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An Empirical Examination of the Moderators of Direct Versus Indirect Comparative Advertising

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**AN EMPIRICAL EXAMINATION OF THE MODERATORS OF DIRECT
VERSUS INDIRECT COMPARATIVE ADVERTISING**

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ABSTRACT

This research examines the relative effectiveness of different kinds of comparative advertising. The effects of direct and indirect advertising are discussed and empirically tested. Extant research focuses on the differential effects of comparative and non-comparative advertising. However, with the growing popularity of comparative advertising in recent years, it becomes crucial to examine different kinds of comparative advertisements more closely to provide guidelines to marketing managers in the application of comparative advertising. In the marketing literature, very little has been known about how advertising-specific moderators may influence the effectiveness of direct and indirect comparative advertising. In this dissertation, different advertising-specific moderators are investigated using theoretical support drawn from the literature and marketing theories. The purpose of this research is to develop and empirically examine a variety of hypotheses regarding variables that can potentially moderate the effectiveness of direct versus indirect comparative advertising.

Using four experimental studies, this research investigates four moderating variables on the effectiveness of direct versus indirect comparative advertisement: advertising valence, attribute typicality, attribute alignability, and message claim type. All four studies use a 2 (advertising directness, manipulated) x 2 (advertising valence, attribute typicality, attribute alignability or message claim type, all manipulated) between-subject design. In Study 1, it is demonstrated that indirect comparative advertisements generate more positive attitude towards the brand if the advertisements are positively-worded while there is no difference between the effectiveness of direct and

indirect comparative advertisements if the advertisements are negatively-worded. In Study 2, it is shown that direct comparative advertisements generate more positive attitude towards the brand than indirect comparative advertisements, when the attributed featured in the advertisement was considered typical by consumers.

In Study 3, it is demonstrated that when the comparative advertisement features nonalignable differences, indirect comparative advertisements generate more positive consumer responses than direct comparative advertisements. Finally, in Study 4, the results indicate that direct comparative advertisements generate more positive consumer responses than indirect comparative advertisements when the comparative advertisement contains factual claims. When the comparative advertisement contains narrative claims, indirect comparative advertisements generate more positive consumer responses than direct comparative advertisements.

These four studies have provided evidence how different advertising characteristics influence the effects of direct versus indirect comparative advertisement on consumer responses and offering marketing managers crucial information when and how different types of comparative advertisements should be utilized. Based on the findings, managerial implications and future research directions are also discussed.

The thesis is dedicated to my Wife, Father, Mother, and Son. You help me make this possible. Because of you all, I am who I am.

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AN EMPIRICAL EXAMINATION OF THE MODERATORS OF DIRECT VERSUS INDIRECT COMPARATIVE ADVERTISING

CHAPTER I: INTRODUCTION

Comparative advertising has been used by companies in the United States since 1933 when Plymouth ads told the consumer to "Look at All Three" before purchasing (Wilkie and Farris 1975). However, it still was not a common advertising technique until the early 1970s when the Federal Trade Commission (FTC) encouraged companies to use comparative advertisements defined as advertisements "in which a sponsor directly compares itself to a 'leading brand', the comparative referent" (Laczniak et al., p. 168). Since then, they have been used by companies in the United States from a variety of different industries, such as personal computers (e.g., Mac vs. PC), cell phones (e.g., Apple vs. Samsung), automobile (e.g., Mercedes vs. Audi), beers (e.g., Bud Light vs. Miller Light) or even canned soup (e.g., Campbell's vs. Progresso). As a result, comparative advertising has become more prevalent in the United States media because it can provide more information about advertisers and their competitors, which in turn, allow better connection to be built with consumers (Grewal et al. 1997; Jeon and Beatty 2002; Priester et al. 2004; Schwaiger et al. 2007; Shao et al. 2004). Even though it was successful in getting customers' attention, comparative advertising has often been viewed as both problematic and controversial (Beard and Nye 2010). As Barry (1993) mentioned, "to many practitioners and academics, comparative advertising is ridiculous; to others, it is a very effective means of competing in the marketing communication war" (p. 19).

Therefore, more comparative advertising research has been called for to provide a more thorough understanding of the effectiveness of comparative advertising and to clarify the mis-conceptions of practitioners and researchers (Soscia, Girolamo, and Busacca 2010; Chang 2007; Beard and Nye 2010; Miniard et al. 2006).

Many marketing scholars and practitioners have been engaged in research efforts investigating the effectiveness of comparative advertising particularly in light of the encouragement of the Federal Trade Commission in the early 1970s. At that time, comparative advertising research was mostly focused on the nature of comparative advertising and why it could be effective. In 1975, only three years after the FTC's encouragement, Barry and Tremblay (1975) defined comparative advertising as "A creative strategy where the advertised brand is explicitly compared with one or more competing brands and the comparison is oblivious to the audience" (p. 15). They raised several important questions about comparative advertising, such as "is comparative advertising simply a comparison strategy or is it disparagement?", "is it believable?", or "will it propagate more FTC regulation?" (Barry and Tremblay 1975). In addition, Chevins (1975) also addressed the issue of disparagement by saying that claiming you are better constitutes comparative advertising, but arguing your competitor is worse than you is actually disparagement. However, he believed that comparative advertising can be very effective as long as it is done in the proper way (Chevins 1975). At that time, although some marketing scholars still questioned the use of comparative advertising, it was accepted by the public and was favored by many advertising practitioners (Chevins 1975). In the same year, Wilkie and Farris (1975) discussed comparative advertising in greater detail. They defined comparative advertising in terms of not only the

comparisons, but also the specific product or service attributes that were being compared (Wilkie and Farris 1975). They argued that the focus in comparative advertising was actually on those compared attributes that are given dimensions or units of measure common to both brands and should serve as the essence of the comparisons (Wilkie and Farris 1975). At that time, the debate regarding comparative advertising mostly focused on the ethical issues and its basic nature, but little dealt with its effectiveness (Prasad 1976).

In the first empirical study on comparative advertising published in the *Journal of Marketing Research*, Prasad (1976) found that comparative advertising strengthened consumer advertising message recall, but also weakened advertisement recall if consumers perceived the credibility of the advertised product as low. However, recall was found to be better for the advertised brands only immediately after consumers were exposed to the advertisements, but not 24 hours later. (Jain and Hackleman 1978). This implies that comparative advertising was only good if repeated daily. Jain and Hackleman (1978) also found that not only did recall for the advertised brands increase, but recall was increased for the compared brands as well. This was the first time that comparative advertising was found to be effective to enhance the competitor's brand recall. Shimp and Dyer (1978) found that non-comparative advertising was actually more effective than comparative advertising in terms of believability and informativeness, however, they found that consumers perceive comparative advertising as more interesting and it helped them to better recognize the advertised brand (Shimp and Dyer 1978). Up to this point, no studies had been done to provide effective guideline for advertising

decision-makers in selecting appropriate advertising formats (Lamb et al. 1978) and to effectively differentiate direct from indirect comparative advertising.

In 1978, Lamb et al. first presented taxonomy of comparative advertising in terms of directionality and intensity. The issue of the effectiveness of direct versus indirect comparative advertising was first discussed in this paper (Lamb et al. 1978b). In a following study, Lamb and his colleagues (1978a) empirically investigated whether the competitor's brand should be illustrated in the advertisement. They found there was no difference between the effectiveness of direct and indirect comparative advertising in terms of believability and interestingness (Lamb et al. 1978a). However, in his paper evaluating the effectiveness of indirect comparative advertising (referred to as incomplete comparative advertising), Shimp (1978) found that it generated multiple plausible interpretations by consumers and could potentially mislead them to believe that the advertised brand was much better by motivating them to draw inferences beyond the advertisement itself (Shimp 1978). These three articles were considered to be pioneers involving the investigation of effectiveness of direct versus indirect comparative advertising.

From the 1980s, marketing scholars began to look for potential moderating variables that could help explain the mixed findings from the prior research. As an example, message appeal, information load, and the utility of product class were all studied and found to influence the effectiveness of comparative advertising (Goodwin and Etgar 1980). New brands or less-well-known brands were found to be the best candidates for comparative advertising (Murphy and Amundsen 1981). Two-sided comparative advertisements were found to be more believable and truthful and, in turn, to

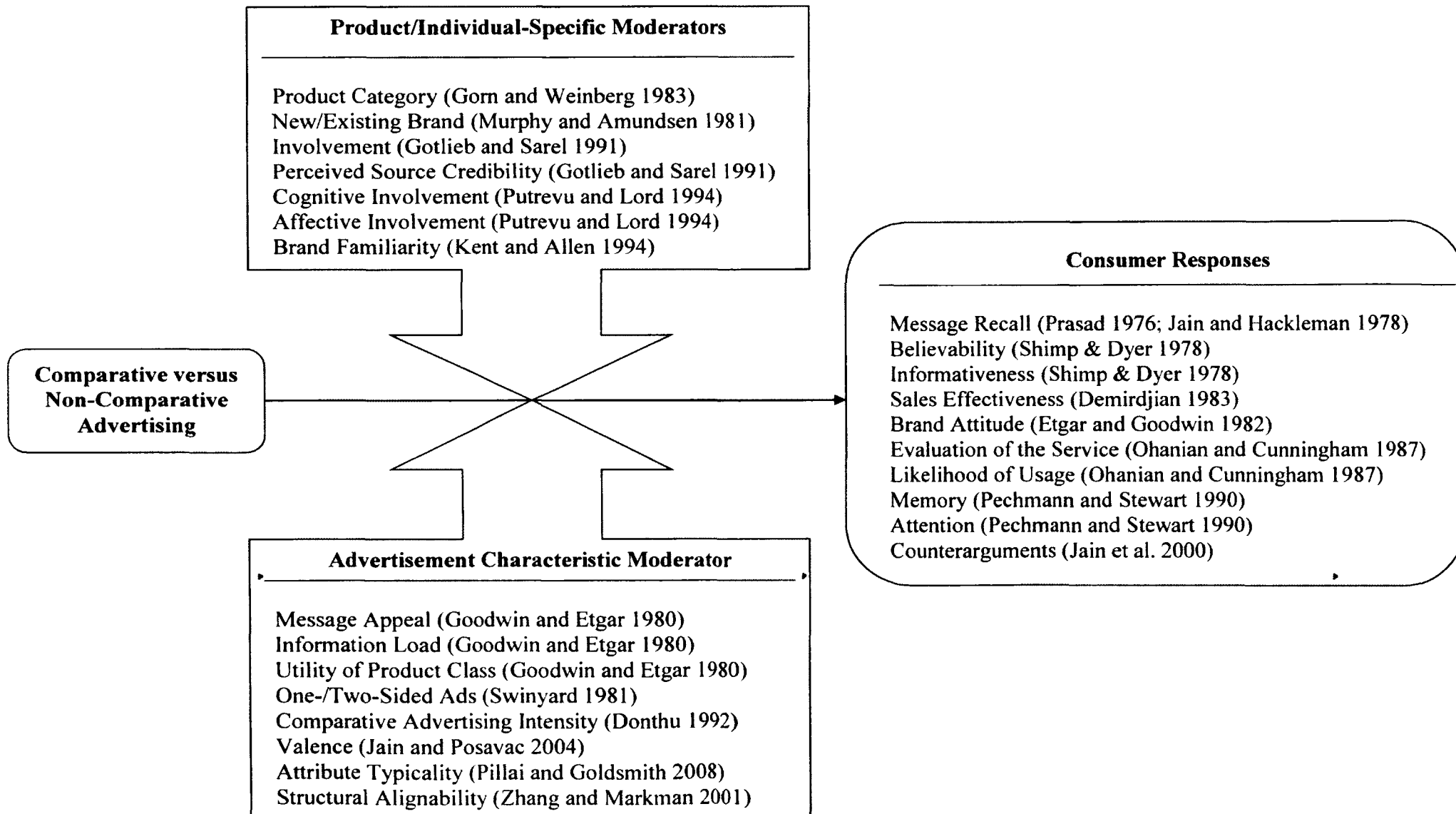
be more effective in generating brand attitude (Etgar and Goodwin 1982; Swinyard 1981). In addition, using field experiments, Demirdjian (1983) found that comparative advertising was more effective than non-comparative advertisements in terms of sales effectiveness. This finding was completely opposite to most of the previous research which had utilized lab experiments (Demirdjian 1983). Additionally, the product category was also found to be an effective moderating variable to impact on the effectiveness of comparative advertising (Gorn and Weinberg 1983). Gorn and Weinberg (1983) also found that comparative advertising was more effective for new brands or non-market leaders, which was consistent with the findings by Murphy and Amundsen (1981). Different from most of studies, Ohanian and Cunningham (1987) found that non-comparative advertising was more effective in terms of evaluation of the service and likelihood of usage by addressing primacy and recency effects. They also found that primacy effects were more influential in improving the advertiser's credibility, message recall, and the consumer's likelihood of usage (Ohanian and Cunningham 1987). In addition to these moderating variables, Muehling (1987) studied the mediating effect of attitude toward the ad and found that attitude toward the ad mediated the effect of comparative advertising on brand attitude only for the advertised brand, which was great for the advertisers.

In the 1990s, more marketing scholars were engaged in this area of study. For instance, Pechmann and Stewart (1990) first investigated the effects of comparative advertising on memory and attention. They found that direct comparative advertising was more effective in attracting consumers' attentions and enhancing their purchase intention only for low-share brands (Pechmann and Stewart 1990). Gotlieb and Sarel (1991)

investigated the moderating effects of involvement and source credibility and found that comparative advertising was more effective than non-comparative advertising when consumers were highly involved and the source was considered highly credible (Gotlieb and Sarel 1991). More importantly, Donthu (1992) investigated the effects of comparative advertising intensity (CAD) and introduced a mechanism for measurement. In his measure of CAD, comparative advertisements were investigated as direct or indirect and one-sided or two-sided, along with how much time was spent on the comparative claims. He found that consumers tended to recall more intense comparative ads than less intense comparative ads, but their brand attitude only increased to a certain point when the intensity increased (Donthu 1992).

Putrevu and Lord (1994) also studied the effects of involvement on the effectiveness of comparative versus non-comparative advertising. They further divided involvement into cognitive and affective involvement and found that comparative advertisements generated more positive brand attitudes only for products triggering cognitive and affective motivations simultaneously (Putrevu and Lord 1994). They also found that non-comparative attribute-based advertisements generated more positive attitudes toward the advertisement when affective involvement was high than when it was low. Additionally, Kent and Allen (1994) investigated the role of brand familiarity on the effectiveness of comparative advertising. They found that consumers were more likely to recall the advertisements and less likely to be affected by competitors' comparative advertisements when they were familiar with the advertised brand (Kent and Allen 1994). For the unfamiliar brands, non-comparative advertising was actually more effective than comparative advertisements.

Figure 1: Moderators and Dependent Variables Studied for the Effectiveness of *Comparative versus Non-Comparative Advertising*



Comparative advertising research has come a long way. Based on the previous discussion, it is easy to see that the results have been inconclusive and contradictory, but also there have been a disproportionate percentage of studies that have focused on the relative effectiveness of comparative versus non-comparative advertising (Pechmann and Esteban 1993). In addition, since comparative advertising is used by many companies, institutions, and even political agencies, given the intense competition and recent poor global economic conditions, many companies have actually increased their use of comparative advertising to either directly attack their competitors or indirectly claim that they are superior to other companies in the industry in terms of certain product or service features (Beard 2010; Miniard et al. 2006; Zhang et al. 2011). Therefore, the initial focus solely on the difference between comparative and non-comparative advertising cannot satisfy the needs of both marketing managers and academic scholars. There is still a dearth of studies which specifically address the different types of comparative advertising to provide guidelines for marketing managers for the proper application of comparative advertising. In particular, since direct and indirect comparisons have been increasingly used in the advertisements, the relative effectiveness of direct and indirect comparative advertising has become a crucial topic in advertising (Lamb et al. 1978a; Lamb et al. 1978b; Shimp 1978; Pechmann and Stewart 1990; Donthu 1992; Barry 1993; Beard 2010; Miniard et al. 2006; Zhang et al. 2011).

In 1991, Pechmann and Stewart investigated how direct comparative advertisements and market share affected brand choice. They found that the effects of direct comparative advertising were contingent on the relative market position of the advertised brand. If the advertised brand was a low-share brand, direct comparative

advertising was more effective than non-comparative advertising at convincing consumers to choose it over the compared brand (Pechmann and Stewart 1991). Direct comparative advertising was also found to be more effective than indirect and non-comparative advertising when the brand was new (Snyder 1992). Although Snyder (1992) also investigated the effectiveness of indirect comparative advertising, the results were not conclusive. Additionally, when Pechmann and Esteban (1993) studied persuasion processes associated with comparative advertising, the comparative advertising they referred to was actually direct comparative advertising. They found direct comparative advertising could influence consumers' routes to persuasion differently depending on the level of involvement (Pechmann and Esteban 1993). Similarly, in Jain et al.'s article (2000), they found that non-comparative advertising actually was associated with lower counter argumentation, fewer negative attributions, more positive attributions, and higher claim believability (Jain et al. 2000). Even when Beard (2010) evaluated the consequences of a comparative advertising war, he mostly referred to direct comparative advertising. He found that responses to comparative advertising messages from competitors were majorly emotional rather than rational, which resulted in negative social consequences and perceptions of misleading advertising (Beard 2010).

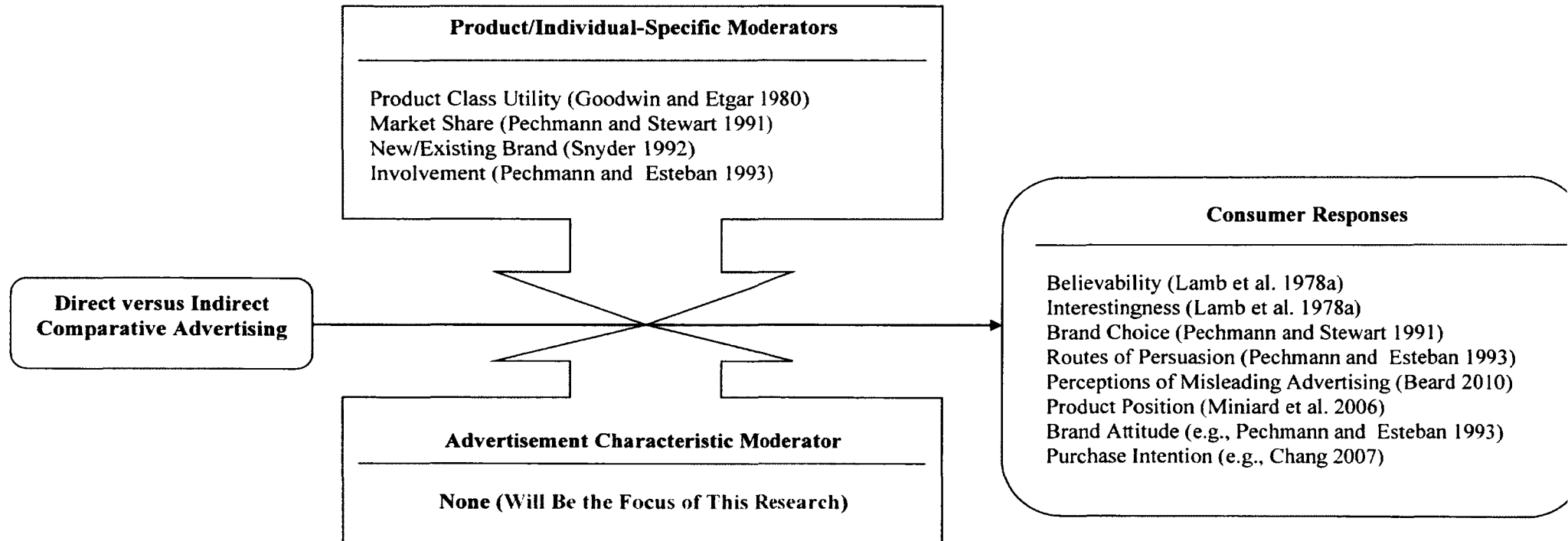
So far, in the literature, the discussion of comparative advertising has focused on direct comparative advertising alone (Miniard et al. 2006) and largely has ignored the important comparison of direct versus indirect comparative advertising. Only a few studies have specifically investigated the difference between direct and indirect comparative advertising (Choi and Miracle 2004; Jeon and Beatty 2002; Miniard et al.

2006; Muehling 1987; Neese and Taylor 1994; Pechmann and Ratneshwar 1991; Yang et al. 2007). For example, Pechmann and Stewart (1991) studied the differences among direct, indirect and non-comparative advertising and found that direct comparative advertising can be more effective when the companies have very low market share. However, on the other hand, Pechmann and Esteban (1993) found that actually naming a market leader in the comparative advertisement used by the company with low market share cannot encourage consumers to process the advertising message information more carefully and thoroughly.

Additionally, compared to direct comparative advertising, the potential for indirect comparative advertising for positioning the advertised product has received far less attention in the literature (Miniard et al. 2006; Na et al. 2006). Among several studies involving indirect comparative advertising, Miniard et al. (2006) found that indirect comparative advertising can be more effective than direct comparative advertising when the advertiser tries to position itself against the entire market or industry rather than against one particular company. This is consistent with the nature of indirect comparative advertising where the advertiser compares its own product or service with an unidentified competitor or all other firms on the market (Beard 2010; Miniard et al. 2006; Zhang et al. 2011).

Although comparative advertising has been extensively used, it remains illegal in many other countries in the world (Choi and Miracle 2004; Manzur et al. 2012; Petty 1991; Romano 2005; Schwaiger et al. 2007; Shao et al. 2004; Wright and Morgan 2002). Direct comparative advertisements are often the ones which are usually banned. Indirect comparative advertisements are allowed in some of these countries (Shao et al. 2004).

Figure 2: Moderators and Dependent Variables Studied for the Effectiveness of *Direct versus Indirect Comparative Advertising*



However, comparative advertising research has focused on the United States, which is surprising. It is also interesting to note that the effect of indirect comparative advertising has practically been ignored even though it is allowed. For those countries where direct comparative advertising is banned, but indirect advertisements are allowed, the need for understanding of effectiveness is great. Even though there are cultural differences among consumers across different countries, the findings drawn from this research will be very helpful for marketing managers or companies who want to use indirect comparative advertisements in those countries.

The mixed results from previous studies would certainly lead us intuitively to believe in the possibility of the existence of moderating variables. In recent comparative advertising research, marketing researchers have looked at what types of comparative advertisement are more effective than others (Choi and Miracle 2004; Jeon and Beatty 2002; Miniard et al. 2006; Muehling 1987; Neese and Taylor 1994; Pechmann and Ratneshwar 1991; Yang et al. 2007). To find these answers, moderating variables must be studied to shed light on the progress to understand why results have been inconsistent. In this dissertation, different advertising-specific moderators will be investigated using theoretical support drawn from the literature and marketing theories.

The first moderator that will be studied in this research is advertising valence, which means whether the comparative advertisement is positively- or negatively framed. A great amount of research that has been done on the effect of advertising valence on comparative advertising (Clark and Fine 2012; Jain 1993; Jain and Posavac 2004; Jain et al. 2006; Jain et al. 2007; Laczniak et al. 2011; Meirick 2002; Roggeveen et al. 2006; Sorescu and Gelb 2000), but none of these studies specifically examined the moderating

effect of advertising valence on the effectiveness of direct versus indirect comparative advertising. Positive comparative advertising compares brands with selected attributes to make the claim that the advertised brand is superior to the compared brand, either qualitatively or quantitatively better, on the advertised attributes. In contrast, a negative comparative advertisement focuses on negative aspects associated with the compared brand (Jain 1993; Sorescu and Gelb 2000). Several authors have found that positively-framed advertisements were more believable and resulted in more positive brand attitude than negatively-framed advertisements because they generated fewer counterarguments from consumers (Jain and Posavac 2004; Jain et al. 2007; Roggeveen et al. 2006). On the other hand, negatively-worded advertisements were also found to be more memorable and could induce higher post-exposure confidence in the advertised brand than positively-worded advertisements (Sorescu and Gelb 2000; Laczniak et al. 2011). Therefore, the effectiveness of comparative advertising valence was not conclusive. This research aims at investigating the advertising valence in the context of direct versus indirect comparative advertising.

In addition, since comparative advertising directly or indirectly compares the advertiser's product or service with its competitor(s) in terms of certain attribute(s), most of consumers' attention will be paid to the compared attribute(s) (Pillai and Goldsmith 2008). Therefore, the second (attribute typicality) and third (structural alignability) moderators that will be examined in this research focus on the various attributes. However, there are only a handful of studies that have looked at the moderating effect of either attribute typicality (Pechmann and Ratneshwar 1991; Pillai and Goldsmith 2008; Barigozzi et al. 2009) or structural alignability (Markman and Gentner 1993; Gentner and

Markman 1994; Markman and Gentner 1997; Zhang and Fitzsimons 1999; Zhang and Markman 2001; Chang 2007; Herrmann et al. 2009). More work is clearly needed.

Product or brand attributes can be categorized on a spectrum ranging from typical to atypical. Typical attributes are those associated with well-known or important functions which are associated with the product. When a comparative advertisement uses a typical attribute to compare, it is more likely for consumers to be involved in analyzing the comparison thoughtfully and having a piecemeal review of product attributes (Pillai and Goldsmith 2008). On the other hand, when the attributes that are compared in the comparative advertisement are atypical, it is likely for consumers to develop less counter-argumentation, so the information provided by the comparative advertisement is less threatening to the compared brands in consumers' minds (Pechmann and Ratneshwar 1991). This author has found no study that focused on the moderating effect of advertising typicality on the effectiveness of direct versus indirect comparative advertising even though it has been studied in the context of general comparative advertising or advertising in general (Pechmann and Ratneshwar 1991; Goodstein 1993; Smith and Yang 2004; Pillai and Goldsmith 2008; Yagci, Biswas, and Dutta 2009; Elsen, Pieters, and Wedel 2010).

In comparative advertising, one of the most common ways that companies make comparison arguments is to claim that they have some "special attributes" that their competitors lack of, instead of comparing similar attributes (Chang 2007). Structural alignability "refers to the ease with which the attributes of one object can be aligned or mapped onto another object" (Zhang 2002, p. 304), which means whether the compared attributes used in a comparative advertisement are perceived to be comparable by

consumers. Structural alignability has been studied for decades, but very little has been done in the comparative advertising context. Structural alignability is an important factor in comparative advertising because research has shown that consumers exhibit greater difficulty when processing nonalignable as opposed to alignable features (Zhang and Fitzsimons 1999; Zhang and Markman 2001; Chang 2007; Herrmann et al. 2009). Again, the author has not been able to find any research that specifically addresses how the use of alignable differences influences the effectiveness of direct versus indirect comparative advertising.

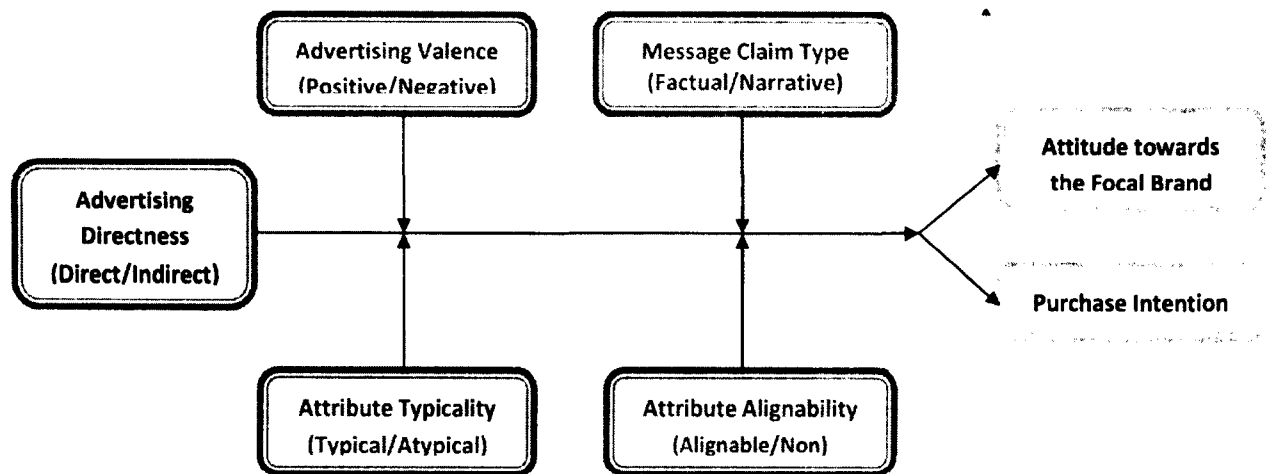
In addition to the frame of the advertising message and the compared attributes, the information provided in the advertising claims is also considered an important factor in influencing the consumer's perceptions (Polyorat et al. 2007). The information provided in the messages will usually be of two types: factual and narrative information (Barone and Miniard 1999; Cowley 2006; Gardial and Biehal 1991; Grove et al. 1995; Iyer 1988; Muehling and Bozman 1990; Perrien et al. 1985; Polyorat et al. 2007; Venkatraman et al. 1990). On one hand, research has shown that narrative information can generate higher message involvement and more positive brand evaluations than factual information (Polyorat et al. 2007; Gardial and Biehal 1991). On the other hand, other researchers have found that factual information can induce less counterargument and generate more positive brand attitudes (Perrien et al. 1985; (Barone and Miniard 1999). This research aims at not only resolving the issue of the contradictory findings, but also investigating the moderating effect of claim information type on the effectiveness of direct versus indirect comparative advertising.

In the marketing literature, very little is known about how these advertising characteristic moderators will influence the effectiveness of direct and indirect comparative advertising. The purpose of this research is to utilize the extant literature as the theoretical foundation to develop and empirically examine a variety of hypotheses regarding variables that can potentially moderate the effectiveness of direct versus indirect comparative advertising. Based on Hair et al. (2006), a moderating effect refers to the independent variable that influences the relationship between another independent variable and the dependent variable by the value of the independent variable. This research aims to investigate the effects of four moderators and the potential three-way interaction effects to advance our knowledge in direct versus indirect comparative advertising and to provide better explanations to address the mixed and inconclusive results from previous research. Additionally, this research will also control for several individual-specific variables which have been found to have an impact on the effectiveness of comparative advertising, such as brand familiarity, product involvement, advertising message involvement and need for cognition.

The objectives of this research are achieved by first a thorough and thoughtful review of the extant literature regarding direct versus indirect comparative advertising, advertising valence, attribute typicality, structural alignability, and message claim type. Then four sets of hypotheses are conceptually and theoretically developed based on the extant literature and theories. Four experimental studies will be conducted to empirically test the hypotheses. Manipulation checks will be provided to ensure the manipulations in each study are appropriate. In each of studies, a series of consumer-specific variables will

be controlled. Data will be collected from both adult and student samples to strengthen the generalizability of this research.

Figure 3: The Conceptual Model of this Research



CHAPTER II: LITERATURE REVIEW

Theoretical Foundations of Direct Versus Indirect Comparative Advertising

Comparative advertising research has come a long way. Based on the previous discussion, it is easy to see that the results have been inconclusive and contradictory, but also there have been a disproportionate percentage of studies that have focused on the relative effectiveness of comparative versus non-comparative advertising (Pechmann and Esteban 1993). However, the initial focus solely on the difference between comparative and non-comparative advertising cannot satisfy the needs of both marketing managers and academic scholars since comparative advertising is used by many companies, institutions, and even political agencies, given the intense competition and recent poor global economic conditions and many companies have actually increased their use of comparative advertising to either directly attack their competitors or indirectly claim that they are superior to other companies in the industry in terms of certain product or service features (Beard 2010; Miniard et al. 2006; Zhang et al. 2011). According to Pechmann and Ratneshwar (1991), direct comparative advertising is an advertising strategy in which the advertiser specifically names its competitors in the advertisement to compare itself to the named competitors. In contrast, in an indirect comparative advertisement, the advertiser does not identify any particular competing brands, but instead refers to unnamed competitors, such as the leading brand, other brands, or all other brands (Miniard et al. 2006). There is still a dearth of studies which specifically address the different types of comparative advertising to provide guidelines for marketing managers

for the proper application of comparative advertising. In particular, since direct and indirect comparisons have been increasingly used in the advertisements, the relative effectiveness of direct and indirect comparative advertising has become a crucial topic in advertising (Lamb et al. 1978a; Lamb et al. 1978b; Shimp 1978; Pechmann and Stewart 1990; Donthu 1992; Barry 1993; Beard 2010; Miniard et al. 2006; Zhang et al. 2011). While both direct and indirect comparative advertising encourage the creation of comparative evaluations in viewers' minds, the effectiveness of these two types of comparative advertising should differ based upon viewers' reference points (Miniard et al. 2006). Researchers have found evidence for better advertising effectiveness for both direct and indirect comparative advertising (Lamb et al. 1978a; Lamb et al. 1978b; Shimp 1978; Pechmann and Stewart 1990; Donthu 1992; Miniard et al. 2006; Pechmann and Esteban 1993; Pechmann and Ratneshwar 1991; Pechmann and Stewart 1991).

Direct and indirect comparative advertising was first empirically investigated in 1976 when Prasad (1976) claimed that "advertisements that make comparisons by implication are undoubtedly better and more effective than ones which make comparisons by direct reference" (p. 128). The author believed that indirect comparative advertising was more effective than direct comparative advertising because mentioning the compared brand in a comparative advertisement can help the competitor gain exposure to the consumers as well (Prasad 1976). This claim was further proved by Goodwin and Etgar (1980) when they compared and contrasted the effectiveness among direct, indirect, and non-comparative advertising. They found that actually indirect comparative advertising was more effective in generating consumers' positive attitude toward the advertised brand than direct and non-comparative advertising. However, in

their research, they used the leading brand as the competed brand so they speculated the reason why they found direct comparative advertising was that the respondents were having a hard time believing that this unknown and relatively new brand was really better than the leading brand (Goodwin and Etgar 1980).

On the other hand, when Lamb et al. (1978) investigated whether the compared brand should be illustrated in a comparative advertisement, their findings showed that there were no significant differences between direct and indirect comparative advertisements in terms of consumers' perceived advertising believability and interestingness. The authors urged fellow marketing scholars to investigate the effects of direct versus indirect comparative advertising on different dependent variables such as message recall or brand attitude (Lamb et al. 1978). Besides that, Belch (1981) also found there was no difference between direct and non-comparative advertising in terms of communication effectiveness, attitude, and purchase intention. However, the author did demonstrate that direct comparative advertising would generate more negative cognitive thoughts than non-comparative advertising, which was mostly consistent with previous research where direct comparative advertisements were found to be less effective (Belch 1981; Prasad 1976; Goodwin and Etgar 1980). Contrary to most previous research, Murphy and Amundsen (1981) utilized claim recall as their dependent variable when they studied the effectiveness of comparative advertising. Their results indicated that direct comparative advertisements could effectively generate more respondents' claim recalls than indirect and non-comparative advertising, but companies could be better off using indirect comparative advertisements when they tried to introduce new brands or products (Murphy and Amundsen 1981). Snyder (1992) also demonstrated that indirect

comparative advertising was more effective than direct and non-comparative advertising when the brand was new.

In 1990, Pechmann and Stewart raised an important issue in comparative advertising research. The authors argued that “one possible reason why academic research has not found comparative advertising effective is that too little attention has been paid to indirect comparative claims” (Pechmann and Stewart 1990, p. 180). In their research, the authors found that indirect comparative advertisements were more effective in gaining consumers’ purchase intentions than direct and non-comparative advertisements for moderate-share brands and direct comparative advertisements were better for low-share brands (Pechmann and Stewart 1990). Additionally, they also claimed that when the advertised brand was the leading brand, non-comparative advertisements were better choices (Pechmann and Stewart 1990). Pechmann and Stewart (1991) further investigated how direct comparative advertisements and market share affected brand choice. Their findings indicated that the effects of direct comparative advertising were contingent on the relative market position of the advertised brand (Pechmann and Stewart 1991). If the advertised brand was a low-share brand, direct comparative advertising was more effective than non-comparative advertising at convincing consumers to choose it over the compared brand (Pechmann and Stewart 1991). In addition, a direct comparative advertisement improved and strengthened consumers’ perceptions toward the advertised brand and weakened consumers’ perceptions toward the compared brand on the featured attributes (Pechmann and Ratneshwar 1991).

Additionally, when Pechmann and Esteban (1993) studied persuasion processes associated with comparative advertising, the comparative advertising they referred to was actually direct comparative advertising. Using the Elaboration Likelihood Model (ELM) as theoretical background, Pechmann and Esteban (1993) found direct comparative advertising could influence consumers' routes to persuasion differently depending on the level of involvement. They also found that consumers who were exposed to direct comparative advertising perceived the advertisement to be more interesting and valuable because direct comparative advertising motivated consumers to process the arguments in the advertisement message (Pechmann and Esteban 1993). Similarly, in Jain et al.'s article (2000), they found that non-comparative advertising actually was associated with lower counter argumentation, fewer negative attributions, more positive attributions, and higher claim believability (Jain et al. 2000). Again, the authors also suggested future comparative research should try to focus more on indirect comparative advertising which was getting popular in practice (Jain et al. 2000). Even when Beard (2010) evaluated the consequences of a comparative advertising war, he mostly referred to direct comparative advertising. He found that responses to comparative advertising messages from competitors were more emotional than rational, which resulted in negative social consequences and perceptions of misleading advertising (Beard 2010).

So far, in the literature, the discussion of comparative advertising apparently has focused more on direct comparative advertising alone (Miniard et al. 2006) and largely has ignored the important comparison of direct versus indirect comparative advertising (Pechmann and Stewart 1990). Only a few studies have specifically investigated the difference between direct and indirect comparative advertising (Lamb et al. 1978; Choi

and Miracle 2004; Jeon and Beatty 2002; Miniard et al. 2006; Muehling 1987; Neese and Taylor 1994; Pechmann and Ratneshwar 1991; Yang et al. 2007). For example, Pechmann and Stewart (1991) studied the differences among direct, indirect and non-comparative advertising and found that direct comparative advertising can be more effective than indirect and non-comparative advertising when the companies have very low market share. However, on the other hand, Pechmann and Esteban (1993) found that actually naming a market leader in the comparative advertisement used by the company with low market share cannot encourage consumers to process the advertising message information more carefully and thoroughly.

Additionally, compared to direct comparative advertising, the potential for indirect comparative advertising for positioning the advertised product has also received far less attention in the literature (Miniard et al. 2006; Na et al. 2006). Among several studies involving indirect comparative advertising, Jeon and Beatty (2002) found that indirect comparative advertising was more effective than direct and non-comparative advertising in inducing favorable brand attitudes and purchase intentions because consumers are more familiar with direct comparative advertisements and indirect ones seem to be more novel to them, especially in the United States. The author also demonstrated that since indirect comparative advertisements didn't provide the respondents a clear reference point, making them use their own reference points actually increased their involvement with the message and led to more favorable attitudes towards the compared brand (Jeon and Beatty 2002). Furthermore, although some may also argue that failing to provide consumers the reference points and having them use their own reference points may result in inconsistent responses, actually this lack of led reference

points makes consumers perceive indirect comparative advertisements more likable and believable because these particular types of advertisements don't challenge their prior beliefs about the difference between the advertised brand and their own referred brands (Pechmann and Ratneshwar 1991).

Besides that, Miniard et al. (2006) also found that indirect comparative advertising can be more effective than direct comparative advertising when the advertiser tries to position itself against the entire market or industry rather than against one particular company. Supportive evidence showed that indirect comparative advertising was more effective than direct comparative advertising with the rationale that indirect comparative advertisement implied the "superiority over all competitors...in positioning a brand against the entire market along featured attributes" (Miniard et al. 2006, p. 54). However, indirect comparative advertisement is not always suitable because of the "inferiority in positioning a brand against a specific competitor as opposed to all competitors when consumers spontaneously generate this competitor during advertising processing" (p. 54). This is consistent with the nature of indirect comparative advertising where the advertiser compares its own product or service with an unidentified competitor or all other firms on the market (Beard 2010; Miniard et al. 2006; Zhang et al. 2011). On the other hand, indirect comparative advertising was also found to be effective in reducing exposure of compared brands (Appleton-Knapp and Mantonakis 2009). One of the major reasons that direct comparative advertising was believed to be less effective than indirect comparative advertising was the fact that it also increased exposure of the compared brand and made the consumers remember the compared brand when they were exposed to the direct comparative advertisement (Appleton-Knapp and Mantonakis 2009;

Prasad 1976). Therefore, indirect comparative advertisements not only decreased consumers' exposure to the compared brand, but also reduced their recalls of the compared brand after viewing the advertisement (Appleton-Knapp and Mantonakis 2009).

Contrary to Jeon and Beatty's (2002) findings, Soscia et al. (2010) indicated that direct comparative advertising provided specific information to the consumers and led them to a certain reference point by naming particular competitors so it was found to be more effective in differentiation than indirect comparative advertising (Soscia et al. 2010). Besides that, direct comparative advertising is also found to be effective in building credibility for the advertiser. In direct comparative advertising, one or more product attributes are so extensively focused that consumers tend to think "who would risk making a direct comparison if they didn't have something truly superior" (Barigozzi et al. 2009, p. 1092)? However, since direct comparative advertising specifically compares the same feature or function between the focal and compared brand, it also increases the possibility that consumers may perceive these two brands to be similar (Soscia et al. 2010). Some even argued direct and indirect comparative advertising were less different in consumers' mind than in theory (Anderson and Renault 2009). Even though indirect comparative advertising may lead most consumers to think about how the advertised brand compares to a particular competitor (e.g. the market leader), others may think about different competitors (e.g. their current brands). The brand that consumers think of when they view an indirect comparative advertisement may or may not be the brand the company wants consumers to compare to, say, in a direct comparative advertisement (Anderson and Renault 2009).

Based on the arguments and empirical findings supporting either direct or indirect comparative advertising to be more effective than another, the effectiveness of direct versus indirect comparative advertising is inconclusive. Therefore, the main effect of direct versus indirect comparative advertising on consumer responses (attitude toward brand and purchase intention) is expected not to be significant. In recent comparative advertising research, marketing researchers have looked at what types of comparative advertisement are more effective than others (Choi and Miracle 2004; Jeon and Beatty 2002; Miniard et al. 2006; Muehling 1987; Neese and Taylor 1994; Pechmann and Ratneshwar 1991; Yang et al. 2007). The mixed results from previous studies would certainly lead us intuitively to believe in the possibility of the existence of moderating variables. For example, Goodwin and Etgar (1980) investigated the interaction effect of direct/indirect comparative advertising and product class utility (social vs. functional). However, they didn't find any significant effect for four possible interactions (Goodwin and Etgar 1980). Additionally, market share was studied as a moderator in both of Pechmann and Stewart's (1990; 1991) papers. They basically found that it was best for low-share brand to utilize direct comparative advertisements to generate consumers' intentions to purchase their products (Pechmann and Stewart 1990; Pechmann and Stewart 1991). However, in contrast to what they expected, the authors also found that direct comparative advertising also helped very high-share brands (such as market leaders) to gain more positive brand attitudes (Pechmann and Stewart 1990; Pechmann and Stewart 1991).

Besides that, Snyder (1992) used the categorization model to investigate the moderating effect of new/existing brands on the effectiveness of direct versus indirect

comparative advertising. The author found that indirect comparative advertising was a better choice for new brands to obtain more favorable evaluations from consumers, but, on the other hand, existing brands should utilize direct comparative advertising to accomplish the goals because direct comparison between the advertised brand and the compared brand promotes “exemplar-based processing” and indirect comparison induces “prototype-based processing” (Snyder 1992). In addition to product/brand-specific moderators like product class utility and market share, Pechmann and Esteban (1993) studied the effect of levels of subject involvement and found that when the subject was either lowly or highly involved, there was no difference between his/her brand attitude and purchase intention generated by direct and non-comparative advertising. However, when the subject was moderately involved, direct comparative advertisements were better in generating his/her brand attitude and purchase intention than non-comparative advertising (Pechmann and Esteban 1993).

Based on the discussions above, to my best knowledge, no previous research has been done to investigate the moderating effects of advertisement-specific variables on the effectiveness of direct versus indirect comparative advertising. In this dissertation, different advertising-specific moderators will be investigated using theoretical support drawn from the literature and marketing theories. The effect of the independent variable – direct/indirect comparative advertising, on the dependent variables – consumer responses (attitude towards the brand and purchase intention) will be evaluated based on the effects of four different moderators, *advertising valence*, *attribute typicality*, *structural alignability*, and *message claim type*, proposed in the present research. •

Moderating Effects of Advertising Characteristics

The Effect of Advertising Valence

With comparative advertising being more commonly used by advertisers, nowadays we can see more and more companies attacking their competitors or bad-mouthing about their products in the comparative advertisements. This trend raises an interesting question: *are negatively-framed comparative advertisements superior to positively-framed ones?* The frame of the comparative advertising has been drawing attention from marketing scholars for the last decade (Jain 1993; Jain et al. 2006; Jain et al. 2007; Jain and Posavac 2004; Zhang and Buda 1999; Laczniak et al. 2011; Meirick 2002; Roggeveen et al. 2006; Sorescu and Gelb 2000). However, to my best knowledge, none of them has specifically focused on the direct versus indirect comparative context.

Comparative advertisements can be classified by whether they are positive or negative (Jain 1993; Jain and Posavac 2004). Positive comparative advertising compares brands with selected attributes to make the claim that the advertised brand is superior to the compared brand, either qualitatively better or quantitatively more, on the advertised attributes (You are OK, but I am better). Additionally, positive comparative advertisements motivate consumers to think about what they can gain from using the advertisers' products or services (Roggeveen et al. 2006). They focus on the superiority of the advertised brands in terms of the features and attributes compared in the advertisement (Jain and Posavac 2004) and on the advertised brands' advantages or the potential gains to consumers from the purchase or use of the brand (Zhang and Buda 1999). In contrast, a negative comparative advertisement focuses on negative aspects

associated with the compared brand (Jain 1993; Jain and Posavac 2004) and tries to motivate consumers to think about what they may lose by using the competitor's products or service. A negative comparative advertisement features the advertised brand attacking the compared brand (I am OK, but you are not) by focusing on the inferiority of the competitor in terms of certain product attributes (Roggeveen et al. 2006) and accentuating the potential losses to consumers if the advertised brands are not chosen or wrong decisions are made in choosing brands by the consumers (Zhang and Buda 1999).

The most powerful support of using negative comparative advertising is that negativity is memorable (Faber and Storey 1984). Sorescu and Gelb (2000) have found empirical evidence that negative information is not only weighed more but also more credible than positive information in the evaluation process. Besides that, Lacznia et al. (2011) in their experimental studies have also found that negatively-worded comparative advertisements can generate higher levels of confidence in the comparative referent in terms of post-exposure attitude than positively-framed comparative advertisements. On the other hand, since negative comparative advertisements emphasize the negativity of the comparative referent, consumers are more likely to perceive the negative emphasis placed on their brands as an attack. Therefore, Jain and Posavac (2004) have found that actually it is positive advertisements which can obtain higher believability of the advertising claim, higher favorable attitudes, and more positive attributions of the advertiser and negative advertisements. Positive comparative advertisements have been also found to cause more detailed and thorough analysis of the advertising messages included in the advertisement than negative comparative advertisements (Roggeveen et al. 2006; Zhang and Buda 1999). The direct effects of positive versus negative

comparative advertising seem to be inconclusive and evidence also indicates that the effects of message framing may vary under different conditions (Jain 1993; Jain et al. 2006; Jain et al. 2007; Jain and Posavac 2004; Zhang and Buda 1999; Lacznia et al. 2011; Meirick 2002; Roggeveen et al. 2006; Sorescu and Gelb 2000). This research aims at investigating the advertising valence in the context of direct versus indirect comparative advertising.

When consumers are exposed to direct comparative advertisements, they tend to pay more attention and simultaneously compare between the advertised and compared brands (Pechmann and Stewart 1991; Pechmann and Ratneshwar 1991; Pechmann and Esteban 1993). Since negative comparative advertisements are more memorable and credible than positive comparative advertisements (Sorescu and Gelb 2000), they can be more efficient in creating the comparative evaluating process in consumers' minds. In addition, the fact that direct comparative advertisements make consumers believe that they contain more information than indirect comparative advertisements (Soscia et al. 2010) and negative information is actually weighed more by consumers than positive information (Sorescu and Gelb 2000) means that negatively-worded direct comparative advertisements can be superior to negatively-worded indirect comparative advertisements in motivating consumers to be extensively engaged in processing the advertising information since different consumers may refer to different competitors from the indirect comparative advertisements so the effects of negative information can be inconsistent.

Also, since the advertiser compares itself to the leading brand or to all other brands in an indirect comparative advertisement, trying to attack all other competitors or

an implicit brand can lead to negative consumer attitudes or confusions (Choi and Miracle 2004; Jeon and Beatty 2002; Miniard et al. 2006; Muehling 1987; Neese and Taylor 1994; Pechmann and Ratneshwar 1991; Yang et al. 2007). It is difficult to convince consumers that all other brands are bad and the advertiser is the only one providing good products or services on the market. Therefore, consumers will have difficulty in processing the information (Pechmann and Esteban 1993). Jain and Posavac (2004) have proved that consumers tend to think positive comparative advertisements are more believable and favorable. Besides that, negative comparative advertisements have also been found to be less believable and resulted in less favorable brand attitude (Jain and Posavac 2004). The positive information can make indirect comparative advertisements more convincing and believable than negative information since indirect comparative advertising was more effective than direct comparative advertising in inducing favorable brand attitudes and purchase intentions because consumers are more familiar with direct comparative advertisements and indirect ones seem to be more novel to them (Jeon and Beatty 2002). Therefore, a positively-framed comparative advertisement can be more effective when the advertiser claims to be superior to the unidentified brand or all other brands in terms of certain product features, which is an indirect comparative advertisement. Thus, the hypothesis for the moderator of advertising valence is as following.

H₁: Advertising valence moderates the relationship between advertising directness and consumer responses (attitude towards the brand and purchase intention), such that,

- a) *when the comparative advertisement is positive, indirect comparative advertising generates more positive consumer responses (attitude towards the brand and purchase intention) than direct comparative advertising; and*
- b) *when the comparative advertisement is negative, direct comparative advertising generates more positive consumer responses (attitude towards the brand and purchase intention) than indirect comparative advertising.*

The Effect of Attribute Typicality

In a comparative advertising, either a direct or indirect one, the advertiser always compares itself to another or other company in terms of certain product attributes. For example, in recent automobile comparative advertisements, fuel-efficiency, safety, and stability are usually the focal compared points. However, *are these product features compared in the advertisement perceived as important by consumers? What are typical or atypical features that consumers think of when they think about the products?* These questions are related to the concept of attribute typicality. In the literature, very little research has been done to investigate the effect of attribute typicality and no research has been done in the comparative advertising context, except for the work of Pechmann and Ratneshwar (1991) and Pillai and Goldsmith (2008).

Product or brand attributes can be categorized on a spectrum ranging from typical to atypical (Pillai and Goldsmith 2008). Typical attributes are those associated with well-known or important functions which are associated with the product. When a comparative advertisement uses a typical attribute to compare, it is more likely for consumers to be involved in analyzing the comparison thoughtfully and having a piecemeal review of product attributes (Pillai and Goldsmith 2008). According to Pillai

and Goldsmith (2008), “piecemeal information processing occurs when existing knowledge stored in memory is accessed to engage in a more extensive processing of a stimulus on an attribute-by-attribute basis” (p. 935). Therefore, the evaluating processes will pose serious threats to consumers’ current attitudes toward both the advertised and compared brands and thus create counter-argumentation in their minds.

Additionally, since direct comparative advertisements can engage consumers to directly associate the focal brand with the compared brand, typical attributes can not only strengthen the association but also effectively differentiate the focal brand and the compared brand because typical attributes are perceived important by consumers (Pechmann and Ratneshwar 1991). Typical attributes also increase consumers’ perception of correlation between the typical attributes compared in the comparative advertisement and other attributes (Pillai and Goldsmith, 2008) and this correlation among product attributes can also help them fortify their product category structure (Pechmann and Ratneshwar 1991). This structure formed in consumers’ minds will help them process the advertising information, especially when the comparative advertisement is direct (Barigozzi et al. 2009).

On the other hand, when the attributes that are compared in the comparative advertisement are atypical, the correlation between the advertised attribute and other attributes is weak (Pillai and Goldsmith, 2008) and consumers will have difficulty in forming any category structure based on the weak correlation (Pechmann and Ratneshwar 1991). When consumers are exposed to the comparative advertisement with atypical attributes, it is likely for them to have less counter-argumentation than those exposed to the comparative advertisement with typical attributes, so the information provided by the

comparative advertisement is less threatening to the compared brands in consumers' minds (Pechmann and Ratneshwar 1991). Consequently, the attribute atypicality will prevent consumers from processing the information in details (Pillai and Goldsmith, 2008).

Therefore, direct comparative advertisements with atypical attributes will not be able to decrease or worsen consumers' evaluations about the compared brands as they do when the compared attributes are typical. Indirect comparative advertisements with atypical attributes also will not be convincing when the advertisers claim that they are better than everyone else because consumers just simply don't form any association or correlation between them (Pechmann and Ratneshwar 1991). In sum, when consumers are exposed to either direct or indirect comparative advertisements using atypical product attributes, they will not carefully go through the attribute information provided in the advertisements and will not be influenced by what they are exposed to. Thus, the hypothesis for the moderator of attribute typicality is as following.

H₂: Attribute typicality moderates the relationship between advertising directness and consumer responses (attitude towards the brand and purchase intention), such that,

- a) when the compared attribute is typical, direct comparative advertisements generate more positive consumer responses (attitude towards the brand and purchase intention) than indirect comparative advertisements; and*
- b) when the compared attribute is atypical, there is no difference in consumer responses (attitude towards the brand and purchase intention) generated by direct and indirect comparative advertisements.*

The Effect of Structural Alignability

In comparative advertising, one of the most common ways that companies make comparison arguments is to claim that they have some “special attributes” that their competitors lack instead of comparing similar attributes. This structural alignability of the attributes requires consumers to process the information in a different way (Chang 2007). Structural alignability has been studied for decades, but very little has been done in the comparative advertising context. To my best knowledge, there is no research that specifically addresses how the use of alignable differences influences the effectiveness of direct versus indirect comparative advertising. Structural alignability is an important factor in comparative advertising because research has shown that consumers exhibit greater difficulty in processing nonalignable versus alignable features (Zhang and Fitzsimons 1999; Zhang and Markman 2001; Chang 2007; Herrmann et al. 2009). Because of this difficulty, consumers may respond differently to comparative advertisements where alignable differences are utilized.

Structural alignability “refers to the ease with which the attributes of one object can be aligned or mapped onto another object” (Zhang 2002, p. 304), which means whether the compared attributes used in a comparative advertisement are perceived comparable by consumers. When consumers make comparisons, not only does the similarity between two objects matter but the differences between these two are also important. The comparisons indicate what information consumers should particularly pay attention to: the aligned structure and its associated alignable differences (Markman and Gentner 1997). When the focal attribute can be mapped into the compared attribute, it refers to an alignable difference (Markman and Gentner 1993; Gentner and Markman

1994; Zhang, Kardes, and Cronley 2002; Chang 2007). Comparative advertisements using alignable differences are most commonly used. For example, when a car company compares itself with its competitors in an advertisement in terms of tire stability, engine power or fuel efficiency, this advertisement is considered to be using alignable differences because the compared attributes can be found in both the advertiser's and the competitors' cars.

On the other hand, when the compared attribute is unique to the focal brand and cannot be found in compared brands' products, it refers to a nonalignable difference (Markman and Gentner 1993; Gentner and Markman 1994; Zhang et al. 2002; Chang 2007). For example, when the cell phone with the built-in camera was first introduced and was used to compare with other regular cell phones in an advertisement, this advertisement is considered to be using nonalignable differences because the built-in camera can only be found in the focal brand's product and is a unique feature of the focal brand.

Prior research has demonstrated that it is easier for consumers to compare alignable differences than non alignable differences (Zhang and Fitzsimons 1999; Chang 2007) because alignable differences provide consumers more comprehensive information and all objects or products in the advertisement have a comparable representation (Zhang and Fitzsimons 1999). Processing alignable differences requires less cognitive effort and is considered to be a less difficult job for consumers than processing nonalignable differences (Chang 2007). Therefore, alignable differences are found to be more effective in consumers' recalls (Markman and Gentner 1997), analogical reasoning, memory accessibility (Markman and Medin 1995), and decision-making processes than

nonalignable differences (Zhang et al. 2002; Chang 2007; Herrmann et al. 2009). Most importantly, research has found that comparative advertising can increase target brand evaluation when it focuses on alignable differences (Zhang et al. 2002).

On the contrary, nonalignable differences are found to be more difficult for consumers to process and remember (Zhang and Fitzsimons 1999; Chang 2007). Consumers often find advertisement messages containing nonalignable differences of the attributes too complex. Therefore, those advertisements are less likely to be remembered (Markman and Medin 1995) and less effective in generating consumers' attentions and increasing target brand evaluations than those containing alignable differences (Zhang et al. 2002). Moreover, choosing among nonalignable options introduces the potential for regret because it requires trade-offs among features (Griffin and Broniarczyk 2010). However, companies commonly use comparative advertisements featuring nonalignable differences to differentiate, promote, and highlight their products, and consumers often do use nonalignable differences of different products to help them form preferences (Zhang and Markman 2001).

Although nonalignable differences increase consumers' cognitive load (Griffin and Broniarczyk 2010), direct comparative advertisements with nonalignable differences can be more effective since direct comparative advertising can motivate consumers to process the arguments in the advertisement message and make consumers who were exposed to direct comparative advertising perceive the advertisement to be more interesting and valuable (Pechmann and Esteban 1993). As Zhang et al. (2002) suggest, direct comparative advertising can potentially increase alignability by specifically naming the competing brand in the advertisement so that consumers may find it easier to

compare two specific brands even though nonalignable differences are utilized. However, in indirect comparative advertising, different consumers may refer to different compared brands. Therefore, an indirect comparative advertisement using nonalignable differences may make the already-difficult job even more difficult for consumers. Consequently, it can be much less effective than direct ones with alignable differences.

On the other hand, since alignable differences receive more weight and generate more consumer attention than nonalignable differences (Zhang, Kardes et al. 2002), consumers should not have difficulty in processing the advertising messages regardless of whether it is direct or indirect comparative advertising. No matter if one specific brand or one (or more) unspecified brands is compared in the advertisement, information provided by alignable differences is comprehensive and comparable enough for consumers to process and make judgments. Therefore, no difference between the effectiveness of direct and indirect comparative advertisements is expected when alignable differences are utilized. Thus, the hypothesis for the moderator of structural alignability is as following.

H₃: Structural alignability moderates the relationship between advertising directness and consumer responses (attitude towards the brand and purchase intention), such that,

- a) when the comparative advertisement features alignable differences, there is no difference in consumer responses (attitude towards the brand and purchase intention) generated by direct and indirect comparative advertisements; and*
- b) when the comparative advertisement features nonalignable differences, direct comparative advertisements generate more positive consumer responses (attitude towards the brand and purchase intention) than indirect comparative advertisements.*

The Effect of Message Claim Type

In addition to the frame of the advertising message and the compared attributes, the information provided in the advertising claims is also considered an important factor in influencing the consumer's perceptions (Polyorat et al. 2007). The information provided in the messages will usually be of two types: factual and narrative claims (Barone and Miniard 1999; Cowley 2006; Gardial and Biehal 1991; Grove et al. 1995; Iyer 1988; Muehling and Bozman 1990; Perrien et al. 1985; Polyorat et al. 2007; Venkatraman et al. 1990). Factual claims are the verifiable statements that utilize objective data and provide fact-laden and direct descriptions of product features and benefits, such as "the camera comes with an f1.8 lens" and "tests have shown brand A is better than brand B" (Gardial and Biehal 1991; Polyorat et al. 2007). On the other hand, narrative claims are the unverifiable statements that may give inaccurate or imprecise indications of how a brand performs on an attribute by using emotional or hype words like "super" and "phenomenal" in describing the brand (Gardial and Biehal 1991; Polyorat et al. 2007). Prior research has shown that narrative information can generate higher message involvement and more positive brand evaluations than factual information (Polyorat et al. 2007; Gardial and Biehal 1991) and that factual information can induce less counterargument and generate more positive brand attitudes (McDougall 1978; Perrien et al. 1985; Barone and Miniard 1999). This research aims at investigating the moderating effect of claim information type on the effectiveness of direct versus indirect comparative advertising.

McDougall (1978) was the first one to investigate the effect of factual (substantial) versus narrative (unsubstantial) information in the advertisement message on

the effectiveness of comparative advertising. The author found that respondents perceived comparative advertisements with factual information more reliable and helpful than those with narrative information (McDougall 1978). Since a direct comparative advertisement improves and strengthens consumers' perceptions toward the advertised brand and weakens consumers' perceptions toward the compared brand on the featured attributes (Pechmann and Ratneshwar 1991), the reliable and helpful factual information can be perceived by consumers as valuable and useful for them in evaluating the featured attributes. However, since an indirect comparative advertisement usually doesn't require consumers to comprehend across different brands in terms of certain attributes (Goodwin and Etgar 1980), processing factual information for different unnamed brands can be a challenging job for consumers (Na et al. 2006).

The positive effect of factual information was also proved by Perrien (1985) when the author investigated the effect of factual information in an advertisement and found that the respondents reacted positively toward the advertisement with factual information. However, in his research, the author didn't compare factual versus narrative information (Perrien 1985). Rotfeld and Rotzoll (1980) even considered an advertisement deceptive "if it communicates facts—by statement, implication, or omission—that differ from the reality of the situation and affect buying behavior to consumers' detriment" (p. 17). One of the biggest critiques for direct comparative advertising is that direct comparative advertising generates more negative cognitive thoughts than indirect comparative advertising (Prasad 1976; Belch 1981). However, Iyler (1988) further empirically proved that the consumers' brand attitudes and purchase intentions toward comparative advertisements with factual information were better than those with narrative information

because factual information generated less counterargument and also was perceived more informative (Muehling and Bozman 1990). Therefore, using factual claims actually can help direct comparative advertising mitigate the negative thoughts by reducing the counterarguments and providing informative messages (Prasad 1976; Belch 1981; Iyler 1988; Muehling and Bozman 1990).

However, to some consumers, advertisements with narrative claims may be easier to understand and process the information (Gardial and Biehal 1991). Gardial and Biehal (1991) found that consumers with median product knowledge, who they claimed to be the majority of the consumers, tend to perceive the narrative information useful for inference making and express more positive brand attitudes. Since indirect comparative advertisements have been found to increase consumers' involvement with the message and lead to more favorable attitudes towards the compared brand because they don't provide the consumers a clear reference point and making them use their own reference points (Jeon and Beatty 2002), narrative claims in an indirect comparative advertisement can motivate the consumers to make their own inferences and generate even higher positive attitude than those in a direct comparative advertisements (Jeon and Beatty 2002; Miniard et al. 2006; Na et al. 2006). Direct comparative advertising is all about head-to-head direct comparisons so consumers tend to be more involved and require more information (Pechmann and Esteban 1993). Therefore, narrative claims, which are perceived "fun", but not "informative", can actually damage consumers' attitude toward a direct comparative advertisement (Gardial and Biehal 1991).

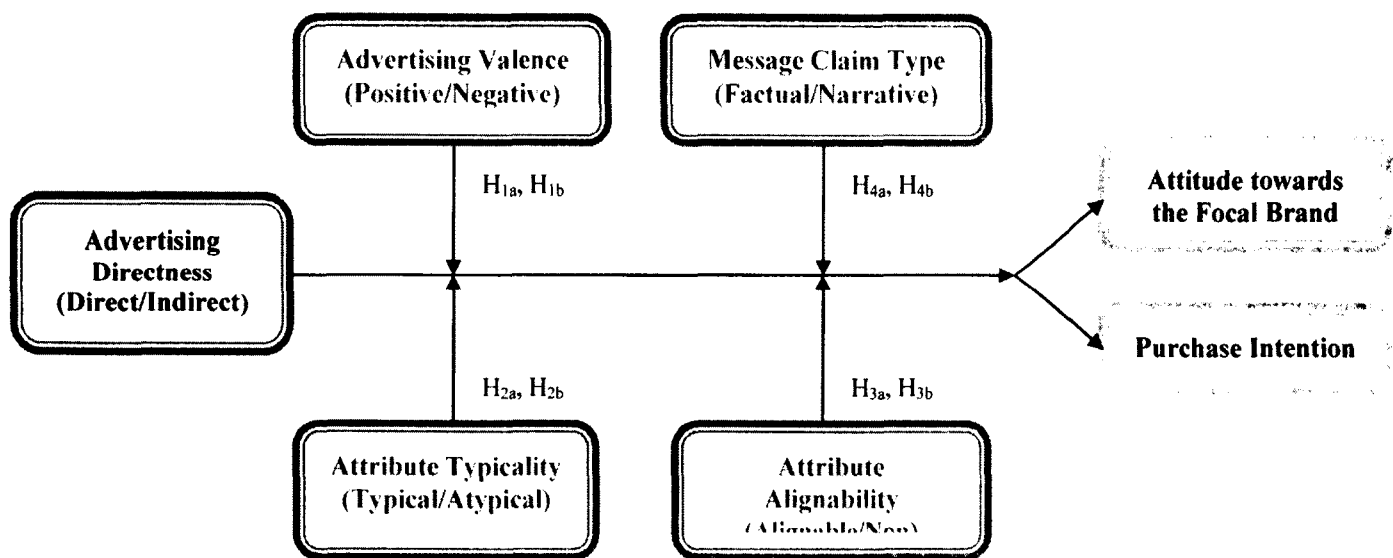
Since one of the drawbacks for indirect comparative advertising is that it usually generates less attention than direct comparative advertising because of the low intensity

(Donthu 1992), narrative claims, also labeled “drama”, which utilize a story-like format to provide product information and contain specific details triggering consumers’ emotions and excitement can motivate consumers to process the advertisement by building empathic relationships with the advertisement characters and enhance message involvement (Polyorat et al. 2007). In turn, indirect comparative advertisements can generate more positive brand evaluations (Polyorat et al. 2007). Additionally, Cowley (2006) indicated that even though consumers tended to consider narrative claims as exaggerated claims and perceived them as less credible than factual claims, their brand evaluations were much more positive after exposure to those “exaggerated claims”. Cowley (2006) believed that these narrative claims were already accepted before being discredited by the consumers during the process of comprehension. However, direct comparative advertising has been found to influence consumers’ routes to persuasion differently depending on the level of involvement and to make them perceive the advertisement to be more interesting and valuable because direct comparative advertising motivates consumers to process the arguments in the advertisement message (Pechmann and Esteban 1993). The “exaggerated claims” are less likely to be ignored in a direct comparative advertisement when the consumers’ message involvement is high (Pechmann and Esteban 1993; Polyorat et al. 2007; Cowley 2006; Na et al. 2006; Jeon and Beatty 2002; Miniard et al. 2006). Thus, the hypothesis for the moderator of message claim type is as following.

H₄: Message claim type moderates the relationship between advertising directness and consumer responses (attitude towards the brand and purchase intention), such that,

- a) *when the comparative advertisement contains factual claims, direct comparative advertisements generate more positive consumer responses (attitude towards the brand and purchase intention) than indirect comparative advertisements; and*
- b) *when the comparative advertisement contains narrative claims, indirect comparative advertisements generate more positive consumer responses (attitude towards the brand and purchase intention) than direct comparative advertisements.*

Figure 4: The Conceptual Model and Hypotheses



CHAPTER III: RESEARCH DESIGNS AND METHODOLOGY

To investigate four hypotheses for four moderating effects, four experimental studies were conducted. Studies 1, 2, 3, and 4 examined how advertising valence (positive/negative), attribute typicality (typical/atypical), structural alignability (alignable/nonalignable differences), and message claim type (factual/narrative) would influence the effects of direct versus indirect advertising on consumer responses (attitude towards the brand and purchase intention). Data were collected from student samples in Study 1 and from adult samples for Studies 2, 3, and 4 in this research. The research hypotheses were tested for statistical significance using analysis of variance (ANOVA) where manipulated advertising directness was used as the independent variable, manipulated advertising valence, attribute typicality, structural alignability, and message claim type were used as respective moderators in Studies 1, 2, 3, and 4, and attitude toward the brand and purchase intention were used as dependent variables.

Study 1: The Moderating Effect of Advertising Valence

The goal of Study 1 was to investigate the moderating effect of advertising valence on the relationship between advertising directness and two dependent measures: attitude toward brand and purchase intention, which were stated in Hypothesis 1. In view of the competition of cell phone service providers, cell phone service providers were used as the stimulus of the study. Given the high penetration rate for cell phones among students, having undergraduate students as participants is managerially relevant. The advertised brand was Sprint and the compared one was Verizon.

Participants

Participants were 263 business undergraduate students in a large mid Atlantic public university in the United States. Students were given extra course credits for their participations. They were provided a web link which contained the questionnaire posted online and were asked to complete the study within three weeks beginning from the day they received the link.

Design

To test Hypothesis 1, an experiment was conducted in which a 2 (advertising directness: direct vs. indirect comparative advertising) x 2 (advertising valence: positive vs. negative wording) between-subject design was used. In the experiment, advertising directness was manipulated by whether Sprint specifically named Verizon as the competitor in the advertisement (direct/indirect). In addition, advertising valence was manipulated by whether Sprint used negative wordings or not in the advertisement. In the positive comparative advertisement, the statement was “It seems Verizon/everyone is saying they have the best unlimited plans. Their plans may have been good, but only at Sprint, for \$49.99/month, we give you the best unlimited plans EVER!!!”. In the negative comparative advertisement, the statement was “It seems Verizon/everyone is saying they have the best unlimited plans, but they exaggerate! Their “unlimited” is not real unlimited. Only at Sprint, for \$49.99/month, we give you the best unlimited plans EVER!!!”.

Procedure

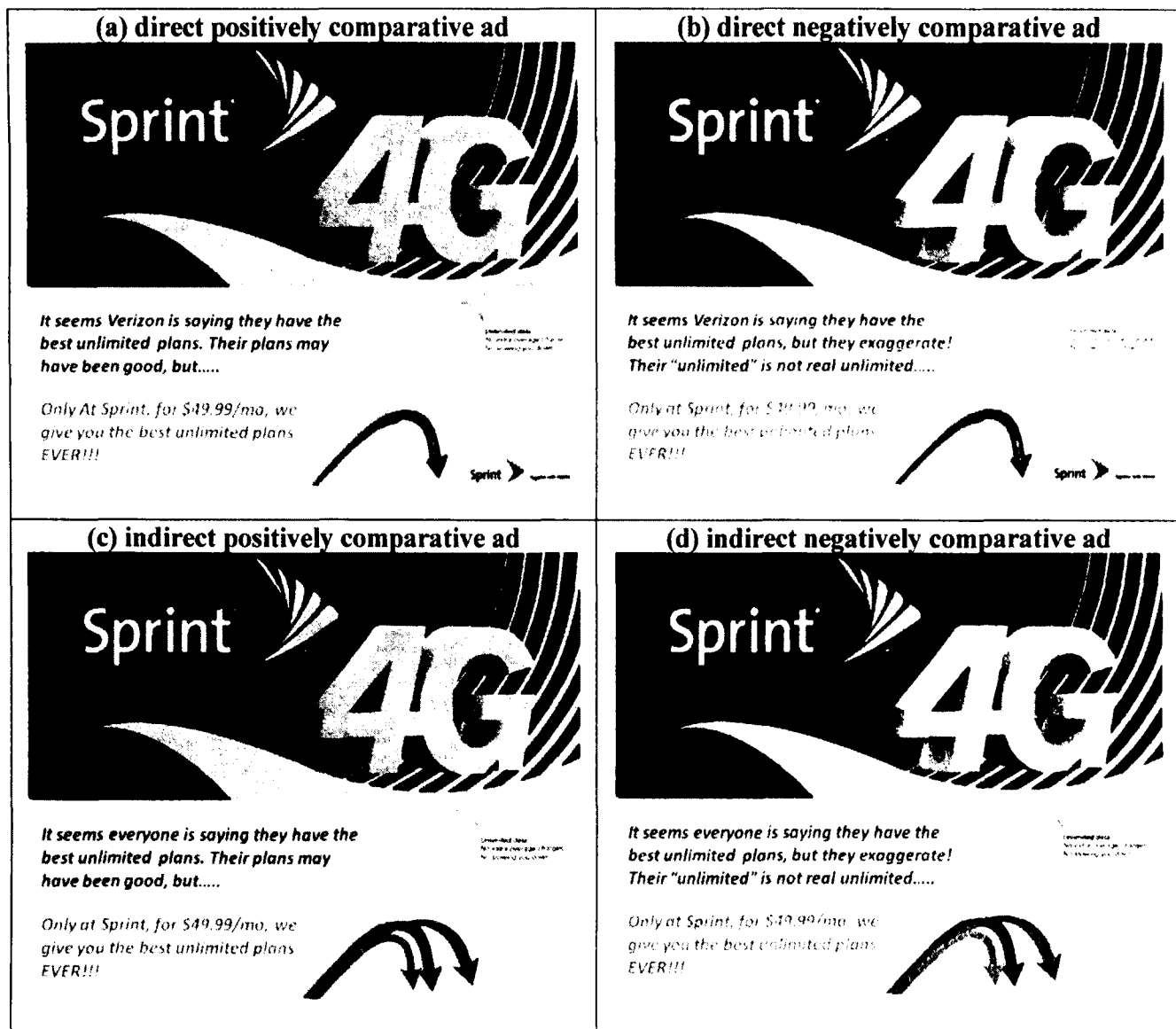
Participants were randomly assigned into one of the four experimental conditions (direct & positive, direct & negative, indirect & positive, and indirect & negative ads). First, each participant was shown the advertisement assigned and asked to read the advertisement (please see Figure 5). Then, the participant was asked other questions for manipulation checks. Then, the participant was asked a series of questions regarding his/her attitude toward the focal brand (Sprint) and intention to purchase cell phone service from the focal brand (Sprint). In the end, the participant was asked to provide answers to questions regarding their demographic information.

Measures of Dependent Variables

Attitude toward the Brand. Attitude toward brand was measured with five items using a seven-point Semantic Differential scale (e.g., Miniard et al. 2006, Pillai and Goldsmith 2008). Participants were asked “how do you feel about Sprint after seeing this advertisement?” and then responded the degree they agreed or disagreed on five anchors: bad/good, unfavorable/favorable, dislikable/likable, useless/useful, and unpleasant/pleasant.

Purchase Intention. Purchase intention was measured through three items using a seven-point strongly disagreed/agreed scale utilized by Yoo (2011) and Dens and Pelsmacker (2010). The subjects read the following statement before answering questions:

Figure 5: Advertisements that were used in Study 1



Imagine your contract with the current cell phone carrier is about to expire. You plan to look for information about data plans before you decide if you want to stay with your current carrier or switch to another one.

After reading the statement, participants were asked the degree to which they agreed or disagreed on following three sentences: "I intend to switch to Sprint for my cell phone service," "I plan to choose Sprint to be my new cell phone service provider," and "it's likely that I will switch to Sprint as my cell phone service provider."

Manipulation Check

Participants were asked to respond about the degree to which they agreed or disagreed with the following two questions: "do you think Sprint is comparing themselves to one particular competitor in the ad?" and "do you think the ad tries to damage the reputation of another brand(s)?" Additionally, they were asked to write down the brand(s) to which they thought Sprint compared itself to make sure the manipulations worked. It was expected that participants given direct advertisements would report significantly higher scores than those given indirect advertisements on the question of "do you think Sprint is comparing themselves to one particular competitor in the ad?," and participants given negative advertisements would report significantly higher scores than those given positive advertisements on the question of "do you think the ad tries to damage the reputation of another brand(s)?"

Study 2: The Moderating Effect of Attribute Typicality

In study 2, cell phone service providers were again used as the stimulus for this study, but different brands were utilized, with T-Mobile as the advertised brand and AT&T as the competitor brand in Study 2. In addition, in this study more covariates were included in the model to help account for other effects, such as product involvement, pre-exposure attitude, attribute importance, brand familiarity, and need for cognition. This study aimed at investigating the second moderator, attribute typicality, as stated in Hypothesis 2. To test for attribute typicality, it was first necessary to determine what attributes were considered typical or atypical for consumers and a pretest was conducted.

Pretest

Based on cell phone plans shown on various providers' websites, 10 different attributes for a cell phone plan were obtained. Participants were 66 business undergraduate students of a large mid Atlantic public university in the United States. Students who participated in this study were given extra course credit for their participation. After being shown 10 attributes and descriptions of these attributes, participants were asked to rank three attributes which they thought were the most typical (1 = most typical, 2 = second most typical, 3 = third most typical) and three which they thought were the least typical (10 = least typical, 9 = second least typical, 8 = third least typical) when they thought about cell phone service plans. By summing the rank scores, we obtained the results showing that the talking minute was the most typical one (64% of

participants ranked as the most typical, 6% ranked as the second most, and 14% ranked as the third most) and conference calling was the least typical one (36% of participants ranked as the least typical, 21% ranked as the second least, and 18% ranked as the third least). Therefore, in Study 2, talking minutes was used as the typical attribute and conference calls was used as the atypical attribute in different experimental conditions.

Participants

Data were collected via Amazon Mechanical Turk. Participants were 143 adult customers in the United States. Respondents who participated in this study were given three dollars for their participation. Additionally, only participants who owned cell phones completed the online questionnaires.

Design

In Study 2, an experiment was conducted in which a 2 (advertising directness: direct/indirect comparative advertising) x 2 (attribute typicality: typical/atypical) between-subject design was used. Advertising directness was manipulated by whether T-Mobile specifically named AT&T (direct comparative advertising) or not (indirect comparative advertising) in the advertisement. On the other hand, attribute typicality was manipulated by whether T-Mobile used a typical (talking minutes) or atypical (conference calls) attribute in the advertisement. In the advertisement with the typical attribute, it said that *“you’ll have unlimited minutes to call nationwide with T-Mobile”* while it said that *“you’ll have unlimited conference calls with T-Mobile”* with the atypical attribute (Please see Figure 7).

Procedure

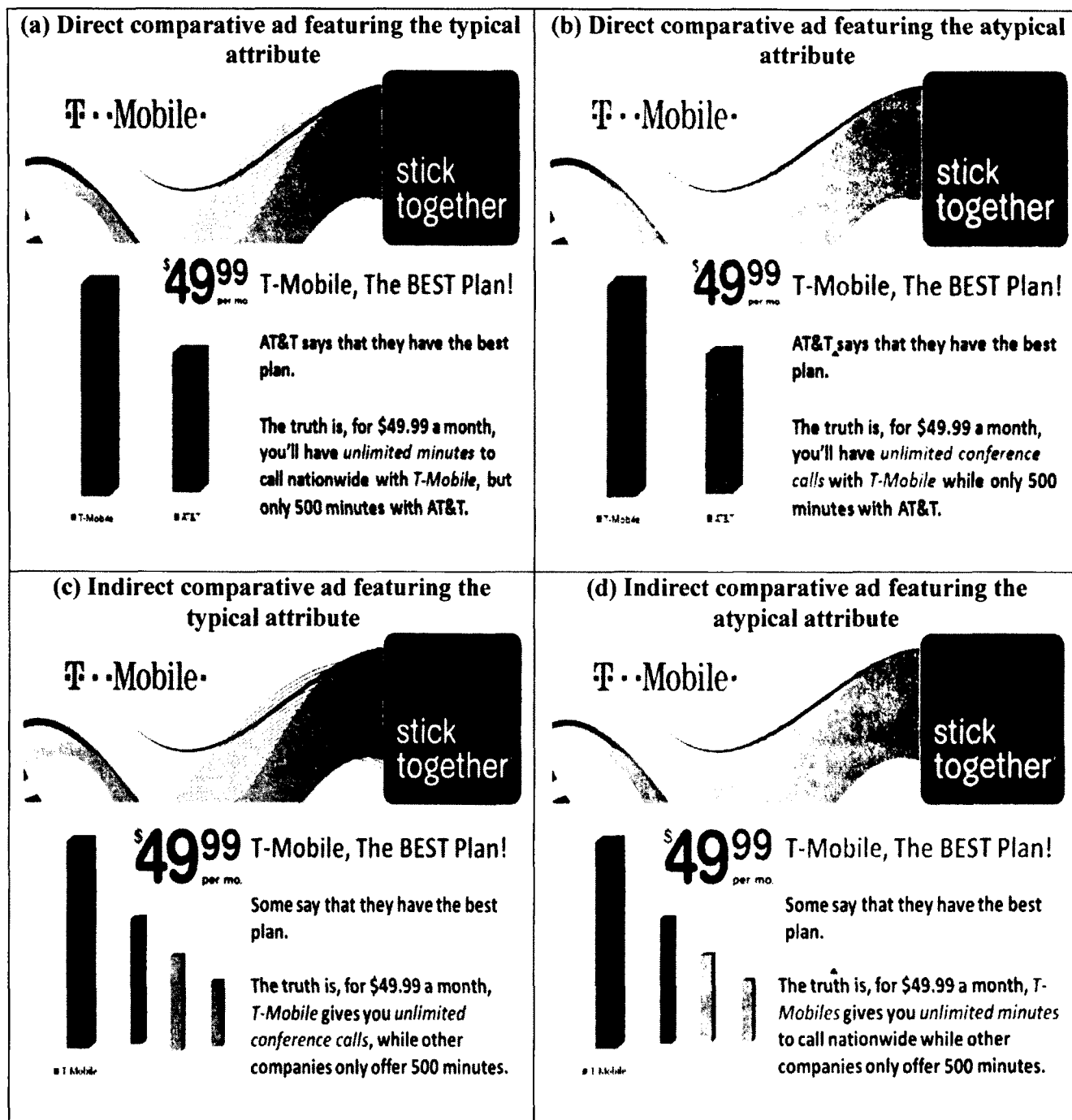
The procedure for Study 2 was similar to that of Study 1. Participants were randomly assigned into one of the four experimental conditions (direct and typical, direct and atypical, indirect and typical, and indirect and atypical advertisements). First, each participant was asked his/her current attitude toward the focal brand (T-Mobile) and product involvement (cell phone services). Then, each participant was shown the advertisement assigned and asked to read the advertisement. Then, the participant was asked other questions as manipulation checks. Then, the participant was asked a series of questions regarding his/her attitude toward the focal brand (T-Mobile) and intention to purchase cell phone service from the focal brand (T-Mobile). In the end, the participant was asked to provide answers to questions regarding their levels of brand familiarity, attribute importance, and need for cognition, along with a series of demographics.

Measures of Dependent Variables

Attitude toward the Brand. Attitude toward the brand was measured with five items using a 7-point Semantic Differential scale (e.g., Miniard et al. 2006, Pillai and Goldsmith 2008). Participants were asked “how do you feel about T-Mobile after seeing this advertisement?” and then responded with the degree to which they agreed or disagreed on five attitudes: bad/good, unfavorable/favorable, dislikable/likable, useless/useful, and unpleasant/pleasant.

Purchase Intention. Purchase intention was measured through 3 items using a seven-point strongly disagree/agree scale utilized by Yoo (2011) and Dens and

Figure 6: Advertisements that will be used in Study 2



Pelsmacker (2010). The subjects read the following statement before answering questions:

Imagine your contract with the current cell phone carrier is about to expire. You plan to look for information about data plans before you decide if you want to stay with your current carrier or switch to another one.

After reading the statement, participants were asked the degree to which they agreed or disagreed with the following three statements: “I intend to use T-Mobile as my cell phone service,” “I plan to choose T-Mobile to be my cell phone service provider,” and “it’s likely that I will use T-Mobile as my cell phone service provider.”

Measures of Covariates

Product Involvement. Product involvement was measured through 20 items using seven-point semantic differential scales (Zaichkowsky 1985). Participants were asked “How do you feel about tablet computers in general?” and then responded on 20 different anchors: unimportant/important, of no concern/of concern to me, irrelevant/relevant, means nothing to me/means a lot to me, useless/useful, worthless/valuable, trivial/fundamental, not beneficial/beneficial, doesn’t matter/matters to me, uninterested/interested, insignificant/significant, superfluous/vital, boring/interesting, unexciting/exciting, unappealing/appealing, mundane/fascinating, nonessential/essential, undesirable/desirable, unwanted/wanted, and not needed/needed.

Brand Familiarity. Brand familiarity was measured through a single item seven-point semantic differential scale (Kent 1994; Tam 2008). Participants were asked “how

familiar are you with Samsung?” and responded on one range of values: unfamiliar/familiar.

Attribute Importance. Attribute importance was measured through a single item seven-point semantic differential scale (Zhang et al. 2002). Participants were asked “how important do you think it is for a tablet computer to have a built-in solar charger?” and responded on a range of values from not important at all to very important.

Need for Cognition. Need for cognition was measured through a seven-point strongly disagree/agree Likert scale (Cacioppo, Petty, and Kao 1984). Participants were asked to respond to 18 items (see Appendix 1).

Manipulation Check

Similar to the manipulation check process done in Study 1, participants were asked to respond on the degree to which they agreed or disagreed using a seven-point strongly disagree/agree scale on the following two questions: “do you think T-Mobile is comparing itself to one particular competitor in the advertisement?” and “do you think the cell phone plan feature, talking minutes/conference call, T-Mobile compared in the ad is considered a typical one?” Additionally, they were also asked to write down the brand to which they thought T-Mobile compared itself to make sure the manipulations worked. It was expected that participants given direct advertisements would report significantly higher scores than those given indirect advertisements on the question of “do you think T-Mobile is comparing itself to one particular competitor in the advertisement?” and participants given typical advertisements would report significantly higher scores than those given atypical advertisements on the question of “do you think the cell phone plan

feature, talking minutes/conference call, T-Mobile compared in the ad is considered typical?"

Study 3: The Moderating Effect of Structural Alignability

This study aimed at investigating the third moderator, structural alignability, as stated in Hypothesis 3. In this study, tablet computers (Samsung vs. Apple) were used as the stimulus for the study. Additionally, since one drawback of using real brand names is that the participants' existing attitudes, preferences, experiences, or knowledge may influence how they respond to the manipulations, in the current study, respondents' brand attitudes were measured both before and after their exposure to the advertisement and included the pre-exposure attitude as a control variable and post-exposure attitude as a dependent variable. Additionally, the previous two studies only included participants' demographic information and ownership of the product as control variables. However, based on prior research, many individual variables may potentially influence the effectiveness of direct/indirect comparative advertising. Therefore, in this study, four additional control variables (product involvement, brand familiarity, attribute importance, and need for cognition) were measured.

Design

In Study 3, an experiment was conducted in which a 2 (advertising directness: direct/indirect comparative advertising) x 2 (structural alignability: alignable differences/nonalignable differences) between-subject design was used. Similar to

Studies 1 and 2, advertising directness was manipulated by whether Samsung specifically named Apple (direct comparative advertising) or not (indirect comparative advertising) in the advertisement. On the other hand, structural alignability was manipulated by the wording Samsung used in the advertisement: “*With the built-in solar charger, Samsung Galaxy Tab needs only 1 hour to be fully charged...Apple iPads/All other brands? 3+ hours!*” (alignable differences) or “*The newest Samsung Galaxy Tab offers the built-in solar charger...Apple iPads/All other brands? They don’t!*” (nonalignable differences).

Procedure

The procedure for Study 3 was similar to Studies 1 and 2. Participants were randomly assigned into one of the four experimental conditions (direct and alignable differences, direct and nonalignable differences, indirect and alignable differences, and indirect and nonalignable differences). First, each participant was asked his/her current attitude toward the focal brand (Samsung) and product involvement (tablet computers). Then, each participant was shown the advertisement assigned (please see Figure 9) and asked to read the advertisement carefully. After that, the participant was asked other questions as manipulation checks. Then, the participant was asked a series of questions regarding his/her attitude toward the focal brand (Samsung) after seeing the advertisement and intention to purchase a Samsung tablet computer. In the end, the participant was asked to provide answers to questions regarding brand familiarity, attribute importance, need for cognition, demographic information, and whether they owned the product.

Figure 7: Advertisements that will be used in Study 3

<p>(a) Direct comparative ad utilizing alignable differences</p> <p>No charger? No problem! With the <i>built-in solar charger</i>, Samsung Galaxy Tab needs only 1 hour to be fully charged... Apple iPads? 3+ hours!</p>	<p>(b) Direct comparative ad utilizing nonalignable differences</p> <p>No charger? No problem! The newest Samsung Galaxy Tab offers the <i>built-in solar charger</i>... Apple iPads? They don't!</p>
<p>(c) Indirect comparative ad utilizing alignable differences</p> <p>No charger? No problem! With the <i>built-in solar charger</i>, Samsung Galaxy Tab needs only 1 hour to be fully charged... All other brands? 3+ hours!</p>	<p>(d) Indirect comparative ad utilizing nonalignable differences</p> <p>No charger? No problem! The newest Samsung Galaxy Tab offers the <i>built-in solar charger</i>... All other brands? They don't!</p>

Measures of Dependent Variables

Attitude toward the Brand. Attitude toward brand was measured with five items using a 7-point Semantic Differential scale (e.g., Miniard et al. 2006, Pillai and Goldsmith 2008). Participants were asked “how do you feel about Acer after seeing this advertisement?” and then respond with the degree to which they agreed or disagreed using the five anchors: bad/good, unfavorable/favorable, dislikable/likable, useless/useful, and unpleasant/pleasant.

Purchase Intention. Purchase intention was measured through 3 items using a seven-point strongly disagree/agree scale utilized by Yoo (2011) and Dens and Pelsmacker (2010). The subjects will read the following statement before answering questions:

Imagine you are considering buying a tablet computer now. Please answer following questions.

After reading the statement, participants were asked the degree to which they agreed or disagreed with the following three statements: “I intend to purchase one Samsung tablet computer,” “It’s likely for me to purchase one Samsung laptop computer,” and “I plan to choose Samsung when I purchase a tablet computer.”

Measures of Covariates

Product Involvement. Product involvement was measured through 20 items using seven-point semantic differential scales (Zaichkowsky 1985). Participants were asked “How do you feel about tablet computers in general?” and then responded on 20 anchors: unimportant/important, of no concern/of concern to me, irrelevant/relevant, means

nothing to me/means a lot to me, useless/useful, worthless/valuable, trivial/fundamental, not beneficial/beneficial, doesn't matter/matters to me, uninterested/interested, insignificant/significant, superfluous/vital, boring/interesting, unexciting/exciting, unappealing/appealing, mundane/fascinating, nonessential/essential, undesirable/desirable, unwanted/wanted, and not needed/needed.

Brand Familiarity. Brand familiarity was measured through a single item seven-point semantic differential scale (Kent 1994; Tam 2008). Participants were asked "how familiar are you with Samsung?" and responded on one anchor: unfamiliar/familiar.

Attribute Importance. Attribute importance was measured through a single item seven-point semantic differential scale (Zhang et al. 2002). Participants were asked "how important do you think it is for a tablet computer to have a built-in solar charger?" and responded on one anchor: not important at all/very important.

Need for Cognition. Need for cognition was measured through 18-item using a seven-point strongly disagree/agree Likert scale (Cacioppo, Petty, and Kao 1984). Participants were asked to respond to the 18 items (see Appendix 1).

Manipulation Check

Similar to the manipulation check process done in Studies 1 and 2, participants were asked to respond regarding the degree to which they agreed or disagreed using a seven-point strongly disagree/agree scale on following two statements: "Samsung is comparing itself to one particular named competitor in the advertisement" and "Samsung and the competitor(s) both offer the compared attribute, the built-in solar charger". Additionally, they were also asked to write down the brand to which they thought

Samsung compared itself to make sure the manipulations worked. It was expected that participants given direct advertisements would report significantly higher scores than those given indirect advertisements on the statement of “Samsung is comparing itself to one particular named competitor in the advertisement” and participants given advertisements with alignable differences would report significantly higher scores than those given advertisements with nonalignable differences on the statement of “Samsung and the competitor(s) both offer the compared attribute, the built-in solar charger.”

Study 4: The Moderating Effect of Message Claim Type

This study aimed at investigating the fourth moderator, message claim type (factual versus narrative information), as stated in Hypothesis 4. In this study, sneakers were used as the stimulus for the study. For direct comparative advertisements, Reebok was the advertised brand and Adidas was the compared brand. For indirect comparative advertisements, Reebok was comparing itself to “all other brands.” Respondents’ brand attitudes before and after their exposure to the advertisement was still measured to control the effects of their existing attitudes toward Reebok. Additionally, participants’ product involvement, brand familiarity, attribute importance, need for cognition, and preference for numerical information were also measured in addition to their demographic and ownership information.









Design

In Study 4, an experiment was conducted in which a 2 (advertising directness: direct/indirect comparative advertising) x 2 (message claim type: factual/narrative information) between-subject design was used. Similar to Studies 1, 2, and 3, advertising directness was manipulated by whether Reebok specifically named Adidas (direct comparative advertising) or not (indirect comparative advertising) in the advertisement. On the other hand, message claim type was manipulated by whether factual information was included in the advertisement message when Reebok made the comparisons: “Based on Consumer Reports, Reebok sneakers’ overall sole support can reduce 50% more of pressure on your foot than Adidas/all other brands.....Reebok makes your every step easier than EVER!!!” (factual information) and “Reebok sneakers’ overall sole support can reduce more pressure on your foot than Adidas/all other brands.....Reebok makes your every step easier than EVER!!!” (narrative information).

Procedure

The procedure for Study 4 was similar to that of Studies 1, 2, and 3. Participants were randomly assigned into one of the four experimental conditions (direct with factual information, direct with narrative information, indirect with factual information, and indirect with narrative information). First, each participant was asked his/her current attitude toward the focal brand (Reebok) and their levels of involvement with sneakers. Then, each participant was shown the advertisement assigned (please see Figure 11) and asked to read the advertisement carefully. After that, the participant was asked a series of questions regarding his/her attitude toward the focal brand (Reebok) after seeing the

Figure 8: Advertisements that will be used in Study 4

<p>(a) Direct comparative ad with factual info</p> <p>Based on <i>Consumer Reports</i>, Reebok sneakers' overall sole support can reduce 50% more of pressure on your foot than Adidas..... <i>Reebok</i> makes your every step easier than EVER!!!</p> <p>zig</p>  <p>Reebok </p>	<p>(b) Direct comparative ad with narrative info</p> <p>Reebok sneakers' overall sole support can reduce more pressure on your foot than Adidas..... <i>Reebok</i> makes your every step easier than EVER!!!</p> <p>zig</p>  <p>Reebok </p>
<p>(c) Indirect comparative ad with factual info</p> <p>Based on <i>Consumer Reports</i>, Reebok sneakers' overall sole support can reduce 50% more of pressure on your foot than all other brands..... <i>Reebok</i> makes your every step easier than EVER!!!</p> <p>zig</p>  <p>Reebok </p>	<p>(d) Indirect comparative ad with narrative info</p> <p>Reebok sneakers' overall sole support can reduce more pressure on your foot than all other brand..... <i>Reebok</i> makes your every step easier than EVER!!!</p> <p>zig</p>  <p>Reebok </p>

advertisement and intention to try out one pair of Reebok sneakers. Then, the participants were asked other questions as manipulation checks. In the end, the participant was asked to provide answers to questions regarding focal brand familiarity (Reebok), attribute importance, need for cognition, preference for numerical information, demographic information, and whether they owned the product.

Measures of Dependent Variables

Attitude toward the Brand. Attitude toward the brand was measured with five items using a 7-point Semantic Differential scale (e.g., Miniard et al. 2006, Pillai and Goldsmith 2008). Participants were asked “how do you feel about Reebok after seeing this advertisement?” and then respond the degree they agreed or disagreed on five anchors: bad/good, unfavorable/favorable, dislikable/likable, useless/useful, and unpleasant/pleasant.

Purchase Intention. Purchase intention was measured through 3 items using a seven-point strongly disagree/agree scale utilized by Yoo (2011) and Dens and Pelsmacker (2010). The subjects read the following statement before answering questions:

Imagine you are considering buying a pair of sneakers now. Please answer following questions.

After reading the statement, participants were asked the degree they agreed or disagreed on following three sentences: “I intend to purchase Reebok sneakers,” “It’s likely for me to purchase Reebok sneakers,” and “I plan to choose Reebok when I am purchasing sneakers.”

Measures of Covariates

Product Involvement. Product involvement was measured using 20 items using seven-point semantic differential scales (Zaichkowsky 1985). Participants were asked “How do you feel about tablet computers in general?” and then responded on 20 anchors: unimportant/important, of no concern/of concern to me, irrelevant/relevant, means nothing to me/means a lot to me, useless/useful, worthless/valuable, trivial/fundamental, not beneficial/beneficial, doesn’t matter/matters to me, uninterested/interested, insignificant/significant, superfluous/vital, boring/interesting, unexciting/exciting, unappealing/appealing, mundane/fascinating, nonessential/essential, undesirable/desirable, unwanted/wanted, and not needed/needed.

Brand Familiarity. Brand familiarity was measured through a single item seven-point semantic differential scale (Kent 1994; Tam 2008). Participants were asked “how familiar are you with Samsung?” and responded on one anchor: unfamiliar/familiar.

Attribute Importance. Attribute importance was measured through a single item seven-point semantic differential scale (Zhang et al. 2002). Participants were asked “how important do you think it is for a tablet computer to have a built-in solar charger?” and responded on one anchor: not important at all/very important.

Need for Cognition. Need for cognition was measured through 18-item using a seven-point strongly disagree/agree Likert scale (Cacioppo, Petty, and Kao 1984). Participants were asked to respond to the 18 items (see Appendix 1).

Preference for Numerical Information (PNI). PNI was measured through 20-item using a seven-point strongly disagree/agree Likert scale (Viswanathan 1993). Participants were asked to respond to the 20 items (see Appendix 2).

Manipulation Check

Similar to the manipulation check process done in Studies 1, 2, and 3, participants were asked to respond as to the degree to which they agreed or disagreed using a seven-point strongly disagree/agree scale on the question for the manipulation check for advertising directness: “do you think Reebok is comparing itself to one particular named competitor in the advertisement?” and on following two questions for the manipulation check for message claim type: “do you feel that the advertising claim contains a great deal of subjective opinion?” and “do you feel that the advertising claim can be objectively verified?” Additionally, they were also asked to write down the brand to which they thought Reebok compared itself to make sure the manipulations worked. It was expected that participants given direct advertisements would report significantly higher scores than those given indirect advertisements on the question of “do you think Reebok is comparing itself to one particular named competitor in the advertisement?” and participants given advertisements with factual information would report significantly higher average scores than those given advertisements with narrative information on the two questions of “do you feel that the advertising claim contains a great deal of subjective opinion?” and “do you feel that the advertising claim can be objectively verified?”

CHAPTER IV: RESULTS OF THE STUDIES

Results of Study 1

In study 1, to test Hypothesis 1, two sets of analysis-of-covariance (ANCOVA) with 2 (advertising directness: direct/indirect comparative advertising) x 2 (advertising valence: positive/negative) factorial designs were conducted with attitude toward the brand and purchase intention as dependent variables with age, gender, and ethnicity as covariates. Both advertising directness and attribute typicality were manipulated.

Sample Characteristics

Participants were 263 business undergraduate students in a large mid-Atlantic public university in the United States. Students were given extra course credits for their participations. They were provided a web link which contained the questionnaire posted online and were asked to complete the study within three weeks beginning from the day they received the link. The sample consisted of 134 (51.0%) female and 129 (49.0%) male participants. Respondents' ages ranged from 17 to 86 years old with an average age of 22.7 years old and a standard deviation of 6.84. Of all respondents, 49.8% were Caucasian Americans and 50.2% were non-Caucasian Americans.

Manipulation Check

Participants were asked to respond as to the degree to which they agreed or disagreed with the following two questions: "do you think Sprint is comparing themselves to one particular competitor in the ad?" and "do you think the ad tries to

damage the reputation of another brand(s)?" for the manipulation check of advertising directness and advertising valence, respectively. Participants given direct comparative advertisements reported significantly higher scores ($N = 119$, Mean = 5.496) than those given indirect comparative advertisements ($N = 144$, Mean = 2.688) on the question of "do you think Sprint is comparing themselves to one particular competitor in the ad?," $F(1,256) = 161.064$ ($p < .000$). In addition, participants given negative comparative advertisements reported significantly higher scores ($N = 137$, Mean = 5.540) than those given positive comparative advertisements ($N = 126$, Mean = 5.119) on the question of "do you think the ad tries to damage the reputation of another brand(s)?", $F(1,256) = 3.690$ ($p = .056$). Therefore, the two manipulations in this study worked as expected.

Results

The results of the ANCOVA models showed that the main effects of advertising directness on attitude toward the brand (*Cronbach's Alpha* = 0.947, $F(1,256) = .150$, $p = .698$) and on purchase intention (*Cronbach's Alpha* = 0.971, $F(1,256) = .126$, $p = .723$) were both not significant, which was consistent with what was hypothesized. Additionally, the effects of the covariates on attitude toward the brand (Age: $F(1,256) = 1.455$, $p = .229$; Gender: $F(1,256) = .544$, $p = .462$; Ethnicity: $F(1,256) = 5.571$, $p = .019$) and on purchase intention (Age: $F(1,256) = 1.537$, $p = .216$; Gender: $F(1,256) = 1.652$, $p = .200$; Ethnicity: $F(1,256) = 4.634$, $p = .032$) were all insignificant except for those of Ethnicity. The test for the moderating effect of attribute typicality was then conducted (please see Table 1).

Table 1: ANCOVA Results of Study 1

Dependent Variable: Attitude toward the Brand

Source	Type III Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Corrected Model	22.517 ^a	6	3.753	2.236	.040
Intercept	155.606	1	155.606	92.730	.000
Age	2.442	1	2.442	1.455	.229
Gender	.912	1	.912	.544	.462
Race	9.349	1	9.349	5.571	.019
Direct	.252	1	.252	.150	.698
Positive	.001	1	.001	.000	.983
Direct * Positive	10.820	1	10.820	6.448	.012
Error	429.581	256	1.678		
Total	4962.960	263			
Corrected Total	452.098	262			

a. R Squared = .050 (Adjusted R Squared = .028)

Tests of Between-Subjects Effects

Dependent Variable: Purchase Intention

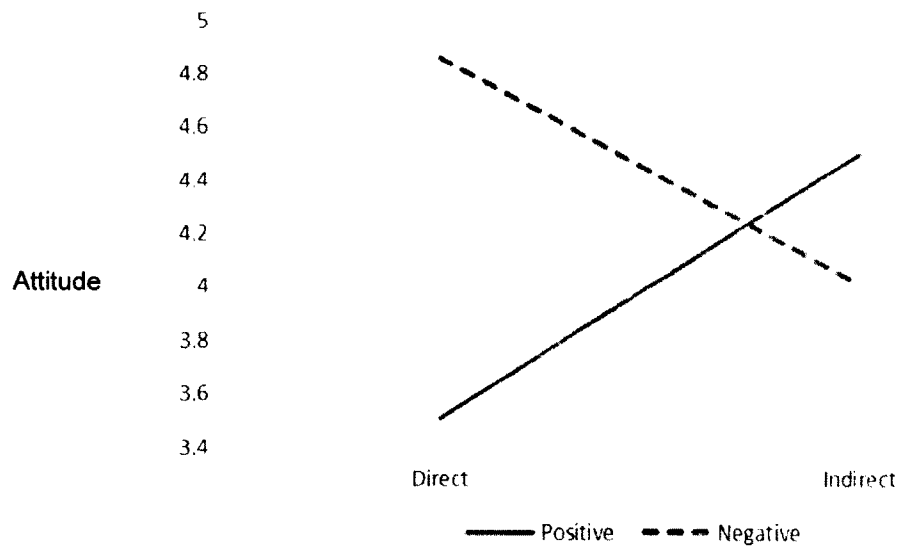
Source	Type III Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Corrected Model	24.686 ^a	6	4.114	1.398	.216
Intercept	31.132	1	31.132	10.577	.001
Age	4.525	1	4.525	1.537	.216
Gender	4.863	1	4.863	1.652	.200
Race	13.639	1	13.639	4.634	.032
Direct	.370	1	.370	.126	.723
Positive	.173	1	.173	.059	.808
Direct * Positive	.455	1	.455	.155	.695
Error	753.516	256	2.943		
Total	2356.778	263			
Corrected Total	778.202	262			

a. R Squared = .032 (Adjusted R Squared = .009)

In Hypothesis 1, it was stated that advertising valence moderated the relationship between advertising directness and attitude toward brand (and purchase intention). Consistent with the hypothesis, the interaction between advertising directness and advertising valence was significant for attitude toward the brand, $F(1,256) = 6.448$ ($p = .012$). However, the interaction effect was not significant for purchase intention, $F(1,256) = .155$ ($p = .695$). As a result, a planned contrast analysis for attitude toward the brand was conducted to test for Hypotheses 1a and 1b.

Based on the results of the planned contrast, when the comparative advertisement was negative (positive was coded as 0), although direct comparative advertising (direct was coded as 1) generated more positive attitude toward the brand (Mean = 4.861) than indirect comparative advertising (direct = 0, Mean = 4.014), the difference was not significant ($F(1,256) = 3.264$, $p = .074$). Therefore, Hypothesis 1b was not supported. On the other hand, when the comparative advertisement was positive (positive was coded as 1), indirect comparative advertising significantly generated more positive attitude toward brand (Mean = 4.502) than direct comparative advertising (Mean = 3.511, $F(1,256) = 4.524$, $p = .054$). Thus, Hypothesis 1a was supported.

Figure 9: The Moderating Effect of Advertising Valence of Direct/Indirect Comparative Advertising on Attitude toward the Brand



Results of Study 2

In study 2, to test Hypothesis 2, two sets of analysis-of-covariance (ANCOVA) with 2 (advertising directness: direct/indirect comparative advertising) x 2 (attribute typicality: typical/atypical) factorial designs were conducted with attitude toward the brand and purchase intention as dependent variables with pre-exposure attitude, product involvement, brand familiarity, attribute importance, need for cognition, age, gender, and ethnicity as covariates. Both advertising directness and attribute typicality were manipulated. Before data for the main study were collected, a pretest was conducted to determine the typical and atypical attributes that would be utilized in the main study.

Pretest

Based on cell phone plans shown on various providers' websites, 10 attributes for a cell phone plan were obtained. Participants were 66 business undergraduate students of a mid-Atlantic public university in the United States. Students who participated in this study were given extra course credit for their participation. After being shown 10 attributes and descriptions of these attributes, participants were asked to select three attributes which they thought were the most typical (1 = most typical, 2 = second most typical, 3 = third most typical) and three which they thought were the least typical (10 = least typical, 9 = second least typical, 8 = third least typical) when they thought about cell phone service plans. By comparing the ranking scores, the results showed that the talking minute was the most typical one (64% of participants ranked it as the most typical, 6% as the second most, and 14% as the third most) and conference calling was the least typical one (36% of participants ranked as the least typical, 21% as the second least, and 18% as the third least). Therefore, talking minutes was used as the typical attribute and conference calls were atypical in Study 2.

Sample Characteristics

144 American adults completed surveys on Amazon Mechanical Turk (mTurk). The sample consisted of 81 (56.2%) female and 63 (43.8%) male participants. Respondents' ages ranged from 20 to 66 years old with an average age of 34.4 years old and a standard deviation of 10.1. Respondents were mostly Caucasian Americans (74.2%).

Manipulation Check

Similar to the manipulation check in Study 1, participants were asked to respond by stating the degree to which they agreed or disagreed using a seven-point strongly disagree/agree scale on the following two questions: “do you think T-Mobile is comparing itself to one particular competitor in the advertisement?” and “do you think the cell phone plan feature, talking minutes/conference call, T-Mobile compared in the ad is considered a typical one?” for the manipulation check of advertising directness and attribute typicality, respectively. Participants given direct comparative advertisements reported significantly higher scores ($N = 66$, Mean = 6.758) than those given indirect comparative advertisements ($N = 78$, Mean = 2.113) on the question of “do you think T-Mobile is comparing itself to one particular competitor in the advertisement?”, $F(1,132) = 359.892$ ($p < .000$). In addition, participants given typical advertisements reported significantly higher scores ($N = 73$, Mean = 4.986) than those given atypical advertisements ($N = 71$, Mean = 3.000) on the question of “do you think the cell phone plan feature, talking minutes/conference call, T-Mobile compared in the ad is considered a typical one?”, $F(1,132) = 44.949$ ($p < .000$). Therefore, the two manipulations in this study worked as intended.

Results

The results of the ANCOVA models showed that the main effect of advertising directness on attitude toward the brand (*Cronbach's Alpha* = 0.988, $F(1,132) = 11.012$, $p = .001$) was significant, but that on purchase intention (*Cronbach's Alpha* = 0.990, $F(1,132) = .007$, $p = .935$) was not significant, which was partially consistent with what

Table 2: ANCOVA Results of Study 2

Dependent Variable: Attitude toward the Brand

Source	Type III Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Intercept	5.728	1	5.728	4.767	.031
Involvement	.778	1	.778	.648	.422
Pre-Attitude	114.107	1	114.107	94.968	.000
Familiarity	1.377	1	1.377	1.146	.286
Importance	9.773	1	9.773	8.134	.005
NFC	3.124	1	3.124	2.600	.109
Age	.164	1	.164	.136	.713
Gender	.113	1	.113	.094	.759
Race	.754	1	.754	.627	.430
Direct	13.231	1	13.231	11.012	.001
Typical	1.185	1	1.185	.987	.322
Direct * Typical	7.342	1	7.342	6.110	.015
Error	158.601	132	1.202		
Total	3459.280	144			
Corrected Total	382.729	143			

a. R Squared = .586 (Adjusted R Squared = .551)

Dependent Variable: Purchase Intention

Source	Type III Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Intercept	15.003	1	15.003	7.309	.008
Involvement	.018	1	.018	.009	.925
Pre-Attitude	149.014	1	149.014	72.597	.000
Familiarity	10.797	1	10.797	5.260	.023
Importance	1.954	1	1.954	.952	.331
NFC	4.463	1	4.463	2.174	.143
Age	1.021	1	1.021	.497	.482
Gender	1.644	1	1.644	.801	.372
Race	3.172	1	3.172	1.545	.216
Direct	.014	1	.014	.007	.935
Typical	.202	1	.202	.099	.754
Direct * Typical	1.241	1	1.241	.605	.438
Error	270.946	132	2.053		
Total	2219.556	144			
Corrected Total	547.654	143			

a. R Squared = .505 (Adjusted R Squared = .464)

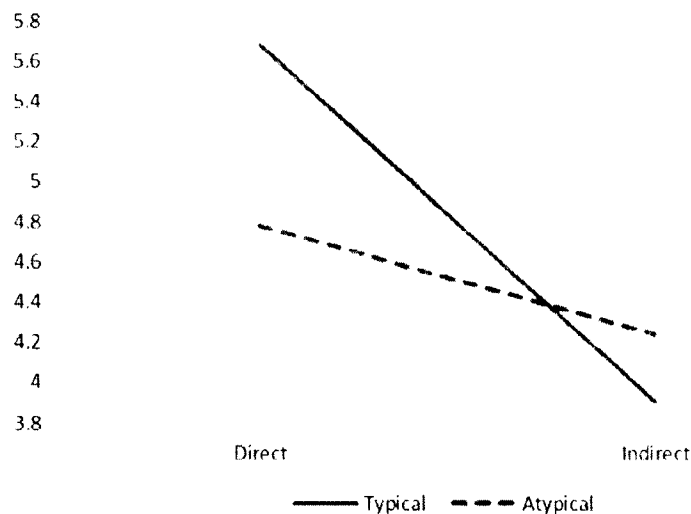
were hypothesized. Therefore, a further planned contrast analysis for the main effect of advertising directness on attitude toward the brand was conducted. The findings indicated that direct comparative advertising (Adjusted Mean = 4.950) is more effective in generating consumers' positive attitude toward the advertised brand than indirect comparative advertising (Adjusted Mean = 4.311). Additionally, the effects of the covariates on attitude toward the brand were all insignificant except for that of pre-exposure attitude and attribute importance (Pre-exposure attitude: $F(1,132) = 94.968, p < .000$; Product involvement: $F(1,132) = .648, p = .422$; Brand familiarity: $F(1,132) = 1.146, p = .286$; Attribute importance: $F(1,132) = 8.132, p = .005$; Need for cognition: $F(1,132) = 2.600, p = .109$; Age: $F(1,132) = .136, p = .713$; Gender: $F(1,132) = .094, p = .759$; Ethnicity: $F(1,132) = .627, p = .430$). Effects of covariates on purchase intention were also all insignificant except for that of pre-exposure attitude and brand familiarity (Pre-exposure attitude: $F(1,132) = 72.597, p < .000$; Product involvement: $F(1,132) = .009, p = .925$; Brand familiarity: $F(1,132) = 5.260, p = .023$; Attribute importance: $F(1,132) = .952, p = .331$; Need for cognition: $F(1,132) = 2.174, p = .143$; Age: $F(1,132) = .497, p = .482$; Gender: $F(1,132) = .801, p = .372$; Ethnicity: $F(1,132) = 1.545, p = .216$). At this point, the test for the moderating effect of attribute typicality was then conducted (please see Table 2).

In Hypothesis 2, it was stated that attribute typicality moderated the relationship between advertising directness and attitude toward the brand (and purchase intention). Consistent with the hypotheses, the interaction between advertising directness and attribute typicality was significant for attitude toward the brand, $F(1,132) = 6.110 (p = .015)$. However, the interaction effect was not significant for purchase intention,

$F(1,132) = .605$ ($p = .438$). Subsequently, a planned contrast analysis for attitude toward the brand was conducted to test for Hypotheses 2a and 2b.

Based on the results of the planned contrast, when the comparative advertisement was typical (typical was coded as 1), direct comparative advertising (direct was coded as 1) significantly generated more positive attitude toward the brand (Mean = 5.427) than indirect comparative advertising (indirect was coded as 0, Mean = 4.145, $F(1,132) = 14.470$, $p < .000$). Therefore, Hypothesis 2a was supported. In addition, when the comparative advertisement was atypical (atypical was coded as 0), direct comparative advertising still generated slightly more positive attitude toward the brand (Mean = 4.466) than indirect comparative advertising (Mean = 4.453). However, the mean difference between direct and indirect comparative advertising when an atypical attribute was used was not significant (typical was coded as 1, $F(1,132) = .004$, $p = .948$). Therefore, Hypothesis 2b, which states that when the compared attribute is atypical there is no significant difference between attitude toward the brand generated by direct and indirect comparative advertisements, was also supported.

Figure 10: The Moderating Effect of Attribute Typicality of Direct/Indirect Comparative Advertising on Attitude toward the Brand



Results of Study 3

In study 3, to test Hypothesis 3, similarly to the previous two studies, two sets of analysis-of-covariance (ANCOVA) with 2 (advertising directness: direct/indirect comparative advertising) x 2 (structural alignability: alignable differences/non-alignable differences) factorial designs were conducted with attitude toward the brand and purchase intention as dependent variables with pre-exposure attitude, product involvement, brand familiarity, attribute importance, need for cognition, time (in seconds) spent to complete the survey, age, gender, and ethnicity as covariates. Both advertising directness and structural alignability were manipulated.

Sample Characteristics

152 American adults completed surveys with Amazon Mechanical Turk (mTurk). The sample consisted of 69 (45.4%) male and 83 (54.6%) female participants. Respondents' ages ranged from 18 to 67 years old with an average age of 35.4 years old and a standard deviation of 10.4. Respondents were mostly Caucasian Americans (76.3%).

Manipulation Check

Similar to the manipulation checks in the previous two studies, participants were asked to respond by stating the degree to which they agreed or disagreed using a seven-point strongly disagree/agree scale with the following two questions: "do you think Samsung is comparing itself to one particular competitor in the advertisement?" and "do you think Samsung and the competitor(s) both offer the compared attribute, the built-in solar charger?" for the manipulation check of advertising directness and structural alignability, respectively. Participants given direct comparative advertisements reported significantly higher scores ($N = 70$, Mean = 6.542) than those given indirect comparative advertisements ($N = 82$, Mean = 2.195) on the question of "do you think Samsung is comparing itself to one particular competitor in the advertisement?," $F(1,139) = 330.853$ ($p < .000$). In addition, participants given advertisements featuring alignable differences reported significantly higher scores ($N = 80$, Mean = 3.604) than those given non-alignable ($N = 72$, Mean = 1.411) on the question of "do you think Samsung and the competitor(s) both offer the compared attribute, the built-in solar charger?," $F(1,139) = 59.389$ ($p < .000$). Therefore, the two manipulations in this study worked as expected.

Results

The results of the ANCOVA models showed that the main effect of advertising directness on attitude toward the brand (*Cronbach's Alpha* = 0.986, $F(1,139) = 2.607$, $p = .109$) and on purchase intention (*Cronbach's Alpha* = 0.963, $F(1,139) = .614$, $p = .435$) were both not significant, which was consistent with what was hypothesized.

Additionally, the effects of the covariates were all not significant, except for those of pre-exposure attitude and attribute importance, on both attitude toward the brand (Pre-exposure attitude: $F(1,139) = 48.640$, $p < .000$; Product involvement: $F(1,139) = .072$, $p = .789$; Brand familiarity: $F(1,139) = .731$, $p = .394$; Attribute importance: $F(1,139) = 28.755$, $p < .000$; Need for cognition: $F(1,139) = .035$, $p = .852$; Age: $F(1,139) = .402$, $p = .527$; Gender: $F(1,139) = 3.424$, $p = .066$; Ethnicity: $F(1,139) = .070$, $p = .792$; Time Spent: $F(1,139) = .646$, $p = .423$) and purchase intention (Pre-exposure attitude: $F(1,139) = 62.240$, $p < .000$; Product involvement: $F(1,139) = .110$, $p = .741$; Brand familiarity: $F(1,139) = .035$, $p = .851$; Attribute importance: $F(1,139) = 19.838$, $p < .000$; Need for cognition: $F(1,139) = .500$, $p = .481$; Age: $F(1,139) = .321$, $p = .572$; Gender: $F(1,139) = 3.240$, $p = .074$; Ethnicity: $F(1,139) = .123$, $p = .726$; Time Spent: $F(1,139) = .177$, $p = .675$). Then, the test for the moderating effect of structural alignability was conducted (please see Table 3).

In Hypothesis 3, it was addressed that structural alignability moderated the relationship between advertising directness and attitude toward the brand (and purchase intention). Consistent with the hypothesis, the interaction between advertising directness and structural alignability was significant for attitude toward the brand, $F(1,139) = 3.952$ ($p = .049$). However, the interaction effect was again not significant for purchase

Table 3: ANCOVA Results of Study 3

Dependent Variable: Attitude toward the Brand

Source	Type III Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Intercept	1.328	1	1.328	1.526	.219
Involvement	.063	1	.063	.072	.789
Pre-Attitude	42.319	1	42.319	48.640	.000
Familiarity	.636	1	.636	.731	.394
Importance	25.018	1	25.018	28.755	.000
NFC	.030	1	.030	.035	.852
Age	.349	1	.349	.402	.527
Gender	2.979	1	2.979	3.424	.066
Race	.061	1	.061	.070	.792
Time Spent	.562	1	.562	.646	.423
Direct	2.269	1	2.269	2.607	.109
Alignable	2.428	1	2.428	2.790	.097
Direct * Alignable	3.438	1	3.438	3.952	.049
Error	120.935	139	.870		
Total	5238.360	152			
Corrected Total	261.044	151			

a. R Squared = .537 (Adjusted R Squared = .497)

Dependent Variable: Purchase Intention

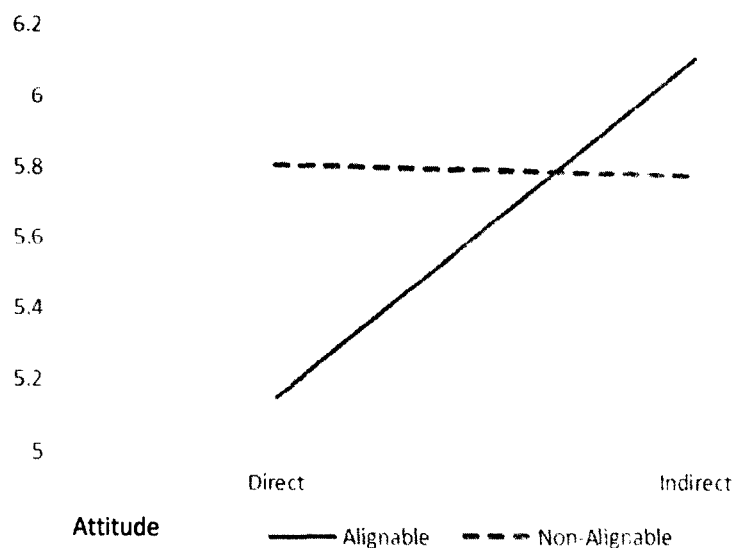
Source	Type III Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Intercept	.061	1	.061	.049	.826
Involvement	.137	1	.137	.110	.741
Pre-Attitude	77.824	1	77.824	62.240	.000
Familiarity	.044	1	.044	.035	.851
Importance	24.806	1	24.806	19.838	.000
NFC	.625	1	.625	.500	.481
Age	.402	1	.402	.321	.572
Gender	4.051	1	4.051	3.240	.074
Race	.154	1	.154	.123	.726
Time Spent	.221	1	.221	.177	.675
Direct	.767	1	.767	.614	.435
Alignable	.788	1	.788	.630	.429
Direct * Alignable	.256	1	.256	.205	.651
Error	173.804	139	1.250		
Total	4072.556	152			
Corrected Total	375.186	151			

a. R Squared = .537 (Adjusted R Squared = .497)

intention, $F(1,139) = .205$ ($p = .651$). Then, a planned contrast analysis for attitude toward the brand was conducted to test for Hypothesis 3a and 3b.

Based on the results of the planned contrast, when the comparative advertisement featured non-alignable differences (alignable was coded as 0), indirect comparative advertising (direct was coded as 0) significantly generated more positive attitude toward the brand (Mean = 5.960) than direct comparative advertising (direct was coded as 1, Mean = 5.300, $F(1,139) = 6.189$, $p = .016$). Although Hypothesis 3b was not supported, a significant opposite result was found. In addition, when the comparative advertisement featured alignable differences (alignable was coded as 1), the difference between the effects of direct (Mean = 5.806) and indirect comparative advertising (Mean = 5.790) on attitude toward the brand was not significant ($F(1,139) = .006$, $p = .940$). Therefore, Hypothesis 3a, which stated that when the comparative advertisement featured alignable differences, there is no significant difference between attitude toward the brand generated by direct and indirect comparative advertisements, was supported.

Figure 11: The Moderating Effect of Structural Alignability of Direct/Indirect Comparative Advertising on Attitude toward the Brand



Results of Study 4

In study 4, to test Hypothesis 4, similar to the previous three studies, two sets of analysis-of-covariance (ANCOVA) with 2 (advertising directness: direct/indirect comparative advertising) x 2 (message type: factual/narrative claims) factorial designs were conducted with attitude toward the brand and purchase intention as dependent variables with pre-exposure attitude, product involvement, brand familiarity, attribute importance, need for cognition (NFC), preference for numerical information (PNI), time spent to complete the survey, age, gender, and ethnicity as covariates. Both advertising directness and message claim type were manipulated as before.

Sample Characteristics

142 American adults completed the surveys with Amazon Mechanical Turk (mTurk). The sample consisted of 66 (45.2%) male and 76 (52.1%) female participants. Respondents' ages ranged from 20 to 67 years old with an average age of 34.5 years old and a standard deviation of 10.86. Respondents were mostly Caucasian Americans (78.9%).

Manipulation Check

Similar to the manipulation check in the previous three studies, participants were asked to respond by stating the degree to which they agreed or disagreed using a seven-point strongly disagree/agree scale on the following three questions: "do you think Reebok is comparing itself to one particular named competitor in the advertisement?" (for the manipulation check of advertising directness), "do you think the advertising claim contains a great deal of subjective opinion?," and "do you think the advertising claim can be objectively verified?" (for the manipulation check of message claim type). Participants given direct comparative advertisements reported significantly higher scores ($N = 57$, Mean = 6.386) than those given indirect comparative advertisements ($N = 87$, Mean = 1.965) on the question of "do you think Reebok is comparing itself to one particular named competitor in the advertisement?", $F(1,128) = 318.701$ ($p < .000$). On the other hand, participants given comparative advertisements containing narrative information reported significantly higher scores ($N = 70$, Mean = 4.901) than those given comparative advertisements containing factual information ($N = 72$, Mean = 3.847) on the question of "do you think the advertising claim contains a great deal of subjective

opinion?," $F(1,128) = 13.878$ ($p < .000$). In addition, participants given comparative advertisements containing factual information reported significantly higher scores ($N = 72$, Mean = 4.653) than those given comparative advertisements containing narrative information ($N = 70$, Mean = 4.085) on the question of "do you think the advertising claim can be objectively verified?," $F(1,128) = 5.027$ ($p = .027$). Therefore, the two manipulations in this study worked as intended.

Results

The results of the ANCOVA models showed that the main effect of advertising directness on attitude toward the brand (*Cronbach's Alpha* = 0.992, $F(1,128) = .682$, $p = .410$) and on purchase intention (*Cronbach's Alpha* = 0.982, $F(1,128) = .323$, $p = .571$) were both not significant, which was consistent with what was hypothesized.

Additionally, the effects of the covariates on attitude toward the brand were all not significant except for those of pre-exposure attitude (Pre-exposure attitude: $F(1,128) = 12.167$, $p = .001$; Product involvement: $F(1,128) = .295$, $p = .588$; Brand familiarity: $F(1,128) = .137$, $p = .712$; Attribute importance: $F(1,128) = 1.128$, $p = .290$; Preference for numerical information: $F(1,128) = .099$, $p = .754$; Need for cognition: $F(1,128) = .145$, $p = .704$; Age: $F(1,128) = .640$, $p = .425$; Gender: $F(1,128) = .038$, $p = .845$; Ethnicity: $F(1,128) = .006$, $p = .937$; Time Spent: $F(1,128) = .008$, $p = .931$). In addition, the effects of the covariates on purchase intention were all not significant except for those of pre-exposure attitude, attribute importance, and preference for numerical information (Pre-exposure attitude: $F(1,128) = 86.128$, $p < .000$; Product involvement: $F(1,128) = 2.713$, $p = .102$; Brand familiarity: $F(1,128) = 3.780$, $p = .054$;

Attribute importance: $F(1,128) = 6.823, p = .010$; Preference for numerical information: $F(1,128) = 6.542, p = .012$; Need for cognition: $F(1,128) = 2.953, p = .088$; Age: $F(1,128) = 3.050, p = .083$; Gender: $F(1,128) = .106, p = .745$; Ethnicity: $F(1,128) = .305, p = .582$; Time Spent: $F(1,128) = .437, p = .510$). Then, the test for the moderating effect of structural alignability was conducted (please see Table 4).

In Hypothesis 4, it was addressed that message claim type (factual or narrative) would moderate the relationship between advertising directness and attitude toward brand (and purchase intention). Consistent with the hypothesis, the interaction between advertising directness and message claim type was significant for attitude toward the brand, $F(1,128) = 16.235 (p < .000)$. However, the interaction effect was again not significant for purchase intention, $F(1,128) = .872 (p = .352)$. Then, a planned contrast analysis for attitude toward the brand was conducted to test for Hypothesis 4a and 4b.

Based on the results of the planned contrast, when the comparative advertisement contained narrative claims (factual was coded as 0), indirect comparative advertising (direct was coded as 0) significantly generated more positive attitude toward the brand (Mean = 5.121) than direct comparative advertising (direct was coded as 1, Mean = 3.933, $F(1,128) = 7.325, p = .009$). In addition, when the comparative advertisement contained factual claims (factual was coded as 1), direct comparative advertising significantly generated more positive attitude toward the brand (Mean = 5.109) than indirect comparative advertising (Mean = 4.265, $F(1,128) = 4.200, p = .045$). Therefore, both Hypothesis 4a (when the comparative advertisement contains factual claims, direct comparative advertisements generate more positive consumer responses) and 4b (when the comparative advertisement contains narrative claims, indirect comparative

Table 4: ANCOVA Results of Study 4

Dependent Variable: Attitude toward the Brand

Source	Type III Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Intercept	7.769	1	7.769	3.115	.080
Involvement	.737	1	.737	.295	.588
Pre-Attitude	30.343	1	30.343	12.167	.001
Familiarity	.342	1	.342	.137	.712
Importance	2.814	1	2.814	1.128	.290
PNI	.246	1	.246	.099	.754
NFC	.362	1	.362	.145	.704
Age	1.596	1	1.596	.640	.425
Gender	.096	1	.096	.038	.845
Race	.016	1	.016	.006	.937
Time Spent	.019	1	.019	.008	.931
Direct	1.701	1	1.701	.682	.410
Factual	1.144	1	1.144	.459	.499
Direct * Factual	40.489	1	40.489	16.235	.000
Error	319.216	128	2.494		
Total	3343.160	142			
Corrected Total	417.039	141			

a. R Squared = .235 (Adjusted R Squared = .157)

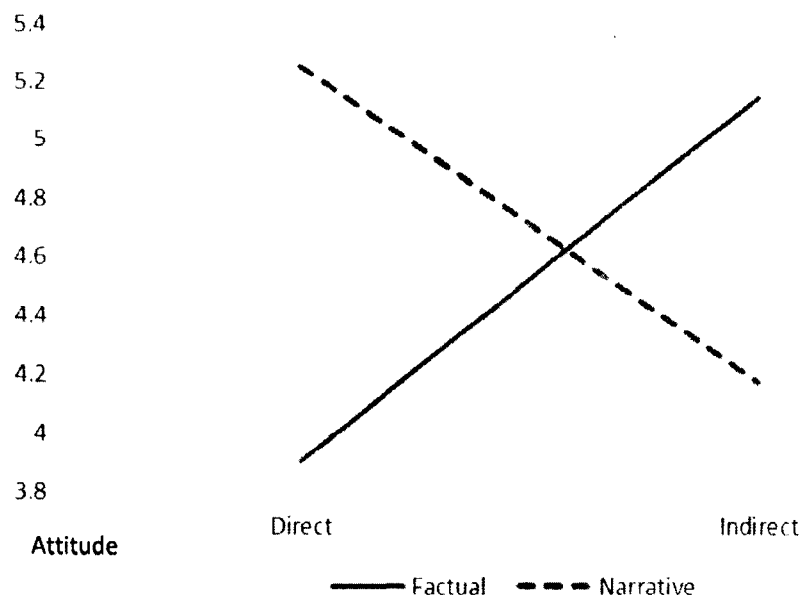
Dependent Variable: Purchase Intention

Source	Type III Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Intercept	6.017	1	6.017	3.998	.048
Involvement	4.083	1	4.083	2.713	.102
Pre-Attitude	129.636	1	129.636	86.128	.000
Familiarity	5.690	1	5.690	3.780	.054
Importance	10.269	1	10.269	6.823	.010
PNI	9.847	1	9.847	6.542	.012
NFC	4.445	1	4.445	2.953	.088
Age	4.591	1	4.591	3.050	.083
Gender	.160	1	.160	.106	.745
Race	.459	1	.459	.305	.582
Time Spent	.658	1	.658	.437	.510
Direct	.486	1	.486	.323	.571
Factual	.836	1	.836	.556	.457
Direct * Factual	1.312	1	1.312	.872	.352
Error	192.659	128	1.505		
Total	2809.889	142			
Corrected Total	497.713	141			

a. R Squared = .613 (Adjusted R Squared = .574)

advertisements generate more positive consumer responses) were supported.

Figure 12: The Moderating Effect of Message Claim Type of Direct/Indirect Comparative Advertising on Attitude toward the Brand



All the hypotheses and results are summarized in the following table (Table 5):

Table 5: Hypotheses Testing Results

	Hypothesis	Results	
		Attitude	Intention
H_{1a}	<i>When the comparative advertisement is positive, indirect comparative advertising generates more positive consumer responses (attitude towards the brand and purchase intention) than direct comparative advertising.</i>	Supported	Not Supported
H_{1b}	<i>When the comparative advertisement is negative, direct comparative advertising generates more positive consumer responses (attitude towards the brand and purchase intention) than indirect comparative advertising.</i>	Not Supported	Not Supported
H_{2a}	<i>When the compared attribute is typical, direct comparative advertisements generate more positive consumer responses (attitude towards the brand and purchase intention) than indirect comparative advertisements.</i>	Supported	Not Supported
H_{2b}	<i>When the compared attribute is atypical, there is no difference in consumer responses (attitude towards the brand and purchase intention) generated by direct and indirect comparative advertisements.</i>	Supported	Not Supported
H_{3a}	<i>When the comparative advertisement features alignable differences, there is no difference in consumer responses (attitude towards the brand and purchase intention) generated by direct and indirect comparative advertisements.</i>	Supported	Not Supported
H_{3b}	<i>When the comparative advertisement features nonalignable differences, direct comparative advertisements generate more positive consumer responses (attitude towards the brand and purchase intention) than indirect comparative advertisements.</i>	Not Supported	Not Supported
H_{4a}	<i>When the comparative advertisement contains factual claims, direct comparative advertisements generate more positive consumer responses (attitude towards the brand and purchase intention) than indirect comparative advertisements.</i>	Supported	Not Supported
H_{4b}	<i>When the comparative advertisement contains narrative claims, indirect comparative advertisements generate more positive consumer responses (attitude towards the brand and purchase intention) than direct comparative advertisements.</i>	Supported	Not Supported

CHAPTER V: CONCLUSIONS AND RECOMMENDATIONS

Conclusions and Discussions

A conceptual framework was developed to address the research gap on direct versus indirect comparative advertising and also further investigated the effects of four potential moderators that could help explain the mixed results found from previous research. The four moderators investigated in this dissertation were advertising valence, attribute typicality, structural alignability, and message claim type. These studies described in the previous chapters provided invaluable insights for understanding the effectiveness of direct versus indirect comparative advertising, particularly with respect to different formats of comparative advertisements under different circumstances.

In Study 1, it was hypothesized that when the comparative advertisement was positive, indirect comparative advertising generated more positive consumer responses (attitude towards the brand and purchase intention) than direct comparative advertising and when the comparative advertisement was negative, direct comparative advertising generated more positive consumer responses (attitude towards the brand and purchase intention) than indirect comparative advertising. Positive comparative advertising compares brands with selected attributes to make the claim that the advertised brand is superior to the compared brand, either qualitatively better or quantitatively more, on the advertised attributes (You are OK, but I am better). A negative comparative advertisement features the advertised brand attacking the compared brand (I am OK, but you are not) by focusing on the inferiority of the competitor in terms of certain product attributes (Roggeveen et al. 2006) and accentuating the potential losses to consumers if

the advertised brands are not chosen or wrong decisions are made in choosing brands by the consumers (Zhang and Buda 1999).

From Study 1, it was found that indirect comparative advertisements could significantly generate more positive attitude toward the brand if the advertisements were positively-worded. On the other hand, contrary to the expectation, results showed that there was no significant difference between the effects of direct and indirect comparative advertisements if the advertisements were negatively-worded. One possible explanation is provided by what Lacznia and his colleagues (2011) found in their research. Their findings indicated that consumers who were exposed to the negatively-worded comparative advertisements had higher levels of post-exposure attitude confidence in the comparative referent (the compared brand) than did those exposed to positively-worded comparative advertisements regardless of what types of comparative advertisements they were exposed to if they were existing users of the compared brand. Since this dissertation did not differentiate users of the advertised brand from those of the compared brand or other brands, it was not surprising to find that there was no significant difference between the effects of direct and indirect comparative advertisements when the advertisements were negatively-worded.

In Study 2, it was hypothesized that direct comparative advertisements generated more positive consumer responses (attitude towards the brand and purchase intention) than indirect comparative advertisements when the compared attribute was typical and, there was no significant difference in consumer responses (attitude towards the brand and purchase intention) generated by direct and indirect comparative advertisements when the compared attribute is atypical. Product or brand attributes can be categorized on a

spectrum ranging from typical to atypical. Typical attributes are those associated with well-known or important functions which are associated with the product (Pillai and Goldsmith 2008). As expected, it was found that when the compared attribute was typical, direct comparative advertisements generated more positive attitude toward brand than indirect comparative advertisements and there was no difference in attitude toward the brand and purchase intention generated by direct and indirect comparative advertisements when the compared attribute was atypical. In 2008, Pillai and Goldsmith found that when the attribute under consideration was atypical, non-comparative advertisements were no more persuasive than comparative advertisements. The findings from Study 2 further indicated that it did not matter if the comparison was direct or indirect when an atypical attribute was used in the advertisement. Therefore, the results from this study together along with those of Pillai and Goldsmith (2008) provide evidence that atypical attributes have no moderating effects on non-, direct and indirect comparative advertising.

In Study 3, the moderating effects of structural alignability was investigated. Structural alignability “refers to the ease with which the attributes of one object can be aligned or mapped onto another object” (Zhang 2002, p. 304), which means whether the compared attributes used in a comparative advertisement are perceived comparable by consumers. When the focal attribute can be mapped into the compared attribute, it refers to an alignable difference (Markman and Gentner 1993; Gentner and Markman 1994; Zhang, Kardes, and Cronley 2002; Chang 2007). When the compared attribute is unique to the focal brand and cannot be found in compared brands’ products, it refers to a nonalignable difference (Markman and Gentner 1993; Gentner and Markman 1994;

Zhang et al. 2002; Chang 2007). It was hypothesized that there would be no difference in consumer responses (attitude towards the brand and purchase intention) generated by direct and indirect comparative advertisements when the comparative advertisement features alignable differences. The findings supported this expectation for attitude toward the brand. Since most comparative advertising research used alignable differences (Griffin and Broniarczyk 2010), this finding was consistent with the inconclusive results for the effectiveness of direct versus indirect comparative advertising.

On the other hand, it was also hypothesized that when the comparative advertisement featured nonalignable differences, direct comparative advertisements generated more positive consumer responses (attitude towards the brand and purchase intention) than indirect comparative advertisements, which was not supported by the results of this study. Actually, a significant opposite result was found for attitude toward the brand, which showed that indirect comparative advertisements indeed generated more positive attitude towards the brand than direct comparative advertisements when the comparative advertisement features nonalignable differences. When nonalignable differences are used in a comparative advertisement, often times the advertiser is implying that the compared products don't have the compared attributes and indicating that the attributes offered by them are indeed unique and special. Therefore, it can be speculated here that it is better for those firms which want to compare themselves with more than one competitor to develop their own specialized attributes rather than focus on the attributes that have been well provided and served by many other companies. The surprising finding was consistent with what Chang and Kukar-Kinney (2007) found.

They found that the unique or special attribute from a pioneer product received great recalls from consumers and generated high accessibility in consumers' minds.

In Study 4, it was hypothesized that when the comparative advertisement contained factual claims, direct comparative advertisements generated more positive consumer responses (attitude towards the brand and purchase intention) than indirect comparative advertisements and when the comparative advertisement contained narrative claims, indirect comparative advertisements generated more positive consumer responses (attitude towards the brand and purchase intention) than direct comparative advertisements. Factual claims are the verifiable statements that utilize objective data and provide fact-laden and direct descriptions of product features and benefits, such as "the camera comes with an f1.8 lens" and "tests have shown brand A is better than brand B" (Gardial and Biehal 1991; Polyorat et al. 2007). Narrative claims are the unverifiable statements that may give inaccurate or imprecise indications of how a brand performs on an attribute by using emotional or hype words like "super" and "phenomenal" in describing the brand (Gardial and Biehal 1991; Polyorat et al. 2007). It was found that direct comparative advertisements generated more positive attitude toward the brand than indirect comparative advertisements when the comparative advertisements contained factual claims. In addition, it was shown that indirect comparative advertisements generated more positive attitude toward the brand than direct comparative advertisements when the comparative advertisements contained narrative claims, which also supported the hypothesis. These findings indicated that providing facts and objective information in the comparative advertisement is extremely important if the company wants to use head-to-head comparisons to one particular competitor. On the other hand, if the company

wants to compare itself with the rest of the industry, it should instead utilize subjective information in their comparative advertisement.

Managerial Implications

Since comparative advertising has been extensively used by companies, this research not only deepens the understanding of direct versus indirect comparative advertising by providing comprehensive examinations of four different potential moderators, but also offers several important implications and applications for marketing managers. First, the findings suggest that in the advertisement if the company wants to use positively-worded messages, which make the claim that the advertised brand is superior to the compared brand, either qualitatively better or quantitatively more, on the advertised attributes (You are OK, but I am better) and motivate consumers to think about what they can gain from using the advertisers' products or services (Roggeveen et al. 2006), they should use indirect comparisons, in which the advertiser does not identify any particular competing brands, but instead refers to unnamed competitors, such as the leading brand, other brands, or all other brands (Miniard et al. 2006). For example, when a firm wants to improve its relative market position by providing information that it is better than everyone else in the market, it should avoid using negative comparisons. Based on these findings, it should focus on what it is really good at and emphasize the claim that "we know some of them are good, but we are the best." As more and more advertisers are using negatively-worded messages and trying to attack other competitors,

the results of this research suggest that it does not matter whether the company directly or indirectly compares itself to the competitor(s) in the advertisement. Negative messages do not make any difference between these two types of comparative advertisements.

Secondly, the results tell the managers that it is very important for those companies who use direct comparisons, in which the advertiser specifically names its competitors to compare itself to the named competitors, in their advertisements to understand what attributes are typically considered by consumers when they make purchasing decisions. It is demonstrated that when the compared attribute is typical, direct comparative advertisements generate more positive attitude towards the brand. Typical attributes are those associated with well-known or important functions which are associated with the product (Pillai and Goldsmith 2008). Nowadays we have seen more direct comparative advertisements such as Apple vs. Samsung, Coke vs. Pepsi, Burger King vs. McDonald, and Progresso vs. Campbell's and most of them directly compete with each other in multiple countries and markets. This issue can become even more critical when a company is targeting multiple market segments because these typical attributes may be different in different market segments. However, on the other hand, the findings also suggest that there is no significant difference between the effectiveness of direct and indirect comparative advertising and attitude toward the brand generated is much lower if atypical attributes are utilized in the advertisements.

Third, the results provide important recommendations to marketing managers that they should make sure that its indirect comparative advertisement features nonalignable differences, which mean that companies make comparison arguments to claim that they have some "special attributes" that their competitors lack instead of comparing similar

attributes (Chang 2007). When nonalignable differences are used in the advertising messages, in which the company emphasizes the fact that they have some really good features or functions that other brands do not offer, they should claim it is better than others in general instead of naming any specific competitors. By doing this, the firm is further providing evidence that they are indeed the best because no other firm offers the special and unique attribute stated in their advertisement.

Lastly, the findings provide the advertisers evidence that they should utilize direct comparative advertising to compare itself with one particular named competitors when they include factual message claims, which are the verifiable statements that utilize objective data and provide fact-laden and direct descriptions of product features and benefits. When consumers directly compare two brands or products, they do pay attention to the information which can be objectively verified. The reliable and helpful factual information can be perceived by consumers as valuable and useful for them in evaluating the featured attributes. For example, recently Samsung has used a series of direct comparative TV or radio advertisements against Apple for their mobile phones, tablet computers, or laptops. In these comparative advertisements, Samsung has been focused on those attributes that are only offered by Samsung's products and included factual and objective information usually provided by a third-party institution to support their arguments. The objective data can make the advertising arguments more believable and perceived more informative (Polyorat et al. 2007).

On the other hand, if the company decides to use narrative claims, which are the unverifiable statements that may give inaccurate or imprecise indications of how a brand performs on an attribute by using emotional or hype words like "super" and

“phenomenal” in describing the brand (Gardial and Biehal 1991; Polyorat et al. 2007), they should utilize indirect comparisons in their advertisements. The company should use some emotional words or appeals to stimulate consumers’ levels of involvement with the advertising messages so that higher attitude toward the advertised brand can be generated (Gardial and Biehal 1991). In a series of recent comparative advertisements, Nokia has used drama-like advertising themes and emotional messages to promote their Lumia mobile phones against Apple, Samsung, and the rest of the field for their unique 41-megapixel built-in cameras. This is a perfect example to demonstrate how companies can include narrative claims in their indirect comparative advertisements to effectively promote and market some of their great product features.

Research Limitations

It is hoped that this study not only can advance the current understanding of the effectiveness of comparative advertising, but also create a new research stream that specifically addresses the effectiveness of direct and indirect comparative advertising. However, research cannot be done without making any compromises because of the nature of the research. This dissertation is not an exception. Although this study provides useful and meaningful insights and managerial implications, there are some limitations. First, this study does not investigate the interaction effects among the four different moderators. For example, since attribute typicality and structural alignability are both related to characteristics of product attributes, it is important to explore this possibility to generate more comprehensive understanding of the effects of different attribute

characteristics. In addition, both advertising valence and message claim type are about advertising messages included in the comparative advertisement. It will be very interesting to see how factual or narrative information can influence the effects of positive or negative wordings on the effectiveness of direct versus indirect comparative advertising.

Secondly, this research doesn't consider different levels of "directness" of comparative advertising. Based on the definitions, direct comparative advertising is an advertising strategy in which the advertiser specifically names its competitors in the advertisement to compare itself to the named competitors. In contrast, in an indirect comparative advertisement, the advertiser does not identify any particular competing brands, but instead refers to unnamed competitors, such as the leading brand, other brands, or all other brands (Miniard et al. 2006). However, different comparison strategies have been used by companies. For example, some companies only show competitors' logos or brand names in their direct comparative advertisements without naming them in the messages. Some companies included competitors' slogans in their messages to imply who they are referring to (E-surance, an Allstate company, mentions "15 minutes can save you 15% of car insurance" in the messages to imply they are comparing to Geico). In both examples, consumers can potentially know the one particular competitor to whom the advertiser compares. Therefore, they both should be considered as direct comparative advertisements. Additionally, it also cannot be assumed that consumers perceive "the leading brand" and "other brands" identically. This research only uses "other brands" and "everyone else" in the manipulations of indirect comparative advertisements.

Third, generalizability is a concern for all studies. Although different product categories have been used in this research, for each individual moderator, only one study with one particular product has been done. The conclusions of each study is based on findings from a research setting with that particular product. No additional studies are done to try to generalize the findings. Besides that, three of four studies use products which are generally considered as utilitarian products (cell phone services and tablet computers). Although sneakers are perceived as hedonic products by some people, this research focuses on a utilitarian attribute, sole support. Therefore, no hedonic products or attributes are considered in this research.

Recommendations for Future Research

Several promising future research directions can be drawn from this research. First, as stated previously, it would be informative to test the hypothesized model derived from this research by using different levels of directness of comparative advertising. In this research, only “a named competitor” and “other brands” were included in the manipulations of directness. Since more companies have used direct comparisons in different ways such as those examples provided previously, future research can focus on other types of direct and indirect comparative advertisements, using the moderators investigated in this research. Therefore, the necessary next step is to study the effectiveness of multiple levels of directness to understand how consumers perceive different types of direct or indirect comparisons. Additionally, by asking the respondents what brands being compared for different levels of direct versus indirect comparative

advertising, it can be further understood whether consumers perceive directly naming competitors, showing competitors' brand names or logos, and mentioning competitors' slogans differently. Also the understandings of the difference between using "other brands" and "the leading brand(s)" can be obtained. It will advance the current research stream of direct/indirect comparative advertising. The findings from this potential research can further provide a more complete picture of comparative advertising.

Secondly, as briefly mentioned in the early section of this dissertation, although comparative advertising has been extensively used, it remains illegal in many other countries in the world (Choi and Miracle 2004; Manzur et al. 2012; Petty 1991; Romano 2005; Schwaiger et al. 2007; Shao et al. 2004; Wright and Morgan 2002). Direct comparative advertisements are often the ones which are usually banned. Indirect comparative advertisements are allowed in some of these countries (Shao et al. 2004). In many countries where direct comparative advertising is banned, indirect comparative advertising is usually allowed (Shao et al. 2004). It is surprising that comparative advertising research has focused on the United States, but actually the need for understanding of effectiveness of comparative advertising, especially indirect comparative advertising, is also great for those countries where indirect comparative advertising is legal. There are cultural differences among consumers across different countries, the findings drawn from this potential research will be very helpful for marketing managers or companies who want to use indirect comparative advertisements in those countries. Additionally, there are also differences across countries in terms of how direct the comparative advertisements can be. Combining the results from the first and this recommended research, we will be able to provide more detailed and specific

conclusions and recommendations to marketing managers across different countries and further understand the differences among consumers from different countries in terms of their attitude toward and perceptions of different levels of comparative directness.

Therefore, it would be practically relevant to investigate how indirect comparative advertising affects consumers' responses in different countries and how the moderating effects of different variables influence the relationships.

Third, throughout all four studies, effects of two of the covariates, pre-exposure attitude and attribute importance, were both consistently and significantly affecting the hypothesized model. It would be valuable to further study the potential moderating effects of these two individual-specific variables. In the existing literature, attribute importance and attribute typicality have been used interchangeably (Pechmann and Ratneshwar 1991; Pillai and Goldsmith 2008). However, the results of this research provide possible evidence that consumers may perceive these two variables differently. It would be also great for future research to investigate whether direct or indirect comparative can significantly improve consumers' existing attitude toward the advertised brand and how much it can be improved.

Fourth, as mentioned before, this research has focused on utilitarian products and attributes. It would also be informative to test the hypothesized model using hedonic products or attributes. For example, if a jeans manufacturer wants to create a comparative advertisement, what should they do? What attributes should they focus on? What are appropriate framing strategies? What information should they provide in the advertisement? Not only in this research but also in the existing literature, very little comparative advertising research has paid attention to hedonic products. By switching

research focus to hedonic products, future research can significantly advance our knowledge in the effectiveness of comparative advertising and provide a more complete picture of this particular research stream.

Lastly, in comparative advertising, there are two unique types of comparative advertisements: political comparative advertising (Ansolabehere and Iyengar 1995) and price comparative advertising (Barone, Manning, and Miniard 2004). In the extant literature, to the author's best knowledge, no research has been done regarding the effectiveness of political or price comparative advertising in the context of direct versus indirect comparisons. However, with the seemingly more intense political campaigns in the recent decades and price wars among competitors in different industries, these two issues have become more important than ever. In terms of political comparative advertising, future research should focus on the question: Is directly naming and attacking other candidates in a political advertisement a good strategy? Even with direct comparisons in the advertisement, should the candidate negatively badmouth others or should they use positively-worded messages? Providing scientific findings to answer these questions can greatly contribute to the literature. On the other hand, in terms of price comparative advertising, with the poor economy pretty everywhere in the world, price wars have been inevitable. It would be invaluable to companies if future research can focus more on how they should compare prices in the advertisements.

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APPENDICES

Appendix 1: Measuring Items for Need for Cognition (Cacioppo et al., 1984)

*Asterisks designate the items that are reverse scored.

1. I would prefer complex to simple problems.
2. I like to have the responsibility of handling a situation that requires a lot of thinking.
3. Thinking is not my idea of fun.*
4. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.*
5. I try to anticipate and avoid situations where there is likely a chance I will have to think in depth about something.*
6. I find satisfaction in deliberating hard and for long hours.
7. I only think as hard as I have to.*
8. I prefer to think about small, daily projects to long-term ones.*
9. I like tasks that require little thought once I've learned them.*
10. The idea of relying on thought to make my way to the top appeals to me.
11. I really enjoy a task that involves coming up with new solutions to problems.
12. Learning new ways to think doesn't excite me very much.*
13. I prefer my life to be filled with puzzles that I must solve.
14. The notion of thinking abstractly is appealing to me.
15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
16. I feel relief rather than satisfaction after completing a task that required a lot of mental effort.*
17. It's enough for me that something gets the job done; I don't care how or why it works.*
18. I usually end up deliberating about issues even when they do not affect me personally.

Appendix 2: Measuring Items for Preference for Numerical Information (Viswanathan 1993)

*Asterisks designate the items that are reverse scored.

1. I enjoy work that requires the use of numbers.
2. I think quantitative information is difficult to understand.*
3. I find it satisfying to solve day-to-day problems involving numbers.
4. Numerical information is very useful in everyday life.
5. I prefer not to pay attention to information involving numbers.*
6. I think more information should be available in numerical form.
7. I don't like to think about issues involving numbers.*
8. Numbers are not necessary for most situations.*
9. Thinking is enjoyable when it does not involve quantitative information.
10. I like to make calculations using numerical information. ^
11. Quantitative information is vital for accurate decisions.
12. I enjoy thinking about issues that do not involve numerical information.*
13. Understanding numbers is as important in daily life as reading or writing.
14. I easily lose interest in graphs, percentages, and other quantitative information.*
15. I don't find numerical information to be relevant in most situations.*
16. I think it is important to learn and use numerical information to make well-informed decisions.
17. Numbers are redundant for most situations.*
18. It is a waste of time to learn information containing a lot of numbers.*
19. I like to go over numbers in my mind.
20. It helps me to think if I put down information as numbers.

Appendix 3: Study 2 Pretest Questionnaire

- Imagine you plan to purchase a cell phone plan. Below are 11 different features provided by a cell phone service provider. Please carefully consider each feature and then answer following questions. For detailed description of these features, please refer to the attached sheet.

a. Talking minutes	b. Call hold
c. Carrier-to-carrier minutes	d. Call waiting
e. Text messages	f. Caller ID
g. Data plans	h. Conference calling
i. Free nights-and-weekends calling	j. Push-to-talk feature
k. Call forwarding	l. Others (please specify)

- After considering these features, please rank 3 features which you think the most typical when you think about cell phone service plans. (1=most typical, 2=second most typical, 3=third most typical)
- After considering these features, please rank 3 features which you think the least typical (atypical) when you think about cell phone service plans. (1=least typical, 10=second least typical, 9=third least typical)
- What is your gender?
☐ Male ☐ Female
- What is your ethnicity?
☐ Caucasian ☐ African American ☐ Asian ☐ Hispanic ☐ Other

■ Feature Information

- Talking minutes: Minutes that can be used at anytime and anywhere in one month on the carrier's nationwide network.
- Carrier-to-carrier minutes: Minutes used on directly dialed calls between the carrier's phones on the carrier's nationwide network.

3. Text messages: Some plans include a monthly allotment of messages (text, picture, video, and IM). If messages aren't included in your plan, individual incoming and outgoing messages are \$0.20 each, or you can purchase a messaging service.
4. Data plans: The amount of information or data received or sent from a phone or smartphone to or from the network. Includes data used for Web browsing, personal e-mail, and downloads.
5. Free nights-and-weekends calling: Weekend minutes are minutes used during calls that start between 12:00 a.m. Saturday and 11:59 p.m. Sunday, local time and weeknight minutes are minutes used during calls that start after 9:00 p.m. or before 6:59 a.m. local time Monday through Friday.
6. Call forwarding: Call forwarding will automatically forward your calls to another mobile or landline phone number. You can use the Call Forwarding feature to forward all calls to another number or to forward calls only when you are unavailable. When forwarding calls to phone numbers outside your local calling area, toll and long distance charges apply. Additional per minute charges apply to calls forwarded to another number.
7. Call hold: Call hold lets you place a call on hold to mute conversation. Note: Airtime rates, roaming and long distance (if any) still apply for held calls.
8. Call waiting: Call waiting lets you place a call on hold to make or receive another call. Note: Airtime rates, roaming and long distance (if any) apply for both calls.
9. Caller ID: Caller ID lets you see who's calling before you pick up the phone. Note: Due to public telephone network limitations, caller ID may not always be available.
10. Conference calling: Conference calling lets you add a third person into any conversation. Note: The initiator of the call will be charged double airtime minutes, roaming and long distance (if any) during the conference call.
11. Push-to-talk feature: A service option for a cellular phone network which permits subscribers to use their phone as a walkie-talkie with unlimited range. A typical Push-to-talk connection connects almost instantly.

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DISSERTATION RESEARCH

Title: *The Effectiveness of Direct Versus Indirect Comparative Advertising: An Empirical
Examination of the Moderating Effects on Consumer Responses*

Chair: Dr. John B. Ford, Old Dominion University

Committee Members: Dr. Yuping Liu-Thompkins, Old Dominion University
Dr. Edward Markowski, Old Dominion University
Dr. Leona Tam, University of Wollongong, Australia

Abstract:

This research examines the relative effectiveness of different kinds of comparative advertising. The effects of direct and indirect advertising are discussed and empirically tested. Extant research focuses on the differential effects of comparative and non-comparative advertising. With the growing popularity of comparative advertising in

recent years, it becomes crucial to examine different kinds of comparative advertisements more closely to provide guidelines to marketing managers in the application of comparative advertising.

Using five experimental studies, this research investigates four moderating variables on the effects of direct vs. indirect comparative advertisement: advertising valence, attribute typicality, attribute alignability and message claim type. Study 1, 2, 3 and 4 examine the moderating effects of advertising valence, attribute typicality, attribute alignability and message claim type, respectively. All four studies use a 2 (advertising directness, manipulated) x 2 (advertising valence, attribute typicality, attribute alignability or message claim type, manipulated) between-subject design. These four studies aim at investigating how different advertising characteristics influence the effects of direct versus indirect comparative advertisement on consumer responses and providing marketing managers crucial information when and how different types of comparative advertisements should be utilized. Study 5 examines the potential multiple three-way interactions among advertising directness and these moderators. This study contains multiple sub-studies and employs a 2 (advertising directness, manipulated) x 2 (one of moderators, manipulated) x 2 (one of moderators, manipulated) between-subject design for each of sub-studies.

This research will provide insight into the interaction effects of comparative advertising types and characteristics of featured attributes on advertising effectiveness and guide marketing managers to understand what types of comparative advertising work more effectively under different circumstances.

PUBLICATIONS

Hsu, Chun-Kai T. and Leona Tam (2012). "Should Firms Name Competitors in the Ads?", In *AMA 2012 Summer Educators' Conference Proceedings*.

MANUSCRIPTS UNDER REVIEW

Hsu, Chun-Kai T. and Leona Tam. "Effectiveness of Direct vs. Indirect Comparative Advertising: Moderating Effects of Advertising Characteristics", *Being Revised for 2nd Round Review, Marketing Letters*.

Abstract:

This paper examines the relative effectiveness of different kinds of comparative advertising. We discuss and empirically test the effects of direct and indirect advertising. Extant research focuses on the differential effects of comparative and non-comparative advertising. With the growing popularity of comparative advertising in recent years, it becomes crucial to examine different kinds of comparative advertisements more closely to provide guidelines to marketing managers in the application of comparative advertising. Using two experimental studies, this paper investigated two moderating variables on the effects of direct vs.

indirect comparative advertisement: advertising valence and attribute typicality. We demonstrated that indirect comparative advertisements generate more positive attitude towards the brand if the advertisements were positively-worded while direct comparative advertisements were more effective if the advertisements were negatively-worded (Study 1), as hypothesized. We also showed that direct comparative advertisements generate more positive attitude towards the brand than indirect comparative advertisements, when the attributed featured in the advertisement was considered typical by consumers (Study 2). Surprising results were generated for atypical attribute featured. Contrary to our expectation, indirect comparative advertisements were found to produce more positive attitude towards the brand when the compared attribute was considered atypical by consumer. Our paper provides insight into the interaction effects of comparative advertising types and characteristics of featured attributes on advertising effectiveness.

WORKING PAPERS

"The Effectiveness of Loyalty Programs: Meta-Analysis" with Yuping Liu-Thompkins and Ceren Ekebas, *Manuscript in progress*, Target Submission Date: *March 2013*, Target Journal: *Journal of Retailing*.

"Feeling Well to Shop? Consequences and Economic Indicators of Financial Well-Being" with Leona Tam and Ryan Howell, *Manuscript in progress*, Target Submission Date: *May 2013*, Target Journal: *Journal of Business Research*.

"Post-Merger Branding Strategies: Should The Acquired Brand Be Dumped? The Effect of Keeping or Dumping an Acquired Brand" with Kiran Karande, *Data Collection in Progress*, Target Submission Date: *September 2013*, Target Journal: *Journal of Academy of Marketing Science*.

"Do Investors Value Comparative Ads? The Effects of Comparative Advertising on Stock Returns", *Data Collection in Progress*, Target Journal: *Journal of Advertising*.

"The Effects of Comparative Advertising on Loyal and Habitual Consumers" with Yuping Liu-Thompson and Leona Tam, *Study Design in Progress*, Target Journal: *Journal of Advertising*.

CONFERENCE PRESENTATIONS

Hsu, Chun-Kai Tommy and Leona Tam (2012). "Should Firms Name Competitors in the Ads?" Working Paper accepted for presentation at American Marketing Association Summer Marketing Educators' Conference, Chicago, IL, 2012.

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Comparative Advertising
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