

# Exploring the relationship between celebrity endorser effects and advertising effectiveness

A quantitative synthesis of effect size

Clinton Amos

*Augusta State University*

Gary Holmes

*Drury University*

David Strutton

*University of North Texas*

This study provides a quantitative summary of the relationship between celebrity endorser source effects and effectiveness in advertising. The Kruskal-Wallis non-parametric test is used to identify the most influential celebrity endorser source effects on effectiveness. The role of celebrity/product fit, interaction effects, sample type, study setting, and country of study are also included as moderators. Results suggest negative celebrity information can be extremely detrimental to an advertising campaign. The source credibility model composed of celebrity trustworthiness, celebrity expertise, and celebrity attractiveness appears to capture the three most influential source effects on purchase intentions, brand attitudes and attitudes towards the advertisement.

About 25% of US advertisements employ celebrity endorsers (Shimp 2000). These actions suggest many US firms have bought into the premise that celebrity endorsers positively impact consumer attitudes towards an advertisement and the associated brand, consumers' purchase intention, as well as other measures of effectiveness (Kaikati 1987; Ohanian 1991; Tripp *et al.* 1994; Goldsmith *et al.* 2000; Erdogan *et al.* 2001). There is substantial research on the topic, suggesting celebrity endorsement may materially improve financial returns for companies that employ them in their advertising campaigns (Farrell *et al.* 2000; Erdogan *et al.* 2001).

The importance of celebrity endorsers, however, does not lie in the fact that they are used by firms who wish to increase revenue, but in how these celebrities add value to a company, brand or product. The literature implies that celebrities add value through the process of meaning transfer (McCracken 1986, 1989). The meaning transfer model posits that celebrities develop a persona through the types of roles they play in society as well as how they are portrayed in the media. Collectively, the culturally constituted society then assigns meaning to celebrities. When celebrities endorse a product, the meaning developed around a particular celebrity will – or at least it is hoped for by advertisers – transfer to a company, brand, or product (Erdogan & Baker 2000). Thus, when a consumer identifies with a celebrity (identification occurs when a person is willing to accept influence from another person) (Kelman 2006, p. 3), he/she purchases the product in the hope of claiming some of these transferred meanings for their own lives (McCracken 1989).

Researchers have examined this transfer of celebrity meaning to the product and its resultant effectiveness by examining the source effects of celebrity endorsers. Two narrative reviews have attempted to amalgamate the literature pertaining to the effectiveness of celebrity endorsers in advertising (Kaikati 1987; Erdogan 1999). Kaikati (1987) identified the prevalent types of celebrity endorsers, advantages of using celebrity endorsers, hazards associated with using celebrity endorsers, and Federal Trade Commission guidelines. Erdogan (1999) reviewed the effectiveness of celebrities, advantages and disadvantages associated with celebrity endorsement, and the application of the source credibility and source attractiveness models. More recently, researchers have produced several empirical studies addressing specific subject areas within the broader realm of celebrity endorsement effectiveness. However, to our knowledge, no systematic effort to quantitatively integrate this literature has been undertaken.

By reporting results derived from a meta-analysis of the effectiveness of celebrity endorsement literature, this study addresses this gap. This study investigates the source effects of celebrity endorsers in the advertising and communication literature to determine whether the existing body of literature – considered collectively – can yield any theoretically relevant and managerially relevant insights. More specifically, this paper reviews quantitative studies in the literature and documents the relationships

between use of a celebrity endorser and the resulting effectiveness of that endorsement.

## **Research questions**

An examination of the relevant literature reveals that numerous celebrity endorsement source effects have been investigated. Naturally, if researchers were better able to identify the most influential source effect(s), they could focus investigations on models composed of superior explanatory variables. And were such an ideal to eventuate, more accurate empirical results would surely follow. In pursuit of such a model, the first research question addressed in this study was:

### **Q1: What are the most important source effects of celebrity endorsement?**

Researchers have occasionally investigated whether matching the dominant traits of specific celebrities to specific products' attributes improves advertising effectiveness (Batra & Homer 2004). However, many studies have failed to investigate this particular moderator effect. This oversight may be critical. Certainly, it appears important to examine the product/celebrity endorsement fit moderator across the extant body of findings to ascertain whether this moderator might account for some portion of the differences in findings observed to date.

In pursuit of these outcomes, this study's second research question was:

### **Q2: What effect does the celebrity endorser/product fit have on celebrity endorsement effectiveness?**

The studies that comprise the extant celebrity endorsement literature vary widely in their sampling units, data analytic approaches, experimental settings, and statistical findings. When the resulting findings are clear, such variation can increase the generalisability of the results. However, since most findings in any meta-analysis require interpretation, varying theoretical and methodological approaches can prove confusing and unclear (Rosenthal & DiMatteo 2001). Therefore, it is always important to determine which research techniques yield the most accurate results.

The associated insights may help prevent the onset of problems in future studies (Wilson & Sherrell 1993). The third research question addressed in this study was:

**Q3: Within the relevant research domain, what methodological variables produced the most variation in terms of significant findings?**

Whenever a meta-analysis is conducted, source effects as well as interaction of those source effects with other substantive variables should be explored. This is important because the exploration invalidates one of the major criticisms associated with the technique. That criticism derives from the suggestion that meta-analyses are themselves limited because often only main effects are examined (Cooper & Hedges 1994). It is therefore important to include interaction effects as a potential moderator. If main effects and interaction effects significantly differ, researchers might reason that further exploration of celebrity endorser effectiveness is required in order to determine whether other moderators critically influence source effects (Wilson & Sherrell 1993). In pursuit of this objective, a fourth research question was examined:

**Q4: How do interaction effects differ from main effects in celebrity endorsement source effects literature and what implications do these differences have for researchers?**

Finally, as the existing literature associated with the effectiveness of celebrity endorsement is explored empirically, significant gaps in the literature that are not currently apparent may be revealed. The results of this meta-analysis should bring at least partial closure to what has been discovered in prior studies – in effect, tying extant findings together while providing a platform from which fruitful future research endeavours may be launched. The final research question driving this study was:

**Q5: What potentially rewarding topic areas remain relatively under-explored in the current celebrity endorser literature?**

## **Celebrity endorsers**

A review of the literature revealed the following key predictors: (1) celebrity performance, (2) negative information, (3) celebrity credibility, (4) celebrity expertise, (5) celebrity trustworthiness, (6) celebrity attractiveness, (7) celebrity familiarity, (8) celebrity likeability, and (9) celebrity/product fit. Each predictor is examined below.

### *Celebrity performance*

In the context of this study, celebrity performance refers to the level of achievement a celebrity attains at any given time in their chosen profession. Performance could refer to the level of athletic performance, acting success, musical success, etc. of any given celebrity. This perceived level of performance may be enduring, as in the case of the Rolling Stones who have maintained a high level of rock and roll notoriety for decades, or fleeting, as in the case of one-hit-wonder Right-Said-Fred.

However, no guarantee exists that any celebrity can continuously produce popular music, act in financially successful movies, or win sports championships. In fact, depending on their level of performance, celebrities do rise and fall in popularity throughout their entire career (Agrawal & Kamakura 1995). When a celebrity fails to perform acceptably, as defined by consumers, a celebrity endorser's effectiveness tends to decline (Agrawal & Kamakura 1995).

### *Negative celebrity information*

Since repeated pairings of a brand and celebrity strengthen the associative link consumers establish between brand and celebrity, negative information about the celebrity may negatively impact the endorsed brand (Erdogan & Baker 2000). Till and Shimp (1998) observed that a strong associative link between celebrity and product must be present before negative celebrity information lowers brand evaluations. Regardless of the strength of association consumers perceive between the celebrity endorser and the product, negative information about celebrity endorsers can put a firm's products and image at risk. Pop star Michael Jackson's child molestation indictment produced negative connotations. The resultant

celebrity image transformation would have bottomed out Jackson's endorsement effectiveness for Pepsi – had the company not long since opted out of Jackson as an endorser due to his prior alleged indiscretions.

### *Celebrity credibility*

Celebrities are generally viewed by consumers as credible sources of information about the product or firm they endorse (Goldsmith *et al.* 2000). The literature exploring celebrity endorsements has generally employed one of two foundational source models: (1) the source-credibility model, and (2) the source-attractiveness model (Erdogan 1999).

Source credibility can be defined as 'a communicator's positive characteristics that affect the receiver's acceptance of a message' (Ohanian 1990, p. 41). The source-credibility model analyses the factors leading to the perceived credibility of the communicator (Hovland *et al.* 1953). The model contends that the effectiveness of a message depends upon the perceived level of expertise and trustworthiness associated with an endorser or communicator (Erdogan 1999). When considered jointly, expertise and trustworthiness are presumed to embody the source credibility construct (Ohanian 1990).

The source-attractiveness model posits that the attractiveness of any source is determined by the communication receiver's perceptions of the source's similarity, familiarity, and likeability. Essentially, if consumers perceive a celebrity endorser as similar to them and they are familiar with and like the celebrity, they will tend to find the celebrity more attractive.

### *Celebrity expertise*

Erdogan (1999, p. 298) defines celebrity endorsers' expertise as 'the extent to which a communicator is perceived to be a source of valid assertions'. The literature investigating source credibility in settings involving persuasive communication generally indicates that a receiver's perception of the source's expertise positively influences source effectiveness (Ohanian 1990). Respondents' actions in response to the source's recommendations seem to vary directly with the source's perceived level of expertise and the target person's level of agreement with those recommendations. Subjects exposed to a source perceived as highly expert

exhibit more agreement with the source's recommendation than did those exposed to a source with low expertise (Ohanian 1990). The level of perceived celebrity expertise should predict celebrity endorser effectiveness.

### *Celebrity trustworthiness*

Trustworthiness is the degree of confidence consumers place in a communicator's intent to convey the assertions s/he considers most valid (Ohanian 1990). Giffin (1967) describes favourable disposition, acceptance, psychological safety, and perceived supportive climate as favourable consequences of trust. Much of the literature supports the positive effect of trustworthiness on effectiveness (Chao *et al.* 2005). Miller and Baseheart (1969) found that a highly opinionated message from a highly trustworthy communicator produces an effective attitude change, while non-trusted communicators' impact proved immaterial. Perceived communicator trustworthiness has also been shown to produce a greater attitude change than perceived expertise (McGinnies & Ward 1980). The extant literature on celebrity endorsers suggests that trustworthiness is an important predictor of celebrity endorsement effectiveness.

### *Celebrity attractiveness*

Celebrity endorsement literature has indicated that attractiveness is an important indicator of effectiveness (Chao *et al.* 2005); however, the attractiveness construct is multi-dimensional in nature. Far from just encompassing aspects of physical attractiveness, which themselves are rather arbitrary, attractiveness also entails other characteristics such as personality and athletic ability (Erdogan 1999).

Some authors suggest that physically attractive celebrities are a predictor of advertising effectiveness (Till & Busler 2000). Certainly, physically attractive celebrities are generally viewed more favourably on various personality traits than their less attractive counterparts (Kahle & Homer 1985; Eagly *et al.* 1991). Joseph (1982) studied endorsers' attractiveness beyond the level of personality traits. Specifically, he examined the impact of endorser attractiveness on opinion change, product evaluation, and other measures of effectiveness. The study concluded that attractive endorsers have a more positive impact on the products they endorse than less

attractive endorsers. Baker and Churchill (1977), however, found that while attractiveness was effective in increasing positive advertisement evaluations, it was not effective in producing stronger purchase intentions. Similarly, Caballero *et al.* (1989) observed that endorser attractiveness had no effect on advertising effectiveness. Within the broader context of celebrity endorsement, endorser attractiveness is certainly a relevant construct. However, the nature and scope of the attractiveness construct remains uncertain, and therefore appears worthy of additional attention.

### *Celebrity familiarity and likeability*

In some studies, celebrity familiarity and likeability are treated as if each were analogous to attractiveness (Kahle & Homer 1985). Each celebrity attribute may, in fact, be subsumed within the attractiveness construct. But other studies address familiarity and likeability separately, investigating each construct's effect on effectiveness as if each were distinct from endorser attractiveness (O'Mahoney & Meenaghan 1998).

In the celebrity endorsement context, familiarity has been defined as 'knowledge of the source through exposure' (Erdogan 1999, p. 299). Likeability is defined as 'affection for the source as a result of the source's physical appearance and behaviour' (Erdogan 1999, p. 299). On this basis, in this study the two constructs are treated as if each were distinct from attractiveness. This path was followed in an attempt to determine each construct's value as a possible predictor of celebrity endorsement effectiveness.

### *Celebrity/product fit*

The celebrity/product fit, also called the 'match-up hypothesis', refers to the harmony of the match between the celebrity endorser and the product being endorsed (Till & Busler 2000). Celebrity/product fit is thought to function as a key determinant of endorsement effectiveness (e.g. Friedman *et al.* 1978; Friedman & Friedman 1979; Kahle & Homer 1985; Kamins 1989, 1990; Kamins & Gupta 1994; Erdogan & Baker 2000; Till & Busler 2000; Erdogan *et al.* 2001; Batra & Homer 2004). Celebrity effectiveness does vary across different product types. Friedman and Friedman (1979) concluded that the better the celebrity/product fit, as perceived by

consumers, the higher the level of endorsement effectiveness. Till and Busler (2000) found that celebrity/product fit was effective for only certain measures of effectiveness such as brand attitude, but not for other measures such as purchase intention. Regardless of the impact celebrity/product fit has on effectiveness, the absolute weight of the existing literature suggests that the phenomenon should play an important role in celebrity endorser effectiveness (Till & Busler 2000).

## **Method**

### *Meta-analysis overview*

Meta-analysis is a quantitative review of a research domain that illustrates the typical strength or effect of a phenomenon, its variability, its statistical significance, and the nature of the moderator variables from which one can predict the comparative strength of the effect or phenomenon (Rosenthal 1995). Many advantages result from employing meta-analysis as a research method. The primary advantage clearly derives from the method's ability to scrutinise any literature as a meaningful whole. At that point, similarities and differences among methodologies and the results of many studies can be uncovered more easily. Meta-analysis also permits small and non-significant effects to contribute to a more complete picture of the results of a stream of literature (Cooper & Hedges 1994). Finally, meta-analysis identifies moderators by identifying and exploring potentially meaningful patterns in quantitative studies.

When meta-analysis is employed, exploration, as opposed to simple confirmation, of the relevant literature is emphasised. This emphasis is practically and theoretically significant. Exploration provides a more effective means of formulating causal influences and understanding, at least inferentially, why various results occurred (Cooper & Hedges 1994).

### *Effect size*

In accordance with Rosenthal (1995), we focused on providing a meta-analysis that would provide a succinct look into celebrity endorser source effects and effect size. Hence, five experts were consulted to aid in evaluating studies for inclusion in this meta-analysis. The majority of studies in

this meta-analysis measured celebrity endorsement effectiveness via the foremost categories of constructs: (1) purchase intention, (2) brand attitude, and (3) attitude towards advertisement, (4) believability, (5) recall, and (6) recognition. Other studies included: measured effectiveness as actual purchase behaviour, expected excess returns, or other measures of behavioural intention and attitude. Some studies used only one measure celebrity endorsement effectiveness (e.g. Goldsmith *et al.* 2000; Erdogan *et al.* 2001; Forehand & Perkins 2002). But others examined celebrity endorsement source effects across several measures, using two or more constructs categories to assess perceived celebrity endorsement effectiveness (Till & Shimp 1998; Silvera & Austad 2004).

While effectiveness has been measured in the included studies by various constructs, the purpose of meta-analysis is to focus on the effect size of chief explanatory variables (Cooper & Hedges 1994). Therefore, when conducting a meta-analysis, effect size is the essential component, not the individual dependent variables used in the studies under consideration (Rosenthal 1995). From the studies used in this meta-analysis, the relationship between the independent source effect variables and the measure of effectiveness was converted into a weighted effect size that was, in turn, used in the subsequent analysis as the dependent variable.

### *Selecting the relevant literature*

A comprehensive literature review identified all relevant empirical studies that dealt directly or indirectly with celebrity endorsement. The ABI Inform, EbscoHost, Google Scholar, Digital Dissertations and Science Direct databases were all searched. Peer-reviewed academic journals, as well as trade journals, were searched in the areas of marketing, advertising, business, psychology, and communication.

To qualify for inclusion, studies must have specifically evaluated celebrity characteristics. Advertising studies that examined source effects without specifically addressing celebrities or provided an evaluation of celebrities in comparison to other types of spokespersons were too general for inclusion. Eighty-seven studies were originally identified as worthy of further evaluation. Of this sample, 12 articles were conceptual and another 43 studies failed to report information required to conduct the analysis due to their focus on aspects of celebrity endorsers outside the realm of source

effects. In total, then, 32 studies were retained for analysis in this meta-analysis. Total effect size was 266. In all, 27 journal articles, two unpublished studies, and three unpublished dissertations were included.

While an extensive search was conducted, the articles included in this meta-analysis probably represent a sample, as opposed to the complete population, of the celebrity endorsement literature. But given the wide diversity of journals as well as the unpublished works (see Table 1) contained in the sample, it should be representative of the relevant advertising literature.

**Table 1: Journal articles collected for meta-analysis**

Articles initially collected by journal		Articles included for meta-analysis by journal	
Journal name	Number of articles collected	Journal name	Number
Journal of Advertising	13	Journal of Advertising	9
Journal of Advertising Research	10	Journal of Consumer Research	4
Journal of Consumer Research	9	Journal of Advertising Research	3
Advances of Consumer Research	6	Journal of Consumer Psychology	3
Unpublished manuscripts	6	Unpublished dissertations	3
International Journal of Advertising	5	Journal of the Academy of Marketing Science	2
Journal of Marketing	4	Unpublished manuscripts	2
Journal of Consumer Marketing	4	Journal of Business Research	1
Journal of Consumer Psychology	4	Managerial Finance	1
Unpublished Dissertations	3	Journal of Broadcasting and Electronic Media	1
Journal of the Academy of Marketing Science	3	Advances in Consumer Research	1
Psychology and Marketing	3	Irish Marketing Review	1
Journal of Marketing Research	2	Journal of International Consumer Marketing	1
Journal of Consumer Affairs	2	<b>Total</b>	<b>32</b>
Journal of Current Issues and Research in Advertising	2		
Journal of Product and Brand Management	2		
Journal of Business Research	2		
Journal of Services Marketing	1		
Managerial Finance	1		
Journal of Broadcasting and Electronic Media	1		
Journal of Consumer Behaviour	1		
Irish Marketing Review	1		
Journal of International Consumer Marketing	1		
Journal of Marketing Management	1		
<b>Total</b>	<b>87</b>		

### ***Coding data***

Correlations were obtained from the sample studies using formulas from Cooper and Hedges (1994). As suggested by Hunter and Schmidt (1990), weighted correlations were used in the analysis to account for sample size and also as the dependent variable in the analysis. For the independent variables, initial coding consisted of coding the independent variables exactly as the authors articulated them. These independent variables were then reinterpreted and grouped into redefined variables.

These redefined variables were then presented to five experts in the area of advertising for confirmation. A content analysis of the studies yielded six substantive and methodologically meaningful dimensions on which all studies could be compared. The dimensions were source manipulation, celebrity/product fit, experimental effect, study setting, sample type, and origin. Coding was performed by two trained coders. Any disagreements about potential inconsistencies in the coding were resolved through discussions involving the authors and consulting experts.

### **Analysis**

Table 2 summarises the effects from the sample studies. Among the original 266 total effects, 185 were statistically significant ( $p < 0.05$ ). Forty-four per cent of the retained studies examined celebrity/product fit. With respect to methods characteristics, 86% of studies sampled reported main effects, 62% used a survey instrument, and 52% used a student sample. Exactly 60% of the studies used a US-based sample.

These data were skewed. This was expected, given the small effects characteristic associated with behavioural research (Sawyer & Ball 1981; Wilson & Sherrell 1993). To ensure that interpretation of the results was not influenced by transformation of the data, a nonparametric procedure was performed on the weighted correlation coefficients. The Kruskal-Wallis test was used to analyse the data from the non-normal population (Iman & Conover 1983; Wilson & Sherrell 1993). Kruskal-Wallis provides a powerful alternative to the  $t$ -test for the equality of means (Wilson & Sherrell 1993). Compared with the  $F$ -test, the Kruskal-Wallis test has an asymptotic efficiency of 95.5% when used with non-normal populations

**Table 2: Percentage distribution of source effects**

Variable	All effects (%) n = 266	Significant (%) n = 185	Non-significant (%) n = 81
<i>Source manipulation</i>			
Negative information	3	2	4
Celebrity expertise	15	18	6
Celebrity attractiveness	20	19	23
Celebrity credibility	23	24	21
Celebrity trustworthiness	26	27	25
Celebrity likeability	3	3	4
Celebrity familiarity	5	1	14
Celebrity performance	6	7	4
<i>Celebrity/product fit</i>			
No	56	68	31
Yes	44	32	69
<i>Experimental effect</i>			
Main effect	86	83	92
Interaction effect	14	17	8
<i>Setting</i>			
Survey	62	58	36
Experiment	35	42	11
Archival	4	0	5
<i>Sample</i>			
Student	52	63	29
Non-student	48	37	71
<i>Country</i>			
US	60	73	34
Non-US	40	27	66

(Siegal 1956). The mean correlation of each variable is provided to permit comparison of effect sizes between variables.

Publication bias was analysed using Rosenthal’s (1991) fail-safe N. To render  $Z_{\text{normal}}$  for z-transformed correlation coefficients non-significant,  $Z_{\text{normal}}$  would have to be less than 1.645 ( $p > 0.05$ ).  $Z_{\text{normal}}$  for this study is 23.02. Thus the results of this meta-analysis are statistically significant. In fact, the results suggest this study would have to find 14,454 non-significant effects before the 185 significant results could be considered due to chance. This robust result infers the use of published studies does not threaten the integrity of this study’s findings.

### *Results for predictors of celebrity endorsement effectiveness*

The average ranking of the weighted effect size is shown in Table 3. For source manipulation, the various levels were significantly different. The mean ranking of the source manipulation variables indicated that 'negative information' ( $MR = 189.94$ ) exercised the most influence on celebrity endorser effectiveness. Celebrity 'trustworthiness' exercised the second most influence ( $MR = 151.59$ ), followed closely by celebrity 'expertise' ( $MR = 150.96$ ), and 'attractiveness' ( $MR = 140.94$ ). Celebrity 'credibility' ( $MR = 114.11$ ), 'familiarity' ( $MR = 100.36$ ), and 'likeability' ( $MR = 94.25$ ) subsequently followed. Celebrity performance ( $MR = 24.04$ ) was the least influential endorser source effect. The source manipulation variables that significantly differed from each other ( $p < 0.05$ ) are also shown in Table 3.

Studies that did not examine celebrity/product fit had a statistically significant higher average ranking ( $\chi^2 = 77.01, 1 df, p < 0.00$ ) than studies that examined celebrity/product fit.

### *Results for methodological variables*

The average rankings of effects were statistically significant for all four method dimensions examined (see Table 3). In studies reporting interaction effects, the average ranking of the weighted correlation was significantly greater than in studies reporting main effects ( $\chi^2 = 14.23, 1 df, p < 0.00$ ). For experimental studies, the average ranking of the weighted correlation was statistically greater ( $\chi^2 = 58.61, 1 df, p < 0.00$ ) than for cross-sectional studies, where a survey was administered. For studies using college students as subjects, the average ranking of the weighted correlation was statistically greater ( $\chi^2 = 100.34, 1 df, p < 0.00$ ) than for studies using non-student subjects. Finally, studies using subjects from the US had a significantly greater average ranking ( $\chi^2 = 49.78, 1 df, p < 0.00$ ) of the weighted correlation than studies using non-US subjects. The practical and theoretical implications associated with each observed effect are substantial. These are discussed in the next section.

**Table 3: Average ranking of weighted effect size**

Variable	Mean rank	Mean R	Statistical significance test			
<i>Source manipulation</i>						
Negative information	189.94	-0.62	Chi-square	44.56	<i>Significant differences:</i> Negative info–Celeb cred Negative info–Celeb lik Negative info–Celeb perf Negative info–Celeb fam Celeb expert–Celeb cred Celeb expert–Celeb perf Celeb expert–Celeb fam Celeb attr–Celeb perf Celeb cred–Celeb trust Celeb cred–Celeb perf Celeb trust–Celeb lik Celeb trust–Celeb perf Celeb trust–Celeb fam	
Celebrity trustworthiness	151.59	0.46	<i>df</i>	7		
Celebrity expertise	150.96	0.38	<i>p</i> value	0.00		
Celebrity attractiveness	140.94	0.38				
Celebrity credibility	114.11	0.30				
Celebrity familiarity	100.36	0.26				
Celebrity likeability	94.25	0.33				
Celebrity performance	24.04	-0.05				
<i>Celebrity/product fit</i>						
No	198.28	0.44	Chi-square	77.01		
Yes	107.65	0.26	<i>df</i>	1		
			<i>p</i> value	0.00		
<i>Experimental effect</i>						
Main effect	150.20	0.31	Chi-square	14.23		
Interaction effect	206.03	0.65	<i>df</i>	1		
			<i>p</i> value	0.00		
<i>Setting</i>						
Survey	139.75	0.27	Chi-square	58.61		
Experiment	203.80	0.57	<i>df</i>	1		
			<i>p</i> value	0.00		
<i>Sample</i>						
Student	200.30	0.49	Chi-square	100.34		
Non-student	99.37	0.25	<i>df</i>	1		
			<i>p</i> value	0.00		
<i>Country</i>						
US	185.46	0.45	Chi-square	49.78		
Non-US	110.25	0.19	<i>df</i>	1		
			<i>p</i> value	0.00		

Notes:

1. Mean R should be viewed with caution since it represents the unweighted values.

2. The Kruskal-Wallis non-parametric test examines the average rank of the correlation. Vales of R are arranged in order from low to high and assigned a rank where 1 = the smallest effect and n = the largest effect. High mean rankings indicate larger effects than low average rankings.

## Discussion

This meta-analysis confirms a good portion of the 30+ years of celebrity endorsement literature. More meaningfully, it also ties together much of that literature – resulting in a more conclusive picture.

Negative information about the celebrity exercised the largest impact ( $R = -0.62$ ) on celebrity endorsement effectiveness in advertising. This result underscored the high risk associated with using celebrity endorsers as well as the huge impact negative information about that celebrity can have on consumer perceptions. This finding also suggests that when negative information about a celebrity endorser emerges, the revelation can dilute the equity of the product/brand associated with the celebrity. The necessity, whenever possible, to pre-empt the arrival of negative information about celebrity endorsers is clearly confirmed.

The results of this meta-analysis likewise infer that positive celebrity information and image can also transfer to the product/brand. But of equal importance, these results infer negative information transfers to the product/brands, as well. This implies firms should exercise extreme caution when choosing celebrity endorsers. Firms should also develop quick response contingency plans to countermand any possible negative information/events. The likely payoff associated with adopting the right celebrity endorser, as well as the high costs associated with tapping the wrong option, again are emphasised.

Source expertise and trustworthiness invariably contribute to source credibility. But prior research implies source expertise and trustworthiness may make independent contributions to source effectiveness (Mowen & Minor 2006). In a confirmatory manner, this meta-analysis revealed that celebrity ‘trustworthiness’, and ‘expertise’ along with ‘attractiveness’ each exercised more influence on effectiveness than did the celebrity ‘credibility’ source effect. This suggests that a source credibility construct composed of trustworthiness, expertise, and attractiveness dimensions should be employed in future studies but credibility may also encompass other dimensions.

Trustworthiness and expertise have each traditionally been associated with source credibility, with expertise generally identified as the more important dimension (Homer & Kahle 1990). But this quantitative synthesis revealed trustworthiness was the second most important predictive

construct. Trustworthiness typically includes the items trustworthy, dependable, honest, reliable and sincere (Ohanian 1991). Moreover, in an advertising context, trustworthiness refers to the honesty, integrity and believability of a celebrity endorser (Erdogan 1999). Morgan and Hunt (1994, p. 23) conceptualised trust as ‘confidence in an exchange partner’s reliability and integrity’. These conceptualisations imply that the trustworthiness construct *should* proxy the confidence consumers have in the reliability and integrity of a given source. Celebrity trustworthiness certainly represents a critical issue for advertisers.

One viable, and managerially relevant, explanation for the significance of trustworthiness may ensue from the continuing shift in the emphasis of marketing practice away from a sales orientation and towards a customer relationship management orientation. Among the studies investigated in this meta-analysis, 75% were published between 1990 and 2005 – essentially the height of the CRM movement. In the emerging marketing environment, few should be surprised that celebrity endorser trustworthiness was revealed to play so important a role.

Celebrity expertise exercised the third most influential celebrity source effect. Prior research suggests that whether an endorser truly is an expert matters little. Instead, these results confirm that what matters greatly is whether consumers *perceive* them as experts (Hovland *et al.* 1953; Ohanian 1990; Erdogan 1999). This third place finish sheds light on the relative importance of celebrity expertise since some prior research has suggested that it would be ranked higher.

Attractiveness is the final dimension of the composite source credibility model. Attractiveness was also the fourth most influential source effect. As such, celebrity attractiveness was not as influential as many researchers have previously suggested. As a construct, attractiveness encompasses physical attractiveness as well as other virtuous characteristics that consumers might perceive as attributes of a given celebrity endorser (Erdogan 1999).

Based on these observations, an integration of the source attractiveness model into the source credibility appears warranted. The source attractiveness model is composed of likeability, familiarity, and similarity. Adding these dimensions to future research measures would create a more complete multi-dimensional scale of celebrity endorser attractiveness.

The possible role of celebrity/product fit has been a staple in celebrity endorser literature for many years, and apparently with good cause. This

analysis infers that failing to address celebrity/product fit in research efforts may produce inflated results. Studies examining celebrity/product fit found that the collective source effects of celebrities had less impact on effectiveness. However, due to the variety of source effects used when examining celebrity/product fit, it is difficult to make any generalisations.

In studies reporting interaction effects, the resulting correlation ( $R = 0.65$ ) was significantly higher than the correlation in studies that only reported main effects ( $R = 0.31$ ). One possible explanation is that researchers likely report only significant interaction effects whereas they must report all main effects they have tested. This course of action would artificially inflate the level of variance explained through interaction effects.

The impact of variables examined in laboratory studies was significantly greater than variables examined in field studies. Laboratory studies should produce stronger effects, due to superior internal validity and experimental impact (Campbell 1957).

In studies using student samples, the impact of celebrity source effects was much larger than in studies using non-student samples. This may be explained by the relatively homogeneous demographic and psychographic characteristics associated with student samples (Lynch 1999).

Finally, US studies reported more significant findings than non-US studies. Non-US studies may be characterised by more non-significant findings because their academic cultures are more motivated by pure academic debate. Alternatively, consumers in non-US markets may simply be less receptive to celebrity endorsement.

### *Practical and theoretical implications*

The dominant role played by negative celebrity information suggests that highly publicised negative events/information associated with a celebrity will likely prove detrimental to advertising campaigns. An intriguing low-risk solution might entail using still popular, but conveniently deceased, celebrities in product promotion (Till & Shimp 1998). Perhaps unsurprisingly, Bogie, Marilyn, and James Dean do live on in modern advertising.

With many aspects of business or life, however, lower-risk ventures often provide little to no rewards. A similar principle likely applies to celebrity endorsement. Michael Jordan remains a dominating endorser

long after his retirement, and never once did he deviate from that status during his active playing days. Jordan features an ideal combination of success and charisma and has been one of the most well-managed celebrity endorsers (Kellner 2000). His success as an athlete transferred to the products he endorsed, leading to impressive business success (Kellner 2000). So even if the costs of negative information about celebrity endorsers are high – and undoubtedly, they are – the fact remains that returns can be high too, when the celebrity's success transfers to the product/brand.

The source credibility model – composed of celebrity trustworthiness, celebrity expertise, and celebrity attractiveness – captures each of the three celebrity source effects identified as most influential in this research. Practitioners should use the source credibility model as a basis for evaluating consumer perceptions of a celebrity endorser. In addition, celebrity familiarity and likeability, each taken from the source attractiveness model, were also revealed as highly influential source effects. Familiarity and likeability might each make a substantial additive contribution to the predictive ability of the source credibility model when it is used in a celebrity endorsement context.

All cultures place a premium on physical attractiveness (Erdogan 1999). For this reason alone, researchers should include aspects of physical attractiveness in their celebrity endorser source effects models. 'Similarity', the other source attractiveness model dimension, has not been sufficiently investigated to be included in this meta-analysis. Additional empirical studies are needed that apply the source attractiveness model to clarify any ambiguous findings and verify results uncovered in this meta-analysis. Adding this dimension to the source attractiveness model should assist practitioners in their attempts to forecast celebrity endorser effectiveness.

The larger effect size for studies investigating celebrity/product fit also provides interesting implications for practitioners. Ignoring celebrity/product fit may inflate market research results. But these results may also indicate that when consumers are asked to consider celebrity/product fit, they may respond less favourably because they are consciously attempting to match the celebrity with a product/brand. In the literature, no consensus was evident regarding what source effects should be matched with a product/brand. It remains difficult to know which dimensions should be matched between a product/brand and a celebrity.

The findings associated with the methodological moderators present several additional implications for practitioners. In marketing research, experimental designs may produce higher results than what actually exists in the authentic world. The effectiveness of celebrity endorsements is subject to reduction by advertising clutter, selective attention, and the time available to identify and evaluate the advertisement. Therefore, experimental results should be interpreted with caution. Next, celebrity endorsers may have a greater influence on college students than on members of more cross-sectional samples. This suggests students may represent an ideal target market for advertisements that use celebrity endorsers. Finally, celebrity endorsers were far less influential in non-US studies. This suggests non-US populations are less responsive to celebrity endorsers. However, the persistent use of celebrity endorsers in non-US countries by practitioners suggests that many non-US markets may exist where celebrity endorsement is likely to prove an effective advertising strategy.

### *Limitations*

Despite attempts to conduct this meta-analysis under the most rigorous constraints, limitations inherently exist. Some empirical studies were excluded because they did not feature statistics which could be used in a meta-analysis. Meta-analyses can also be limited by a focus on significant findings of published studies. However in this study, unpublished findings were actively sought. Thus it is likely that this study was less affected by this bias than narrative reviews. Narrative reviews rarely entail an exhaustive search of the literature (Cooper & Hedges 1994). Finally, there was a disparity in the number of effects for each source effect. More research is needed on the effects and influences of negative information, celebrity familiarity, celebrity likeability, and celebrity performance.

### *Suggestions for future research*

As posited, this meta-analysis revealed a large number of gaps in current celebrity endorser theory and practice. In fact, more questions may have emerged than were actually answered. To begin with, measures are needed that will permit the multidimensional nature of the celebrity

source effects to be addressed more efficiently. Such efforts would help practitioners evaluate the effectiveness of celebrity endorsers.

Celebrity performance had a slight negative impact on celebrity endorsement effectiveness. However, additional empirical studies are needed to validate this result. Few studies examining the impact of celebrity performance reported statistics that could be used in a meta-analysis. Celebrities typically must perform at a high level in their respective professions (athletics, acting, and modelling) to achieve celebrity status. Information pertaining to what level and how consistently a celebrity must perform, in order for them to be effective as endorsers, should prove valuable.

Practitioners and theorists alike should examine the results of ‘match-up’ research with caution. As a communication medium, advertising purportedly persuades consumers. Firms also use advertising to communicate meaning and positions that they presume should generate sought-after value for consumers. However, gauging the meaning consumers associate with a product is challenging. In fact, most products can be positioned to assume any meaning (O’Mahony & Meenaghan 1998). For any valid conclusions to be reached, celebrity/product fit must be examined more thoroughly. Another fruitful extension might entail exploring whether celebrity endorsers perceived as trustworthy contribute to customer retention and repurchase intentions.

Finally, research is surely needed on celebrities who portray the ‘bad boy’ or ‘bad girl’ image and their effectiveness as celebrity endorsers. These sorts of anti-celebrities may transfer a certain image of danger, risk, or toughness that may appeal to some consumers or alienate others. The prospect of either outcome should be more thoroughly examined.

## References

- Agrawal, J. & Kamakura, W.A. (1995) The economic worth of celebrity endorsers: an event study analysis. *Journal of Marketing*, **59**(3), pp. 56–62.
- Baker, M. & Churchill, G.A. (1977) The impact of physically attractive models on advertising evaluations. *Journal of Marketing Research*, **14**(4), pp. 538–555.
- \*Basil, M.D. & Brown, J.W. (1996) Identification as a mediator of celebrity effects. *Journal of Broadcasting and Electronic Media*, **40**(4), pp. 1–15.
- \*Basil, M.D. & Brown, J.W. (1997) Marketing AIDS prevention: the differential impact hypothesis versus identification effects. *Journal of Consumer Psychology*, **6**(4), pp. 389–411.

- \*Batra, R. & Homer, P. (2004) The situational impact of brand image beliefs. *Journal of Consumer Psychology*, **14**(3), pp. 318–330.
- \*Bush, A.J., Martin, C. & Bush, V. (2004) Sports celebrity influence on behavioral intentions of generation Y. *Journal of Advertising Research*, **44**(1), pp. 108–118.
- Caballero, M.J., Lumpkin, J. & Madden, C.D. (1989) Using physical attractiveness as an advertising tool: an empirical test of attraction phenomenon. *Journal of Advertising Research*, **29**(4), pp. 16–23.
- Campbell, D. (1957) Factors relevant to the validity of experiments in social settings. *Psychological Bulletin*, **54** (July), pp. 297–312.
- Chao, P., Wuhrer, G. & Werani, T. (2005) Celebrity and foreign brand name as moderators of country-of-origin effects, *International Journal of Advertising*, **24**(2), pp. 173–192.
- \*Choi, S.M. (2002) *Attributional Approach to Understanding Celebrity/Product Congruence Effects: Role of Perceived Expertise*. Unpublished Doctoral dissertation, Michigan State University, Lansing.
- Cooper, H. & Hedges, L.V. (1994) *The Handbook of Research Synthesis*. New York: Russel Sage Foundation.
- Eagly, A.H., Ashmore, R.D., Makhijani, M.G. & Longo, L.C. (1991) ‘What is beautiful is good, but ...: a meta-analytic review of research on the physical attractiveness stereotype. *Psychology Bulletin*, **110**(1), pp. 109–128.
- Erdogan, B.Z. (1999) Celebrity endorsement: a literature review. *Journal of Marketing Management*, **15**(3), pp. 291–314.
- Erdogan, B.Z. & Baker, M.J. (2000) Towards a practitioner-based model of selecting celebrity endorsers. *International Journal of Advertising*, **19**(1), pp. 25–43.
- \*Erdogan, B.Z., Baker, M.J. & Tagg, S. (2001) Selecting celebrity endorsers: the practitioner’s perspective. *Journal of Advertising Research*, **41**(3), pp. 39–49.
- \*Farrell, K.A., Karels, G.V., Monfort, K.W. & McClatchey, C.A. (2000) Celebrity performance and endorsement value: the case of Tiger Woods. *Managerial Finance*, **26**(7), pp. 1–15.
- \*Forehand, M.R. & Perkin, A. (2003) Implicit Assimilation and Explicit Contrast: The Unconscious Effects of Celebrity Voiceovers on Brand Attitude. Unpublished manuscript.
- \*Friedman, H.H. & Friedman, L. (1979) Endorser effectiveness by product type. *Journal of Advertising Research*, **19**(5), pp. 63–71.
- \*Friedman, H.H., Santeramo, M. & Traina, A. (1978) Correlates of trustworthiness for celebrities. *Journal of the Academy of Marketing Science*, **6**(4), pp. 291–299.
- \*Friedman, H.H., Termini, S. & Washington, R. (1976) The effectiveness of advertisements utilizing four types of endorsers. *Journal of Advertising*, **5**(3), pp. 22–24.
- Giffin, K. (1967) The contribution of studies of source credibility to a theory of interpersonal trust in the communication process. *Psychological Bulletin*, **68**(2), pp. 104–119.
- \*Goldsmith, R., Lafferty, B. & Newell, S. (2000) The impact of corporate credibility and celebrity credibility on consumer reaction to advertisements and brands. *Journal of Advertising*, **29**(3), pp. 43–54.

- \*Heath, T., McCarthy, M. & Mothersbaugh, D. (1994) Spokesperson fame and vividness effects in the context of issue-relevant thinking: the moderating role of competitive setting. *Journal of Consumer Research*, **20**(4), pp. 520–534.
- Homer, P.M. & Kahle, L.R. (1990) Source expertise, time of source identification, and involvement in persuasion: an elaborative processing perspective. *Journal of Advertising*, **19**(1), pp. 30–40.
- Hovland, C., Irving, J. & Harold, K. (1953) *Communication and Persuasion; Psychological Studies of Opinion Change*. New Haven, CT: Yale University Press.
- Hunter, J.E. & Schmidt, F.L. (1990) *Methods of Meta-analysis: Correcting Error and Bias in Research Findings*. Newbury Park: Sage.
- Iman, R.L. & Conover, W.J. (1983) *A Modern Approach to Statistics*. New York: Wiley.
- \*James, K. & Ryan, M. (2001) Attitudes toward Female Sports Stars as Endorsers. Unpublished manuscript.
- Joseph, W.B. (1982) The credibility of physically attractive communicators: a review. *Journal of Advertising*, **11**(3), pp. 15–25.
- \*Kahle, L.R. & Homer, P. (1985) Physical attractiveness of the celebrity endorser: a social adaptation perspective. *Journal of Consumer Research*, **11**(4), pp. 954–961.
- Kaikati, J.G. (1987) Celebrity advertising: a review and synthesis. *International Journal of Advertising*, **6**(2), pp. 93–105.
- \*Kamins, M.A. (1990) An investigation into the ‘match-up’ hypothesis in celebrity advertising: when beauty may be only skin deep. *Journal of Advertising*, **19**(1), pp. 4–13.
- Kamins, M.A. (1989) Celebrity and noncelebrity advertising in a two-sided context. *Journal of Advertising Research*, **29**(3), pp. 34–42.
- Kamins, M.A. & Gupta, K. (1994) Congruence between spokesperson and product type: a match-up hypothesis perspective. *Psychology and Marketing*, **11**(6), pp. 569–587.
- \*Kamins, M.A., Brand, M., Hoeke, S. & Moe, J.C. (1989) Two-sided versus one-sided celebrity endorsements: the impact on advertising effectiveness and credibility. *Journal of Advertising*, **18**(2), pp. 4–10.
- Kellner, D. (2000) The sports spectacle, Michael Jordan, and Nike: unholy alliance? Unpublished manuscript.
- Kelman, H.C. (2006) Interests, relationships, identities: three central issues for individuals and groups in negotiating their social environment. *Annual Review of Psychology*, **57**(1), pp. 1–26.
- \*Louie, T. & Obermiller, C. (2002) Consumer response to a firm’s endorser (dis)association decisions. *Journal of Advertising*, **31**(4), pp. 41–52.
- Lynch, J.G. (1999) Theory and external validity. *Journal of the Academy of Marketing Science*, **27**(3), pp. 367–376.
- McCracken, G. (1986) Culture and consumption: a theoretical account of the structure and movement of the cultural meaning of consumer goods. *Journal of Consumer Research*, **13**(1), pp. 71–85.
- McCracken, G. (1989) Who is the celebrity endorser? Cultural foundations of the endorsement process. *Journal of Consumer Research*, **16**(3), pp. 310–322.

- McGinnies, E. & Ward, C. (1980) Better liked than right: trustworthiness and expertise as factors in credibility. *Personality and Social Psychology Bulletin*, **6**(3), pp. 467–472.
- Miller, G.P. & Basehart, J. (1969) Source trustworthiness, opinionated statements, and response to persuasive communication. *Speech Monographs*, **36**(1), pp. 1–7.
- \*Misra, S. & Beatty, S. (1990) Celebrity spokesperson and brand congruence. *Journal of Business Research*, **21**(2), pp. 159–173.
- \*Moore, D., Mowen, J. & Reardon, R. (1994) Multiple sources in advertising appeals: when product endorsers are paid by the advertising sponsor. *Journal of the Academy of Marketing Science*, **22**(3), pp. 234–243.
- Morgan, R.M. & Hunt, S. (1994) The commitment–trust theory of relationship marketing. *Journal of Marketing*, **58**(3), pp. 20–38.
- \*Mothersbaugh, D.L. (1995) Advertising as a Search Heuristic. Unpublished Doctoral dissertation. Pittsburgh, PA: University of Pittsburgh.
- \*Mowen, J.C. & Brown, S. (1981) On explaining and predicting the effectiveness of celebrity endorsers. *Advances in Consumer Research*, **8**, pp. 437–441.
- Mowen, J.C. & Minor, M. (2006) *Consumer Behavior: A Framework*. Mason, OH: Thompson.
- \*Ohanian, R. (1990) Construction and validation of a scale to measure celebrity endorsers' perceived expertise, trustworthiness, and attractiveness. *Journal of Advertising*, **19**(3), pp. 39–52.
- Ohanian, R. (1991) The impact of celebrity spokesperson's perceived image on consumers' intention to purchase. *Journal of Advertising Research*, **31**(1), pp. 36–52.
- \*O'Mahoney, S. & Meenaghan, T. (1998) The impact of celebrity endorsements on consumers. *Irish Marketing Review*, **10**(2), pp. 15–24.
- \*Pornpitakpan, C. (2003) The effect of celebrity endorsers' perceived credibility on product purchase intention: the case of Singaporeans. *Journal of International Consumer Marketing*, **16**(2), pp. 55–73.
- \*Priester, J.R. & Petty, R. (2003) The influence of spokesperson trustworthiness on message elaboration, attitude strength, and advertising effectiveness. *Journal of Consumer Psychology*, **13**(4), pp. 408–421.
- Rosenthal, R. (1991) *Meta-analytic Procedures for Social Research*. Newbury Park, CA: Sage.
- Rosenthal, R. (1995) Writing meta-analytic reviews. *Psychological Bulletin*, **118**(2), pp. 183–192.
- Rosenthal, R. & DiMatteo, M. (2001) META-ANALYSIS: Recent developments in quantitative methods for literature reviews. *Annual Review of Psychology*, **52**(1), pp. 59–82.
- Sawyer, A.G. & Ball, D. (1981) Statistical power and effect size in marketing research. *Journal of Marketing Research*, **18**(3), pp. 275–290.
- \*Sengupta, J., Goodstein, R. & Boninger, D. (1997) All cues are not created equal: obtaining attitude persistence under low-involvement conditions. *Journal of Consumer Research*, **23**(4), pp. 351–361.
- Shimp, T. (2000) *Advertising Promotion: Supplemental Aspects of Integrated Marketing Communications*, 5th edn. Fort Worth, TX: Dryden Press.

- Siegel, S. (1956) *Nonparametric Tests for the Behavioral Sciences*. New York: McGraw-Hill.
- Silvera, D.H. & Austad, B. (2004) Factors predicting the effectiveness of celebrity endorsement advertisements. *European Journal of Marketing*, **38**(11/12), pp. 1509–1526.
- \*Stafford, M., Stafford, T. & Day, E. (2002) A contingency approach: the effects of spokesperson type and service type on service advertising perceptions. *Journal of Advertising*, **31**(2), pp. 17–34.
- \*St. James, M. (2003) *The Use of Celebrities in Advertising High Tech Products: Technology Association's Impact on Advertising Effectiveness*. Unpublished Doctoral dissertation. Washington, DC: George Washington University.
- \*Till, B.D. & Busler, M. (2000) The match-up hypothesis: physical attractiveness, expertise, and the role of fit on brand attitude, purchase intentions, and brand beliefs. *Journal of Advertising*, **29**(3), pp. 1–13.
- \*Till, B.D. & Shimp, T. (1998) Endorsers in advertising: the case of negative information. *Journal of Advertising*, **27**(1), pp. 67–82.
- \*Tripp, C., Jenson, T. & Carlson, L. (1994) The effect of multiple product endorsements by celebrities on consumers' attitudes and intentions. *Journal of Consumer Research*, **20**(4), pp. 535–547.
- Wilson, E. & Sherrell, D. (1993) Source effects in communication and persuasion research: a meta-analysis of effect size. *Journal of the Academy of Marketing Science*, **21**(2), pp. 101–112.

Note: \* indicates studies used for meta-analysis.

## About the authors

Clinton Amos is an Assistant Professor of Marketing at Augusta State University in Augusta, GA. He obtained his PhD from the University of North Texas and received his MBA in International Business from Dallas Baptist University. His research broadly focuses on marketing communication and consumer response.

Gary Ray Holmes is an Assistant Professor of Marketing at Drury University in Springfield, Missouri. Dr. Holmes completed his PhD in Marketing at University of North Texas in 2008. Prior to his career in education, Dr. Holmes was a vice president of marketing at a financial institution. His research interests include advertising and consumer behaviour.

David Strutton, PhD (University of Mississippi) is a Professor of Marketing at the University of North Texas. He has published more than 125 academic journal articles and papers in outlets such as the *Journal of the Academy of Marketing Science*, *Journal of Business Research*, *Journal of Advertising Research*, *Journal of Current Issues and Research in Advertising*,

*Psychology and Marketing, Industrial Marketing Management, Journal of Macromarketing, Journal of Personal Selling and Sales Management and the Journal of Business Ethics.*

Address correspondence to: Clinton Amos, Assistant Professor of Marketing, Augusta State University, 2500 Walton Way, Augusta, GA 30904, USA

Email: [clint.amos@gmail.com](mailto:clint.amos@gmail.com)

Copyright of International Journal of Advertising is the property of World Advertising Research Center Limited and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.