminine or androgynous from his or her endorsement of masculine or feminine personality characteristics. What differs from other scales is that BSRI includes a social desirability scale. This scale is neutral when it comes to classifying sex. The purpose of including this scale was to provide a neutral context for the masculinity and femininity scales. From a list of many different personality traits, Bem has chosen 20 items for masculinity, femininity and social desirability. The items are clearly distinguished. Bem claims that masculinity and femininity represent two complementary domains of positive traits and behaviors. When studying the masculine items, we found traits that explain the appearance of more individualistic and egocentric behavior. Aggressive, defends own beliefs, dominant and forceful are examples of behavior that can obstruct relation building processes. When studying the feminine items, we found several traits which indicate that femininity has been associated with relationship-building ability. Compassionate, sensitive to the needs of others, sympathetic and yielding are traits and behavior that can improve relation building processes.

The assumption of women being more relation oriented was also supported by Barry et al. (1957). They conducted a study that examined different aspects of socialization within 110 cultures. This study showed that differentiation of sexes is insignificant in infancy, *but in childhood there is, as in our society, a widespread pattern of greater pressure toward*

*nurturance, obedience, and responsibility in girls, and toward self-reliance and achievement striving in boys* (Barry et al, 1957). Although the authors concluded with a different pattern in masculine and feminine behavior, the authors claimed that cultural rather than directly biological nature explain the sexual differences.

The Sex-Role inventory provides us with a different theoretical viewpoint to the evolutionary biological gender differences. The focus on women as more relation oriented while men are more competitive, gives an indication that women are more attractive as partners. Transferring the logic to brands, a feminine brand would thus appear to be more attractive as an alliance partner than a masculine brand because of its relationship building qualities. This is the opposite of what one would expect from the biology theory where men are perceived as more potent when having more partners.

#### **2.2.4 Sexual Double Standard**

*“The notion that men and women are evaluated differently for engaging in sexual activity is called sexual double standard”* (Marks, 2008). In this context, men are praised or rewarded with high status for being highly sexually active, while highly sexually active women suffer from low status and a damaged reputation. This aspect is relevant in our context because it supports the notion that an increase in men’s sexual partners signals potency and makes them more attractive. Although a significant number of people believe that the sexual double standard exists, empirical research has not confirmed it to the full extent. Marks (2008) argue that the failure to confirm the sexual double standard might be due to the difficulty of replicating real life situations. The author explains that in the environments where these studies are typically conducted, the participants are able to devote their full attention to evaluate the sexually active people. This situation reduces the likelihood of stereotyping. Instead the participants evaluate everyone individually regardless of gender (Marks, 2008). In other words, when people are allowed to use all their cognitive resources to evaluate sexually active people, they are less likely to portray their stereotypes about what is appropriate sexual behavior for men and women. In a real life situation there is a significant amount of stimuli that individuals need to attend to. To reduce their cognitive efforts, perceivers often divide people into certain social groups. These groups are associated with a certain type of behavior and the associations are thus transferred onto the members (Marks, 2008).



The author created an environment with divided attention (i.e. participants were not able to use all of their cognitive resources when evaluating sexually active people) to find empirical evidence for the sexual double standard. Marks (2008) found support for his hypothesis. When the respondents were allowed to devote their full attention to evaluate the sexually active men and women, they rated men and women equally. In contrast, under conditions of divided attention, sexually active men were rated more positive than sexually active women. Thus, the results support the notion that highly sexually active men are positively stereotyped, and highly sexually active women are negatively stereotyped, when the perceiver's cognitive capacity is limited (Marks, 2008). Another interesting finding in this regard is that people are more likely to endorse a sexual double standard in a group setting than alone (Marks & Fraley, 2007). The authors explain that in a group context, social interaction is likely to make social norms more prevalent. Marks (2008) argue that this effect might be a result of participants being distracted from the social interaction and thus not able to use all of their cognitive capacity. In other words, stereotyping behavior is more likely to occur in a group setting due to social interaction that reinforces social norms as well as reduces the cognitive resources available to evaluate the highly sexual active men and women.

Jonason & Fisher (2009) investigated the underlying reasons for why American college-aged men and women report inaccurate information regarding their sexual behavior. One of the problems with self-report measures is that men, most often, report having significantly more lifetime sexual partners than women (Pedersen et al. 2002). This strides with what theoretically should be the case. Due to the fact that most heterosexual encounters involve one man and one woman, the number of sex partners should be equal across gender. When these numbers, in fact, are not equal, it indicates that one or both of the sexes are being dishonest in their reports of their sexual activity (Jonason & Fisher, 2009).

Wiederman (1997) found that men tend to use large round numbers when estimating their past sexual success. In contrast, Alexander & Fisher (2003) found no gender differences in reporting when the participants were told that lie detection was possible. Furthermore, when a question regarding the number of sex partners does not specify sexual intercourse or is vague, men tended to report more sex partners than women. This is because they define more acts as sex than women do (Sanders & Reinisch, 1999). Therefore, it is interesting to get an understanding of the reasons behind these biases in self-reporting.

Baumeister & Twenge (2002) established that the social constraints for sex are stronger for young women than young men. Alexander & Fisher (2003) explains that these differing social expectations suggest that women would be less likely than men to report the full extent of their sexual experience. Although there is no statistical reason for young men and women to differ in their sexual behavior, there are attitudinal explanations. These explanations have generally focused on socially normative pressures that derive young women to report fewer partners (Meston et al. 1998).

Fisher (2007) found that young men who were higher in hypermasculinity tended to exaggerate their number of sexual partners when they were (falsely) informed that women now had more experience and less judgmental attitudes. Jonason (2007) established that the degree to which individuals' perceived sexual success to be prestigious fully mediated the relationship between sex of participant and reported lifetime partners. In other words, the potential status a man would gain from having many sex-partners would increase the likelihood of him over-reporting. Jonason & Fisher (2009) found evidence for this. The authors argue that it was not the gender of the participants that best predicted the number of reported sex partners, but instead, the amount of prestige individuals assigned to others who have had many sex partners (Jonason & Fisher, 2009). The authors found evidence for the sexual double standard. They replicated work by Jonason (2007) that demonstrated that women rated men and women with many sex partners as having the least status and men rated those same targets as more favorably (Jonason & Fisher, 2009). The results showed that it was men with many partners who were rated most favorably off all. Thus, the authors argue that Jonason's (2007) contention about men deriving intragender status through sexual success was correct.

Considering the previous arguments, we expand our model to incorporate two explanatory relationship mechanisms; Relationship Orientation and Potency. In addition we implement the impact of consumer gender.

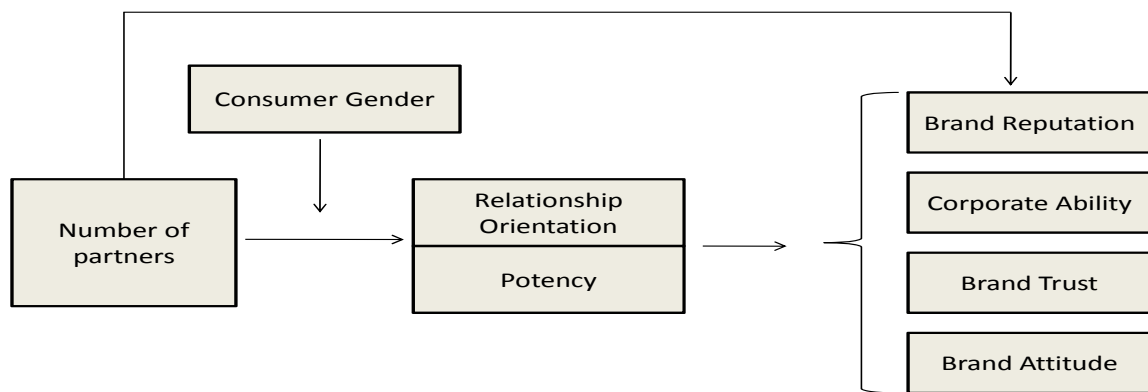


Figure 2: Research model 2

The explanatory mechanisms are related to the two different theoretical aspects previously discussed. Relation Orientation is derived from Bem's (1974) Sex-Role inventory where women are perceived as more caring and nurturing in a relationship. Potency is derived from evolutionary biology and explains that men with several partners are perceived as more potent and thus more attractive. From this theoretical basis we postulate two hypotheses regarding consumer gender.

*H5: a brand with several alliance partners will be regarded as more **relationship oriented** by **women** than by men*

*H6: a brand with several alliance partners will be regarded as more **potent** by **women** than by men*

In terms of H5 we believe that women will evaluate brands with several partners as more relationship oriented than men will. This is linked to the BSRI where women are seen caring and nurturing. It is thus expected that women will detect these qualities in brands that have several partners. Men, on the other hand, are not expected to attribute relationship building qualities to brands to the same extent as women.

H6 is derived from evolutionary biology where women are attracted to men who have shown abilities in acquiring several sexual partners. Transferring the logic to brands, we expect that

women also will recognize these qualities in brands that are involved with several alliance partners. The theory on gender differences in sociology and psychology explains that men receive intragender status when they have several sexual partners. It would therefore be expected that men attribute potency to brands that are involved in several alliances. In other words, they recognize the ability to attract several partners and their perception of the brand's status would thus increase. However, we postulate that this effect will be stronger for women. Female consumers would be expected to be attracted to the potency a brand shows by engaging in several alliances.

Furthermore, we also expect consumer gender differences in evaluation of the dependent variables. We expect that female consumers will be more positive than men towards brands that engage in multiple brand alliances. It is expected that an increase in partners will signal both potency and relationship orientation to female consumers. We anticipate that female respondents will recognize relation-building qualities in addition to potency to a larger extent than men and that this will positively influence their evaluation of brand reputation, corporate ability, brand trust and brand attitude. Consequently we postulate the following hypotheses;

*H7: a brand with several alliance partners will be relatively more positively evaluated by women than by men in terms of **brand reputation***

*H8: a brand with several alliance partners will be relatively more positively evaluated by women than by men in terms of **corporate ability***

*H9: a brand with several alliance partners will be relatively more positively evaluated by women than by men in terms of **brand trust***

*H10: a brand with several alliance partners will be relatively more positively evaluated by women than by men in terms of **brand attitude***

## **2.3 Brand Personality and Gender**

The first section of the theory chapter introduced the concept of brand alliances and the effects of multiple alliance partners. The second section examined gender differences in biology, psychology and sociology. In this final section of the theory chapter, we will explain that brands can have personalities and that their gender can be determined. This section will therefore compliment the two previous sections and provide us with a solid theoretical basis for our research.

### **2.3.1 Brand Personality**

In order to apprehend the concept of brand gender one must first understand what brand personality is. According to Aaker (1997), brand personality is “*the set of human characteristics associated with the brand*”. The characteristics uniquely apply to consumers’ characterizations of brands. The author developed a theoretical framework of the brand personality construct by determining the number and nature of dimensions of brand personality (Sincerity, Excitement, Competence, Sophistication and Ruggedness). The basic argument is that attitude objects, such as brands, can be associated with personality traits through learning and experience, and this association with personality traits provides self-expressive or symbolic benefits for the consumer (Aaker, 1997 as cited in Sung and Tinkham, 2005).

According to Sung and Tinkham (2005), brand personality and human personality are not exactly the same concepts. They argue that human personality can have a perceived component as well as an actual component. In other words, humans can be perceived in a certain way by others, but it does not necessarily reflect who they really are. The authors claim that the objectivity that one can have when describing humans, cannot be applied when describing brands. Brand personality is thus a hypothetical construct developed by the consumer. Furthermore, brand personality traits differ from implicit human personality traits in the way they are created (Sung and Tinkham, 2005). The human personality traits are based on factors such as; the individual’s behavior, physical characteristics, attitudes and beliefs, and demographic characteristics. A brand’s personality, on the other hand, can be created and shaped by any direct and indirect contact that the consumers experiences with the brand (Plummer, 1985; Shank & Langmeyer, 1994 as cited in Sung & Tinkham, 2005).

### 2.3.2 Brand Gender

The gender dimensions of brand personality are defined as “*the set of human personality traits associated with masculinity and femininity applicable and relevant to brands*”, (Grohmann, 2009). Although several scales measuring masculinity and femininity as human personality traits exist, these scales have not been validated in a brand personality context. Bem’s (1974) Sex-Role Inventory (BSRI) made it possible to characterize a person as masculine, feminine or “androgynous” (i.e. high score on both masculine and feminine traits). Grohmann (2009) claims that the scales measuring human personality traits do not necessarily lend themselves to the description of personality traits associated with brands. The author argues that there is a need for a scale that measures the gender traits associated with brands, rather than relying on existing scales of masculinity and femininity as human personality traits to capture these brand personality dimensions. According to Grohmann (2009), consumers utilize masculine and feminine personality traits associated with a brand to enhance their own masculinity or femininity when they use brands for self-expressive purposes. The author claims that gender dimensions of personality appear to be especially relevant to symbolic brands for consumers attempting to reinforce their own masculinity or femininity.

Grohmann (2009) explains that consumers associate human personality traits with brands because they relate to brands as they would to partners or friends, perceive brands as extensions of their selves, or because marketers suggest that brands have certain characteristics. Therefore, it is likely that consumers map a wide range of human personality traits, including those associated with gender, onto brands. The author developed a scale for measuring masculine and feminine brand personality traits for two reasons; (1) the multidimensional nature of brand personality and accessibility of masculinity and femininity as human personality dimensions and (2) consumers’ need to express their masculinity/femininity through brand choice and consumption.

This article contributes to the existing literature by expanding on Aaker’s (1997) scale to incorporate gender differences. The 12-item scale consists of six masculine (MBP: Adventurous, Aggressive, Brave, Daring, Dominant, Sturdy) and six feminine brand personality dimensions (FBP: Expresses tender feelings, Fragile, Graceful, Sensitive, Sweet, Tender). In this way, Grohmann (2009) validates masculinity and femininity as human personality traits in a brand personality context. The scale is applicable to brands in symbolic, utilitarian, or mixed product categories. Due to the independence of the gender dimensions of brands personality, it allows a classification of brands into (1) high-masculine/low-feminine,

(2) low-masculine/high-feminine, (3) low-masculine/low-feminine (undifferentiated), and (4) high-masculine/high-feminine (androgynous brands). The author explains how mapping brands in terms of their masculinity/femininity can be used as a diagnostic tool to analyze consumer perceptions of competing brands or to identify (re)positioning strategies.

Grohmann (2009) conducted studies to establish the discriminant validity of the MBP/FBP scale with regard to (1) human masculinity and femininity as human personality traits (BSRI) and (2) with regard to Aaker's (1997) *Ruggedness* and *Sophistication* dimensions. The results showed that the MBP/FBP is discriminant with regard to the BSRI. In other words, the results show that the BSRI scale which measures masculinity/femininity of humans cannot be transferred onto brands. Because neither the facets subsumed under sophistication (i.e. upper class and charming) nor those subsumed under ruggedness (i.e. outdoorsy and tough) reflect the concepts of femininity and masculinity per se, the gender dimensions of brand personality are expected to possess discriminant validity with regard to sophistication and ruggedness (Grohmann, 2009). The results showed that the gender dimensions of brand personality are distinct from the ruggedness and sophistication dimensions of brand personality and can be administered to complement Aaker's (1997) five dimensions (Grohmann, 2009).

Jung and Lee (2006) claim that there are many brands that possess gender identities and that they can be stereotyped as either masculine or feminine. The authors explain that one of the advantages of the gendered brands is that they can exploit the masculine and feminine associations to attract male and female consumers respectively. However, this also implies that these brands may be limited to a specified market segment. The article contributes to the existing theory by identifying the success criteria for cross-gender extensions (i.e. extending the same brand name to target the opposite sex). Allison et al. (1980), as cited in Till and Priluck (2001), found that men attributed more masculinity to various products and women more femininity to the same products, possibly due to consumption of these products. In this way, they strive to have gender appropriate products. Men are also more likely to try a masculine brand and women, a feminine brand (Alreck, 1982 as cited in Till and Priluck, 2001). Appropriate gender role behavior is believed to be more important to men than women.

In this section of the theory chapter we have implemented the concept of brand gender. We have explained that brands can have personalities and that there have been developed scales to measure these. The interesting supplement in light of our thesis is the introduction of

Grohmann’s (2009) scale to measure brand gender. This means that not only can one attribute personality traits on to brands, but one can determine the masculinity and femininity of them. Thus, we present our full research model when incorporating brand gender:

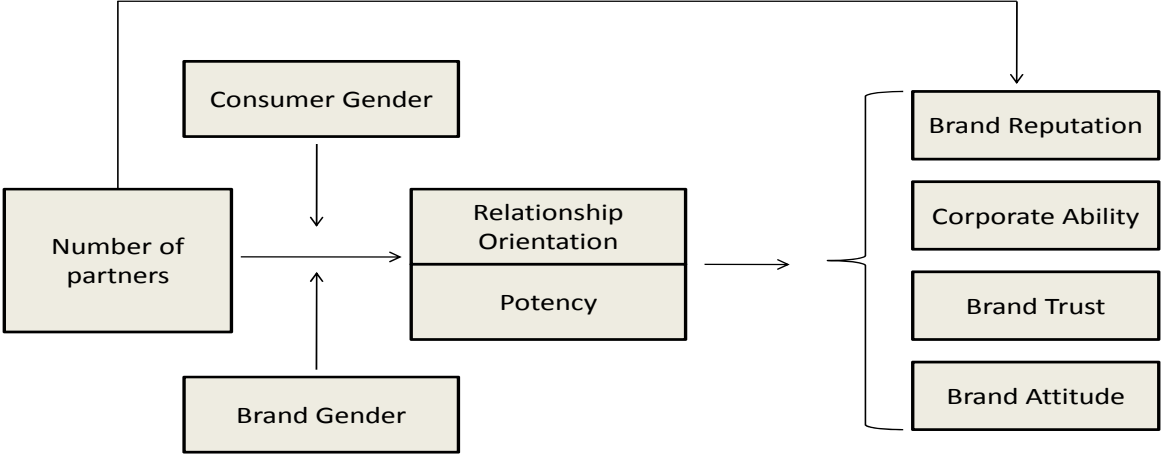


Figure 3: Full research model

When implementing the concept of brand gender, we can test what impact it has on the relationship between the number of alliance partners and brand reputation, corporate ability, brand trust and brand attitude. Thus we have four alternative hypotheses (H11-H14) for explaining the interaction effect of brand gender on the dependent variables.

*H11a: as the number of alliance partners increases, **brand reputation** will be relatively more positively evaluated for **masculine brands** than feminine brands*

*H11b: as the number of alliance partners increases, **brand reputation** will be relatively more positively evaluated for **feminine brands** than masculine brands*

*H12a: as the number of alliance partners increases, **corporate ability** will be relatively more positively evaluated for **masculine brands** than feminine brands*



*H12b: as the number of alliance partners increases, **corporate ability** will be relatively more positively evaluated for **feminine brands** than masculine brands*

*H13a: as the number of alliance partners increases, **brand trust** will be relatively more positively evaluated for **masculine brands** than feminine brands*

*H13b: as the number of alliance partners increases, **brand trust** will be relatively more positively evaluated for **feminine brands** than masculine brands*

*H14a: as the number of alliance partners increases, **brand attitude** will be relatively more positively evaluated for **masculine brands** than feminine brands*

*H14b: as the number of alliance partners increases, **brand attitude** will be relatively more positively evaluated for **feminine brands** than masculine brands*

Hypotheses H10a-H14a are derived from the argumentation that men are viewed as more potent when they have multiple sexual partners. An increase in masculine brand's number of partners would therefore be thought to reflect its potency and thus make it more positively evaluated by consumers.

The alternative hypotheses, H10b-H14b, are derived from the argumentation that having several alliance partners is viewed as a feminine feature. It is linked to the BSRI and explains relationship orientation rather than potency. For a feminine brand, an increase in the number of alliance partners would therefore be thought to increase the positive evaluations of brand attitude, corporate ability, brand reputation and brand trust.

The difference between the alternative hypotheses is thus the explanatory relationship mechanisms. In H10a-H14a, the masculine brand will be viewed as more positive because of its perceived potency. In H10b-H14b, the feminine brand will be more positively evaluated because of its relationship orientation. Having several partners can thus be viewed as "going to bed with many" (masculine feature), or as displaying relationship-building ability and care for its partners (feminine feature). Because brand gender is a new concept within the literature of brand management it is acceptable to have two alternative hypotheses for an effect on each dependent variable. Both hypotheses have a theoretical basis and thus appear to be legitimate.

## **3.0 Methodology**

### **3.1 Pretest**

#### **3.1.1 Purpose of the Pretest**

In our main study we would like to include two brands within the same product category that significantly differ on Masculine Brand Personality (MBP) and Feminine Brand Personality (FBP) on Grohmann's (2009) scale. In order to find these brands we will conduct a pretest. The sample of selected brands in our pretest will consist of the brands that scored highest on masculinity and femininity in Grohmann's experiment (e.g. Dove, Chanel and Old Spice). In addition to these brands, we will include other brands that we believe to be highly masculine or feminine. The intention of the pretest is also to validate Grohmann's scale for measuring the gender dimensions of brand personality. Because this is the first scale that has been developed for defining the gender of brands, it is important to test whether it actually measures what it claims. This is especially relevant for our study since Grohmann's study was conducted on the a sample of business students in the U.S. By conducting a pretest on Norwegian business students, we will discover whether all six items of the MBP and FBP in fact measures masculinity and femininity of brands respectively.

#### **3.1.2 Research Design**

The most appropriate design for the pretest is a survey. This will be an effective way to get the respondents to rate the brands on Grohmann's (2009) scale. A selection of 24 brands will be examined. We will have 12 product categories with two brands (one we believe to be feminine and one we believe to be masculine) in each category. The reason for having two brands in each category is to make sure that the brands we choose in fact are perceived as masculine or feminine. For example, beer and cigarettes are perceived as masculine categories while soap and perfume are perceived as feminine. These loaded categories will be discovered if both brands pull in the same direction in terms of gender. In other words, we want to make sure that the brands we choose in fact are highly feminine or masculine and that it is not the product category that alters the consumers' perception. Each respondent will thus be exposed to 12 brands, instead of 24. This is in order to prevent respondent fatigue. To meet the requirements of Lauter (1979) as cited in Hair et al. (1998), our pretest design requires approximately 20 respondents. Our design contains two dependent variables and one experimental group. Additionally, we assume that the effect size will be large, due to the

differences between MBP and FBP that Grohmann (2009) found in her study. To insure that the results of the ANOVA tests are reliable, we intend to collect data from a total of 30 respondents for each pretest.

The order of the brands will be randomized to increase the reliability of the findings. That is; if we would conduct the same pretest with the brands placed in a different order we would receive the same results. The respondents will rate each brand on the 12 items of the MBP/FBP scale. We will use a nine-point scale ranging from 1: Not at all descriptive to 9: Extremely descriptive. This is thus the same design as Grohmann (2009) used. In addition to the MBP/FBP scale, the consumers will rate how familiar they are with the brands. If a brand has low familiarity, it might indicate that the respondents' rating on Grohmann's scale is flawed. The consumers that have low familiarity with a brand might be more inclined to careless responding. By choosing brands for our main study that have high familiarity among consumers, we increase the likelihood of capturing the real perceptions of the brands.

### **3.1.3 Sample**

The total sample in our pretest consisted of 60 respondents (30x2), 30 female and 30 male students at the Norwegian School of Economics and Business Administration (NHH) in Bergen. The respondents were randomly chosen at the library at NHH. The students were informed that the survey was a part of a master thesis in relation to the field of brand management. They were not primed in any way on the intention of the survey. As these students were randomly chosen, one can imagine that their knowledge within brand management and the concept of brand personality would differ. It was therefore important that they received a short introduction that explained how brands can be assigned with human personality traits (See Appendix 1). The total sample consisted of 60 students from a relatively internally homogenous group. Although the students might be at different levels of their education and have different majors, they are all attending the same school and thus would appear to be included in the same population. The intention of the pretest was to get an indication of which brands that are perceived as highly masculine and feminine respectively. For this purpose it is not necessary to have a heterogeneous sample. To measure an effect that has not been investigated heavily in previous research, it might be appropriate to test on a homogenous sample first. It is more probable that these respondents will answer similarly and it will be easier to measure an effect. In future research, these effects would need to be

validated on a wider range of the population in order to make generalizations. A relative homogenous sample of 30 respondents rating each brand is thus deemed appropriate for the purpose of the pretest.

**3.1.4 Results**

The first test we conducted was a factor analysis of the MBP/FBP scale to uncover whether all the items were good indicators of masculinity and femininity respectively. The results revealed two factors with eigenvalues over 1; Masculine Brand Personality (MBP) with eigenvalue 4,094 and Feminine Brand Personality (FBP) with eigenvalue 3,883 (See Appendix 3.1). From the pattern matrix, table 3.1 we can observe that the MBP traits (Adventurous, Aggressive, Brave, Daring, Dominant, and Sturdy) prominently load on component 1. Simultaneously, the FBP traits (Expresses tender feelings, Fragile, Graceful, Sensitive, Sweet, and Tender) load prominently on component 2. This offers support to the assumption that Grohmann’s scale measures masculinity and femininity. The pattern matrix indicates that all the MBP traits and FBP traits are valid to measure masculinity and femininity respectively. We will thus use all the traits in our main study.

|                                  | <b>Component<br/>1</b> | <b>Component<br/>2</b> |
|----------------------------------|------------------------|------------------------|
| <b>Adventurous</b>               | 0.765                  |                        |
| <b>Aggressive</b>                | 0.805                  |                        |
| <b>Brave</b>                     | 0.875                  |                        |
| <b>Daring</b>                    | 0.802                  |                        |
| <b>Dominant</b>                  | 0.828                  |                        |
| <b>Sturdy</b>                    | 0.758                  |                        |
| <b>Expresses Tender Feelings</b> |                        | 0.867                  |
| <b>Fragile</b>                   |                        | 0.765                  |
| <b>Graceful</b>                  |                        | 0.684                  |
| <b>Sensitive</b>                 |                        | 0.805                  |
| <b>Sweet</b>                     |                        | 0.803                  |
| <b>Tender</b>                    |                        | 0.907                  |

Table 3.1: Pattern Matrix MBP/FBP Scale

Furthermore, we compared the means of MBP and FBP for each brand in the same product category. This was done through a regular analysis of variance (one-way ANOVA). From this test we were able to uncover whether there were any significantly differences between the

means of the brands within the same product category. The ANOVA results, table 3.2, indicated that motor vehicle was the only category where the brands differed significantly on both MBP and FBP.

| Brand           | N  | Mean   | Sign.        |
|-----------------|----|--------|--------------|
| <b>MBP</b>      |    |        | <b>0.000</b> |
| Harley Davidson | 30 | 7.0333 |              |
| Vespa           | 29 | 4.7299 |              |
| Total           | 59 | 5.9011 |              |
| <b>FBP</b>      |    |        | <b>0.000</b> |
| Harley Davidson | 30 | 2.3056 |              |
| Vespa           | 29 | 4.5287 |              |
| Total           | 59 | 3.3983 |              |

Table 3.2: ANOVA results Harley Davidson/Vespa from pretest

Vespa scored high on both MBP (4.73) and FBP (4.53). This indicates that Vespa is an androgynous brand. However, we believe that it is the product category (motor vehicle) that is perceived as masculine, and that this affects the consumers’ rating of Vespa on the masculine traits. The fact that Vespa has a high score on FBP even though it belongs to a masculine category indicates that consumers perceive the brand to be feminine. In comparison, Harley Davidson is perceived as a highly masculine brand with MBP (7.03) and FBP (2.31). Although the masculinity of the product category probably has an influence on consumer evaluation of the brands, there were significant differences between Vespa and Harley Davidson on both MBP ( $p = 0,000$ ) and FBP ( $p = 0,000$ ). Several of the other product categories only differed significantly on either MBP or FBP. Thus, we chose to utilize Vespa and Harley Davidson in our main study.

In the following charts, figure 4, the total sample of brands from pretest 1 and pretest 2 are displayed with their score on MBP and FBP.

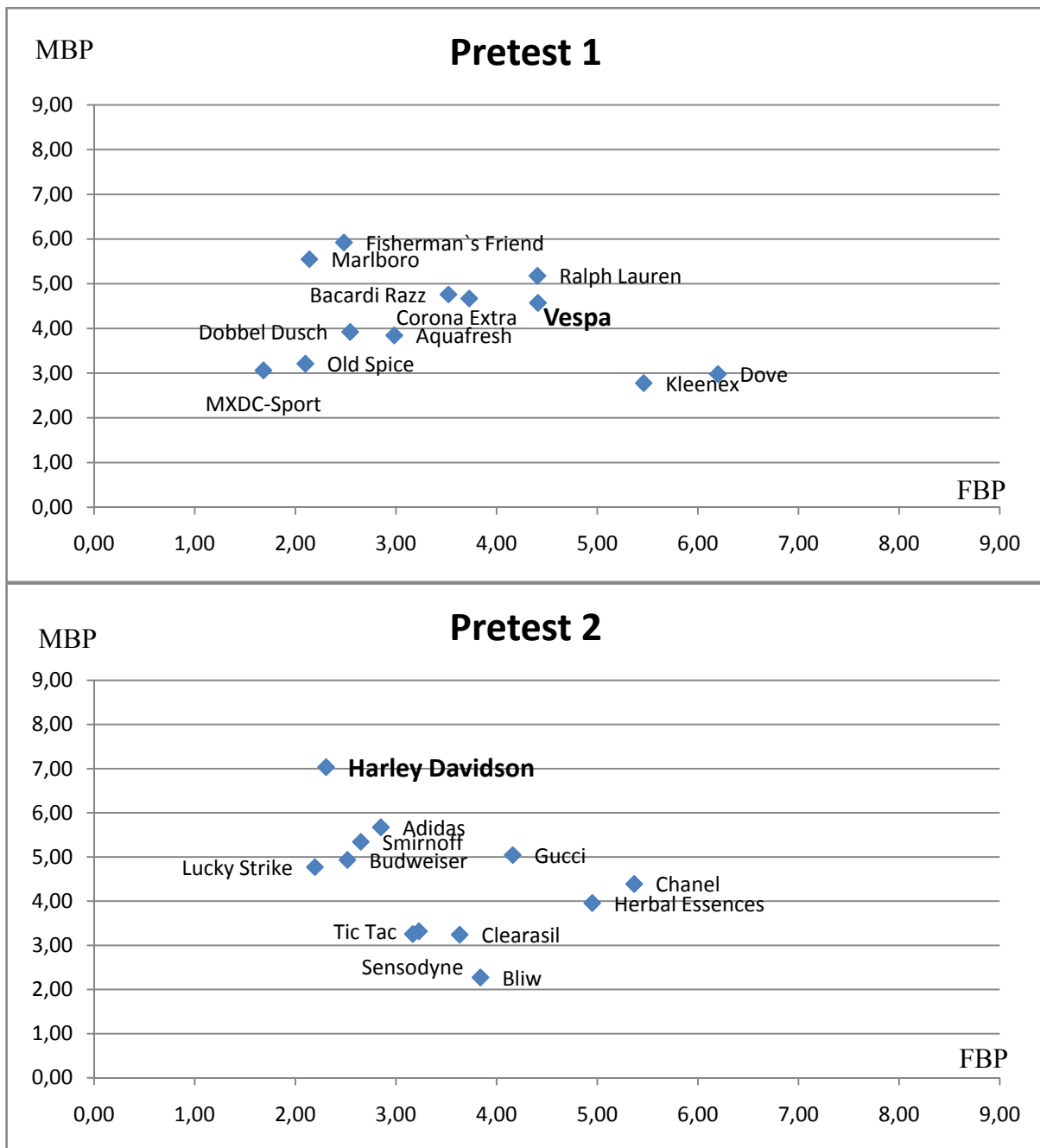


Figure 4: Overview of the 24-brands' score on the MBP/FBP scale

Considering the chart location of Vespa, we observe that the brand scores relatively high on FBP. However, it also achieves an average score on MBP. Harley Davidson scores highest on MBP, while it scores relatively low on FBP.

## 3.2 Main Study

### 3.2.1 Purpose of the Study

The primary goal of our main study is to test our hypotheses regarding the main effect of the number of alliance partners on consumer evaluation, as well as the moderating roles of consumer and brand gender. The study will also investigate potential differences between the fictitious (unknown) and real (well-known) brands. The overall examination of the hypotheses will provide answers to our three research questions.

### 3.2.2 Research Design

The impact of brand gender is a relatively new phenomenon as Grohmanns' (2009) scale is the first to be validated in a brand personality context. As our intention is to investigate the causal relationship between the variables, the most appropriate approach is to use an experimental design. We will use a 10-point Likert scale. The reason for this is to have a comparable dataset to a study that is currently being conducted at the Stockholm School of Economics in Sweden. According to Cook and Campbell (1979) as cited in Thorbjørnsen (2002), there are several requirements for using an experimental design:

- the ability to *control* 1) the situation in which the experiment is conducted, 2) which experimental units receive a particular treatment at a particular time and 3) the extraneous variables that can be a threat to valid inference (internal validity)
- the ability to *manipulate* the treatment (or independent) variable, and
- the possibility of making *comparisons* between treatment conditions.

To meet the requirement of experimental control, we will assign the respondents randomly to experimental groups. In addition, we will hold all factors but the number of partners constant. To prevent extraneous variables that can threaten the internal validity, the respondents will be asked to answer the survey independently and not talk with anyone during the experiment. The primary independent variable (number of partners) can easily be manipulated in an experimental setting through providing the respondents different amounts of information. The control group will only receive information about the focal brand. Other groups will receive additional information about alliances (See appendix 2). When the groups are provided different information, it is possible to make comparisons between the treatment conditions.

The advantage of using an experiment is that the researcher has full control over the environment (Saunders et al. 2007). We will be able to hold everything constant except the manipulation. This leads to strong internal validity. On the other hand, the experiment has been criticized for its unrealistic setting which reduces the external validity (Saunders et al. 2007). In order to make the experiment as realistic as possible we will provide the respondents with stimuli (pictures, logos etc) to enable them to visualize the alliances (See Appendix 2).

### **3.2.3 Outline of Experimental Design**

#### *Brands used in the study*

We have created two fictitious brands; *XB masculine* and *XB feminine*. In these surveys we will include a short presentation of the fictitious brands before presenting the different alliances the brands have appointed. E.g. “*XB offers its own hair styling collection in collaboration with L’Oreal, and has created a specially designed deodorant together with Axe*” (See Appendix 2). The real brands that we chose to implement in our main study were *Harley Davidson* and *Vespa*. The reasoning behind using fictitious brands is that consumers have no pre-existing associations to these brands. It is harder to change pre-existing attitudes and the respondents might have a strong relationship to the real brands in the study. By using fictitious brands, we can measure how consumer evaluation of an unknown brand changes when we increase the number of partners.

#### *Procedure*

The experiment was designed as a 2 (Fictitious versus Real brand) x 2 (Masculine versus Feminine) x 3 (0 vs. 2 vs. 10 Alliance Partners). Accordingly, the respondents were randomly assigned to twelve experimental treatments. The groups with zero alliance partners represent the control groups in our experiment. Here, we will measure the consumers’ pre-existing evaluation of the brands. When manipulating the number of alliance partners in the other groups, we will be able to compare the means and uncover changes in consumer evaluation of the brands. Figure 5 shows an overview of the twelve experimental groups.



| <b>Experimental Groups</b> | <b>Fictitious/Real</b> | <b>Masculine/Feminine</b> | <b>Number of partners</b> |
|----------------------------|------------------------|---------------------------|---------------------------|
| Group 1                    | Fictitious             | Masculine (XB)            | 0                         |
| Group 2                    | Fictitious             | Masculine (XB)            | 2                         |
| Group 3                    | Fictitious             | Masculine (XB)            | 10                        |
| Group 4                    | Fictitious             | Feminine (XB)             | 0                         |
| Group 5                    | Fictitious             | Feminine (XB)             | 2                         |
| Group 6                    | Fictitious             | Feminine (XB)             | 10                        |
| Group 7                    | Real                   | Masculine (Harley)        | 0                         |
| Group 8                    | Real                   | Masculine (Harley)        | 2                         |
| Group 9                    | Real                   | Masculine (Harley)        | 10                        |
| Group 10                   | Real                   | Feminine (Vespa)          | 0                         |
| Group 11                   | Real                   | Feminine (Vespa)          | 2                         |
| Group 12                   | Real                   | Feminine (Vespa)          | 10                        |

Figure 5: Experimental Groups

### 3.2.4 Sample

As the impact of having alliance partners have been documented in previous research, we expect a very large effect size. However, as brand gender is a new concept that has not been previously researched in this context, we choose a more conservative strategy and estimate the effect size to be large. When performing the ANOVA tests, we are examining the effect on one dependent variable at a time. We are not examining interaction effects between the dependent variables. Moreover, we will only compare two groups at a time. To meet the requirements of Lauter (1979) as cited in Hair et al. (1998), our design thus requires approximately 30 respondents in each group to reach a power of 0.80. This implies a total sample of 360 respondents (12 groups x 30 respondents). We will conduct the experiment in two classes (1<sup>st</sup> and 3<sup>rd</sup> year students) at the University of Bergen, Faculty of Law, and one class (1<sup>st</sup> year students) at the Norwegian School of Management (BI) in Bergen. The ideal scenario is to obtain an equal distribution of gender across the sample.

### **3.2.5. Measurements**

#### **3.2.5.1 Independent Variables**

The design of the 12 surveys was held constant except for the number of alliance partners, brand gender and whether the brand was fictitious or real. These are thus the independent variables because a change in one of them causes a change in the dependent variables.

##### *Number of alliance partners*

The number of alliance partners was easily manipulated across the experimental groups. The groups with zero partners only received information about the focal brand. The groups with two partners were provided additional information about alliances where the brand was involved. The experiment groups with ten partners were given the same information as the groups with two partners. In addition they were given information about the eight additional alliances. An important aspect is that the four focal brands were exposed to the same alliance partners. Oakley and Creative were used in all two-partner treatments whereas the same additional eight partners were used in all ten-partner treatments. These were Orange, Head & Shoulders, Sony BMG, Axe, Omega, Dolce & Gabbana, L'Oreal and BMW (See Appendix 2).

##### *Brand Gender*

In terms of the real brands in the study, we did not use any manipulation of the brand gender. Harley Davidson (masculine) and Vespa (feminine) were elected based on their score on MBP and FBP in the pretest. The only information the respondents received in the control group (0 partners) for these brands, was the brand name and logo. For the fictitious brands it was necessary to provide the respondents with more information. They were thus given a short “press release” (See Appendix 2) where the brand was introduced. As the respondents had not heard about the brands before, we could manipulate the information given. For XB masculine, the respondents were informed that it was a masculine fragrance. The groups with XB feminine were given information that it was a feminine fragrance. Additionally, we made the XB feminine logo pink. In this way, the genders of the fictitious brands were manipulated further.

### *Fictitious/Real Brand*

As previously explained, we utilized two real brands (Harley Davidson and Vespa) and two fictitious brands (XB masculine and XB feminine). Because the respondents hold no existing associations to the XB brands, they can be regarded as unknown. Harley Davidson (6, 21) and Vespa (5, 93) scored high on familiarity in the pretest and can thus be defined as well-known brands (See appendix 3.3). By giving some experiment groups real (well-known) brands, and other groups fictitious (unknown) brands, we can analyze which effects this have on our dependent variables.

#### **3.2.5.2 Dependent Variables**

As our research model describes, we will measure four dependent variables; *brand reputation*, *corporate ability*, *brand trust* and *brand attitude*. To measure brand reputation we will ask the respondents to range the terms “popular”, “liked” and “well-known” on the 10-point scale. For measuring corporate ability we will ask the respondents to rate the terms “high quality”, “innovative products” and “a leading company”. Brand trust will be measured through four statements, here exemplified with the brand XB; “I can trust XB”, “I can rely on XB”, “XB is a sincere brand”, “XB is a safe brand”. Finally, to uncover the respondents’ perception of brand attitude, we will ask them to specify their level of agreement to the following questions; “Dislike/Like”, “Negative impression/Positive impression”, “Bad/Good” (See Appendix 2).

#### **3.2.5.3 Explanatory relationship variables**

To investigate the explanatory mechanisms, we designed a set of four questions for *relationship orientation* and *potency* respectively. These two concepts have not been studied in the context of brand alliances previously. Thus, there are no existing scales that can be utilized to measure consumers’ perception of these terms. We therefore applied terms from the BSRI and evolutionary biology when designing the questions. Regarding relationship orientation, the questions were focused more toward a caring relationship with the partners. To measure potency we asked more direct questions in terms of potency as well as metaphorical questions like “willing to go to bed with many other brands” (See Appendix 2).

## 4.0 Results Main Study

### 4.1 Data Description

The survey results were registered in the analysis software of SPSS. The final sample consisted of 451 undergraduate students from three different sub-samples (n1=103, n2=104, n3=244). These three sub-samples were collected as explained in chapter 3.2.4. From the total of 451 respondents, 143 were men (31.71%), 273 were women (60.53%), and 35 (7.76%) of the respondents did not answer the question related to gender. Due to the randomization of the surveys within the three classes, we had no control of balancing the number of male and female respondents.

In our final data sample, we implemented new variables, which made it possible to filter the data, and check if there were systematic differences between different groups and sub-samples.

Moreover, we created eight new variables in the same SPSS sheet; MBP, FBP, brand reputation, corporate ability, brand trust, brand attitude, relationship orientation and potency. These variables gave us the summarized mean of each term, based on the means of each related question provided in the survey. E.g. the calculation of the variable “Brand reputation” is based on the score of the three questions; “popular”, “liked” and “well known”. By defining such variables, our datasheet became more dynamic.

### 4.2 Reliability Analysis

By conducting a reliability analysis for the dependent variables, we can evaluate whether our survey design is solid enough to provide consistent findings. *“Reliability is the consistency of your measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. In short, it is the repeatability of your measurement. A measure is considered reliable if a person`s score on the same test given twice is similar”* (socialresearchmethods.net). Easterby-Smith et al. (2002) as cited in Saunders et al. (2007) explain that reliability can be assessed by posing the following three questions: 1) Will the measures yield the same results on other occasions? 2) Will similar observations be reached by other observers? 3) Is there transparency in how sense was made from the raw data?

We utilized a reliability analysis to examine whether the questions we provided in the survey were reliable in terms of measuring the dependent variables. As illustrated in table 4.1, the reliability of the items related to brand reputation is relatively high. For brand reputation the Cronbach’s alpha (0.832) is sufficient when assuming a critical level of 0.7. However, we could have achieved a Cronbach’s alpha = 0.899 if the question “well known” had been deleted from the survey. The concept of brand reputation seems to be best explained by the items “popular” and “liked”. The Cronbach’s alpha values would become significantly lower (0.696 and 0.727) if one of the two questions “popular” and “liked” had been deleted from the questionnaires.

|                          | <b>N</b> | <b>Cronbach’s alpha</b> | <b>Cronbach’s alpha if deleted</b> |
|--------------------------|----------|-------------------------|------------------------------------|
| <b>Brand Reputation</b>  | 435      | 0.832                   |                                    |
| Popular                  |          |                         | 0.696                              |
| Liked                    |          |                         | 0.727                              |
| Well-Known               |          |                         | <b>0.899</b>                       |
| <b>Corporate Ability</b> | 439      | 0.777                   |                                    |
| High quality             |          |                         | 0.664                              |
| Innovative products      |          |                         | 0.735                              |
| Leading company          |          |                         | 0.695                              |
| <b>Brand Trust</b>       | 440      | 0.932                   |                                    |
| Trust                    |          |                         | 0.904                              |
| Rely                     |          |                         | 0.903                              |
| Sincere                  |          |                         | 0.918                              |
| Safe                     |          |                         | 0.919                              |
| <b>Brand Attitude</b>    | 444      | 0.943                   |                                    |
| Dislike                  |          |                         | 0.931                              |
| Negative impression      |          |                         | 0.894                              |
| Bad                      |          |                         | 0.927                              |

Table 4.1: Reliability analysis for dependent variables

A similar reliability test was performed for the terms of corporate ability, brand trust and brand attitude. For corporate ability the Cronbach’s alpha is 0.777 > 0.7. This is sufficient. The Cronbach’s alpha would not have increased if we had deleted any of the items; “leading company” (0.695), “high quality” (0.664) or “innovative products” (0.735). For brand trust, the Cronbach’s alpha is 0.932. This value would not have changes notably if any of the items had been deleted. Accordingly, we conclude that the questions measure brand trust to a sufficient degree. For brand attitude, the Cronbach’s alpha is 0.943. This value would have been lower (0.931, 0.894 and 0.927) if we had deleted any of the questions regarding the measurement of brand attitude.

### 4.3 Factor Analysis

In order to determine whether the questions measured the expected items, we conducted a factor analysis including all the questions measuring consumer evaluation. The results of the test suggested extraction of two factors with eigenvalues above 1.00, which explained 70.13% of the total variance. We expected that the test would extract four components pertaining to brand reputation, corporate ability, brand trust and brand attitude respectively. However, the test only extracted two components, which indicate that the total variance is better explained by two than by four factors. (See table 4.2)

|                            | Component<br>1 | Component<br>2 |
|----------------------------|----------------|----------------|
| <b>Popular</b>             | 0.703          |                |
| <b>Liked</b>               | 0.626          |                |
| <b>Well known</b>          | 0.793          |                |
| <b>High quality</b>        | 0.810          |                |
| <b>Innovative</b>          | 0.557          |                |
| <b>Leading company</b>     | 0.873          |                |
| <b>Trust</b>               | 0.809          |                |
| <b>Rely</b>                | 0.815          |                |
| <b>Sincere</b>             | 0.827          |                |
| <b>Safe</b>                | 0.866          |                |
| <b>Dislike</b>             |                | 0.925          |
| <b>Negative impression</b> |                | 0.935          |
| <b>Bad</b>                 |                | 0.938          |

Table 4.2: Factor analysis of the dependent variables

On the other hand, Singh (1991) explains that if there are substantial and significant differences in antecedents and consequences of the focal constructs, then one can claim nonredundancy among these. We argue that brand reputation, corporate ability, brand trust and brand attitude are strong pre-defined terms within brand management, and that they have different antecedents and consequences. In other words, we claim that there are theoretical justifications to view the four constructs as logically different conceptualizations. E.g. there are different underlying mechanisms behind brand reputation and brand trust. A consumer that perceives a brand's reputation as good does not necessarily trust the brand. Thus, one cannot uncritically compute brand reputation, corporate ability and brand trust into one mutual variable.

Moreover, we conducted an additional factor analysis where we included the extraction of four factors. Additionally, we suppressed all absolute values under 0.6. Thus, we were able to

observe if there existed any differences which could cause different loadings. When examining the scree plot diagram, we observed that the third and fourth component explained 6.294 % and 6.021 % of the total variance. The eigenvalue scores were below 1.00 (0.818 and 0.783 respectively). By using a scree plot analysis of the eigenvalues, we observed a drop in eigenvalue between the fourth and fifth factor (see figure 6). This was consistent with the expected factor structure. The same approach was utilized by Nysveen et al. (2005) where factors with lower eigenvalues than 1.00 were included. According to Kaiser (1960, p. 143) cited in Rust et al. (2004), the 1.00 eigenvalue cutoff is typically employed in marketing. However, the author argues that this is just one of many possible cutoff criteria. Kaiser (1960) further states that the most important viewpoint for choosing the number of factors depends on the “psychological meaningfulness”. This means that the cutoff should be chosen such that the results are substantively meaningful. The eigenvalue of the fourth factor in our analysis was 0.783 while the eigenvalue of the fifth factor was 0.515. Considering our study design, it therefore seems meaningful to choose an eigenvalue cutoff that is located between 0.515 and 0.783. Additionally, the third and fourth factor would increase the total explained variance by 12.3%.

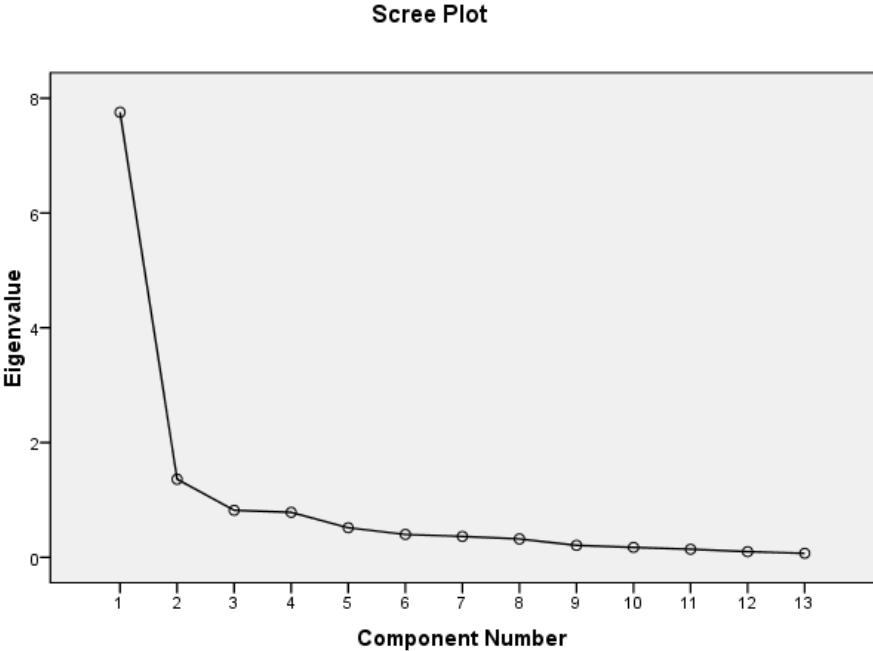


Figure 6: Scree Plot analysis of Eigenvalues

When examining the results illustrated in table 4.3, we noticed a pattern where the different questions loaded on the expected component. Popular, liked and well-known loaded on component 3. Trust, rely, sincere and safe loaded on component 1. Dislike, negative impression and bad loaded on component 2.

From these results, we argue that the questions in fact measure the four focal constructs respectively. Due to the suppression of absolute values below 0.6 we did not observe any loadings for innovative and leading company. This indicated that the questions might have been unfavorable in explaining corporate ability.

Although there were no distinct differences in factor loadings, we noticed that the questions loaded on the expected factor when extracting 4 factors. The minor differences between the items could be due to the differences in pre-existing attitudes toward the brands. Regarding the fictitious brands, consumers can have experience difficulties in evaluating the different questions. When consumers have no pre-existing attitudes it might be hard to separate between e.g. brand reputation and brand trust items. This can have affected our data and might thus work as a potential explanation for why the initial factor analysis only extracted two components.

|                            | <b>Component<br/>1</b> | <b>Component<br/>2</b> | <b>Component<br/>3</b> | <b>Component<br/>4</b> |
|----------------------------|------------------------|------------------------|------------------------|------------------------|
| <b>Popular</b>             |                        |                        | 0.782                  |                        |
| <b>Liked</b>               |                        |                        | 0.668                  |                        |
| <b>Well known</b>          |                        |                        | 0.809                  |                        |
| <b>High quality</b>        |                        |                        |                        |                        |
| <b>Innovative</b>          |                        |                        |                        | 0.897                  |
| <b>Leading company</b>     |                        |                        |                        |                        |
| <b>Trust</b>               | 0.904                  |                        |                        |                        |
| <b>Rely</b>                | 0.915                  |                        |                        |                        |
| <b>Sincere</b>             | 0.768                  |                        |                        |                        |
| <b>Safe</b>                | 0.831                  |                        |                        |                        |
| <b>Dislike</b>             |                        | 0.913                  |                        |                        |
| <b>Negative impression</b> |                        | 0.926                  |                        |                        |
| <b>Bad</b>                 |                        | 0.927                  |                        |                        |

Table 4.3: Factor analysis of the dependent variables with extraction of 4 factors



In connection to the pretest, we conducted a factor analysis for selected real brands in order to validate the Grohmann`s (2009) scale (see chapter 3.1.4). Here we found that the traits were reliable in terms of measuring the brand gender. It is also important to conduct a factor analysis for the fictitious brands we created in our main study. This will indicate whether the manipulation of brand gender was sufficient.

|                                  | Component<br>1 | Component<br>2 |
|----------------------------------|----------------|----------------|
| <b>Adventurous</b>               |                | 0.634          |
| <b>Aggressive</b>                |                | 0.858          |
| <b>Brave</b>                     |                | 0.693          |
| <b>Daring</b>                    |                | 0.678          |
| <b>Dominant</b>                  |                | 0.801          |
| <b>Sturdy</b>                    |                | 0.650          |
| <b>Expresses Tender Feelings</b> | 0.549          |                |
| <b>Fragile</b>                   | 0.542          |                |
| <b>Graceful</b>                  | 0.835          |                |
| <b>Sensitive</b>                 | 0.853          |                |
| <b>Sweet</b>                     | 0.811          |                |
| <b>Tender</b>                    | 0.843          |                |

Table 4.4: Factor analysis for XB masculine and XB feminine

From table 4.4 we observe that the MBP traits (Adventurous, Aggressive, Brave, Daring, Dominant and Sturdy) load on the same component, while the FBP traits (Expresses tender feelings, Fragile, Graceful, Sensitive, Sweet and Tender) load on the other component. This indicates that the gender manipulation for the fictitious brands was sufficient. The results of the factor analysis conducted on both real and fictitious brands contribute to the validation of Grohmann`s (2009) scale.

#### 4.4 Test of ANOVA Assumptions

There are three assumptions that have to be fulfilled in order to conduct an ANOVA (Analysis of Variance). According to Hair et al. (1998), these three assumptions are that the data have to be normally distributed, there has to be homogeneity of variance of dependent variables and that all observations have to be independent from each other. The different tests for evaluating these assumptions are discussed in the following chapters.

#### 4.4.1 Test of Normality

First, we tested the normality of distribution of the data. Relevant statistics in this test are the skewness and kurtosis values. According to Engineering Statistics, *skewness is a measure of symmetry, or more precisely, the lack of symmetry. A distribution or data set is symmetric if it looks the same to the left and right of the center point. Kurtosis is a measure of whether the data are peaked or flat relative to a normal distribution. That is, data sets with high kurtosis tend to have a distinct peak near the mean, decline rather rapidly, and have heavy tails* (Engineering Statistics handbook). Table 4.5 illustrates that all the dependent variables are within the accepted skewness and kurtosis values ( $< |1|$ ). This implies that our data set is fulfilling the terms of normality.

|                          | N   | Skewness | Kurtosis |
|--------------------------|-----|----------|----------|
| Brand Reputation         | 450 | -0.487   | -0.285   |
| Corporate Ability        | 451 | -0.480   | -0.077   |
| Brand Trust              | 450 | -0.250   | -0.292   |
| Brand Attitude           | 445 | -0.065   | -0,652   |
| Relationship Orientation | 447 | -0.080   | -0.600   |
| Potency                  | 446 | -0.315   | -0.302   |

Table 4.5: Test of normality

#### 4.4.2 Test of Homogeneity of Variance

The second assumption that has to be fulfilled is homogeneity of variance of the dependent variables. This means that the variance within each sub-sample is equal. An example of this could be if we collected a sample of people from the general population and a sample of people from an undergraduate finance course. In this case, the sample of the general population would probably have a greater spread in terms preferences than the finance class, and thus a greater variance. To measure if there is equal variance between the groups, we conducted a Levene`s test of homogeneity. Levene`s test is used to check if a number of samples have equal variances (Levene, 1960). Here, we found no statistical significance; therefore we conclude that there is homogeneity of variances between the variables and that the assumption is fulfilled.

|                   | F     | df1 | df2 | Sig.  |
|-------------------|-------|-----|-----|-------|
| Brand reputation  | 1.624 | 11  | 438 | 0.089 |
| Corporate ability | 1.480 | 11  | 439 | 0.136 |
| Brand trust       | 1.101 | 11  | 438 | 0.358 |
| Brand attitude    | 1.123 | 11  | 433 | 0.341 |

Table 4.6: Levene's test of equality of variance

However, it is worth mentioning that brand reputation has a low p-value (0.089). From the reliability test of the brand reputation variable, we found that if we had removed “well-known” the Cronbach's alpha would have increased. Therefore we conducted a second test of homogeneity of variance, this time by only computing the means from “popular” and “liked” for the brand reputation variable.

|                   | F            | df1       | df2        | Sig.         |
|-------------------|--------------|-----------|------------|--------------|
| Brand reputation  | <b>0.766</b> | <b>11</b> | <b>433</b> | <b>0.674</b> |
| Corporate ability | 1.480        | 11        | 439        | 0.136        |
| Brand trust       | 1.101        | 11        | 438        | 0.358        |
| Brand attitude    | 1.123        | 11        | 433        | 0.341        |

Table 4.7: Levene's test of equality of variance (modified)

As table 4.7 shows; the p-value for brand reputation increased dramatically (0.674). If we would have removed “popular” instead of “well-known” the p-value for brand reputation would have been 0.005. If the question “liked” was removed, the p-value would be 0.001 (See Appendix 4.3). These results show that we could have a legitimate claim for removing “well-known” from the brand reputation variable. However, brand reputation (including all three questions) fulfills the requirements of Levene's test of homogeneity ( $p = 0.089 > p = 0.05$ ) as shown in table 4.6. We therefore decided to utilize all the questions from our survey when computing the means of our dependent variables.

#### 4.4.3 Independence between Observations

ANOVA assumes independence between observations. This was primarily assured through randomization of the surveys in the different experimental groups. The 12 different surveys were randomized in the order that two surveys never were provided to two respondents located next to each other. The interaction between the respondents were minimized through

our instruction of not to communicate during the experiment. By conducting the experiment in three different classes divided on two different institutions on three separate days, the independence between our observations increased.

## 4.5 ANOVA – Test of Hypotheses

For all of the ANOVA tests, we used a 95 % confidence interval. Thus, the p-value has to be equal or less than 0.05 in order for our hypothesis to be supported.

We have summarized the findings of the ANOVA tests for the four dependent variables (brand reputation, corporate ability, brand trust and brand attitude) in the following tables 4.8 – 4.11. The red cells indicate which increases in the number of partners that resulted in statistical significant differences in consumer evaluation of the brand.

### 4.5.1 Main Effects – Number of Alliance Partners

*H1: Effects of increasing the number of alliance partners, brand reputation*

|            | XB mas, 0 | XB mas, 2 | XB mas, 10   | XB fem, 0 | XB fem, 2 | XB fem, 10   | Harley, 0 | Harley, 2 | Harley, 10 | Vespa, 0 | Vespa, 2 | Vespa, 10    |
|------------|-----------|-----------|--------------|-----------|-----------|--------------|-----------|-----------|------------|----------|----------|--------------|
| XB mas, 0  |           | 0.348     | <b>0.021</b> |           |           |              |           |           |            |          |          |              |
| XB mas, 2  |           |           | 0.109        |           |           |              |           |           |            |          |          |              |
| XB mas, 10 |           |           |              |           |           |              |           |           |            |          |          |              |
| XB fem, 0  |           |           |              |           | 0.288     | <b>0.004</b> |           |           |            |          |          |              |
| XB fem, 2  |           |           |              |           |           | <b>0.048</b> |           |           |            |          |          |              |
| XB fem, 10 |           |           |              |           |           |              |           |           |            |          |          |              |
| Harley, 0  |           |           |              |           |           |              |           | 0.256     | 0.961      |          |          |              |
| Harley, 2  |           |           |              |           |           |              |           |           | 0.230      |          |          |              |
| Harley, 10 |           |           |              |           |           |              |           |           |            |          |          |              |
| Vespa, 0   |           |           |              |           |           |              |           |           |            |          | 0.098    | 0.848        |
| Vespa, 2   |           |           |              |           |           |              |           |           |            |          |          | <b>0.045</b> |
| Vespa, 10  |           |           |              |           |           |              |           |           |            |          |          |              |

Table 4.8: Effects of increasing the number of alliance partners, brand reputation

For XB masculine, we found a statistical significant increase in consumer evaluation when increasing the number of alliance partners from zero to ten ( $p = 0.021$ ). We did not find any significant differences when increasing the number of alliance partners from zero to two, although it approached a significant difference when XB masculine increases the number of

partners from two to ten ( $p = 0.109$ ). For XB feminine we found that the means differed significantly when increasing from zero-to-ten partners ( $p = 0.004$ ) and two-to-ten partners ( $p = 0.048$ ), but no notable differences when increasing from zero to two alliance partners. For Harley Davidson we did not find any significant differences when increasing the number of alliance partners. Vespa differed significantly when moving from two-to-ten partners ( $p = 0.045$ ), and approaches significance when increasing from zero-to-two alliance partners ( $p = 0.098$ ). The means of brand reputation were almost equal when comparing zero and ten partners (7.6364 and 7.7154), which gave no statistical significance. Due to these results, H1 received partial support.

*H2: Effects of increasing the number of alliance partners, corporate ability*

|            | XB mas, 0 | XB mas, 2 | XB mas, 10 | XB fem, 0 | XB fem, 2 | XB fem, 10   | Harley, 0 | Harley, 2 | Harley, 10 | Vespa, 0 | Vespa, 2 | Vespa,1 0 |
|------------|-----------|-----------|------------|-----------|-----------|--------------|-----------|-----------|------------|----------|----------|-----------|
| XB mas, 0  |           | 0.139     | 0.074      |           |           |              |           |           |            |          |          |           |
| XB mas, 2  |           |           | 0.692      |           |           |              |           |           |            |          |          |           |
| XB mas, 10 |           |           |            |           |           |              |           |           |            |          |          |           |
| XB fem, 0  |           |           |            |           | 0.174     | <b>0.007</b> |           |           |            |          |          |           |
| XB fem, 2  |           |           |            |           |           | 0.187        |           |           |            |          |          |           |
| XB fem, 10 |           |           |            |           |           |              |           |           |            |          |          |           |
| Harley, 0  |           |           |            |           |           |              |           | 0.301     | 0.834      |          |          |           |
| Harley, 2  |           |           |            |           |           |              |           |           | 0.412      |          |          |           |
| Harley, 10 |           |           |            |           |           |              |           |           |            |          |          |           |
| Vespa, 0   |           |           |            |           |           |              |           |           |            |          | 0.637    | 0.500     |
| Vespa, 2   |           |           |            |           |           |              |           |           |            |          |          | 0.753     |
| Vespa,1 0  |           |           |            |           |           |              |           |           |            |          |          |           |

Table 4.9: Effects of increasing the number of alliance partners, corporate ability

For XB masculine, we found no statistical differences in perceived corporate ability, although it approached significance when we increased the number of alliance partners from zero-to-two partners ( $p = 0.139$ ) and zero-to-ten partners ( $p = 0.074$ ). For XB feminine we found statistical significant difference when increasing the number of alliance partners from zero to ten ( $p = 0.007$ ), but it only approached significance when we increased from zero-to-two partners ( $p = 0.174$ ) and from two-to-ten partners ( $p = 0.187$ ). For both Harley Davidson and Vespa we registered that the means were relatively equal. Thus, there were no statistical differences in consumer evaluation of corporate ability when the number of alliance partners was increased for these brands. Due to these results, H2 received partial support.

*H3: Effects of increasing the number of alliance partners, brand trust*

|            | XB mas, 0 | XB mas, 2 | XB mas, 10   | XB fem, 0 | XB fem, 2 | XB fem, 10   | Harley, 0 | Harley, 2 | Harley, 10 | Vespa, 0 | Vespa, 2 | Vespa,1 0 |
|------------|-----------|-----------|--------------|-----------|-----------|--------------|-----------|-----------|------------|----------|----------|-----------|
| XB mas, 0  |           | 0.081     | <b>0.034</b> |           |           |              |           |           |            |          |          |           |
| XB mas, 2  |           |           | 0.619        |           |           |              |           |           |            |          |          |           |
| XB mas, 10 |           |           |              |           |           |              |           |           |            |          |          |           |
| XB fem, 0  |           |           |              |           | 0.088     | <b>0.000</b> |           |           |            |          |          |           |
| XB fem, 2  |           |           |              |           |           | 0.125        |           |           |            |          |          |           |
| XB fem, 10 |           |           |              |           |           |              |           |           |            |          |          |           |
| Harley, 0  |           |           |              |           |           |              |           | 0.456     | 0.889      |          |          |           |
| Harley, 2  |           |           |              |           |           |              |           |           | 0.509      |          |          |           |
| Harley, 10 |           |           |              |           |           |              |           |           |            |          |          |           |
| Vespa, 0   |           |           |              |           |           |              |           |           |            |          | 0.955    | 0.835     |
| Vespa, 2   |           |           |              |           |           |              |           |           |            |          |          | 0.857     |
| Vespa,1 0  |           |           |              |           |           |              |           |           |            |          |          |           |

Table 4.10: Effects of increasing the number of alliance partners, brand trust

For XB masculine, we found statistical significant differences in brand trust when the numbers of alliance partners were increased from zero-to-ten ( $p = 0.034$ ). It approaches significance from zero-to-two partners ( $p = 0.081$ ), while we had no findings for moving from two-to-ten partners ( $p = 0.619$ ). For XB feminine, increasing the number of alliance partners seemed to have a positive effect. We found statistical significance when moving from zero-to-ten ( $p = 0.000$ ). The zero to two partner condition ( $p = 0.088$ ) and two to ten partner condition ( $p = 0.125$ ) only approached significance. Finally we did not find any statistical differences in brand trust for Harley Davidson and Vespa. The p-values were relatively high and no specific differences between the means. Due to these results, H3 received partial support.

*H4: Effects of increasing the number of alliance partners, brand attitude*

|            | XB mas, 0 | XB mas, 2    | XB mas, 10   | XB fem, 0 | XB fem, 2 | XB fem, 10   | Harley, 0 | Harley, 2 | Harley, 10 | Vespa, 0 | Vespa, 2 | Vespa,1 0 |
|------------|-----------|--------------|--------------|-----------|-----------|--------------|-----------|-----------|------------|----------|----------|-----------|
| XB mas, 0  |           | <b>0.017</b> | 0.876        |           |           |              |           |           |            |          |          |           |
| XB mas, 2  |           |              | <b>0.029</b> |           |           |              |           |           |            |          |          |           |
| XB mas, 10 |           |              |              |           |           |              |           |           |            |          |          |           |
| XB fem, 0  |           |              |              |           | 0.430     | <b>0.003</b> |           |           |            |          |          |           |
| XB fem, 2  |           |              |              |           |           | 0.056        |           |           |            |          |          |           |
| XB fem, 10 |           |              |              |           |           |              |           |           |            |          |          |           |
| Harley, 0  |           |              |              |           |           |              |           | 0.319     | 0.447      |          |          |           |
| Harley, 2  |           |              |              |           |           |              |           |           | 0.073      |          |          |           |
| Harley, 10 |           |              |              |           |           |              |           |           |            |          |          |           |
| Vespa, 0   |           |              |              |           |           |              |           |           |            |          | 0.136    | 0.286     |
| Vespa, 2   |           |              |              |           |           |              |           |           |            |          |          | 0.696     |
| Vespa,1 0  |           |              |              |           |           |              |           |           |            |          |          |           |

Table 4.11: Effects of increasing the number of alliance partners, brand attitude

For XB masculine, we found a significant effect on brand attitude when increasing the number of alliance partners from zero-to-two ( $p = 0.017$ ), as well as when increasing the number of partners from two-to-ten ( $p = 0.029$ ). The respondents' brand attitude did not change significantly when increasing the number of partners from zero-to-ten. For XB feminine, we found a significant effect on brand attitude when moving from zero-to-ten alliance partners ( $p = 0.003$ ). It also approached significance between two and ten partners ( $p = 0.056$ ). However, we observed that there were no systematic differences between zero and two alliance partners. The Harley Davidson two-to-ten condition approached significance ( $p = 0.073$ ), but we did not register any effects when increasing the number of partners from zero-to-two partners or zero-to-ten partners. For Vespa, we did not find any statistical significant effects, although there was a tendency that the respondents rated the brand higher as the number of partners increased from zero-to-two. Due to these results, H4 received partial support.

As can be interpreted from tables 4.8 - 4.11, there were some significant differences in consumer evaluation of the brands in relation to an increase in the number of brand alliance partners. Thus we found partial support for hypotheses H1-H4.

#### **4.5.2 Main effects- Consumer Gender**

Following are the results from the test of gender differences among consumers in perceived relationship orientation and potency for the fictitious and real brands. The results are displayed in tables 4.12 – 4.14.

##### *H5: Consumer gender differences in evaluation of relationship orientation*

We registered that women rated relationship orientation significantly higher than men ( $6.3947 > 5.1705$ ,  $p = 0.001$ ). When conducting the same ANOVA test for the control group with zero alliance partners we registered that men and women evaluated the items of relationship orientation almost equally ( $4.0029 > 3.9559$ ). For ten partners we observed that women rated the items of relationship orientation higher than men, though no significant differences ( $p = 0.625$ ). Thus H5 received partial support.

*H6: Consumer gender differences in evaluation of potency*

We observed that women rated potency significantly higher than men ( $6.0632 > 4.8352$ ) when the brands had two alliance partners. When we examined the control group with zero alliance partners, we found that women only marginally rated potency higher than men ( $4.7642 > 4.6275$ ). For ten partners, women also rated the items of potency higher than men ( $6.9444 > 6.6667$ ). An interesting observation was that men almost rated the same for zero partners as for two alliance partners ( $4.7642 < 4.852$ ). For women, we saw that the mean notably increased when the number of alliance partners went from zero to two ( $6.0632 > 4.7642$ ). Thus H6 received partial support.



## Main effects – Consumer Gender (Relationship orientation/Potency)

|                                 | N   | Mean   | Lower bound | Upper bound | Sign.        |
|---------------------------------|-----|--------|-------------|-------------|--------------|
| <b>Relationship orientation</b> |     |        |             |             | <b>0.883</b> |
| Man                             | 51  | 3.9559 | 3.4849      | 4.4269      |              |
| Woman                           | 87  | 4.0029 | 3.6044      | 4.4014      |              |
| Total                           | 138 | 3.9855 | 3.6835      | 4.2875      |              |
| <b>Potency</b>                  |     |        |             |             | <b>0.692</b> |
| Man                             | 51  | 4.6275 | 4.1348      | 5.1201      |              |
| Woman                           | 88  | 4.7642 | 4.3261      | 5.2023      |              |
| Total                           | 139 | 4.7140 | 4.3866      | 5.0414      |              |

Table 4.12: Zero alliance partners, gender differences among consumers

|                                 | N   | Mean   | Lower bound | Upper bound | Sign.        |
|---------------------------------|-----|--------|-------------|-------------|--------------|
| <b>Relationship orientation</b> |     |        |             |             | <b>0.001</b> |
| Man                             | 44  | 5.1705 | 4.5731      | 5.7678      |              |
| Woman                           | 95  | 6.3947 | 5.9977      | 6.7918      |              |
| Total                           | 139 | 6.0072 | 5.6669      | 6.3475      |              |
| <b>Potency</b>                  |     |        |             |             | <b>0.001</b> |
| Man                             | 44  | 4.8352 | 4.2021      | 5.4684      |              |
| Woman                           | 95  | 6.0632 | 5.6818      | 6.4445      |              |
| Total                           | 139 | 5.6745 | 5.3362      | 6.0127      |              |

Table 4.13: Two alliance partners, gender differences among consumers

|                                 | N   | Mean   | Lower bound | Upper bound | Sign.        |
|---------------------------------|-----|--------|-------------|-------------|--------------|
| <b>Relationship orientation</b> |     |        |             |             | <b>0.625</b> |
| Man                             | 46  | 6.9293 | 6.3232      | 7.5355      |              |
| Woman                           | 90  | 7.1222 | 6.6533      | 7.5911      |              |
| Total                           | 136 | 7.0570 | 6.6893      | 7.4247      |              |
| <b>Potency</b>                  |     |        |             |             | <b>0.403</b> |
| Man                             | 48  | 6.6667 | 6.0759      | 7.2574      |              |
| Woman                           | 90  | 6.9444 | 6.5781      | 7.3108      |              |
| Total                           | 138 | 6.8478 | 6.5363      | 7.1594      |              |

Table 4.14: Ten alliance partners, gender differences among consumers

*H7-H10: Consumer gender differences in evaluation of brand reputation, corporate ability, brand trust and brand attitude*

When performing similar ANOVA tests as for H1 – H4, but with an additional filter of the variable “gender of respondent”, we could examine if there were systematic differences in consumer evaluation between male and female consumers when the number of alliance partners increased. Following are the results regarding the main effects of consumer gender. These are displayed in tables 4.15 – 4.26.

We observed that women evaluated all four dependent variables higher than men in the two-partner condition for XB masculine. There were statistical significant differences on all four items; Brand reputation ( $p = 0.016$ ), corporate ability ( $p = 0.017$ ), brand trust ( $p = 0.009$ ) and brand attitude ( $p = 0.006$ ). There were no significant differences between the male and female evaluation in the zero-partner condition. Nevertheless, we observed that women evaluated brand attitude higher than men ( $5.0139 > 4.3333$ ). In the ten-partner condition we observed significant differences on brand reputation ( $p = 0.041$ ) and corporate ability ( $p = 0.028$ ). Women had a higher evaluation than men on brand trust ( $5.8125 > 4.5833$ ) and brand attitude ( $5.0333 > 4.6111$ ), but these differences were not statistical significant.

For XB feminine with zero alliance partners, we did not find any significant differences. The evaluations of men and women were relatively similar. For XB feminine with two alliance partners we did not find any significant differences, although women evaluated all items higher than men did. When examining XB feminine with ten partners, we did not find any significant differences. The only dependent variable that approached significance was brand attitude ( $p = 0.162$ ). Moreover, there were no trends in the responses. Men rated brand reputation marginally higher ( $5.8889 > 5.7460$ ), while women rated corporate ability ( $5.4722 < 5.6190$ ), brand trust ( $5.0417 < 5.1310$ ), and brand attitude ( $5.2361 < 6.2063$ ) higher.

For Harley Davidson with zero alliance partners, we did not find any significant differences between male and female respondents. Besides corporate ability ( $6.3778 < 6.5833$ ), men rated brand reputation ( $7.5778 > 7.1833$ ), brand trust ( $6.5833 > 6.1958$ ) and brand attitude ( $6.1111 > 5.0526$ ) higher than women. No significant differences were found in the two-partner condition either. In the ten-partner condition we only registered a statistical significant difference for brand attitude ( $p = 0.017$ ). Moreover, in all three treatment conditions men

rated Harley Davidson higher on all dependent variables, except for corporate ability in the zero-partner and two-partner conditions.

For Vespa, we found that women generally rated the dependent variables higher than men, independent of the number of alliance partners. When testing Vespa with zero alliance partners, we found statistical significance for brand trust ( $p = 0.029$ ) and brand attitude ( $p = 0.007$ ). Women also rated brand reputation and corporate ability notably higher than men. For two alliance partners, we did not find any statistical significant differences, but women evaluated the variables higher than men, except for brand trust ( $6.8333 > 6.5000$ ). When increasing to ten alliance partners we observed that women evaluated all the items higher than men, although no statistical significance.

To conclude, we found partial support for hypotheses H7-H10. There was a general tendency that brands with several alliance partners were more positively evaluated by women than by men.

## XB masculine

|                          | N  | Mean   | Sign.        |
|--------------------------|----|--------|--------------|
| <b>Brand reputation</b>  |    |        | <b>0.598</b> |
| Man                      | 13 | 4.4872 |              |
| Woman                    | 24 | 4.8819 |              |
| Total                    | 37 | 4.7432 |              |
| <b>Corporate ability</b> |    |        | <b>0.907</b> |
| Man                      | 13 | 4.7949 |              |
| Woman                    | 24 | 4.7083 |              |
| Total                    | 37 | 4.7387 |              |
| <b>Brand trust</b>       |    |        | <b>0.843</b> |
| Man                      | 13 | 4.3654 |              |
| Woman                    | 24 | 4.2188 |              |
| Total                    | 37 | 4.2703 |              |
| <b>Brand attitude</b>    |    |        | <b>0.277</b> |
| Man                      | 12 | 4.3333 |              |
| Woman                    | 24 | 5.0139 |              |
| Total                    | 36 | 4.7870 |              |

Table 4.15: Male and female consumers' evaluation of XB masculine with zero alliance partners.

|                          | N  | Mean   | Sign.        |
|--------------------------|----|--------|--------------|
| <b>Brand reputation</b>  |    |        | <b>0.016</b> |
| Man                      | 12 | 4.1389 |              |
| Woman                    | 24 | 5.6528 |              |
| Total                    | 36 | 5.1481 |              |
| <b>Corporate ability</b> |    |        | <b>0.017</b> |
| Man                      | 12 | 4.2778 |              |
| Woman                    | 24 | 5.8472 |              |
| Total                    | 36 | 5.3241 |              |
| <b>Brand trust</b>       |    |        | <b>0.009</b> |
| Man                      | 12 | 3.8958 |              |
| Woman                    | 24 | 5.6146 |              |
| Total                    | 36 | 5.0417 |              |
| <b>Brand attitude</b>    |    |        | <b>0.006</b> |
| Man                      | 12 | 4.6944 |              |
| Woman                    | 23 | 6.5362 |              |
| Total                    | 35 | 5.9048 |              |

Table 4.16: Male and female consumers' evaluation of XB masculine with two alliance partners.

|                          | N  | Mean   | Sign.        |
|--------------------------|----|--------|--------------|
| <b>Brand reputation</b>  |    |        | <b>0.041</b> |
| Man                      | 12 | 5.1944 |              |
| Woman                    | 20 | 6.7833 |              |
| Total                    | 32 | 6.1875 |              |
| <b>Corporate ability</b> |    |        | <b>0.028</b> |
| Man                      | 12 | 4.9167 |              |
| Woman                    | 20 | 6.4667 |              |
| Total                    | 32 | 5.8854 |              |
| <b>Brand trust</b>       |    |        | <b>0.105</b> |
| Man                      | 12 | 4.5833 |              |
| Woman                    | 20 | 5.8125 |              |
| Total                    | 32 | 5.3516 |              |
| <b>Brand attitude</b>    |    |        | <b>0.551</b> |
| Man                      | 12 | 4.6111 |              |
| Woman                    | 20 | 5.0333 |              |
| Total                    | 32 | 4.8750 |              |

Table 4.17: Male and female consumers' evaluation of XB masculine with ten alliance partners.

## XB feminine

|                          | N  | Mean   | Sign.        |
|--------------------------|----|--------|--------------|
| <b>Brand reputation</b>  |    |        | <b>0.967</b> |
| Man                      | 11 | 4.4545 |              |
| Woman                    | 26 | 4.4872 |              |
| Total                    | 37 | 4.4775 |              |
| <b>Corporate ability</b> |    |        | <b>0.936</b> |
| Man                      | 11 | 4.2121 |              |
| Woman                    | 26 | 4.2756 |              |
| Total                    | 37 | 4.2568 |              |
| <b>Brand trust</b>       |    |        | <b>0.703</b> |
| Man                      | 11 | 3.7500 |              |
| Woman                    | 26 | 3.5000 |              |
| Total                    | 37 | 3.5743 |              |
| <b>Brand attitude</b>    |    |        | <b>0.808</b> |
| Man                      | 11 | 4.1818 |              |
| Woman                    | 26 | 4.3590 |              |
| Total                    | 37 | 4.3063 |              |

Table 4.18: Male and female consumers' evaluation of XB feminine with zero alliance partners.

|                          | N  | Mean   | Sign.        |
|--------------------------|----|--------|--------------|
| <b>Brand reputation</b>  |    |        | <b>0.230</b> |
| Man                      | 11 | 4.4848 |              |
| Woman                    | 21 | 5.3651 |              |
| Total                    | 32 | 5.0625 |              |
| <b>Corporate ability</b> |    |        | <b>0.119</b> |
| Man                      | 11 | 4.1515 |              |
| Woman                    | 21 | 5.3651 |              |
| Total                    | 32 | 4.9479 |              |
| <b>Brand trust</b>       |    |        | <b>0.487</b> |
| Man                      | 11 | 3.8636 |              |
| Woman                    | 21 | 4.4405 |              |
| Total                    | 32 | 4.2422 |              |
| <b>Brand attitude</b>    |    |        | <b>0.072</b> |
| Man                      | 11 | 3.5758 |              |
| Woman                    | 21 | 5.1429 |              |
| Total                    | 32 | 4.6042 |              |

Table 4.19: Male and female consumers' evaluation of XB feminine with two alliance partners.

|                          | N  | Mean   | Sign.        |
|--------------------------|----|--------|--------------|
| <b>Brand reputation</b>  |    |        | <b>0.810</b> |
| Man                      | 12 | 5.8889 |              |
| Woman                    | 21 | 5.7460 |              |
| Total                    | 33 | 5.7980 |              |
| <b>Corporate ability</b> |    |        | <b>0.820</b> |
| Man                      | 12 | 5.4722 |              |
| Woman                    | 21 | 5.6190 |              |
| Total                    | 33 | 5.5657 |              |
| <b>Brand trust</b>       |    |        | <b>0.869</b> |
| Man                      | 12 | 5.0417 |              |
| Woman                    | 21 | 5.1310 |              |
| Total                    | 33 | 5.0985 |              |
| <b>Brand attitude</b>    |    |        | <b>0.162</b> |
| Man                      | 12 | 5.2361 |              |
| Woman                    | 21 | 6.2063 |              |
| Total                    | 33 | 5.8535 |              |

Table 4.20: Male and female consumers' evaluation of XB feminine with ten alliance partners.

# Harley Davidson

|                          | N  | Mean   | Sign.        |
|--------------------------|----|--------|--------------|
| <b>Brand reputation</b>  |    |        | <b>0.475</b> |
| Man                      | 15 | 7.5778 |              |
| Woman                    | 22 | 7.1833 |              |
| Total                    | 35 | 7.3524 |              |
| <b>Corporate ability</b> |    |        | <b>0.723</b> |
| Man                      | 15 | 6.3778 |              |
| Woman                    | 20 | 6.5833 |              |
| Total                    | 35 | 6.4952 |              |
| <b>Brand trust</b>       |    |        | <b>0.598</b> |
| Man                      | 15 | 6.5833 |              |
| Woman                    | 20 | 6.1958 |              |
| Total                    | 35 | 6.3619 |              |
| <b>Brand attitude</b>    |    |        | <b>0.192</b> |
| Man                      | 15 | 6.1111 |              |
| Woman                    | 19 | 5.0526 |              |
| Total                    | 34 | 5.5196 |              |

Table 4.21: Male and female consumers' evaluation of Harley Davidson with zero alliance partners.

|                          | N  | Mean   | Sign.        |
|--------------------------|----|--------|--------------|
| <b>Brand reputation</b>  |    |        | <b>0.225</b> |
| Man                      | 9  | 7.4444 |              |
| Woman                    | 25 | 6.5867 |              |
| Total                    | 34 | 6.8137 |              |
| <b>Corporate ability</b> |    |        | <b>0.895</b> |
| Man                      | 9  | 6.0370 |              |
| Woman                    | 25 | 6.1067 |              |
| Total                    | 34 | 6.0882 |              |
| <b>Brand trust</b>       |    |        | <b>0.289</b> |
| Man                      | 9  | 6.5278 |              |
| Woman                    | 25 | 5.8600 |              |
| Total                    | 34 | 6.0368 |              |
| <b>Brand attitude</b>    |    |        | <b>0.546</b> |
| Man                      | 9  | 4.5926 |              |
| Woman                    | 25 | 5.1067 |              |
| Total                    | 34 | 4.9706 |              |

Table 4.22: Male and female consumers' evaluation of Harley Davidson with two alliance partners.

|                          | N  | Mean   | Sign.        |
|--------------------------|----|--------|--------------|
| <b>Brand reputation</b>  |    |        | <b>0.816</b> |
| Man                      | 12 | 7.2500 |              |
| Woman                    | 22 | 7.3788 |              |
| Total                    | 34 | 7.3333 |              |
| <b>Corporate ability</b> |    |        | <b>0.951</b> |
| Man                      | 12 | 6.4444 |              |
| Woman                    | 22 | 6.4091 |              |
| Total                    | 34 | 6.4216 |              |
| <b>Brand trust</b>       |    |        | <b>0.894</b> |
| Man                      | 12 | 6.4792 |              |
| Woman                    | 22 | 6.3977 |              |
| Total                    | 36 | 6.4265 |              |
| <b>Brand attitude</b>    |    |        | <b>0.017</b> |
| Man                      | 11 | 7.2727 |              |
| Woman                    | 22 | 5.3182 |              |
| Total                    | 33 | 5.9697 |              |

Table 4.23: Male and female consumers' evaluation of Harley Davidson with ten alliance partners.

# Vespa

|                          | N  | Mean   | Sign.        |
|--------------------------|----|--------|--------------|
| <b>Brand reputation</b>  |    |        | <b>0.166</b> |
| Man                      | 12 | 7.3333 |              |
| Woman                    | 18 | 8.0741 |              |
| Total                    | 30 | 7.7778 |              |
| <b>Corporate ability</b> |    |        | <b>0.087</b> |
| Man                      | 12 | 5.3333 |              |
| Woman                    | 18 | 6.5556 |              |
| Total                    | 30 | 6.0667 |              |
| <b>Brand trust</b>       |    |        | <b>0.029</b> |
| Man                      | 12 | 5.6458 |              |
| Woman                    | 18 | 7.0972 |              |
| Total                    | 30 | 6.5167 |              |
| <b>Brand attitude</b>    |    |        | <b>0.007</b> |
| Man                      | 12 | 5.9444 |              |
| Woman                    | 17 | 8.0588 |              |
| Total                    | 29 | 7.1839 |              |

Table 4.24: Male and female consumers' evaluation of Vespa with zero alliance partners.

|                          | N  | Mean   | Sign.        |
|--------------------------|----|--------|--------------|
| <b>Brand reputation</b>  |    |        | <b>0.444</b> |
| Man                      | 12 | 6.6944 |              |
| Woman                    | 25 | 7.1733 |              |
| Total                    | 37 | 7.0180 |              |
| <b>Corporate ability</b> |    |        | <b>0.502</b> |
| Man                      | 12 | 6.0556 |              |
| Woman                    | 25 | 6.3867 |              |
| Total                    | 37 | 6.2793 |              |
| <b>Brand trust</b>       |    |        | <b>0.384</b> |
| Man                      | 12 | 6.8333 |              |
| Woman                    | 25 | 6.3400 |              |
| Total                    | 37 | 6.5000 |              |
| <b>Brand attitude</b>    |    |        | <b>0.267</b> |
| Man                      | 12 | 7.4167 |              |
| Woman                    | 25 | 8.0800 |              |
| Total                    | 37 | 7.8649 |              |

Table 4.25: Male and female consumers' evaluation of Vespa with two alliance partners.

|                          | N  | Mean   | Sign.        |
|--------------------------|----|--------|--------------|
| <b>Brand reputation</b>  |    |        | <b>0.637</b> |
| Man                      | 12 | 7.5000 |              |
| Woman                    | 27 | 7.7901 |              |
| Total                    | 39 | 7.7009 |              |
| <b>Corporate ability</b> |    |        | <b>0.420</b> |
| Man                      | 12 | 5.9167 |              |
| Woman                    | 27 | 6.4568 |              |
| Total                    | 39 | 6.2906 |              |
| <b>Brand trust</b>       |    |        | <b>0.547</b> |
| Man                      | 12 | 6.1250 |              |
| Woman                    | 26 | 6.5577 |              |
| Total                    | 38 | 6.4211 |              |
| <b>Brand attitude</b>    |    |        | <b>0.241</b> |
| Man                      | 12 | 7.0000 |              |
| Woman                    | 27 | 7.8642 |              |
| Total                    | 39 | 7.5983 |              |

Table 4.26: Male and female consumers' evaluation of Vespa with ten alliance partners.

### 4.5.3 Main Effects - Brand Gender

In order to measure the main effects of brand gender, hypotheses H11-H14, one can examine both the main effects of the number of partners moderated by the brand gender, and the main effects of brand gender moderated by the number of partners. In the following paragraphs we will present the results from the main effects of brand gender moderated by the number of partners, and comment whether these tests provide support for hypotheses H11-H14. In the discussion chapter we will compare these tests with the main effects of the number of partners moderated by brand gender, and provide concluding remarks with regards to whether hypotheses H11-H14 receive support.

Through the ANOVA analyses, where we compare the means of a masculine and a feminine brand with equal number of alliance partners, we will be able to conclude whether there are actual differences in consumer evaluation of brand gender. The results are displayed in tables 4.27 – 4.29.

The tests of the main effects of brand gender do not hold as strong internal validity for the real brands as for the fictitious brands. For the fictitious brands, the information is constant across the experimental groups except for the brand gender. In terms of Harley Davidson and Vespa, the consumers hold pre-existing attitudes that might affect their evaluation of the brands. Although we have determined that Vespa is regarded as more feminine than Harley Davidson and that Harley Davidson is evaluated as more masculine, these are not the only pre-existing attitudes that consumers might have. Thus, the manipulation of brand gender for the real brands is not isolated to the full extent. A discussion of differences between Harley Davidson and Vespa in this context would thus just be examining the main effect of the brand, and not the main effect of brand gender. Due to these arguments, we will only present the results of the main effect of brand gender for the fictitious brands.

#### *H11: Main effects of brand gender on brand reputation*

For brand reputation, XB masculine scored higher than XB feminine in the zero-partner condition ( $4.7432 > 4.4912$ ,  $p = 0.612$ ), in the two-partner condition ( $5.1750 > 5.000$ ,  $p = 0.689$ ), and in the ten-partner condition ( $5.9402 > 5.8571$ ,  $p = 0.861$ ). We observed an increase of 1.197 ( $5.9402 - 4.7432$ ) in consumer evaluation of brand trust for the masculine brand from the zero-partner condition to the ten-partner condition. For the feminine brand we observed an increase of 1.3659 ( $5.8571 - 4.4912$ ) for the same scenario. Thus, the tests



provided no support for H11a and partial support for H11b. There was a tendency that the feminine brand was more positively evaluated than the masculine brand, in terms of brand reputation, when there was an increase in the number of alliance partners.

*H12: Main effects of brand gender on corporate ability*

For the fictitious brands, we observed that XB masculine was evaluated higher than XB feminine for zero-partners ( $4.7387 > 4.3034$ ,  $p = 0.370$ ), two partners ( $5.4167 > 4.9619$ ,  $p = 0.314$ ), and marginally higher for ten partners ( $5.5897 > 5.5619$ ,  $p = 0.950$ ). We observed that the increase in the evaluation of the feminine brand was higher than the increase for the masculine brand as the number of partners increased. The difference from the zero-partner condition to the ten-partner condition for XB masculine was 0.851 ( $5.5897 - 4.7387$ ), while 1.2585 ( $5.5619 - 4.3034$ ) for XB feminine. Thus H12a was not supported, while H12b received partial support. There was a tendency that the feminine brand was more positively evaluated than the masculine brand, in terms of corporate ability, when there was an increase in the number of alliance partners.

*H13: Main effects of brand gender on brand trust*

When comparing XB masculine with XB feminine for brand trust, we observed that XB masculine scored higher across all partner conditions. The differences were most evident for zero ( $4.2703 > 3.6410$ ,  $p = 0.162$ ) and two partners ( $5.0875 > 4.4429$ ,  $p = 0.184$ ). In the ten-partner condition, the difference was marginal ( $5.3141 > 5.1357$ ,  $p = 0.673$ ). We observed an increase of 1.0438 ( $5.3141 - 4.2703$ ) in consumer evaluation of brand trust for the masculine brand from the zero-partner condition to the ten-partner condition. For the feminine brand we observed an increase of 1.6731 ( $5.3141 - 3.6410$ ) for the same scenario. Thus, H13a received no support while H13b was partially supported. There was a tendency that the feminine brand was more positively evaluated than the masculine brand, in terms of brand trust, when there was an increase in the number of alliance partners.

*H14: Main effects of brand gender on brand attitude*

When comparing XB masculine with XB feminine for brand attitude, we observed that XB masculine scored higher than XB feminine in the zero-partner condition, although no

significant differences ( $4.7870 > 4.3504$ ,  $p = 0.311$ ). Further, we observed that XB masculine scored significantly higher than XB feminine for two alliance partners ( $5.8718 > 4.7429$ ,  $p = 0.029$ ). However, in the ten-partner condition XB feminine scored notably higher than XB masculine ( $4.8547 < 5.8718$ ,  $p = 0.059$ ). We observed a decrease of 1.0171 ( $5.8718 - 4.8547$ ) in consumer evaluation of brand trust for the masculine brand from the zero-partner condition to the ten-partner condition. For the feminine brand we observed an increase of 0.9857 ( $5.7286 - 4.7429$ ) for the same scenario. Thus, H14a received no support while H13b was partially supported. There was a tendency that the feminine brand was more positively evaluated than the masculine brand, in terms of brand attitude, when there was an increase in the number of alliance partners.

## Main effects – Brand Gender

|                          | N  | Mean   | Sign. |
|--------------------------|----|--------|-------|
| <b>Brand reputation</b>  |    |        | 0.612 |
| XB masculine 0           | 37 | 4.7432 |       |
| XB feminine 0            | 38 | 4.4912 |       |
| Total                    | 75 | 4.6156 |       |
| <b>Corporate ability</b> |    |        | 0.370 |
| XB masculine 0           | 37 | 4.7387 |       |
| XB feminine 0            | 39 | 4.3034 |       |
| Total                    | 76 | 4.5154 |       |
| <b>Brand trust</b>       |    |        | 0.162 |
| XB masculine 0           | 37 | 4.2703 |       |
| XB feminine 0            | 39 | 3.6410 |       |
| Total                    | 76 | 3.9474 |       |
| <b>Brand attitude</b>    |    |        | 0.311 |
| XB masculine 0           | 36 | 4.7870 |       |
| XB feminine 0            | 39 | 4.3504 |       |
| Total                    | 75 | 4.5600 |       |

Table 4.27: ANOVA test comparing the difference between XB masculine and XB feminine with zero partners

|                          | N  | Mean   | Sign.        |
|--------------------------|----|--------|--------------|
| <b>Brand reputation</b>  |    |        | 0.689        |
| XB masculine 2           | 40 | 5.1750 |              |
| XB feminine 2            | 35 | 5.0000 |              |
| Total                    | 75 | 5.0933 |              |
| <b>Corporate ability</b> |    |        | 0.314        |
| XB masculine 2           | 40 | 5.4167 |              |
| XB feminine 2            | 35 | 4.9619 |              |
| Total                    | 75 | 5.2044 |              |
| <b>Brand trust</b>       |    |        | 0.184        |
| XB masculine 2           | 40 | 5.0875 |              |
| XB feminine 2            | 35 | 4.4429 |              |
| Total                    | 75 | 4.7867 |              |
| <b>Brand attitude</b>    |    |        | <b>0.029</b> |
| XB masculine 2           | 39 | 5.7818 |              |
| XB feminine 2            | 35 | 4.7429 |              |
| Total                    | 74 | 5.3378 |              |

Table 4.28: ANOVA test comparing the difference between XB masculine and XB feminine with two partners

|                          | N  | Mean   | Sign. |
|--------------------------|----|--------|-------|
| <b>Brand reputation</b>  |    |        | 0.861 |
| XB masculine 10          | 39 | 5.9402 |       |
| XB feminine 10           | 35 | 5.8571 |       |
| Total                    | 74 | 5.9009 |       |
| <b>Corporate ability</b> |    |        | 0.950 |
| XB masculine 10          | 38 | 5.5897 |       |
| XB feminine 10           | 35 | 5.5619 |       |
| Total                    | 74 | 5.5766 |       |
| <b>Brand trust</b>       |    |        | 0.673 |
| XB masculine 10          | 39 | 5.3141 |       |
| XB feminine 10           | 35 | 5.1357 |       |
| Total                    | 74 | 5.2297 |       |
| <b>Brand attitude</b>    |    |        | 0.059 |
| XB masculine 10          | 39 | 4.8547 |       |
| XB feminine 10           | 35 | 5.7286 |       |
| Total                    | 74 | 5.2680 |       |

Table 4.29: ANOVA test comparing the difference between XB masculine and XB feminine with ten partners

## 5.0 Discussion and Implications

First, we will sum up the findings of our main study. Secondly, we will discuss the main effects of the number of alliance partners, consumer and brand gender in separate sections. Finally, we will provide implications for managers in light of the discussed findings.

### 5.1 Synopsis of Findings

In chapter 4, four hypotheses concerning the main effect of the number of alliance partners on the dependent variables were put forth, as well as six hypotheses on the main effects of consumer gender, and four alternative hypotheses on the main effects of brand gender. Table 5.1 sums up the results from the tests of all hypotheses. The discussion in the following sections will be based on these conclusions.

| Hypothesis                                        | Main study      |
|---------------------------------------------------|-----------------|
| <i>Main Effects – Number of Alliance Partners</i> |                 |
| Hypotheses 1, 2, 3, 4                             | Partial support |
| <i>Main Effects – Consumer Gender</i>             |                 |
| Hypotheses 5, 6                                   | Partial support |
| Hypotheses 7, 8, 9, 10                            | Partial support |
| <i>Main Effects – Brand Gender</i>                |                 |
| Hypothesis 11a                                    | No support      |
| Hypothesis 11b                                    | Partial support |
| Hypothesis 12a                                    | No support      |
| Hypothesis 12b                                    | Partial support |
| Hypothesis 13a                                    | No support      |
| Hypothesis 13b                                    | Partial support |
| Hypothesis 14a                                    | No support      |
| Hypothesis 14b                                    | Partial support |

Table 5.1: Synopsis of findings

## 5.2 Main Effects of the Number of Alliance Partners

In this section we will discuss and provide potential explanations for the findings/non-findings concerning the main effects of the number of partners on consumer evaluation of the focal brands. We will examine the differences between the fictitious (unknown) and real (well known) brands, and discuss potential explanations in light of theoretical arguments presented in the theory chapter.

We observed more significant effects when increasing the number of partners for the fictitious brands across all four dependent variables. Several of the results were also close to being statistical significant. One potential explanation for this might be that the number of respondents varied between the experimental groups. Conventional rule of thumb indicates that 30 respondents per experiment group are appropriate to meet the assumptions of statistical analysis performed on experimental data through ANOVA analysis (Hair et al., 1998). From our study, we notice that the smallest experiment group contained 33 respondents – which are above this heuristic recommendation. Previously, we assumed a very large effect size according to our expectations of findings. However, if a treatment has a small or medium expected effect size, it will require a larger sample size to achieve the same statistical power as a treatment with a larger effect size. Due to this, a larger sample would have increased the statistical strength and thus the level of significance in our ANOVA.

Several tests would also have resulted in statistical significance if we had increased the confidence interval, especially for the fictitious brands. E.g. by increasing the confidence interval to 90 %, we would have three additional tests with significant results ( $p \leq 0.10$ ). The strongest effects were observed through comparing the results of the fictitious brands with zero and ten partners. Here, six of eight tests indicated statistical significance (See table 4.8 – 4.11). The exceptions were corporate ability ( $p = 0.074$ ) and brand attitude ( $p = 0.876$ ) for XB masculine.

Despite the observation of stronger effects for fictitious brands, we noticed a couple of exceptions for the real brands. For brand reputation, Vespa significantly differed when increasing the number of alliance partners from two-to-ten ( $p = 0.045$ ). Vespa would also, with a confidence interval of 90 %, have differed significantly when increasing the number of alliance partners from zero to two ( $p = 0.098$ ). Despite the “non-findings” in main effects of real brands, these results are interesting exceptions. One potential explanation for this could

be the weakness of the questions explaining brand reputation. As mentioned earlier, the question “well-known” turned out to be a poor prediction of brand reputation.

The tendency that fictitious brands benefit from an increase in alliance partners supports our hypotheses H1-H4. Since XB masculine and XB feminine are fictitious (unknown) brands, we know that the brand equity of these brands is much lower than the brand equity of the real brands, Harley Davidson and Vespa. The selected partner brands in our study are relatively well-known brands with high brand equity compared to XB. Our findings are therefore in accordance with the theory provided by Simonin and Ruth (1998) who claimed that the perception of one brand affects the other brand in an alliance. This is recognized through the tendency that consumer evaluation of the focal brands increases when number of alliance partners increases. XB masculine and XB feminine seem to benefit more from having alliances with other high-equity brands than Harley Davidson and Vespa do. This is also in accordance to the theory of Washburn et al. (2004), who found that brands can borrow consumer brand equity from more familiar brands, and utilize this in their marketing strategy and alter their brand’s specific associations.

With exception of the two-to-ten partner condition, in terms of brand attitude, for XB masculine, all dependent variables are positively affected by an increase in the number of partners for the fictitious brands. This effect is the opposite of the previous tendency we noticed. A potential explanation for why brand attitude for XB masculine with two partners is significantly higher than for XB masculine with ten partners, could be that the respondents hold particular subjective attitudes towards some of the eight additional allies. Thus, it could be due to spillover effects concerning negative information, in accordance with Votolato and Unnava (2006), because the respondents hold negative pre-existing attitudes to some of the partners. If that is the case, XB would suffer from having alliances with brands that consumers have negative associations towards. However, the partner brands are the same for all the focal brands, so there are no obvious reasons for why there should be a negative spillover only for XB masculine. It thus seems more probable that the non-finding from the two-to-ten partner condition for XB masculine is due to coincidence rather than displaying an actual effect.

An explanation for why we did not observe as strong effects when increasing the number of alliance partners for real brands, could be the strong pre-existing brand equity and associations Harley Davidson and Vespa hold. When observing the results of the control

groups, we notice that all of the dependent variables were significantly higher for the real brands compared to the fictitious brands. This might have created a ceiling effect that prohibited us from measuring a significant increase in consumer evaluation for the real brands.

Moreover, some of our findings indicate that two alliance partners are better than ten. There is a possibility that ten partners are perceived as too many, and can lead to reduced positive attitudes toward the focal brand. Thus, one can imagine that there could be an optimal number of alliance partners and that ten is too high. By having that many alliance partners, the focal brand could be at risk of diluting its brand equity. If we had utilized a lower number of alliance partners than ten in the highest partner condition, we might have received more consistent results.

Another potential explanation for why Harley Davidson and Vespa did not notably benefit in terms of consumer evaluation when the number of alliance partners increased, could be linked to the brand fit between the focal brand and the alliance partners. The XB brands belong to the cosmetics category. Considering the product categories of the selected partner brands, there might be a higher brand fit for the fictitious brands. E.g. we observe that several of the alliance partners (e.g. Axe, L'Oréal, Head & Shoulders) are operating in product categories that might be more realistic of establishing collaborations with XB rather than Harley Davidson and Vespa, which belong to the motor vehicle category. This might have caused a more positive consumer evaluation of the XB brands.

There also might be a mismatch between the brand concepts of the focal brands and the alliance partners. Park et al. (1986) claimed that by maintaining a concept-image linkage, brands will enhance their market performance. Lanseng and Olsen (2008) found a main effect of product fit on attitudes toward the brand alliance. Attitudes towards the alliance of low product fit were less positive than attitudes toward the alliance of high fit and moderate fit. In terms of the fictitious brands we could thus have increased the degree of manipulation by priming the respondents on further stimuli. E.g. describing whether the brand concepts of the focal brands would be suitable to the brand concept of the brand allies. A stronger manipulation would have increased the internal validity. However, the external validity would be reduced, thus limiting the generalizability of the findings for the context of real brands.

### **5.3 The Moderating role of Consumer Gender**

In this section we will discuss the moderating role of consumer gender. In the first part, we will analyze the gender differences in terms of relationship orientation and potency in accordance with hypotheses H5 and H6. In the second part of the chapter, we will examine the gender differences in terms of the dependent variables in accordance with hypotheses H7-H10.

#### *Relationship orientation and Potency*

When examining consumer gender differences in perceived relationship orientation and potency, we observe a clear trend. In the zero-partner condition there are marginal differences. This is expected because when the consumers are asked to evaluate brands that have zero-partners they are not given any information of relationship-building qualities. However, when examining the two-partner condition we find significant differences between men and women on both relationship-orientation and potency. Women view brands with two alliance partners as more relationship-oriented and potent than men. Considering the ten-partner condition, we observe that the differences between men and women are reduced and far from significant. This effect is the same on both relationship-orientation and potency. Nevertheless, women still rate the brands higher on both relationship orientation and potency. Thus, the tests indicate partial support for our hypotheses that brands with several alliance partners will be regarded as more relationship oriented and potent by women than by men.

A possible explanation for our finding is that the theoretical arguments for the hypotheses are valid. In relation to Bem's (1974) Sex-Role Inventory, women are caring and nurturing and would thus be expected to value these abilities in brands to a larger extent than men. Furthermore, we expected that women would be more attracted to brands with several partners because of the potency it signals. The more positive evaluation of potency for women is thus linked to evolutionary biological and socio-psychological theories.

The fact that the difference between male and female respondents was reduced so drastically from the two-partner to the ten-partner condition, however calls for an explanation. This effect could be linked to stereotyped male and female perceptions of brands. In the two-partner condition our focal brands collaborate with Oakley and Creative. If these brands were more positively evaluated by women, it could explain why women perceived the brands in the two-partner condition as more relationship oriented and potent than men. Moreover, in the ten-partner condition it could be that the male respondents were exposed to some brand allies



that they have a particular good impression of. In this case, it would explain why the differences between men and women were reduced. E.g. one could imagine that BMW was a brand that most men evaluated positively. When we added this brand in the ten-partner condition it would thus be natural that men's impression of the focal brands would increase.

### *Dependent variables*

Examining at the moderating role of consumer gender on the dependent variables, we detect notable differences between the fictitious (unknown) and real (well-known) brands. Therefore we will start this section by discussing the effects on the fictitious brands. Further, we will discuss the effects on the real brands and provide possible explanations to why these differ from the fictitious brands.

For XB masculine and XB feminine, we observe no significant gender differences among the respondents in the zero-partner condition. Men and women evaluate the brands relatively similar, and there are no consistent trends. This was expected as the respondents were given exactly the same information about the two unknown brands, except for the gender manipulation. However, considering at the two-partner condition, we observe that women rate all the dependent variables notably higher than men for both XB masculine and XB feminine. These effects were statistical significant on all variables for XB masculine while only approached significance for XB feminine. This indicates that women are more positive than men towards brands that have several alliance partners.

When examining the ten-partner condition, we observe that women rate all the dependent variables notably higher than men for XB masculine, although only statistical significantly higher for brand attitude and corporate ability. For XB feminine, we observe that women rate the brands marginally higher on all dependent variables. The reason for this is that the male respondents' increase in evaluation had been higher than the female respondents increase from the two-partner condition. Considering the number of respondents in each cell, we notice that there are only 12 men and 21 women evaluating XB feminine in the ten-partner condition. Such low respondents rate in each cell make the results particularly vulnerable to outliers. This could thus be a potential explanation for why the gender differences are minimized in the ten-partner condition. Nevertheless, female respondents still evaluate the brand higher than male respondents, which indicates support for our hypotheses H7-H10. In other words, brands with several alliance partners seem to be more positively evaluated by women than by men.

Regarding the real brands, we observe that Harley Davidson is evaluated more positively by men, while Vespa is evaluated more positively by women, in the zero-partner condition. There are significant differences on brand attitude and brand trust for Vespa, while no significant differences for Harley Davidson. However, men rate all dependent variables higher for Harley Davidson while women rate all variables higher for Vespa. These findings were expected, and supports Alreck's (1982) arguments (cited in Till and Priluck, 2001) that men are more likely of trying a masculine brand while women are more likely to try a feminine brand. The masculine brand Harley Davidson is thus more positively evaluated by men, while the feminine brand Vespa is more positively evaluated by women in the control group.

Examining the two-partner condition, we observe a change in consumer evaluation. For Harley Davidson, we notice that women rate the brand higher than men for corporate ability and brand attitude. An interesting observation is that men rated Harley Davidson notably higher on brand attitude in the zero-partner condition. This indicates that brand allies are more positively evaluated for Harley Davidson by women than by men. In other words, there seems to be a slightly positive spillover effect for Harley Davidson on corporate ability and brand attitude in terms of female respondents, while a slightly negative spillover effect in terms of the male respondents. Evaluating Vespa, we observe that women rate the brand higher on all dependent variables except brand trust. Although there are no significant differences, it is a peculiar finding. Because brand trust in the two-partner condition is the only incident across all three partner conditions where Vespa is evaluated higher by men, we argue that this is a result of outliers among the respondents. The low number of respondents in the two-partner condition, 12 men and 25 women, makes the result vulnerable to such interaction.

In the ten-partner condition, men still rate Harley Davidson higher on brand trust. However, women bypass men on the evaluation of brand reputation. Interestingly, men evaluate both corporate ability and brand attitude higher than women, like in the condition of zero partners. The fact that women evaluate brand reputation higher provides support for our prediction that women would be more positive towards several partners. However, the fact that men, in this condition, evaluate corporate ability and brand attitude higher than women does not lend support to our hypotheses. This indicates a more positive effect on these variables for men than for women. On the other hand, these differences are marginal, and can be a result of outliers as the number of respondents in each experimental cell in the ten-partner conditions was relatively low. Examining Vespa in the ten-partner condition, we observe that women rate the brand higher on all dependent variables, although no significant differences are

present. This supports the argumentation that women are more positive than men towards brands with several alliance partners.

To sum up, we have observed consumer gender differences for both the fictitious and real brands. The results were more prominent for the fictitious brands, which was not unexpected as the consumers held no pre-existing attitudes towards these brands. For the real brands, we observed the same trend, although with some exceptions. In total, we can conclude that our hypotheses H7 –H10, concerning a more positive evaluation by women than men, receive partial support.

#### **5.4 The Moderating role of Brand Gender**

To discuss the impact of brand gender, we can examine both the main effects of the number of partners moderated by brand gender (See tables 4.8 – 4.11) and the main effects of brand gender moderated by the number of alliance partners (See tables 4.27 - 4.29). These are two separate ways for testing and examining our hypotheses. As explained in the chapter 4.5.3, we will only discuss the main effects of brand gender for the fictitious brands. This section is organized according to the four dependent variables. We will discuss one variable at a time and finally we will sum up and provide potential explanations for our findings/non-findings.

##### *Brand reputation*

Examining the main effects of the number of partners for brand reputation we observe that there are both significant differences within the masculine and feminine brands. When examining the fictitious brands, we observe that XB masculine has significant difference in the zero-to-ten partner condition and approaches significance in the two-to-ten partner condition. XB feminine has significant differences in both the zero-to-ten and two-to-ten conditions. For the real brands we observe few significant differences. This is not unexpected as the impact of unknown vs. well-known brands has been heavily investigated within the field of brand management. When consumers hold strong preexisting attitudes toward a brand, it is more difficult to change these attitudes. We observe that the evaluation of Harley Davidson (7.3063) and Vespa (7.6364) in the zero-partner condition is so high that it creates a ceiling effect. In other words, it is hard to measure an increase when the pre-existing attitudes are so high. Overall the tests do not provide support for either hypotheses 11a or 11b.

However, when examining the main effects of brand gender moderated by the number of partners, we observe a pattern. For the fictitious brands we notice a relatively higher increase in consumer evaluation of brand reputation for the feminine brand. Although these differences are marginal, they indicate that the feminine brand receives more benefits in terms of brand reputation than the masculine brand, by engaging in several alliances. In the zero-partner condition for the fictitious brands, we observe that the difference in consumer evaluation is notable. The interesting aspect is that this difference decreases in the ten-partner condition. The most prominent observation of the main effects of brand gender is that the feminine brand has a higher increase (though marginal) in brand reputation than the masculine brand, when we increase the number of alliance partners.

#### *Corporate ability*

Considering the main effects of the number of partners for XB masculine, we observe no significant differences between any of the partner-conditions in terms of corporate ability. For XB feminine, we observe a significant difference in the zero-to-ten partner condition. However, the zero-to-ten partner condition for XB masculine approaches significance. For the real brands, we did not observe any significant differences. It is therefore not possible to find support for any of our alternative hypotheses, H12a and H12b, from the main effects of the number of partners moderated by brand gender.

When examining the main effects of brand gender, however, we observe the same as for brand reputation. In the zero-partner condition there is a more positive evaluation of corporate ability for XB masculine. When the number of alliance partners increases, we observe a decreased difference between XB masculine and XB feminine. The main effects of brand gender therefore provide partial support for the hypothesis that feminine brands benefit more than masculine brands, in perceived corporate ability, from an increase in the number of alliance partners.

#### *Brand trust*

The tests of the main effects of the number of alliance partners moderated by brand gender, do not lend particular support to H13a or H13b. There are no observed differences between the feminine and masculine fictitious brand or between the feminine and masculine real brands. For the fictitious brands, we observe effects for both XB masculine and XB feminine, while for the real brands we observe no effects for either Harley Davidson or Vespa.

From the tests of the main effects of brand gender, we observe the same trend for brand trust as for the two previous dependent variables. XB masculine scores particularly higher than XB feminine in the condition of zero partners. As the number of partners increases, we detect that the difference is minimized. In the ten-partner condition, XB feminine is almost as positively evaluated as XB masculine in terms of brand trust. Thus the increase in positive evaluation is higher for the feminine brand and indicates that the feminine brand receives more benefits from additional partners, in terms of brand trust. Overall, there is a tendency that the feminine brand receives more positive evaluation of brand trust, from an increase in the number of alliance partners.

### *Brand attitude*

The main effects of the number of alliance partners display differences between the masculine and feminine fictitious brands in terms of brand attitude. For XB masculine, we observe a significant increase in brand attitude from zero-to-two partners and two-to-ten partners. However, the zero-to-ten condition is far from significant, although there is a marginal increase. For XB feminine, we detect a significant increase in brand attitude from zero-to-ten partners and two-to-ten partners. However, the zero-to-two partner condition is not significant, although there is a notable increase. This indicates that a higher number of partners results in more positive evaluation for the feminine than the masculine brand, in terms of brand trust. Considering the real brands we observe neither significant differences nor trends that lend support for any of our alternative hypotheses.

When we examine the main effects of brand gender, we detect the same trend as for the three previous dependent variables. We observe that XB masculine is evaluated higher than XB feminine in both the zero-partner and two-partner conditions. However, in the ten-partner condition, XB feminine bypasses XB masculine in terms of brand attitude. While the masculine brand experiences a decrease in consumer evaluation from the zero-partner condition, the feminine brand experiences a substantial increase. Thus, there seems to be a general tendency that the feminine brand receives more benefits than the masculine brand from having multiple alliance partners, in terms of brand attitude.

### *General remarks and explanations*

Overall, we have witnessed the same tendency for all four dependent variables. The main effects of brand gender indicate that the feminine brand is more positively evaluated than the

masculine brand, from an increase in the number of alliance partners. The feminine brand receives a relatively higher increase than the masculine brand in terms of brand reputation, corporate ability, brand trust and brand attitude. There are several potential explanations for these trends:

The first explanation is based on theoretical concepts previously discussed. The fact that feminine brands are perceived as more relationship-oriented and caring towards its alliance partners, may contribute to an overall better impression of the feminine brand. When the feminine brand increases its alliance partners, it thus shows these abilities and is evaluated in a positive manner by consumers. This is related to Bem's (1974) Sex-Role Inventory. For the masculine brands, we observe an overall lower increase in consumer evaluation than for the feminine brands, as the number of partners increase. This can thus be related to male-sex roles such as being individualistic and dominant. By engaging in several alliances, it might be that the masculine brands signal ego-centric behavior. In other words, consumers perceive the masculine brands to only engage in the alliances for personal gain. The masculine brand is considered as wanting to dominate the alliance, and this is perceived negatively by consumers. An increase in partners for the feminine brands seems to signal relationship-building ability, while for the masculine brands it seems to signal aggressiveness and forcefulness that can obstruct the relation-building process. Evaluating our research model, it seems legitimate to argue that relationship-orientation is to a larger extent than potency increases the perception of brand reputation, corporate ability, brand trust and brand attitude as the number of partners increases.

An alternative explanation for our findings is connected to brand fit. We did not perform a pretest for evaluating the brand fit of the partner brands to our four focal brands. Thus, it could be that the selected partner brands have a higher brand fit to the feminine brands compared to the masculine brands. This would certainly influence consumers' perception of the focal brands. If the selected partner brands are perceived as more appropriate partners for the feminine focal brands, this will increase the positive evaluation of the feminine focal brands and consequently reduce the positive evaluation of the masculine focal brands. However, considering the selected partner brands in our study, we evaluate them as relatively spread in terms of gender. There are no obvious reasons why the partner brands should have a better fit to XB feminine than to XB masculine.

Another potential explanation could be linked to the number of female versus male respondents. The fact that there was a majority of female respondents could possibly affect the evaluation of the masculine and feminine brands. In relation to Till and Priluck (2001), it is expected that women are more drawn to feminine products, while men are more drawn towards masculine products. It could thus be argued that the feminine brands would receive more positive evaluations because of the majority of female respondents. However, in some of the tests, we observed that the masculine brands were more positively evaluated in the zero-partner condition and that this changed in the two- and ten-partner conditions. This indicates that the large number of female respondents did not affect the perception of the focal brands to a large extent.

To sum up, the differences between the increase for masculine and feminine brands were marginal. It could be that our results are based on coincidence rather than displaying actual effects. However, we observe a systematic gender difference on all four dependent variables. It thus appears legitimate to conclude that our hypotheses H11b-H14b, concerning the feminine brands, receive partial support.

## **5.5 Managerial Implications**

In this section, we will discuss managerial implications based on our findings. This could be useful in strategic marketing planning of strongly gendered brands, like the ones used in our study.

Through the pretest we validated Grohmann's (2009) scale for measuring masculine and feminine brands. We showed that all six MBP traits and all six FBP traits actually measured masculinity and femininity in a brand personality context. This implies that brand managers can perform market studies utilizing the MBP/FBP scale to determine consumers' perception of brand gender. This can be a useful way to determine whether the actual brand identity is reflected in consumers' perception of the brand. If there are any gaps between the brand identity and brand image concerning the brand gender, this will be detected and brand managers can take appropriate steps to rebuild the appropriate brand image.

Furthermore, the findings indicate that relatively unknown brands benefit more from establishing brand alliances. As unknown brands are entering new markets and trying to capture more markets shares, it is essential to build brand equity. Our findings indicate that

unknown brands attain a higher degree of perceived brand reputation, corporate ability, brand trust and brand attitude from an increase in the number of alliance partners. Managers of unknown brands should therefore be eager to collaborate with well-known brands. However, it might be difficult to engage in alliances with reputable brands due to the minor benefit these brands achieve from the same collaboration. Moreover, managers should try to avoid cooperation with brands that consumers hold negative pre-existing attitudes toward. E.g. if an ally has been connected to a controversial environmental issue, the focal brand can receive spillover effects from these negative actions. Thus, brand managers should carefully measure consumers' perception of potential brand alliance partners before engaging in collaborations.

When managers are deciding how many alliances their brand should enter into, they should assess the main purpose behind these engagements. If the purpose is to signal quality, in accordance with Voss and Gammoh (2004), one well-known ally is probably sufficient. If the goal is to build brand reputation, corporate ability, brand trust or brand attitude, multiple brand alliances might be effective. The dilemma is to avoid too many alliance partners, which can cause a dilution of brand equity. The cut-off point, where an additional partner will have a negative effect, has not been examined in our study. However, our results indicate that consumers are positive to as much as ten alliance partners, especially for unknown brands.

Another implication from our study is related to the gender of consumers. We detected a tendency of women being more positive than men towards brands that engage in several brand alliances. This implies that a brand which targets female consumers should consider entering several brand alliances. As several partnerships seem to be perceived as a feminine trait, these brands should engage in such activity to display relation-building qualities. This could reinforce the feminine image and positively influence consumer evaluation of the brand.

The moderating role of brand gender also provides some interesting implications. These findings can be useful to brand managers that are promoting strongly gendered brands. Strongly gendered brands can exploit the masculine and feminine associations to attract male and female consumers respectively. However, according to Jung and Lee (2006) this also implies that brands may be limited to specified market segments. E.g. if Harley Davidson wants to extend its brand name into a feminine product category to target female consumers, they might need a feminine alliance partner. Such a cross-gender extension could potentially lead to an increased brand evaluation among female consumers. However, being a strong masculine brand, such a step would most likely lead to a negative spillover effect on the



parent brand. It might dilute brand equity since there would be an inconsistency in the brand concept. Brand managers of highly masculine and highly feminine brands should thus be careful of adopting cross-gender extensions.

Moreover, our results indicate that managers of strong feminine brands should try to increase the number of alliance partners since the effect of several partners seems to be stronger for feminine than for masculine brands. A substantial alliance portfolio for a feminine brand would help to build brand reputation, corporate ability, brand trust and brand attitude. This could also be relevant for masculine brands. Our results indicate a positive effect for masculine brands, although a lower effect than for feminine brands. This implies that masculine brands also should seek lucrative partnerships. However, the masculine brand might not benefit as much from an increase in partners as a feminine brand would.

## **6.0 Limitations and Suggestions for Future Studies**

### **6.1 Introduction**

In this section we will reflect over different factors that might have influenced our findings. In chapter 6.2 we will discuss limitations to our research design and in chapter 6.3 we will make suggestion for future studies.

### **6.2 Limitations of the Design**

To select the brands for the main study, we conducted a pretest based on assumptions of which brands within a product category that would differ significantly in terms of MBP and FBP. When choosing brands for the pretest we could have conducted another pretest to insure that the familiarity was sufficient for implementing these brands in the pretest. When we evaluated the data, we found that MXDC Sport obtained a low familiarity score. Adidas, which we believed would to be highly masculine, obtained a high MBP score. If we had chosen a brand different from MXDC Sport, which scored high on FBP, we could have utilized the sportswear category instead of motor vehicle. One advantage of this, is that we would have had two brands that were perceived as masculine and feminine respectively, and not androgynous. Nevertheless, since Harley Davidson and Vespa differed significantly on both MBP and FBP, we decided to utilize these brands in the main study (See table 3.2).

Another reflection is that we could have conducted an additional pretest to measure brand fit between the alliance partners and the focal brands. E.g. some consumers might have great trust in Harley Davidson due to their independent and original image. If Harley Davidson establishes collaboration with a brand that breaks with this brand image, it might have negative consequences for Harley Davidson's brand equity. We could also have measured consumer evaluation of the selected partner brands. The advantage of this would be that we could detect whether the perception of the alliance partners influenced consumer evaluation of the focal brands.

Furthermore, we received valuable feedback from the respondents participating in the experiment. When completing the questions regarding the fictitious brands with zero alliance partners, some of the respondents had problems answering, due to lack of information. These respondents felt e.g. that it was difficult to evaluate how much they liked the XB products and how high quality the products had by just reading the press release of the brand. This was

expected, as the consumer held no pre-existing attitudes towards the XB brands. However, it can have contributed to careless responding by some respondents.

Regarding the usage of Grohmann's scale (2009) for determining masculinity and femininity, we could have manipulated further on visual stimuli, such as colors and pictures in the experiment. We utilized a pink logo for XB feminine to manipulate the gender distinction between the fictitious brands. We could also have manipulated further on the characteristics and substance of the different alliances in the preliminary presentation of the brands. Such expanded manipulation would have increased the internal validity, but decreased the external validity due to a less realistic experimental setting. Nevertheless, from the factor analysis, we found that all masculine and feminine features loaded on the MBP and FBP factors respectively. This indicates that the gender manipulation we provided was sufficient in terms of differentiating the masculine and feminine fictitious brands. However, we observed that MBP accounted for 44.77 % of the total variance, while FBP accounted for 14.25 % (See appendix 4.2). This indicates that masculinity could have been manipulated to a higher degree. The only manipulation in terms of XB masculine was "*the masculine fragrance XB...*" and "*it will be exciting to see if even Norwegian men will be drawn...*" (See appendix 2). The factor analysis thus indicates that our manipulation of masculinity might have been too subtle.

Regarding the measurement of MBP and FBP, we did not utilize the identical scale construction as Grohmann (2009) in our main study. We utilized a 10-point scale with the endpoints not sweet/ sweet instead of not descriptive/descriptive as used in Grohmann's (2009) study (See appendix 2). This was in order to have comparative data with a study currently being conducted at the Stockholm School of Economics. We thus benefited from the same design and scales as their research study. However, this did not have a major impact on our results. We measured the MBP/FBP scores of Harley Davidson and Vespa in the pretest with Grohmann's (2009) scale. These scores are comparable to the ones of the brands in her study.

From the observations of the reliability analysis, the question regarding "well known" could have been eliminated or substituted with a question explaining brand reputation better. The reliability tests indicate that the Cronbach's alpha would increase significantly if the question was deleted. Another issue regarding the survey design was translation of some of the terms in the survey. E.g. from the data sample and analysis, we noticed several missing

values. “Fragile” and “Sturdy” from Grohmann’s (2009) scale were most frequent. This could be explained by the lack of translation of the mentioned terms. Although Norwegians level of English is high, some of the expressions can have been misinterpreted and thus affected the data. On the other hand, a translation to Norwegian could also have caused the words to lose some their intended meaning.

Another reflection regarding the data sample is that, we could have insured more male respondents in the main study. The final data sample contained a relatively unbalanced number of men and women. Some of the ANOVA tests only contained of 9 male respondents, which could be insufficient in terms of making generalizing remarks. The fact that the number of female and male respondents is unbalanced, can have affected our data. Especially the interaction effect of brand gender could be sensitive to an overrepresentation of female consumers. The fact that women are more attracted to feminine products might cause the feminine brands to be more positively evaluated than the masculine brands. However, our results for the fictitious brands show that XB masculine is regarded more positive than XB feminine in most partner conditions. The reasons for arguing for a stronger effect of the number of partners for the feminine brands, was due to the higher increase in evaluation of the masculine brands. Since there was a majority of female consumers in the experiment, one would expect that XB feminine would have more positive evaluation than XB masculine even in the control group. Nevertheless, the “feminine trait” of having several partners might have been affected by the overrepresentation of female respondents and is thus worth mentioning in terms of limitations.

Finally, we could have conducted mediating analyses to provide stronger tests for some of our hypotheses. We could directly have tested whether the effects on the dependent variables were mediated through relationship orientation and potency respectively. This would especially be interesting in terms of women, where we found effects on both the explanatory mechanism and the dependent variables. We could thus have determined if it was the perceived relationship orientation of brands that caused a higher evaluation of the dependent variables for female consumers.

### **6.3 Suggestions for Future Studies**

As a master thesis is restricted to six months, there are time constraints in terms of what is possible to examine. A sample size of 451 respondents is not sufficient to generalize on behalf of a population. However, we have found indicating evidence to support a main effect of the

number of alliance partners as well as interaction effects of the consumer and brand gender. Future studies should replicate our research on a broader range of the population to increase the generalizability of the findings. These studies should also incorporate more brands and product categories to prevent mono-operationalization, and thus increase the external validity even further. Moreover, since Grohmann's (2009) study is the first that has validated masculinity and femininity features in a brand personality context, more research should be conducted to increase the validity of the MBP/FBP scale.

Furthermore, it could be interesting to examine the effects of complementarity in a brand alliance context. There is a lack of research within this topic, although it has been heavily investigated in brand extension research. One possibility could be to examine the "synergy" effect from Shine et al. (2007) in a brand alliance context. Such a study could be based on the findings of Washburn et al. (2004), and investigate whether the synergy effects increased as the brand engaged in more alliances. If a brand introduces multiple brand alliances which are complementary, one would expect that consumer evaluation of the focal brand would be positively influenced.

In our study, we found support for the notion that an increase in partners has a positive effect on consumer evaluation of the focal brand. However, we did not examine the cut-off point where an additional partner would have a negative impact on consumer evaluation. By conducting analyses with 3, 4, 5 partners etc. we could detect the crucial point where an increase in the number of alliance partners might no longer influence consumer evaluation positively. For brand managers, to identify this critical point would be useful to insure a consistent brand image, and avoid establishment of brand alliances that can dilute brand equity. Future research should thus investigate the optimal number of alliance partners, and brand gender differences in this context.

An investigation of long-term vs. short-term partnerships in a brand alliance context could also be of interest in future research. This would involve an examination of brand-relationship theory. Fournier (1998) developed a conceptual framework for understanding the type of relationships that people form with their brands. The author argues that consumers associate certain brands with humanlike characteristics and develop close relationships with these brands as they would to partners or friends. The conceptual framework consists of several types of relationships. *Flings* are short-term, time-bounded engagements of high emotional reward, but devoid of commitment and reciprocity demands. In contrast, *committed*

*partnerships* are defined as long-term, voluntary imposed, socially supported unions. They are high in love, intimacy, trust and a commitment to stay together despite adverse circumstances. Considering this, an interesting aspect would be to examine if there exist any gender differences between brands in relation to short-term (flings) vs. long-term (committed partnerships) relationships. One could investigate what type of relationship that is most beneficial to masculine and feminine brands respectively. This could also be tied to evolutionary biology and socio-psychological theories on gender differences. There is a vast amount of research on gender differences in preferences for mate selection. These theories indicate that men and women differ in what they look for in short-term vs. long term partners. Thus, future research could examine whether these gender differences also are applicable and relevant for masculine and feminine brands.

Moreover, it could be interesting to examine the effects of same sex (masculine + masculine) vs. opposite sex (masculine + feminine) alliances. Till and Priluck (2001) found that women are more drawn to feminine products while men are drawn to masculine products. Future studies could therefore investigate whether same-sex alliances increase the overall masculinity or femininity of the focal brands. In contrast, one could examine if opposite sex alliances decrease the masculinity or femininity of the focal brands. From our study, we would expect a more prominent effect for feminine brands. In other words, one could examine if an increase in feminine partners for a feminine brand would result in a more positive consumer evaluation than an increase in masculine partners for a masculine brand would.

Finally, we conducted our research in Norway, while Grohmann (2009) conducted her study in the US. It could be interesting to examine whether the MBP/FBP scale is equally relevant and applicable across different countries and cultures. Cultural differences on masculinity and femininity have been heavily researched. One of the most utilized theories is Hofstede's (1980) dimensions of national culture. The author explains that masculine countries emphasize status derived from wages and position, while feminine countries emphasize human-relations and quality of life. Therefore, it would be interesting to examine whether there exist cultural differences in evaluation of brand gender. E.g. it could be that an increase in alliance partners is more positive for feminine brands in feminine countries (like Norway), while an increase in partners is more positive for masculine brands in masculine countries (like e.g. Japan).

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# **Appendices**

**Appendix 1: Survey Design – Pretest**

**Appendix 2: Survey Design – Main Study**

**Appendix 3: Pretest Results**

**Appendix 4: Descriptive Statistics – Main Study**



## Vespa (motor vehicle)

- I am familiar with this brand. (1: Not at all descriptive, 9: Extremely descriptive)

1 2 3 4 5 6 7 8 9

- Vespa can be characterized as...

(1: Not at all descriptive)

(9: Extremely descriptive)

Adventurous 1 2 3 4 5 6 7 8 9

Sensitive 1 2 3 4 5 6 7 8 9

Daring 1 2 3 4 5 6 7 8 9

Sturdy (*Robust*) 1 2 3 4 5 6 7 8 9

Expresses tender

feelings 1 2 3 4 5 6 7 8 9

Graceful (*Grasiøs*) 1 2 3 4 5 6 7 8 9

Dominant 1 2 3 4 5 6 7 8 9

Brave 1 2 3 4 5 6 7 8 9

Sweet 1 2 3 4 5 6 7 8 9

Tender (*Myk/Kjærlig*) 1 2 3 4 5 6 7 8 9

Aggressive 1 2 3 4 5 6 7 8 9

Fragile (*Sårbar*) 1 2 3 4 5 6 7 8 9

## Harley Davidson (motor vehicle)

*- I am familiar with this brand. (1: Not at all descriptive, 9: Extremely descriptive)*

1 2 3 4 5 6 7 8 9

*-Harley Davidson can be characterized as...*

*(1: Not at all descriptive)*

*(9: Extremely descriptive)*

|                               |   |   |   |   |   |   |   |   |   |
|-------------------------------|---|---|---|---|---|---|---|---|---|
| Adventurous                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Sensitive                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Daring                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Sturdy ( <i>Robust</i> )      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Expresses tender<br>feelings  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Graceful ( <i>Grasiøs</i> )   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Dominant                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Brave                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Sweet                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Tender ( <i>Myk/Kjærlig</i> ) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Aggressive                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Fragile ( <i>Sårbar</i> )     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

**Similar surveys were provided for the 11 other product categories. (=Total of 24 brands)**



## **Appendix 2: Survey design – Main Study**

Following are four of the surveys displayed:

**XB masculine** – **0 alliance partners**

**XB feminine** – **2 alliance partners**

**Harley Davidson** – **10 alliance partners**

**Vespa** – **10 alliance partners**

## **A consumer research study**

The survey will take approximately 5-6 minutes.

First we would like you to read a short notice, and then answer a few questions.

It is important for our research that you answer all questions.  
Although some of the questions appear to be similar, we kindly ask you to answer all.

Thank you for your contribution.



Here is a press release. Please read it carefully and answer the following questions.

**XB to be released in Norway**

The new masculine fragrance XB from New York is now coming to Norway. In the media the fragrance is described as "a step ahead" and we in the editorial office can only confirm. The balance between citrus and spice seems appropriate. The fragrance succeeds in smelling fresh without losing its meaning. It will be exciting to see if also Norwegian men will be drawn to XB. The fragrance is expected to arrive in selected stores this summer.

What is your impression of XB? Mark one score for each statement.

|            | Not at all descriptive |   |   |   |   | Extremely descriptive |   |   |   |    |
|------------|------------------------|---|---|---|---|-----------------------|---|---|---|----|
| Popular    | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| Liked      | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| Well-known | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |

What do you associate with XB? Mark one score for each statement.

|                     | Not at all descriptive |   |   |   |   | Extremely descriptive |   |   |   |    |
|---------------------|------------------------|---|---|---|---|-----------------------|---|---|---|----|
| High quality        | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| Innovative products | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| A leading company   | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |

What are your thoughts about XB? Mark one score for each statement.

|                       | Not at all descriptive |   |   |   |   | Extremely descriptive |   |   |   |    |
|-----------------------|------------------------|---|---|---|---|-----------------------|---|---|---|----|
| I can trust XB        | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| I can rely on XB      | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| XB is a sincere brand | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| XB is a safe brand    | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |



Here are some wordpairs. For each wordpair, mark the score that gives the best description of XB.

|                                  |   |   |   |   |   |   |   |   |   |    |                           |
|----------------------------------|---|---|---|---|---|---|---|---|---|----|---------------------------|
| Not adventurous                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Adventurous               |
| Does not express tender feelings | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Expresses tender feelings |
| Not aggressive                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Agressive                 |
| Not brave                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Brave                     |
| Not fragile                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Fragile                   |
| Not graceful                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Graceful                  |
| Not daring                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Daring                    |
| Not sensitive                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Sensitive                 |
| Not sweet                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Sweet                     |
| Not dominant                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Dominant                  |
| Not sturdy                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Sturdy                    |
| Not tender                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Tender                    |

What do you think about XB? For each wordpair, mark the score that corresponds with your thoughts.

|                     |   |   |   |   |   |   |   |   |   |    |                     |
|---------------------|---|---|---|---|---|---|---|---|---|----|---------------------|
| Dislike             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Like                |
| Negative impression | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Positive impression |
| Bad                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Good                |



Following are some statements. Mark one score for each statement.

|                                                                | Not at all descriptive |   |   |   |   |   |   |   |   | Extremely descriptive |
|----------------------------------------------------------------|------------------------|---|---|---|---|---|---|---|---|-----------------------|
| XB shows good abilities in forming alliances with other brands | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                    |
| XB cares about its alliances brands                            | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                    |
| XB is oriented towards co-branding and forming brand alliances | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                    |
| XB appears to "make friends" easily with other brands          | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                    |

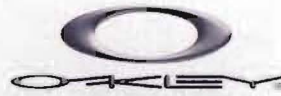
Following are some statements. Mark one score for each statement.

|                                                                   | Not at all descriptive |   |   |   |   |   |   |   |   | Extremely descriptive |
|-------------------------------------------------------------------|------------------------|---|---|---|---|---|---|---|---|-----------------------|
| XB is an attractive partner for other brands                      | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                    |
| XB appears to be a potent and attractive partner for other brands | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                    |
| XB will most likely attract other brand partners                  | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                    |
| XB appears willing to "go to bed" with many other brands          | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                    |

Finally, are you a man ( ) or a woman ( ) ?

**Thank you for your participation!**





Here is a press release. Please read it carefully and answer the following questions.

**XB to be released in Norway**

The new feminine fragrance XB from New York is now coming to Norway. In the media the fragrance is described as "a step ahead" and we in the editorial office can only confirm. The balance between citrus and spice seems appropriate. The after shave succeeds in smelling fresh without losing its meaning. XB must be a newcomer, but has on its domestic market successfully established collaborations with the famous brands Oakley and Creative. It will be exciting to see if also Norwegian women will be drawn to XB. The fragrance is expected to arrive in selected stores this summer.

XB is currently collaborating with the two famous brands Oakley and Creative. XB and Oakley have launched a new product line of sunglasses. The alliance with Creative is based on an agreement where Creative produces mp3 players bearing the XB features.

What is your impression of XB? Mark one score for each statement.

|            | Not at all descriptive |   |   |   |   |   |   |   |   |    | Extremely descriptive |   |   |   |   |   |   |   |   |    |
|------------|------------------------|---|---|---|---|---|---|---|---|----|-----------------------|---|---|---|---|---|---|---|---|----|
| Popular    | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Liked      | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Well-known | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

What do you associate with XB? Mark one score for each statement.

|                     | Not at all descriptive |   |   |   |   |   |   |   |   |    | Extremely descriptive |   |   |   |   |   |   |   |   |    |
|---------------------|------------------------|---|---|---|---|---|---|---|---|----|-----------------------|---|---|---|---|---|---|---|---|----|
| High quality        | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Innovative products | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| A leading company   | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

What are your thoughts about XB? Mark one score for each statement.

|                       | Not at all descriptive |   |   |   |   |   |   |   |   |    | Extremely descriptive |   |   |   |   |   |   |   |   |    |
|-----------------------|------------------------|---|---|---|---|---|---|---|---|----|-----------------------|---|---|---|---|---|---|---|---|----|
| I can trust XB        | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| I can rely on XB      | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| XB is a sincere brand | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| XB is a safe brand    | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |



CREATIVE

Here are some wordpairs. For each wordpair, mark the score that gives the best description of XB.

|                                  |   |   |   |   |   |   |   |   |   |    |                           |
|----------------------------------|---|---|---|---|---|---|---|---|---|----|---------------------------|
| Not adventurous                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Adventurous               |
| Does not express tender feelings | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Expresses tender feelings |
| Not aggressive                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Aggressive                |
| Not brave                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Brave                     |
| Not fragile                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Fragile                   |
| Not graceful                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Graceful                  |
| Not daring                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Daring                    |
| Not sensitive                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Sensitive                 |
| Not sweet                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Sweet                     |
| Not dominant                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Dominant                  |
| Not sturdy                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Sturdy                    |
| Not tender                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Tender                    |

What do you think about XB? For each wordpair, mark the score that corresponds with your thoughts.

|                     |   |   |   |   |   |   |   |   |   |    |                     |
|---------------------|---|---|---|---|---|---|---|---|---|----|---------------------|
| Dislike             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Like                |
| Negative impression | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Positive impression |
| Bad                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Good                |



CREATIVE

Following are some statements. Mark one score for each statement.

|                                                                | Not at all descriptive |   |   |   |   |   |   |   |   |    | Extremely descriptive |
|----------------------------------------------------------------|------------------------|---|---|---|---|---|---|---|---|----|-----------------------|
| XB shows good abilities in forming alliances with other brands | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                       |
| XB cares about its alliances brands                            | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                       |
| XB is oriented towards co-branding and forming brand alliances | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                       |
| XB appears to "make friends" easily with other brands          | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                       |

Following are some statements. Mark one score for each statement.

|                                                                              | Not at all descriptive |   |   |   |   |   |   |   |   |    | Extremely descriptive |
|------------------------------------------------------------------------------|------------------------|---|---|---|---|---|---|---|---|----|-----------------------|
| XB is an attractive Partner for other brands                                 | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                       |
| XB appears to be a potent and attractive partner for other brands            | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                       |
| XB will most likely attract other brand partners besides Oakley and Creative | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                       |
| XB appears willing to "go to bed" with many other brands                     | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                       |

Finally, are you a man ( ) or a woman ( ) ?

**Thank you for your participation!**





Following is information about Harley Davidson, a brand within the motor vehicle category. Please read it carefully and answer the following questions.

**Harley Davidson in several collaborations with famous brands**

Harley Davidson is currently collaborating with ten famous brands; Orange, Head & Shoulders, Oakley, Creative, Sony BMG, Axe, Omega, Dolce & Gabbana, L'Oreal and BMW. The collaboration with Orange is based on an agreement where Harley Davidson owners get access to a lucrative mobile phone contract. Harley Davidson has several alliances within the personal care category. Together with Head & Shoulders, Harley Davidson has developed its own shampoo. Harley Davidson also offers its own hair styling collection in collaboration with L'Oreal, and has created a specially designed deodorant together with Axe. Oakley has made a product line of Harley Davidson sunglasses suited for motorcycle rides. The alliance with Creative is based on an agreement where Creative produces mp3 players bearing the Harley Davidson features. By collaborating with Sony BMG, Harley Davidson gets access to the use of Sony BMG artists in promotion campaigns. In exchange, Sony BMG employees get special offers on Harley Davidson vehicles. In cooperation with BMW, Harley Davidson has made a dual branding agreement, i.e. in certain promotion campaigns, the brands are marketed together. Furthermore, Harley Davidson has collaborated with Omega to make a special collection of watches. To make the "Harley Davidson experience" complete, the brand has established a clothing collection in collaboration with Dolce & Gabbana.

What is your impression of Harley Davidson? Mark one score for each statement.

|            | Not at all descriptive |   |   |   |   | Extremely descriptive |   |   |   |    |
|------------|------------------------|---|---|---|---|-----------------------|---|---|---|----|
| Popular    | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| Liked      | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| Well-known | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |

What do you associate with Harley Davidson? Mark one score for each statement.

|                     | Not at all descriptive |   |   |   |   | Extremely descriptive |   |   |   |    |
|---------------------|------------------------|---|---|---|---|-----------------------|---|---|---|----|
| High quality        | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| Innovative products | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| A leading company   | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |



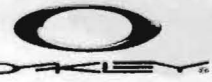


What are your thoughts about Harley Davidson? Mark one score for each statement.

|                                    | Not at all descriptive |   |   |   |   |   |   |   |   |    | Extremely descriptive |   |   |   |   |   |   |   |   |    |
|------------------------------------|------------------------|---|---|---|---|---|---|---|---|----|-----------------------|---|---|---|---|---|---|---|---|----|
| I can trust Harley Davidson        | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| I can rely on Harley Davidson      | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Harley Davidson is a sincere brand | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Harley Davidson is a safe brand    | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Here are some wordpairs. For each wordpair, mark the score that gives the best description of Harley Davidson.

|                                  |   |   |   |   |   |   |   |   |   |    |                           |
|----------------------------------|---|---|---|---|---|---|---|---|---|----|---------------------------|
| Not adventurous                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Adventurous               |
| Does not express tender feelings | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Expresses tender feelings |
| Not aggressive                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Aggressive                |
| Not brave                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Brave                     |
| Not fragile                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Fragile                   |
| Not graceful                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Graceful                  |
| Not daring                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Daring                    |
| Not sensitive                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Sensitive                 |
| Not sweet                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Sweet                     |
| Not dominant                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Dominant                  |
| Not sturdy                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Sturdy                    |
| Not tender                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Tender                    |



What do you think about Harley Davidson? For each wordpair, mark the score that corresponds with your thoughts.

|                     |   |   |   |   |   |   |   |   |   |    |                     |
|---------------------|---|---|---|---|---|---|---|---|---|----|---------------------|
| Dislike             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Like                |
| Negative impression | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Positive impression |
| Bad                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Good                |

Following are some statements. Mark one score for each statement.

|                                                                             | Not at all descriptive |   |   |   |   |   |   |   |   |    | Extremely descriptive |
|-----------------------------------------------------------------------------|------------------------|---|---|---|---|---|---|---|---|----|-----------------------|
| Harley Davidson shows good abilities in forming alliances with other brands | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                       |
| Harley Davidson cares about its alliances brands                            | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                       |
| Harley Davidson is oriented towards co-branding and forming brand alliances | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                       |
| Harley Davidson appears to "make friends" easily with other brands          | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                       |





CREATIVE

Following are some statements. Mark one score for each statement.

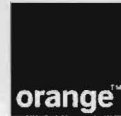
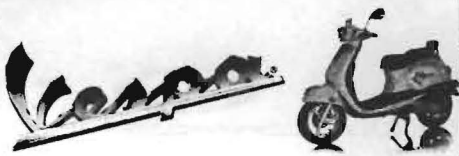
|                                                                                         | Not at all<br>descriptive |   |   |   |   |   |   |   |   |    | Extremely<br>descriptive |
|-----------------------------------------------------------------------------------------|---------------------------|---|---|---|---|---|---|---|---|----|--------------------------|
| Harley Davidson<br>is an attractive partner<br>for other brands                         | 1                         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                          |
| Harley Davidson<br>appears to be a potent<br>and attractive partner<br>for other brands | 1                         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                          |
| Harley Davidson<br>will most likely<br>attract<br>other brand partners                  | 1                         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                          |
| Harley Davidson<br>appears willing to "go<br>to bed" with many<br>other brands          | 1                         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                          |

Finally, are you a man ( ) or a woman ( ) ?

**Thank you for your participation!**







Following is information about Vespa, a brand within the motor vehicle category. Please read it carefully and answer the following questions.

**Vespa in several collaborations with famous brands**

Vespa is currently collaborating with ten famous brands; Orange, Head & Shoulders, Oakley, Creative, Sony BMG, Axe, Omega, Dolce & Gabbana, L'Oreal and BMW. The collaboration with Orange is based on an agreement where Vespa owners get access to a lucrative mobile phone contract. Vespa has several alliances within the personal care category. Together with Head & Shoulders, Vespa has developed its own shampoo. Vespa also offers its own hair styling collection in collaboration with L'Oreal, and has created a specially designed deodorant together with Axe. Oakley has made a product line of Vespa sunglasses suited for motorcycle rides. The alliance with Creative is based on an agreement where Creative produces mp3 players bearing the Vespa features. By collaborating with Sony BMG, Vespa gets access to the use of Sony BMG artists in promotion campaigns. In exchange, Sony BMG employees get special offers on Vespa vehicles. In cooperation with BMW, Vespa has made a dual branding agreement, i.e. in certain promotion campaigns, the brands are marketed together. Furthermore, Vespa has collaborated with Omega to make a special collection of watches. To make the "Vespa experience" complete, the brand has established a clothing collection in collaboration with Dolce & Gabbana.

What is your impression of Vespa? Mark one score for each statement.

|            | Not at all descriptive |   |   |   |   | Extremely descriptive |   |   |   |    |
|------------|------------------------|---|---|---|---|-----------------------|---|---|---|----|
| Popular    | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| Liked      | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| Well-known | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |

What do you associate with Vespa? Mark one score for each statement.

|                     | Not at all descriptive |   |   |   |   | Extremely descriptive |   |   |   |    |
|---------------------|------------------------|---|---|---|---|-----------------------|---|---|---|----|
| High quality        | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| Innovative products | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |
| A leading company   | 1                      | 2 | 3 | 4 | 5 | 6                     | 7 | 8 | 9 | 10 |



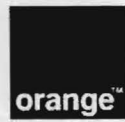
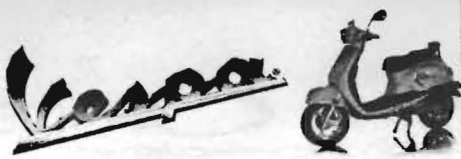


What are your thoughts about Vespa? Mark one score for each statement.

|                          | Not at all descriptive |   |   |   |   |   |   |   |   |    | Extremely descriptive |   |   |   |   |   |   |   |   |    |
|--------------------------|------------------------|---|---|---|---|---|---|---|---|----|-----------------------|---|---|---|---|---|---|---|---|----|
| I can trust Vespa        | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| I can rely on Vespa      | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Vespa is a sincere brand | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Vespa is a safe brand    | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Here are some wordpairs. For each wordpair, mark the score that gives the best description of Vespa.

|                                  |   |   |   |   |   |   |   |   |   |    |                           |
|----------------------------------|---|---|---|---|---|---|---|---|---|----|---------------------------|
| Not adventurous                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Adventurous               |
| Does not express tender feelings | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Expresses tender feelings |
| Not aggressive                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Aggressive                |
| Not brave                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Brave                     |
| Not fragile                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Fragile                   |
| Not graceful                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Graceful                  |
| Not daring                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Daring                    |
| Not sensitive                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Sensitive                 |
| Not sweet                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Sweet                     |
| Not dominant                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Dominant                  |
| Not sturdy                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Sturdy                    |
| Not tender                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Tender                    |



CREATIVE

What do you think about Vespa? For each wordpair, mark the score that corresponds with your thoughts.

|                     |   |   |   |   |   |   |   |   |   |    |                     |
|---------------------|---|---|---|---|---|---|---|---|---|----|---------------------|
| Dislike             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Like                |
| Negative impression | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Positive impression |
| Bad                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Good                |

Following are some statements. Mark one score for each statement.

|                                                                   | Not at all descriptive | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Extremely descriptive |
|-------------------------------------------------------------------|------------------------|---|---|---|---|---|---|---|---|---|-----------------------|
| Vespa shows good abilities in forming alliances with other brands |                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                    |
| Vespa cares about its alliances brands                            |                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                    |
| Vespa is oriented towards co-branding and forming brand alliances |                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                    |
| Vespa appears to "make friends" easily with other brands          |                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                    |





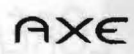
CREATIVE

Following are some statements. Mark one score for each statement.

|                                                                      | Not at all<br>descriptive | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Extremely<br>descriptive |
|----------------------------------------------------------------------|---------------------------|---|---|---|---|---|---|---|---|---|--------------------------|
| Vespa is an attractive partner for other brands                      |                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                       |
| Vespa appears to be a potent and attractive partner for other brands |                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                       |
| Vespa will most likely attract other brand partners                  |                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                       |
| Vespa appears willing to "go to bed" with many other brands          |                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10                       |

Finally, are you a man ( ) or a woman ( ) ?

**Thank you for your participation!**





# Appendix 3: Pretest Results

## Appendix 3.1: Factor Analysis

Communalities

|                         | Initial | Extraction |
|-------------------------|---------|------------|
| Adventurous             | 1.000   | .589       |
| Aggressive              | 1.000   | .668       |
| Brave                   | 1.000   | .770       |
| Daring                  | 1.000   | .656       |
| Dominant                | 1.000   | .691       |
| Sturdy                  | 1.000   | .577       |
| ExpressesTenderFeelings | 1.000   | .753       |
| Fragile                 | 1.000   | .585       |
| Graceful                | 1.000   | .557       |
| Sensitive               | 1.000   | .655       |
| Sweet                   | 1.000   | .645       |
| Tender                  | 1.000   | .831       |

Extraction Method: Principal Component Analysis.

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1         | <b>4.094</b>        | 34.120        | 34.120       | 4.094                               | 34.120        | 34.120       |
| 2         | <b>3.883</b>        | 32.357        | 66.478       | 3.883                               | 32.357        | 66.478       |
| 3         | .735                | 6.126         | 72.603       |                                     |               |              |
| 4         | .592                | 4.933         | 77.536       |                                     |               |              |
| 5         | .499                | 4.160         | 81.696       |                                     |               |              |
| 6         | .493                | 4.105         | 85.801       |                                     |               |              |
| 7         | .397                | 3.307         | 89.108       |                                     |               |              |
| 8         | .347                | 2.895         | 92.003       |                                     |               |              |
| 9         | .275                | 2.293         | 94.296       |                                     |               |              |
| 10        | .259                | 2.160         | 96.456       |                                     |               |              |
| 11        | .234                | 1.950         | 98.406       |                                     |               |              |
| 12        | .191                | 1.594         | 100.000      |                                     |               |              |

Extraction Method: Principal Component

Analysis.

**Component Matrix<sup>a</sup>**

|                         | Component |       |
|-------------------------|-----------|-------|
|                         | 1         | 2     |
| Adventurous             | .618      | -.454 |
| Aggressive              | .517      | -.633 |
| Brave                   | .712      | -.514 |
| Daring                  | .682      | -.437 |
| Dominant                | .678      | -.481 |
| Sturdy                  | .536      | -.539 |
| ExpressesTenderFeelings | .586      | .640  |
| Fragile                 | .491      | .586  |
| Graceful                | .663      | .344  |
| Sensitive               | .443      | .677  |
| Sweet                   | .509      | .621  |
| Tender                  | .498      | .763  |

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

**Pattern Matrix<sup>a</sup>**

|                         | Component |      |
|-------------------------|-----------|------|
|                         | 1         | 2    |
| Adventurous             | .765      |      |
| Aggressive              | .805      |      |
| Brave                   | .875      |      |
| Daring                  | .802      |      |
| Dominant                | .828      |      |
| Sturdy                  | .758      |      |
| ExpressesTenderFeelings |           | .867 |
| Fragile                 |           | .765 |
| Graceful                |           | .684 |
| Sensitive               |           | .805 |
| Sweet                   |           | .803 |
| Tender                  |           | .907 |

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 5 iterations.

**Structure Matrix**

|                         | Component |      |
|-------------------------|-----------|------|
|                         | 1         | 2    |
| Adventurous             | .766      |      |
| Aggressive              | .800      |      |
| Brave                   | .876      |      |
| Daring                  | .805      |      |
| Dominant                | .830      |      |
| Sturdy                  | .755      |      |
| ExpressesTenderFeelings |           | .867 |
| Fragile                 |           | .765 |
| Graceful                |           | .693 |
| Sensitive               |           | .802 |
| Sweet                   |           | .803 |
| Tender                  |           | .903 |

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

**Component Correlation Matrix**

| Component | 1     | 2     |
|-----------|-------|-------|
| 1         | 1.000 | .032  |
| 2         | .032  | 1.000 |

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

## Appendix 3.2: ANOVA

### Category: Motor vehicle (Harley Davidson/Vespa)

#### Descriptives

|     |                | N  | Mean          | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |                | Minimum | Maximum |
|-----|----------------|----|---------------|----------------|------------|----------------------------------|----------------|---------|---------|
|     |                |    |               |                |            | Lower Bound                      | Upper Bound    |         |         |
|     |                |    |               |                |            | MBP                              | HarleyDavidson |         |         |
|     | Vespa          | 29 | <b>4.7299</b> | 1.64414        | .30531     | 4.1045                           | 5.3553         | 1.00    | 7.83    |
|     | Total          | 59 | 5.9011        | 1.84300        | .23994     | 5.4208                           | 6.3814         | 1.00    | 8.67    |
| FBP | HarleyDavidson | 30 | <b>2.3056</b> | 1.03676        | .18929     | 1.9184                           | 2.6927         | 1.00    | 4.83    |
|     | Vespa          | 29 | <b>4.5287</b> | 1.96501        | .36489     | 3.7813                           | 5.2762         | 1.00    | 7.67    |
|     | Total          | 59 | 3.3983        | 1.91261        | .24900     | 2.8999                           | 3.8967         | 1.00    | 7.67    |

#### ANOVA

|     |                | Sum of Squares | df | Mean Square | F      | Sig.        |
|-----|----------------|----------------|----|-------------|--------|-------------|
| MBP | Between Groups | 78.239         | 1  | 78.239      | 37.549 | <b>.000</b> |
|     | Within Groups  | 118.767        | 57 | 2.084       |        |             |
|     | Total          | 197.007        | 58 |             |        |             |
| FBP | Between Groups | 72.881         | 1  | 72.881      | 29.825 | <b>.000</b> |
|     | Within Groups  | 139.286        | 57 | 2.444       |        |             |
|     | Total          | 212.168        | 58 |             |        |             |

A similar ANOVA-test was performed for the other 11 product categories.

### Appendix 3.3: Brand Familiarity

| Descriptives          |     |               |           |            |                                  |             |         |         |
|-----------------------|-----|---------------|-----------|------------|----------------------------------|-------------|---------|---------|
| Familiarity           |     |               |           |            |                                  |             |         |         |
|                       |     |               | Std.      |            | 95% Confidence Interval for Mean |             |         |         |
|                       | N   | Mean          | Deviation | Std. Error | Lower Bound                      | Upper Bound | Minimum | Maximum |
| DobbelDusch           | 30  | 6.5333        | 2.45979   | .44909     | 5.6148                           | 7.4518      | 1.00    | 9.00    |
| HerbalEssences        | 29  | 7.3103        | 1.73418   | .32203     | 6.6507                           | 7.9700      | 3.00    | 9.00    |
| Marlboro              | 29  | 7.1034        | 2.19325   | .40728     | 6.2692                           | 7.9377      | 1.00    | 9.00    |
| LuckyStrike           | 29  | 5.5172        | 2.51596   | .46720     | 4.5602                           | 6.4743      | 1.00    | 9.00    |
| OldSpice              | 30  | 4.7000        | 3.01891   | .55117     | 3.5727                           | 5.8273      | 1.00    | 9.00    |
| Chanel                | 28  | 6.8214        | 1.58823   | .30015     | 6.2056                           | 7.4373      | 4.00    | 9.00    |
| Budweiser             | 28  | 7.5714        | 1.39917   | .26442     | 7.0289                           | 8.1140      | 4.00    | 9.00    |
| CoronaExtra           | 30  | 7.7333        | 1.61743   | .29530     | 7.1294                           | 8.3373      | 1.00    | 9.00    |
| FishermansFriend      | 30  | 7.9000        | 1.56139   | .28507     | 7.3170                           | 8.4830      | 1.00    | 9.00    |
| TicTac                | 29  | 5.7241        | 2.10266   | .39045     | 4.9243                           | 6.5239      | 1.00    | 9.00    |
| <b>HarleyDavidson</b> | 29  | <b>6.2069</b> | 2.05946   | .38243     | 5.4235                           | 6.9903      | 1.00    | 9.00    |
| <b>Vespa</b>          | 29  | <b>5.9310</b> | 2.61767   | .48609     | 4.9353                           | 6.9267      | 1.00    | 9.00    |
| Clearasil             | 29  | 5.3793        | 2.00738   | .37276     | 4.6157                           | 6.1429      | 2.00    | 9.00    |
| Kleenex               | 30  | 7.0667        | 2.18037   | .39808     | 6.2525                           | 7.8808      | 1.00    | 9.00    |
| Aquafresh             | 30  | 6.8333        | 2.21411   | .40424     | 6.0066                           | 7.6601      | 1.00    | 9.00    |
| Sensodyne             | 29  | 6.0000        | 2.28348   | .42403     | 5.1314                           | 6.8686      | 1.00    | 9.00    |
| RalphLauren           | 30  | 7.6333        | 1.79046   | .32689     | 6.9648                           | 8.3019      | 3.00    | 9.00    |
| Gucci                 | 28  | 7.0357        | 1.42678   | .26964     | 6.4825                           | 7.5890      | 4.00    | 9.00    |
| Adidas                | 28  | 8.2857        | .80999    | .15307     | 7.9716                           | 8.5998      | 6.00    | 9.00    |
| MXDC                  | 30  | 2.9333        | 2.58555   | .47205     | 1.9679                           | 3.8988      | 1.00    | 9.00    |
| Smirnoff              | 28  | 7.3214        | 1.36228   | .25745     | 6.7932                           | 7.8497      | 4.00    | 9.00    |
| BacardiRazz           | 30  | 7.8333        | 1.05318   | .19228     | 7.4401                           | 8.2266      | 5.00    | 9.00    |
| Bliw                  | 29  | 4.8621        | 2.54564   | .47271     | 3.8938                           | 5.8304      | 1.00    | 9.00    |
| Dove                  | 29  | 7.7586        | 1.27210   | .23622     | 7.2747                           | 8.2425      | 5.00    | 9.00    |
| Total                 | 700 | 6.5771        | 2.34226   | .08853     | 6.4033                           | 6.7510      | 1.00    | 9.00    |

## Appendix 4: Descriptive Statistics - Main study

### Appendix 4.1: Reliability tests

Dependent variable: Brand reputation

**Case Processing Summary**

|       |                       | N   | %     |
|-------|-----------------------|-----|-------|
| Cases | Valid                 | 435 | 96.5  |
|       | Excluded <sup>a</sup> | 16  | 3.5   |
|       | Total                 | 451 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|----------------------------------------------|------------|
| .832             | .850                                         | 3          |

**Item-Total Statistics**

|            | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|------------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| Popular    | 12.71                      | 21.025                         | .779                             | .695                         | .696                             |
| Liked      | 12.58                      | 21.678                         | .747                             | .675                         | .727                             |
| Well_known | 12.14                      | 18.256                         | .602                             | .366                         | .899                             |

A similar reliability test was conducted for corporate ability, brand trust and brand attitude.

## Appendix 4.2: Factor Analyses

### 4.2.1 Factor analysis of the dependent variables

**Communalities**

|                     | Initial | Extraction |
|---------------------|---------|------------|
| Popular             | 1.000   | .627       |
| Liked               | 1.000   | .655       |
| Well_known          | 1.000   | .538       |
| High_quality        | 1.000   | .658       |
| Innovative          | 1.000   | .363       |
| Leading_company     | 1.000   | .635       |
| Trust               | 1.000   | .743       |
| Rely                | 1.000   | .735       |
| Sincere             | 1.000   | .735       |
| Safe                | 1.000   | .721       |
| Dislike             | 1.000   | .886       |
| Negative_impression | 1.000   | .919       |
| Bad                 | 1.000   | .902       |

Extraction Method: Principal Component Analysis.

**Total Variance Explained**

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              | Rotation Sums of Squared Loadings <sup>a</sup> |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|------------------------------------------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % | Total                                          |
| 1         | <b>7.756</b>        | 59.665        | 59.665       | 7.756                               | 59.665        | 59.665       | 7.348                                          |
| 2         | <b>1.360</b>        | 10.465        | 70.130       | 1.360                               | 10.465        | 70.130       | 5.254                                          |
| 3         | .818                | 6.294         | 76.424       |                                     |               |              |                                                |
| 4         | .783                | 6.021         | 82.445       |                                     |               |              |                                                |
| 5         | .515                | 3.958         | 86.403       |                                     |               |              |                                                |
| 6         | .398                | 3.060         | 89.462       |                                     |               |              |                                                |
| 7         | .364                | 2.800         | 92.262       |                                     |               |              |                                                |
| 8         | .319                | 2.457         | 94.720       |                                     |               |              |                                                |
| 9         | .208                | 1.601         | 96.320       |                                     |               |              |                                                |
| 10        | .172                | 1.320         | 97.641       |                                     |               |              |                                                |
| 11        | .140                | 1.076         | 98.716       |                                     |               |              |                                                |
| 12        | .098                | .751          | 99.468       |                                     |               |              |                                                |
| 13        | .069                | .532          | 100.000      |                                     |               |              |                                                |

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

**Pattern Matrix<sup>a</sup>**

|                     | Component |      |
|---------------------|-----------|------|
|                     | 1         | 2    |
| Popular             | .703      |      |
| Liked               | .626      |      |
| Well_known          | .793      |      |
| High_quality        | .810      |      |
| Innovative          | .557      |      |
| Leading_company     | .873      |      |
| Trust               | .809      |      |
| Rely                | .815      |      |
| Sincere             | .827      |      |
| Safe                | .866      |      |
| Dislike             |           | .925 |
| Negative_impression |           | .935 |
| Bad                 |           | .938 |

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser

Normalization.

a. Rotation converged in 4 iterations.

**Component Correlation Matrix**

| Component | 1     | 2     |
|-----------|-------|-------|
| 1         | 1.000 | .597  |
| 2         | .597  | 1.000 |

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.



## 4.2.2 Factor analysis with 4 extracted components

Communalities

|                     | Initial | Extraction |
|---------------------|---------|------------|
| Popular             | 1.000   | .804       |
| Liked               | 1.000   | .789       |
| Well_known          | 1.000   | .779       |
| High_quality        | 1.000   | .684       |
| Innovative          | 1.000   | .917       |
| Leading_company     | 1.000   | .688       |
| Trust               | 1.000   | .871       |
| Rely                | 1.000   | .867       |
| Sincere             | 1.000   | .801       |
| Safe                | 1.000   | .800       |
| Dislike             | 1.000   | .888       |
| Negative_impression | 1.000   | .925       |
| Bad                 | 1.000   | .905       |

Total Variance Explained

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              | Rotation Sums of Squared Loadings <sup>a</sup> |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|------------------------------------------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % | Total                                          |
| 1         | <b>7.756</b>        | 59.665        | 59.665       | 7.756                               | 59.665        | 59.665       | 6.423                                          |
| 2         | <b>1.360</b>        | 10.465        | 70.130       | 1.360                               | 10.465        | 70.130       | 5.131                                          |
| 3         | <b>.818</b>         | 6.294         | 76.424       | .818                                | 6.294         | 76.424       | 5.310                                          |
| 4         | <b>.783</b>         | 6.021         | 82.445       | .783                                | 6.021         | 82.445       | 2.698                                          |
| 5         | .515                | 3.958         | 86.403       |                                     |               |              |                                                |
| 6         | .398                | 3.060         | 89.462       |                                     |               |              |                                                |
| 7         | .364                | 2.800         | 92.262       |                                     |               |              |                                                |
| 8         | .319                | 2.457         | 94.720       |                                     |               |              |                                                |
| 9         | .208                | 1.601         | 96.320       |                                     |               |              |                                                |
| 10        | .172                | 1.320         | 97.641       |                                     |               |              |                                                |
| 11        | .140                | 1.076         | 98.716       |                                     |               |              |                                                |
| 12        | .098                | .751          | 99.468       |                                     |               |              |                                                |
| 13        | .069                | .532          | 100.000      |                                     |               |              |                                                |

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

**Pattern Matrix<sup>a</sup>**

|                     | Component |      |      |      |
|---------------------|-----------|------|------|------|
|                     | 1         | 2    | 3    | 4    |
| Popular             |           |      | .782 |      |
| Liked               |           |      | .668 |      |
| Well_known          |           |      | .809 |      |
| High_quality        |           |      |      |      |
| Innovative          |           |      |      | .897 |
| Leading_company     |           |      |      |      |
| Trust               | .904      |      |      |      |
| Rely                | .915      |      |      |      |
| Sincere             | .768      |      |      |      |
| Safe                | .831      |      |      |      |
| Dislike             |           | .913 |      |      |
| Negative_impression |           | .926 |      |      |
| Bad                 |           | .927 |      |      |

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 8 iterations.

**Component Correlation Matrix**

| Component | 1     | 2     | 3     | 4     |
|-----------|-------|-------|-------|-------|
| 1         | 1.000 | .532  | .628  | .382  |
| 2         | .532  | 1.000 | .445  | .330  |
| 3         | .628  | .445  | 1.000 | .312  |
| 4         | .382  | .330  | .312  | 1.000 |

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

### 4.2.3 Factor analysis of MBP/FBP for the fictitious brands

Communalities

|                  | Initial | Extraction |
|------------------|---------|------------|
| Adventurous      | 1.000   | .540       |
| Aggressive       | 1.000   | .619       |
| Brave            | 1.000   | .577       |
| Daring           | 1.000   | .602       |
| Dominant         | 1.000   | .589       |
| Sturdy           | 1.000   | .556       |
| Expresses_tender | 1.000   | .495       |
| Fragile          | 1.000   | .397       |
| Graceful         | 1.000   | .696       |
| Sensitive        | 1.000   | .716       |
| Sweet            | 1.000   | .606       |
| Tender           | 1.000   | .688       |

Extraction Method: Principal Component Analysis.

Total Variance Explained

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              | Rotation Sums of Squared Loadings <sup>a</sup> |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|------------------------------------------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % | Total                                          |
| 1         | <b>5.372</b>        | 44.770        | 44.770       | 5.372                               | 44.770        | 44.770       | 4.476                                          |
| 2         | <b>1.710</b>        | 14.248        | 59.018       | 1.710                               | 14.248        | 59.018       | 4.225                                          |
| 3         | .917                | 7.646         | 66.664       |                                     |               |              |                                                |
| 4         | .773                | 6.445         | 73.109       |                                     |               |              |                                                |
| 5         | .707                | 5.889         | 78.998       |                                     |               |              |                                                |
| 6         | .510                | 4.250         | 83.248       |                                     |               |              |                                                |
| 7         | .418                | 3.486         | 86.734       |                                     |               |              |                                                |
| 8         | .386                | 3.219         | 89.953       |                                     |               |              |                                                |
| 9         | .364                | 3.030         | 92.983       |                                     |               |              |                                                |
| 10        | .312                | 2.603         | 95.586       |                                     |               |              |                                                |
| 11        | .294                | 2.453         | 98.040       |                                     |               |              |                                                |
| 12        | .235                | 1.960         | 100.000      |                                     |               |              |                                                |

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

**Pattern Matrix<sup>a</sup>**

|                  | Component |      |
|------------------|-----------|------|
|                  | 1         | 2    |
| Adventurous      |           | .634 |
| Aggressive       |           | .858 |
| Brave            |           | .693 |
| Daring           |           | .678 |
| Dominant         |           | .801 |
| Sturdy           |           | .650 |
| Expresses_tender | .549      |      |
| Fragile          | .542      |      |
| Graceful         | .835      |      |
| Sensitive        | .853      |      |
| Sweet            | .811      |      |
| Tender           | .843      |      |

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser

Normalization.

**Component Correlation Matrix**

| Component | 1     | 2     |
|-----------|-------|-------|
| 1         | 1.000 | .443  |
| 2         | .443  | 1.000 |

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with

Kaiser Normalization.

## Appendix 4.3: Assumptions for ANOVA

### Appendix 4.3.1: Test of Normality (Skewness & Kurtosis)

| Descriptive Statistics   |           |           |           |           |                |              |            |              |            |
|--------------------------|-----------|-----------|-----------|-----------|----------------|--------------|------------|--------------|------------|
|                          | N         | Minimum   | Maximum   | Mean      | Std. Deviation | Skewness     |            | Kurtosis     |            |
|                          | Statistic | Statistic | Statistic | Statistic | Statistic      | Statistic    | Std. Error | Statistic    | Std. Error |
| Brand_reputation         | 450       | 1.00      | 10.00     | 6.2500    | 2.15854        | <b>-.487</b> | .115       | <b>-.285</b> | .230       |
| Corporate_ability        | 451       | 1.00      | 10.00     | 5.6840    | 1.92777        | <b>-.480</b> | .115       | <b>.077</b>  | .229       |
| Brand_trust              | 450       | 1.00      | 10.00     | 5.4881    | 2.10322        | <b>-.250</b> | .115       | <b>-.292</b> | .230       |
| Brand_attitude           | 445       | 1.00      | 10.00     | 5.7951    | 2.33506        | <b>-.065</b> | .116       | <b>-.652</b> | .231       |
| Relationship_orientation | 447       | 1.00      | 10.00     | 5.6898    | 2.37463        | <b>-.080</b> | .115       | <b>-.600</b> | .230       |
| Potency                  | 446       | 1.00      | 10.00     | 5.7253    | 2.11939        | <b>-.315</b> | .116       | <b>-.302</b> | .231       |
| Valid N (listwise)       | 437       |           |           |           |                |              |            |              |            |

### Appendix 4.3.2: Test of Homogeneity of Variances

| Test of Homogeneity of Variances |                  |     |     |             |
|----------------------------------|------------------|-----|-----|-------------|
|                                  | Levene Statistic | df1 | df2 | Sig.        |
| Brand_reputation                 | 1.624            | 11  | 438 | <b>.089</b> |
| Corporate_ability                | 1.480            | 11  | 439 | .136        |
| Brand_trust                      | 1.101            | 11  | 438 | .358        |
| Brand_attitude                   | 1.123            | 11  | 433 | .341        |

### Appendix 4.3.3: Test of Homogeneity of Variances (excluding “well-known”)

| Test of Homogeneity of Variances |                  |     |     |             |
|----------------------------------|------------------|-----|-----|-------------|
|                                  | Levene Statistic | df1 | df2 | Sig.        |
| Brand_Reputation                 | .766             | 11  | 433 | <b>.674</b> |
| Corporate_ability                | 1.480            | 11  | 439 | .136        |
| Brand_trust                      | 1.101            | 11  | 438 | .358        |
| Brand_attitude                   | 1.123            | 11  | 433 | .341        |

#### Appendix 4.3.4: Test of Homogeneity of Variances (excluding “popular”)

Test of Homogeneity of Variances

|                   | Levene Statistic | df1 | df2 | Sig. |
|-------------------|------------------|-----|-----|------|
| Brand_Reputation  | 2.497            | 11  | 432 | .005 |
| Corporate_ability | 1.480            | 11  | 439 | .136 |
| Brand_trust       | 1.101            | 11  | 438 | .358 |
| Brand_attitude    | 1.123            | 11  | 433 | .341 |

#### Appendix 4.3.5: Test of Homogeneity of Variances (excluding “liked”)

Test of Homogeneity of Variances

|                   | Levene Statistic | df1 | df2 | Sig. |
|-------------------|------------------|-----|-----|------|
| Brand_Reputation  | 3.069            | 11  | 435 | .001 |
| Corporate_ability | 1.480            | 11  | 439 | .136 |
| Brand_trust       | 1.101            | 11  | 438 | .358 |
| Brand_attitude    | 1.123            | 11  | 433 | .341 |

## Appendix 4.4: Main effects of the number of alliance partners

### XB masculine 0-2 partners

#### Descriptives

|                   |                | N  | Mean   | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |                | Minimum | Maximum |
|-------------------|----------------|----|--------|----------------|------------|----------------------------------|----------------|---------|---------|
|                   |                |    |        |                |            | Lower Bound                      | Upper Bound    |         |         |
|                   |                |    |        |                |            | Brand_reputation                 | XB_masculine_0 |         |         |
|                   | XB_masculine_2 | 40 | 5.1750 | 1.87803        | .29694     | 4.5744                           | 5.7756         | 1.00    | 8.00    |
|                   | Total          | 77 | 4.9675 | 2.00238        | .22819     | 4.5130                           | 5.4220         | 1.00    | 8.33    |
| Corporate_ability | XB_masculine_0 | 37 | 4.7387 | 2.10545        | .34613     | 4.0367                           | 5.4407         | 1.00    | 7.67    |
|                   | XB_masculine_2 | 40 | 5.4167 | 1.87463        | .29641     | 4.8171                           | 6.0162         | 1.00    | 8.33    |
|                   | Total          | 77 | 5.0909 | 2.00485        | .22847     | 4.6359                           | 5.5460         | 1.00    | 8.33    |
| Brand_trust       | XB_masculine_0 | 37 | 4.2703 | 2.10932        | .34677     | 3.5670                           | 4.9736         | 1.00    | 8.25    |
|                   | XB_masculine_2 | 40 | 5.0875 | 1.94767        | .30795     | 4.4646                           | 5.7104         | 1.00    | 9.00    |
|                   | Total          | 77 | 4.6948 | 2.05501        | .23419     | 4.2284                           | 5.1612         | 1.00    | 9.00    |
| Brand_attitude    | XB_masculine_0 | 36 | 4.7870 | 1.74602        | .29100     | 4.1963                           | 5.3778         | 1.00    | 9.00    |
|                   | XB_masculine_2 | 39 | 5.8718 | 2.05568        | .32917     | 5.2054                           | 6.5382         | 1.00    | 9.00    |
|                   | Total          | 75 | 5.3511 | 1.97727        | .22832     | 4.8962                           | 5.8060         | 1.00    | 9.00    |

#### ANOVA

|                   |                | Sum of Squares | df | Mean Square | F     | Sig. |
|-------------------|----------------|----------------|----|-------------|-------|------|
| Brand_reputation  | Between Groups | 3.583          | 1  | 3.583       | .892  | .348 |
|                   | Within Groups  | 301.141        | 75 | 4.015       |       |      |
|                   | Total          | 304.724        | 76 |             |       |      |
| Corporate_ability | Between Groups | 8.834          | 1  | 8.834       | 2.233 | .139 |
|                   | Within Groups  | 296.641        | 75 | 3.955       |       |      |
|                   | Total          | 305.475        | 76 |             |       |      |
| Brand_trust       | Between Groups | 12.837         | 1  | 12.837      | 3.125 | .081 |
|                   | Within Groups  | 308.116        | 75 | 4.108       |       |      |
|                   | Total          | 320.953        | 76 |             |       |      |
| Brand_attitude    | Between Groups | 22.028         | 1  | 22.028      | 6.016 | .017 |
|                   | Within Groups  | 267.282        | 73 | 3.661       |       |      |
|                   | Total          | 289.310        | 74 |             |       |      |

A similar test was conducted on XB masculine (0-10 and 2-10), XB feminine, Harley Davidson and Vespa.

## Appendix 4.5: Main effects – Consumer Gender (Relationship/Potency)

### 0 alliance partners

#### Descriptives

|         |       | N   | Mean   | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Minimum | Maximum |
|---------|-------|-----|--------|----------------|------------|----------------------------------|-------------|---------|---------|
|         |       |     |        |                |            | Lower Bound                      | Upper Bound |         |         |
|         |       |     |        |                |            | Relationship_orientation         | Man         |         |         |
|         | Woman | 87  | 4.0029 | 1.86986        | .20047     | 3.6044                           | 4.4014      | 1.00    | 8.50    |
|         | Total | 138 | 3.9855 | 1.79409        | .15272     | 3.6835                           | 4.2875      | 1.00    | 8.50    |
| Potency | Man   | 51  | 4.6275 | 1.75169        | .24529     | 4.1348                           | 5.1201      | 1.00    | 7.50    |
|         | Woman | 88  | 4.7642 | 2.06759        | .22041     | 4.3261                           | 5.2023      | 1.00    | 8.50    |
|         | Total | 139 | 4.7140 | 1.95223        | .16559     | 4.3866                           | 5.0414      | 1.00    | 8.50    |

#### ANOVA

|                          |                | Sum of Squares | df  | Mean Square | F    | Sig. |
|--------------------------|----------------|----------------|-----|-------------|------|------|
| Relationship_orientation | Between Groups | .071           | 1   | .071        | .022 | .883 |
|                          | Within Groups  | 440.900        | 136 | 3.242       |      |      |
|                          | Total          | 440.971        | 137 |             |      |      |
| Potency                  | Between Groups | .604           | 1   | .604        | .157 | .692 |
|                          | Within Groups  | 525.341        | 137 | 3.835       |      |      |
|                          | Total          | 525.945        | 138 |             |      |      |

A similar test was conducted on 2 and 10 alliance partners.



## Appendix 4.6: Main effects – Consumer Gender (dependent variables)

**XB masculine: 0 partners**

### Descriptives

|                   |       | N  | Mean   | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Minimum | Maximum |
|-------------------|-------|----|--------|----------------|------------|----------------------------------|-------------|---------|---------|
|                   |       |    |        |                |            | Lower Bound                      | Upper Bound |         |         |
|                   |       |    |        |                |            |                                  |             |         |         |
| Brand_reputation  | Man   | 13 | 4.4872 | 2.19686        | .60930     | 3.1596                           | 5.8147      | 1.00    | 8.00    |
|                   | Woman | 24 | 4.8819 | 2.13011        | .43481     | 3.9825                           | 5.7814      | 1.00    | 8.33    |
|                   | Total | 37 | 4.7432 | 2.13170        | .35045     | 4.0325                           | 5.4540      | 1.00    | 8.33    |
| Corporate_ability | Man   | 13 | 4.7949 | 2.18809        | .60687     | 3.4726                           | 6.1171      | 1.00    | 7.67    |
|                   | Woman | 24 | 4.7083 | 2.10661        | .43001     | 3.8188                           | 5.5979      | 1.00    | 7.67    |
|                   | Total | 37 | 4.7387 | 2.10545        | .34613     | 4.0367                           | 5.4407      | 1.00    | 7.67    |
| Brand_trust       | Man   | 13 | 4.3654 | 2.31079        | .64090     | 2.9690                           | 5.7618      | 1.00    | 8.25    |
|                   | Woman | 24 | 4.2188 | 2.04210        | .41684     | 3.3564                           | 5.0811      | 1.00    | 8.00    |
|                   | Total | 37 | 4.2703 | 2.10932        | .34677     | 3.5670                           | 4.9736      | 1.00    | 8.25    |
| Brand_attitude    | Man   | 12 | 4.3333 | 1.85864        | .53654     | 3.1524                           | 5.5143      | 1.00    | 8.00    |
|                   | Woman | 24 | 5.0139 | 1.68104        | .34314     | 4.3040                           | 5.7237      | 2.67    | 9.00    |
|                   | Total | 36 | 4.7870 | 1.74602        | .29100     | 4.1963                           | 5.3778      | 1.00    | 9.00    |

### ANOVA

|                   |                | Sum of Squares | df | Mean Square | F     | Sig. |
|-------------------|----------------|----------------|----|-------------|-------|------|
| Brand_reputation  | Between Groups | 1.314          | 1  | 1.314       | .283  | .598 |
|                   | Within Groups  | 162.274        | 35 | 4.636       |       |      |
|                   | Total          | 163.589        | 36 |             |       |      |
| Corporate_ability | Between Groups | .063           | 1  | .063        | .014  | .907 |
|                   | Within Groups  | 159.522        | 35 | 4.558       |       |      |
|                   | Total          | 159.586        | 36 |             |       |      |
| Brand_trust       | Between Groups | .181           | 1  | .181        | .040  | .843 |
|                   | Within Groups  | 159.991        | 35 | 4.571       |       |      |
|                   | Total          | 160.172        | 36 |             |       |      |
| Brand_attitude    | Between Groups | 3.705          | 1  | 3.705       | 1.223 | .277 |
|                   | Within Groups  | 102.995        | 34 | 3.029       |       |      |
|                   | Total          | 106.701        | 35 |             |       |      |

**A similar test was conducted on XB masculine (2 and 10 partners), XB feminine, Harley Davidson and Vespa.**

## Appendix 4.7: Main effects – Brand Gender

### XB masculine & XB feminine: 0 alliance partners

#### Descriptives

|                   |                | N  | Mean   | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |                | Minimum | Maximum |
|-------------------|----------------|----|--------|----------------|------------|----------------------------------|----------------|---------|---------|
|                   |                |    |        |                |            | Lower Bound                      | Upper Bound    |         |         |
|                   |                |    |        |                |            | Brand_reputation                 | XB_masculine_0 |         |         |
|                   | XB_feminine_0  | 38 | 4.4912 | 2.15013        | .34880     | 3.7845                           | 5.1980         | 1.00    | 8.33    |
|                   | Total          | 75 | 4.6156 | 2.13032        | .24599     | 4.1254                           | 5.1057         | 1.00    | 8.33    |
| Corporate_ability | XB_masculine_0 | 37 | 4.7387 | 2.10545        | .34613     | 4.0367                           | 5.4407         | 1.00    | 7.67    |
|                   | XB_feminine_0  | 39 | 4.3034 | 2.10467        | .33702     | 3.6212                           | 4.9857         | 1.00    | 8.00    |
|                   | Total          | 76 | 4.5154 | 2.10241        | .24116     | 4.0349                           | 4.9958         | 1.00    | 8.00    |
| Brand_trust       | XB_masculine_0 | 37 | 4.2703 | 2.10932        | .34677     | 3.5670                           | 4.9736         | 1.00    | 8.25    |
|                   | XB_feminine_0  | 39 | 3.6410 | 1.77037        | .28349     | 3.0671                           | 4.2149         | 1.00    | 7.00    |
|                   | Total          | 76 | 3.9474 | 1.95547        | .22431     | 3.5005                           | 4.3942         | 1.00    | 8.25    |
| Brand_attitude    | XB_masculine_0 | 36 | 4.7870 | 1.74602        | .29100     | 4.1963                           | 5.3778         | 1.00    | 9.00    |
|                   | XB_feminine_0  | 39 | 4.3504 | 1.94658        | .31170     | 3.7194                           | 4.9814         | 1.00    | 8.67    |
|                   | Total          | 75 | 4.5600 | 1.85362        | .21404     | 4.1335                           | 4.9865         | 1.00    | 9.00    |

#### ANOVA

|                   |                | Sum of Squares | df | Mean Square | F     | Sig. |
|-------------------|----------------|----------------|----|-------------|-------|------|
| Brand_reputation  | Between Groups | 1.191          | 1  | 1.191       | .260  | .612 |
|                   | Within Groups  | 334.641        | 73 | 4.584       |       |      |
|                   | Total          | 335.832        | 74 |             |       |      |
| Corporate_ability | Between Groups | 3.598          | 1  | 3.598       | .812  | .370 |
|                   | Within Groups  | 327.912        | 74 | 4.431       |       |      |
|                   | Total          | 331.510        | 75 |             |       |      |
| Brand_trust       | Between Groups | 7.518          | 1  | 7.518       | 1.992 | .162 |
|                   | Within Groups  | 279.272        | 74 | 3.774       |       |      |
|                   | Total          | 286.789        | 75 |             |       |      |
| Brand_attitude    | Between Groups | 3.569          | 1  | 3.569       | 1.039 | .311 |
|                   | Within Groups  | 250.689        | 73 | 3.434       |       |      |
|                   | Total          | 254.258        | 74 |             |       |      |

A similar test was conducted on XB masculine vs. XB feminine with 2 and 10 partners.