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EVALUATING NEW ZEALAND SPORTS STARS AS CELEBRITY ENDORSERS: INTRIGUING RESULTS

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Abstract

Celebrity athlete endorsement of products and services has become prominent in the promotional mixes of New Zealand companies and organisations. For years advertisers and researchers have pondered how successful celebrity athlete endorsement really works. Most suggest some form of transfer of positive images takes place between celebrity and the product or service they are endorsing and source-credibility models have become the preferred research design. The overall objective of this research was to assist sport marketing managers and their advertising agencies in matching celebrities with products and services. An ancillary objective was to compare results obtained from multiple-item and single-item scales. An exploratory study with tertiary students was conducted, using both Ohanian’s (1990) 15 item source-credibility scale and two single-item measures to examine potential “endorsement fit” for four New Zealand sporting heroes. They were Bernice Mene (recently retired national netball team captain), Dean Barker (America’s Cup yachting defender’s helmsman), Mandy Smith (recently retired national women’s hockey team star) and Justin Marshall (All Black rugby’s most capped halfback), all of whom were adjudged by students as physically attractive sports stars. The product reported here against which these athletes were scored was an isotonic sports drink. Results were mixed; the Ohanian source-credibility scale yielded selection of different celebrity athletes to the single-item measures. The research results show that matching celebrities to products for potential endorsement opportunities is a complex issue, leaving scope for judgement and intuition alongside quantification. Still unresolved is the question of multiple-item measures versus single-item measures in advertising and service research.

Celebrity Athlete Endorsement

Brooks and Harris (1998) noted that celebrity athlete endorsement has excited the interest of practitioners, students and researchers alike while Erdogan, Baker and Tagg (2001) commented that a recent literature review by their first author unearthed 45 recent academic articles on that topic in mainstream marketing and communication academic journals. In the context of this paper, a celebrity athlete endorser is a publicly recognised sports star who uses that public recognition to help another party (usually a corporate client) sell or bolster the image of specific goods or services.
Erdogan and Kitchen (1998) provide a cogent summary of the reasons for the growth of celebrity endorsers in marketing communications. These include:

- qualities such as physical attraction, sex appeal and likeability which can be transferred to the products being endorsed.
- “cutting through the advertising clutter” – celebrities can attract and maintain attention by their mere presence.
- helping brand makeovers, brand re-launches, brand re-positioning especially when a new or enhanced athletic image is required.

Obviously there are negative aspects to celebrity endorsement when celebrities are involved in scandals, disappear from public attention through injury or loss of form, become over-exposed by being linked with too many products or even overshadowing the brand they are endorsing. Nonetheless, “even though research findings are equivocal about the ability of celebrities to stimulate actual purchase behaviour, the positive impact of celebrity endorsers is well documented” (Erdogan & Kitchen 1998 p. 17).

Development of Multiple-Item Scales to Measure Celebrity Endorsement

Atkin and Black (1983) traced some of the earlier use of celebrity athletes (post World War Two through to the 1970s) in advertising, noting the influence that various celebrities provided to a range of goods and services. Attitude changes in a positive direction were accredited to the celebrity’s presence. Kahle and Homer (1985) extended this research perspective and were among the first to formally acknowledge, using social adaptation theory, how attractive looking endorsers can produce an attitudinal change. Meanwhile, Kamins (1990) was opining on the “match-up hypothesis”, the perceived level of “fit” between celebrities’ images and the products or services they are endorsing. Then Ohanian (1990) introduced a scale (the source-credibility scale) measuring a potential celebrity’s suitability for endorsing specific products. She went to some trouble to define source-credibility, commenting that its usage in advertising had been handicapped by many different executions, finally settling on source credibility being “a communicator’s positive characteristics that affect the receiver’s acceptance of a message” (p. 41). Her review of the literature to that point highlighted how celebrity endorsement really rested upon two themes – source credibility and source attractiveness. The former is, in turn, comprised of two main factors – expertise and trustworthiness – while the latter (attractiveness) ‘depends on the source’s “familiarity”, “likability” (sic), “similarity” and “attractiveness” to the respondent’ (Ohanian 1990, p. 41). She concluded that “credible sources are more persuasive than are sources of low credibility” (p. 42), then introduced her three component celebrity endorser’s credibility scale on the premise that “with the increased use of celebrities in advertising, a valid instrument measuring a celebrity endorser’s credibility is essential for understanding the impact of using such individuals in advertising” (p. 42). After the scale performed well on a series of reliability and validity tests, Ohanian (1990) suggested that it could replace single-item scales for assessing celebrity endorsers.

Recent Celebrity Endorsement Research
Recently, Burton and Kahle (2001) and James and Ryan (2001) have explored issues related to sport heroes’ gender in celebrity athlete endorsement. The latter authors investigated tertiary students’ attitudes to female sports stars as endorsers, using three different product categories scored against six popular female athletes. Their results supported Kamins’ (1990) “match-up hypothesis” with the celebrity athletes’ images “fitting” with various product images. Expertise (one of Ohanian’s source-credibility scale’s three key dimensions – see Table 1) was deemed crucial in athlete-product “fit” although trustworthiness and attractiveness (the other two key dimensions of the Ohanian scale) were sometimes associated too. Citing work by Miciak and Shanklin (1994), James and Ryan (2001) stated that the former had “concluded after interviewing a large number of advertising agencies and corporations that most did not undertake adequate research with regard to celebrity endorsers” (p.1) while Brooks and Harris (1998) suggested that “researchers and practitioners clearly have much work to do to bring a sense of order to the understanding of celebrity athlete endorsement” (p. 43).

Erdogan and Kitchen (1998) discuss how “academic research findings are equivocal about what are the important dimensions of celebrity endorsers” (p. 18). Their main criticism is that source credibility – attractiveness, trustworthiness, expertise – “effectively disregards the meaning of interaction between celebrity and brand. These interactions could cause endorsers to be inappropriate for some products, regardless of their credibility or attractiveness” (p.18). Erdogan and Kitchen suggest that the celebrity’s previous endorsements ought to be considered too. In a later paper, Erdogan, Baker and Tagg (2001) investigated British advertising agency managers’ celebrity choice factors. Their findings confirm that choice factors for celebrity selection are influenced by the type of product being endorsed. Thus matching celebrity to product is crucial, followed by the celebrity’s overall image; his/her cost, trustworthiness, controversy risk, familiarity, prior endorsements and likeability.

Objectives

While the overall objective of this paper was to help in the selection of celebrity athlete endorsers using an exemplar product, another, more methodological, objective grew out of the investigation. It was the comparison of results derived from Ohanian’s (1990) source-credibility scale (a multiple-item scale) with results from single-item measures represented by Juster’s (1966) purchase probability scale (described below) and the well-known constant-sum scale. That scale measures attitudes by having respondents divide up 100 points to indicate the relative importance of these attitudes. Comparing multiple-item measures with single-item measures in market, advertising and service research has intrigued some researchers for decades (see, for example, Peter, 1979; Sudman and Bradburn, 1982; Finn and Kayande, 1997) while Drolet and Morrison (2001) cover this debate adroitly. “When no pre-existing measures exist marketing researchers often conduct research using ad hoc measures, constructing a scale on the spot or borrowing another researcher’s sanctioned-by-publication, ad hoc scale. The importance of using valid and reliable measures is widely recognised by marketing academics who strongly caution and are cautioned against using single-item measures” (p. 196). Yet multiple-item scales place costly burdens on researchers and respondents alike. If the information to be gained can be achieved with single-item measures, perhaps there is still some future for these somewhat overlooked measurement instruments.
Methodology

Tertiary students in sport, marketing and management classes at two New Zealand institutions, UNITEC in Auckland and Massey University in Palmerston North were asked to complete a questionnaire in class. Four celebrity athletes (Bernice Mene, Dean Barker, Mandy Smith, Justin Marshall) were assessed on the 15 item Ohanian (1990) source-credibility semantic differential scale for a generic product, an isotonic sports drink. Then respondents scored those athletes on that product using first Juster’s 11 point purchase probability scale and second, the constant-sum scale (both single-item scales). Juster’s scale has been used to predict purchase and uptake rates for a variety of items in different product classes over different time periods. In all cases the Juster scale has proved to be a better predictor than purchase intention scales. For a full review of the Juster scale’s reliability and validity, see Day, Gan, Gendall and Esslemont (1991) and Parackal and Brennan (1998).

Ohanian’s (1990) source-credibility scale with its 15 attributes on seven point semantic differentials (see Table 1) was adopted as the multiple-item scale for evaluating celebrity athlete choice for endorsement. Confirmatory factor analysis run on the 15 “Ohanian” attributes for each celebrity athlete saw the three dimensional structure (attractiveness, trustworthiness, expertise) confirmed for two of the athletes, Smith and Marshall. After five iterations and using Kaiser’s criterion (eigenvalues < 1) for stopping, total variance explained was 86% and 82% respectively and Cronbach’s alpha was above .90 (“extremely meritorious”, Norisus 1988) for each dimension for each athlete. For the other two athletes (Mene and Barker), four factors emerged, with 84% and 85% of the variance explained respectively although the fourth factor explained only 7% of the variance and arose from the classiness and sexiness attributes breaking away from the Attractiveness dimension. Once the principal components analysis was confined to only three factors, the Ohanian three dimensional factor structure was restored, albeit with total variance explained reduced to 77% for each of Mene and Marshall. Cronbach’s alpha coefficient of reliability of .82 for the Attractiveness dimension for each of Mene and Marshall is still “meritorious”. Reasons for the reliability of the Attractiveness dimension being a little lower than anticipated seemed to arise from some respondents (especially males) struggling with the attributes classiness and sexiness when related to a male celebrity. Overall though, construct validity seems fine and confirms the Ohanian (1990) source-credibility scale as an appropriate scale for use in the research reported here.

Sample size was 133 students. If this sample of convenience could be treated as simple random, then it would carry maximum margins for error of plus or minus 8.55 at the 95% confidence level. The sample comprised 48% female and 52% male with 20% under 20 years, 42% aged 20-24 years and the remainder (38%) aged 25 years and over. Many of the respondents were from sport marketing classes meaning considerable involvement in, and passion for, sport.

Obviously there are limitations in this research. No claim is made about generalising from a sample of tertiary students to the population at large. Nevertheless, this research exercise does offer an example of how one might test the suitability of various celebrity athletes as product endorsers using both single-item and multiple-item scales.
Table 1. Ohanian’s (1990) Source-Credibility Scale (Semantic Differentials)

<table>
<thead>
<tr>
<th>Attractiveness</th>
<th>Trustworthiness</th>
<th>Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unattractive-Attractive</td>
<td>Undependable-Dependable</td>
<td>Not an Expert-Expert</td>
</tr>
<tr>
<td>Not Classy-Classy</td>
<td>Dishonest-Honest</td>
<td>Inexperienced-</td>
</tr>
<tr>
<td>Ugly-Beautiful</td>
<td>Unreliable-Reliable</td>
<td>Unknowledgeable-Knowledgeable</td>
</tr>
<tr>
<td>Plain-Elegant</td>
<td>Insincere-Sincere</td>
<td>Unqualified-Qualified</td>
</tr>
<tr>
<td>Not Sexy-Sexy</td>
<td>Untrustworthy-Trustworthy</td>
<td>Unskilled-Skilled</td>
</tr>
</tbody>
</table>

Results and Discussion

Source-Credibility Scale Results

Table 2’s results are unequivocal; Bernice Mene is the overall winner as the celebrity athlete most preferred for endorsing an unbranded isotonic sports drink. While Mene was second to Mandy Smith (the other female athlete) on the Attractiveness dimension, her ratings on the Trustworthiness and Expertise dimensions clinched her overall “best fit” position. Grouping attributes together under dimensions and deriving group means as well as an overall global mean can be controversial. It assumes each attribute has a unitary value which may not always be the case. Nonetheless, the distances between the means for each athlete on each dimension would suggest that there are real differences in the perceptions of respondents in respect of which athletes they hold as “best fit” for endorsing an isotonic sports drink.

Table 2. Group Means: Celebrity Athlete’s Endorsement of an Isotonic Sports Drink

<table>
<thead>
<tr>
<th>Ohanian (1990) Dimensions</th>
<th>Celebrity Athlete</th>
<th>ANOVA results (95% confidence on 2 tailed test)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bernice Mene</td>
<td>Dean Barker</td>
</tr>
<tr>
<td>Attractiveness</td>
<td>24.6</td>
<td>23.2</td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>28.2</td>
<td>25.7</td>
</tr>
<tr>
<td>Expertise</td>
<td>24.7</td>
<td>21.9</td>
</tr>
<tr>
<td>Grand Mean</td>
<td>25.8</td>
<td>23.6</td>
</tr>
</tbody>
</table>

Single-item Measure Results

While the results in Table 2 appear interesting and helpful for making celebrity endorsement choice decisions, one is tempted to go further and explore propensity to
trial sport drinks endorsed by each of these celebrity athletes. Ohanian’s source-credibility scale is an attitudinal scale and relies upon the assumed causal links between attitudes and behaviour for celebrity endorsement of a sports drink. Conclusive proof of this link still remains evasive (Ehrenberg 1988; Foxall 1997). Hence the use of Juster’s (1966) 11 point purchase probability scale as an example of a single-item scale test. While Juster’s scale has attitudinal underpinnings, its probabilistic structure provides greater certainty of calculation of behavioural intention and this scale has always outperformed other intention scales (Day et al. 1991). Results are portrayed in Table 3. Interestingly, Table 3 shows the endorsement by Justin Marshall (.50 or 50% trial) as being the most influential in prompting trial of a new brand of isotonic sports drink although Mandy Smith’s endorsement can be regarded as equally influential.

Table 3. Mean Probability of Trialling a New Isotonic Sports Drink

<table>
<thead>
<tr>
<th>Probability of trial if endorsed by…</th>
<th>Bernice Mene</th>
<th>Dean Barker</th>
<th>Mandy Smith</th>
<th>Justin Marshall</th>
</tr>
</thead>
<tbody>
<tr>
<td>(133)</td>
<td>.44</td>
<td>.35</td>
<td>.49</td>
<td>.50</td>
</tr>
</tbody>
</table>

Here a dilemma emerges about which celebrity athlete to choose; the single-item Juster scale has produced a different result to the multiple-item Ohanian source-credibility scale. Before discussing the implications of these differing results, there is another single-item scale worth investigating for celebrity athlete selection – the constant-sum scale. Respondents were requested to consider all four athletes together on endorsement of an isotonic sports drink. They did this by allocating 100 points across the four celebrities after being instructed on how to use the scale. Results are as follows: Bernice Mene 26%, Dean Barker 14%, Mandy Smith 27% and Justin Marshall 33%.

The dilemma with the results continues. Whereas Bernice Mene was “best fit” for endorsement of an isotonic sports drink when rated on the Ohanian source-credibility scale (Table 2), this is not the case when propensity to purchase is considered or when several potential athlete endorsers are considered simultaneously. Justin Marshall at 33%) became the most “preferred” - yet he was least preferred under the Ohanian scale. Despite the dilemma here, researchers are attracted by the compelling feature of the Ohanian scale - being a multi-attribute scale, it offers the ability (using, for example, regression analysis) to delve further into reasons why a celebrity may have scored in a particular way with a specific target audience. What set Bernice Mene apart from the other celebrity athletes in the Ohanian source-credibility measures was her paramount position on the Trustworthiness and Expertise dimensions. While Mene was seen to have significantly more “expertise” in respect of endorsing a sports drink than the other three athletes, one might argue that most athletes have “expertise” when it comes to endorsing sports drinks. Hence it may be that the other two dimensions, Attractiveness and Trustworthiness, provide extraordinary influence in determining the credibility of a potential endorser. One might argue that overall Bernice Mene is a safer bet in that her popularity and hence her appeal as a celebrity athlete endorser is based on a wide variety of dimensions.
On the other hand, results for propensity to trial and for celebrity athlete selection using the Juster scale and constant-sum scale on their own do not allow such investigation. Yet this can be addressed easily in a market research exercise by asking respondents, after they have scored the athlete on the Juster scale or allocated various weightings on the constant-sum scale, to explain why they did what they did in open-ended questioning.

**Conclusion**

Matching up celebrity athlete endorsers with potential product endorsements is not as straightforward as one might think. On the basis of the small-scale exercise reported here, it would appear that multiple-item scales yield different results to single-item scales when measuring “best fit”. Undoubtedly, using multiple-item scales such as Ohanian’s (1990) source-credibility scale gives the researcher scope to investigate, quantitatively, some of the “drivers” of respondents’ choice decisions, that is, which of a celebrity athlete’s dimensions (Attractiveness, Trustworthiness, Expertise) are more prominent in celebrity choice. Knowing such information ought to help an advertising agency’s creative team in its presentation and execution of subsequent advertising. Nevertheless, if a single-item measure of celebrity athlete endorsement potential is favoured, then it is still possible to probe further, using open-ended questioning, to expand upon why respondents made their celebrity selection. Some of these sentiments were suggested by Erdogan and Kitchen (1998).

**References**


Brooks, C.M. & Harris, K. 1998, ‘Celebrity athlete endorsement; an overview of the key theoretical issues’, *Sport Marketing Quarterly*, vol. 7, no. 2, pp. 34-44.


