



# Celebrity endorsement, brand credibility and brand equity

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## Abstract

**Purpose** – This research aims to examine the impact of celebrity credibility on consumer-based equity of the endorsed brand. The mediating role of brand credibility and the moderating role of the type of branding (parent versus sub-brand) employed by the endorsed brand on the endorser credibility-brand equity relationship are also to be examined. The endorser credibility-brand equity relationship was developed using associative learning principles whereas the brand signalling theory is applied to examine the mediating role of brand credibility.

**Design/methodology/approach** – The conceptual framework was tested using a field experiment. Data were collected using a mall-intercept approach at a shopping centre from a sample of consumers in a metropolitan Australian city. The data were analysed using structural equation modelling.

**Findings** – Results suggest endorser credibility has an indirect impact on brand equity when this relationship is mediated by brand credibility. This mediating relationship was moderated by type of branding. However, the “endorser credibility-brand credibility” and “endorser credibility-brand equity” relationships did not vary according to the type of branding employed.

**Practical implications** – In support of past findings, the present study shows that a celebrity endorser should be one who is perceived as credible based on their attractiveness, expertise and trustworthiness. Moreover, in this research, even a moderately low credibility endorser proved to be able to build the brand.

**Originality/value** – The present study is one of the first to empirically examine and confirm the impact of endorser credibility on brand credibility and consumer-based brand equity.

**Keywords** Celebrities, Product endorsement, Brands, Australia

**Paper type** Research paper



## Introduction

Celebrity endorsement is considered an effective promotional tool by marketers worldwide. One-in-four advertisements use celebrity endorsement (MarketWatch, 2006). Celebrity endorsement influences advertising effectiveness, brand recognition,

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brand recall, purchase intentions and even purchase behaviour. Recent research has also demonstrated that celebrity endorsement leads to a favourable attitude toward the endorsed brand (Till *et al.*, 2008), but does it have value in terms of developing brand equity?

The term brand equity refers to the incremental value added by a brand name to a product (Farquhar, 1989). Extant literature emphasises the need for further research identifying marketing activities that can build brand equity (Keller and Lehmann, 2006; Yoo *et al.*, 2000). It is commonly accepted that advertising is useful in building brand equity (Keller, 2005) and that spokespeople may become associated with a brand in memory (Keller, 1993), but how does celebrity endorsement lead to improvements in brand equity? Till (1998) and McCracken (1989) have suggested that celebrity endorsers can build brand equity by creating secondary associations. Seno and Lukas (2007) have proposed that a celebrity endorser operates as a co-brand for the endorsed brand resulting in the creation of equity for both the endorsed brand and the endorsing celebrity. There is also empirical evidence to say that celebrity endorsement generates greater recall for both the endorsed brand and the advertisement (Atkin and Block, 1983). Research has also shown that celebrity endorsement can influence perceived product quality and uniqueness (Dean, 1999).

There is, however, limited understanding of how the credibility of an endorser might influence the endorsed brand's equity. Furthermore, the credibility signalled by a brand is considered important and is believed to contribute to building brand equity by indirectly adding consumer value to the brand (Erdem and Swait, 1998). Does the use of credible celebrities for endorsement lead to improvements in brand credibility? Extant research does not answer this question either. The practice of sub-branding, whereby an existing brand name is combined with a new name to enter a different product category (Keller, 2003), is widely used in industries such as automobiles (Jo, 2007). It is, however, not clear whether celebrity endorsement would be more or less effective for sub-brands compared to their parent brands. Clearly, research is needed to empirically examine the relationship between endorser credibility and brand credibility and the development of consumer-based brand equity.

### Conceptual framework

The conceptual framework advanced here (See Figure 1) is based on the associative network memory model from cognitive psychology and brand signalling theory from information economics. Associative network memory research is used to explain the relationship between endorser credibility and brand equity. Brand signalling theory is used to explain the mediating role brand credibility plays in the relationship. The moderating role of type of branding (brands vs. sub-brands), on these relationships, will also be considered.

#### *The associative network memory model*

Human memory can be described as "a network consisting of various nodes connected by associative links" (Till and Shimp, 1998, p. 68). These nodes are pieces of information that become connected via associative links (Krishnan, 1996). Consequently, each node becomes a potential source of activation for all associated nodes. Memory activation expands such that the first node activates other linked nodes and subsequently, these nodes activate all other linked nodes (Collins and Loftus,

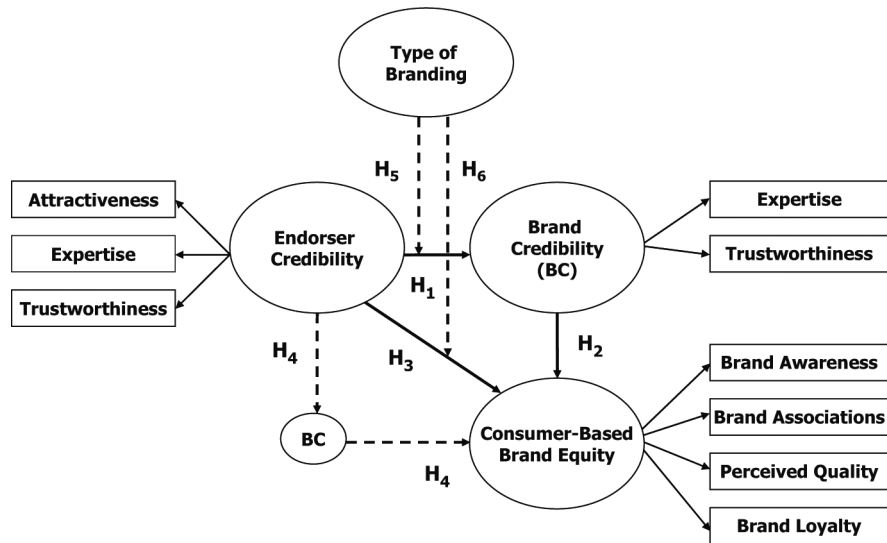


Figure 1.  
Conceptual framework

1975). This model is frequently used in marketing to explain the structure of memory (Till and Nowak, 2000), and thus, consumers' brand associations (e.g. Chang and Chieng, 2006). Associative learning principles have also been used to articulate the underlying process of celebrity endorsement (e.g. Till *et al.*, 2008). A celebrity and a brand represent individual nodes, which become associated such that each entity becomes part of the other's association set (Till and Shimp, 1998). Thus, when a consumer thinks of a celebrity endorser, they may automatically consider the endorsed brand and vice versa. This linking could provide a desirable association conducive to the creation of brand equity (Till, 1998).

#### *Brand signalling theory*

The concept of brand credibility has emerged from the brand signalling literature. According to this theory, which draws largely on information economics, firms can use brands as signals for conveying information in a marketplace that is characterised by imperfect and asymmetric information (Erdem and Swait, 2004; Erdem *et al.*, 2002). Brand signals embody all past and present marketing mix strategies (Meyer and Sathi, 1985). The content of a brand signal can be considered in terms of clarity and credibility. Clarity refers to the lack of ambiguity of the brand signal content (Erdem and Swait, 1998), whereas credibility refers to how effectively information is conveyed by the brand signal and furthermore, how truthful and dependable that information is considered to be (Tirole, 1988). Credibility is considered the most important characteristic of a brand signal and is a key focus of this research.

#### **Hypotheses development**

Before presenting the hypotheses, variables in the model are reviewed. Endorser credibility is "the extent to which the source is perceived as possessing expertise relevant to the communication topic and can be trusted to give an objective opinion on the subject" (Goldsmith *et al.*, 2000, p. 43; Ohanian, 1990). Brand credibility is "the

believability of the product position information contained in a brand, which depends on the willingness and ability of firms to deliver what they promise" (Erdem *et al.*, 2006, p. 34).

Most marketing researchers agree that, from a consumer perspective, brand equity refers to "incremental value added by a brand name on to a product" (Farquhar, 1989). Aaker (1991) and Keller (1993) provide two of the most widely accepted conceptualisations of brand equity based on the consumer perspective. Aaker (1991, p. 16) operationalised brand equity as a set of assets (or liabilities) consisting of brand awareness, brand associations, perceived quality, brand loyalty and other proprietary assets. On the other hand, Keller (1993, p. 2) referred to brand equity as customer-based brand equity and defined it as "the differential effect of brand knowledge on consumer response to the marketing of the brand". Though both Aaker (1991) and Keller (1993) adopted a consumer perspective and focused largely on memory-based brand associations there are minor differences in their conceptualisation of brand equity. While Aaker (1991) had elevated perceived quality (quality-related brand associations) as a separate dimension, Keller (1993) considered all types of brand associations (including those that are quality-related) as brand image.

From a consumer perspective, Aaker's (1991) first four dimensions (i.e. brand awareness, brand associations, perceived quality and brand loyalty) are considered important (Yoo *et al.*, 2000). Yoo and Donthu (2001) have coined the term consumer-based brand equity to refer to the set of these four brand equity dimensions. This approach is followed in the present research and consumer-based brand equity is defined as "the value consumers associate with a brand, as reflected in the dimensions of brand awareness, brand associations, perceived quality and brand loyalty" (Pappu *et al.*, 2006, p. 698).

Brand awareness refers to the strength of a brand's presence in a consumer's mind (Aaker, 1991). Brand awareness is a necessary condition for brand equity, without which consumers cannot have brand associations, perceptions of quality and brand loyalty (Pappu and Quester, 2006). Brand awareness comprises brand recall and brand recognition whereas brand associations refer to the various meanings surrounding a brand (Keller, 1993). Perceived quality refers to a consumer's subjective evaluation of brand (Zeithaml, 1988). Finally, brand loyalty is approached from an attitudinal loyalty perspective because consumer-based brand equity is based on consumer perceptions, rather than actual behaviour. As such, brand loyalty is defined as the propensity to be loyal to a focal brand, which is evidenced by the intention to purchase that brand as a primary choice (Yoo and Donthu, 2001). We now turn to a discussion of the relationships in Figure 1.

#### *Endorser credibility – brand credibility*

A firm can work towards building brand credibility as it is largely driven by the quality of the information conveyed through the marketing strategies associated with a brand (Erdem and Swait, 1998). Since endorsement, as a communications tool, will comprise some of the signal of the endorsed brand, it seems likely that the credibility of an endorser will subsequently transfer to the brand. For example, film star Cate Blanchett who is committed to promoting environmental causes is perceived to be highly trustworthy. Therefore, when Blanchett endorses SK-II skin care products, consumers' credibility perceptions of this luxury brand are likely to be positively

affected. In sum, high endorser credibility should lead to higher brand credibility. Brand investment has also been identified as an indicator of brand credibility, as it is assumed that firms that make large brand investments are more likely to deliver the promised product (Erdem and Swait, 1998). Hence, simple use of celebrity endorsement may be associated with a higher level of brand credibility. Based on the preceding discussion, the following hypothesis is advanced.

- H1. The credibility of a celebrity endorser will positively impact the credibility of the endorsed brand.

*Brand credibility – consumer-based brand equity*

Brand credibility supports consumer-based brand equity. Brand signalling theory suggests that credibility can build brand equity (Erdem and Swait, 1998). Credible brands enjoy lower information-gathering and information-processing costs, and lower perceived risk (Erdem and Swait, 2004). Furthermore, higher brand credibility can increase consumers' perceptions of product quality by influencing their psychophysical processes whereby objective quality levels are transferred into perceived, subjective quality levels (Erdem *et al.*, 2002). By favourably affecting attribute perceptions, information costs and perceived risk, brand credibility increases the consumer-expected utility of a brand, thus adding consumer value to a brand. So important is existing brand credibility, that without it, even the most credible endorser can be expected to do little in developing brand equity. This thinking is similar to the old adage that "advertising can't save a poor product". Based on the preceding discussion, the following hypothesis is advanced.

- H2. The credibility of a brand will positively impact the consumer-based equity of the endorsed brand.

*Endorser credibility and consumer-based brand equity*

The direct relationship between endorser credibility and consumer-based brand equity is explained using the associative network memory model. This model suggests that celebrity endorsement could support brand recall and recognition, as a celebrity endorser serves as an additional node in memory and is associated with a brand node. When there are multiple associations for a node, it is easier to locate this node as there are several alternative routes to this node in memory (Fiske and Taylor, 1991). A highly credible endorser will become more strongly associated with the endorsed brand in a consumer's mind (Biswas *et al.*, 2006). When a highly credible scientist such as Ian Frazer, who achieved celebrity status by developing a vaccine for cervical cancer, endorses community organisation Bicycle Victoria's "Ride to Work" initiative, both recall and recognition are likely to be positive for the initiative. Therefore, it is expected that endorser credibility would support brand recall and recognition.

Managing brand equity largely involves controlling the meanings associated with a brand in memory (Keller, 1993). Researchers advocate leveraging secondary associations to strengthen brand equity, whereby a brand can be linked to another entity such as a celebrity (Keller, 2005). The other entity will possess its own associations, which should subsequently be transferred to the brand (Petty, 2006). For instance, endorsement by cricket player Ricky Ponting, who is trusted by consumers in the Indian market because of his role as the captain of the Australian cricket team, may

help the brand “Valvoline” by communicating associations such as “high performance” and “reliability” (Indiantelevision.com, 2007). Therefore, when a celebrity endorses a brand, consumers may not only associate the celebrity with that brand, but they may also link celebrity associations to the endorsed brand; thus creating a larger network of associations. Celebrity endorsement can also affect perceived quality of the brand. Celebrities can function as extrinsic cues to infer information on product attributes, and quality, which consequently reduces consumer uncertainty and encourages particular product preference (Dean, 1999).

Past research on classical conditioning has shown how an association with one stimulus (e.g. celebrity) can benefit another stimulus (e.g. brand) (McSweeney and Bierley, 1984). Conditioning can be instrumental in transferring an enduring attitude toward a brand (Grossman and Till, 1998), which can build brand loyalty. The conditioning principles suggest that celebrity endorsement can impact on brand loyalty through affect transfer and inferential belief formation. According to Till and Nowak (2000) affect transfer refers to the positive evaluation of one entity when it is associated with another entity in a consumer’s mind, whereas inferential belief formation refers to changes in an individual’s attitude toward a brand due its association with another entity. Finally, assuming that credible celebrities are more strongly associated with the endorsed brand, it is expected that a highly credible endorser would generate higher levels of brand loyalty. For example, endorsements by trustworthy Australian entrepreneur and philanthropist Dick Smith for local brands (e.g. “Temptin” chocolate biscuits) are likely to affect consumers’ loyalty towards these brands more positively. On the other hand, established brands have their own credibility and the extent of endorser sway on consumer-based brand equity is relative to established brand credibility. Based on the preceding discussion, the following hypotheses are advanced.

- H3. The credibility of a celebrity endorser will positively impact the consumer-based equity of the endorsed brand.
- H4. Brand credibility mediates the relationship between endorser credibility and consumer-based brand equity.

#### *The moderating role of the type of branding employed*

The impact of endorser credibility on brand credibility and brand equity is further expected to vary according to the type of branding employed by the endorsed brand; that is, depending on whether the endorsed brand is a parent brand or its sub-brand. A parent brand is an existing brand name in a product category. A sub-brand is a type of brand extension whereby an existing brand name is combined with a new brand name to enter a different product category (Keller, 2003). Sub-branding is a common place category entry strategy.

The moderating role of type of branding is examined in the present research for several reasons. First, sub-brands were utilised to examine whether celebrity endorsement has a different impact on less-established brands. Fictitious brands are not used because it was necessary to measure the brand association dimension of brand equity; consumers cannot have an established network of associations for a brand unfamiliar to them. Second, because a sub-brand involves combining an existing brand name with a new brand name, there is some cognitive distance between a brand



and its sub-brand in consumers' minds (Milberg *et al.*, 1997). Hence, consumers may accommodate inconsistencies between a brand and its sub-brand by placing the sub-brand in a sub-category of their existing category knowledge structure for the parent brand (Kirmani *et al.*, 1999). Because the use of a sub-brand name creates some level of cognitive distance from the parent brand in consumers' minds (Milberg *et al.*, 1997), it can be determined whether celebrity endorsement has a differential impact on these brands with less-established associative networks. However, it is acknowledged that consumers might still have associations towards the sub-brand because the parent brand name embedded in the sub-brand's name might act as a primary frame of reference for consumers (Aaker and Joachimsthaler, 2000).

In general, parent brand evaluations are expected to be more favourable in comparison to those of the sub-brand, based on evidence available from the brand extension literature (See Völckner and Sattler, 2006). Consumers' brand extension evaluations are dependent on a number of parent brand related factors including: perception of the quality of the parent brand (Aaker and Keller, 1990); degree of technological similarity between the parent brand and the extension (Jun *et al.*, 1999); breadth of the parent brand portfolio (Boush and Loken, 1991); quality consistency across previous parent brand extensions (Dacin and Smith, 1994); prior parent brand experience (Swaminathan *et al.*, 2001); relevance of the parent brand associations for the extension brand (Broniacyk and Alba, 1994); and knowledge of the parent brand product class (Smith and Park, 1992).

Although some of the parent brand's equity could be transferred to the sub-brand (Milberg *et al.*, 1997), it is still expected that the sub-brand's associative network and brand equity would be less established. Because of this less-established associative network, sub-brands are expected to be more affected by celebrity endorsement. Furthermore, a previously unendorsed product is likely to be affected more by the endorsement in comparison to a previously-endorsed product (Walker *et al.*, 1992). Applying this logic to the present context, sub-brands, which are relatively new to the market in comparison to their parent brands, are likely to be affected more by celebrity endorsement. Based on this discussion, the following hypotheses are advanced.

- H5. The relationship between endorser credibility and brand credibility varies according to the type of branding (i.e. parent brand or sub-brand) employed by the endorsed brand.
- H6. The relationship between endorser credibility and consumer-based brand equity varies according to the type of branding (i.e. parent brand or sub-brand) employed by the endorsed brand.

## Method

### *Experimental design*

The hypothesised relationships were tested using a field experiment in a metropolitan Australian city. Data were collected using a questionnaire that included a  $2 \times 2 \times 2$  between-subjects factorial design. Endorser credibility was manipulated at two levels (high credibility celebrity endorser vs. low credibility celebrity endorser). Type of branding was manipulated at two levels (parent brand vs. sub-brand). Last, brand name was a blocking factor, which varied at two levels (high equity vs. low equity). This is further discussed in the next section. This design resulted in eight different

conditions, which were implemented through eight corresponding print advertisements. Each participant was randomly assigned to one treatment condition. Participants in each group received an advertisement featuring an endorser and a brand. One print advertisement was attached to each copy of the questionnaire.

### *Selection of stimuli*

The advertisements featured different manipulations, which were determined through multiple phases of pretesting using university student samples as detailed in the following sub-sections. Plasma television was the selected product category for the present research. Almost every household in Australia owns at least one television, and the majority of households have multiple televisions (99.1 per cent ownership in 1996 according to Australian Bureau of Statistics). The growth of flat panel televisions (plasma or LCD) has been rapid in Australia over the last few years. In fact, flat screen television sales overtook those of traditional televisions in 2006 (Euromonitor, 2008). In metropolitan cities flat panel television ownership was between 16 and 19 per cent (e.g. Sydney 16.7 per cent; Melbourne 18.6 per cent) in 2006 (Synovate, 2006).

*Brands.* To strengthen external validity, within the selected product category, two brands of varying levels of brand equity (Panasonic and Akai) were chosen based on the presence of Panasonic in the top 100 world brands list and Akai's absence (Kiley *et al.*, 2006). The selected brands vary on attributes such as familiarity, quality, brand image and loyalty.

*Sub-brands.* A universal serial bus (USB) drive was chosen as the sub-brand product category for several reasons. Past research has shown that perceived fit between a brand and its extension can be achieved when both brands share key product attributes (Bridges *et al.*, 2000). For example, perceived fit can be high when brands in a functional product category are extended to other functional product categories (Park *et al.*, 1991). A USB drive was considered a plausible extension from the parent plasma television category. Since a USB drive is a consumer electronic device with key attributes such as functionality, reliability and durability, it holds several similarities to a plasma television. A USB drive falls in a product category different from that of the parent category thereby satisfying the definition of a sub-brand extension (Keller, 2003). Other home entertainment products were considered inappropriate as sub-brands because they could have been viewed as line extensions (whereby a brand is extended to a new product within the same product category) (Aaker and Keller, 1990). Neither Panasonic nor Akai have previously sold USB drives as verified from their corporate web sites.

A fictitious brand name was combined with each of the selected brands (Panasonic and Akai) to create sub-brands names. The fictitious brand name was selected based on pretesting using a convenience sample of undergraduate students ( $n = 35$ ). A questionnaire assessed their attitude (on a seven-point scale) toward a pool of five fictitious brand names initially created by postgraduate marketing students. The results showed participants favoured the name "Nexus" ( $M = 4.80$ ) for the sub-brand product. Hence, "Panasonic Nexus" and "Akai Nexus" were selected as sub-brands.

*Endorsers.* The endorsers featured in the advertisements were selected through several phases of pretesting using different convenience samples of undergraduate students. Participants ( $n = 20$ ) were given three minutes to list celebrities who they felt were suitable endorsers for both plasma televisions and USB drives. This was to



ensure congruence between the celebrity endorsers and the endorsed product category was achieved. This exercise generated a pool of 243 celebrity names.

From this initial pool, some celebrities were eliminated based on identified control variables believed to influence the effectiveness of a celebrity endorser. First, celebrities were eliminated based on gender as gender interactions between endorsers and target audiences are known to affect consumer perceptions of certain endorser credibility dimensions (e.g. attractiveness) and even consumer purchase intentions (Baker and Churchill, 1977; Caballero and Pride, 1984). Recent research shows that male and female celebrities are evaluated by consumers differently. For example, ads featuring female celebrities are evaluated more favourably than ads featuring male celebrities (Klaus and Bailey, 2008). Since approximately three-quarters of the total pool were male, male celebrities were considered more appropriate for endorsing plasma televisions and USB drives. Past research suggests that a higher proportion of male celebrities are associated with functional products (Stafford *et al.*, 2003). Hence, female celebrities were eliminated.

Second, celebrities who had previously endorsed other products were removed from this pool, as this is known to affect consumer evaluations of the endorser and the endorsed brand (Goldsmith *et al.*, 2000). It is more difficult to build an associative link between a celebrity endorser and a brand when the same endorser is already associated with other brands (Till, 1998). Also, the use of a celebrity who had endorsed another product can affect consumers' perceptions of celebrity-brand congruence, which can subsequently impact the effectiveness of the endorsement (Kamins and Gupta, 1994). Last, celebrities were removed if they had received negative publicity. Negative information can harm consumer perceptions of the endorsed brands (Louie *et al.*, 2001; Till and Shimp, 1998) or be accepted (Money *et al.*, 2006). Negative information can also show humanity of the celebrities (Louie and Obermiller, 2002) or be viewed as uncontrollable (Miciak and Shanklin, 1994). Given the unpredictable nature of negative information, celebrities with it were not considered for inclusion. The majority of the remaining celebrities were local celebrities (i.e. Australian television personalities). Television personalities have been considered appropriate for the endorsement of consumer electronic goods, such as televisions (Freiden, 1984) and personal computers (Dean and Biswas, 2001).

The credibility of a reduced set of 14 celebrities was next assessed, by administering a questionnaire to a convenience sample of undergraduate students ( $n = 29$ ). The questionnaire included celebrity photographs and items measuring each celebrity's credibility on a seven-point scale (Ohanian, 1990). Scores on the items were averaged. Two Australian celebrities were selected based on the pretest results. A popular television host (Rove McManus) was identified as the high credibility celebrity ( $M = 5.07$ ) and an ex-reality television show participant (Simon Deering) was identified as the low credibility celebrity ( $M = 2.36$ ). Rove McManus is an award-winning media personality who hosts the variety show *Rove* in Australia on national television. McManus also appeared on American television as a guest in the NBC show *Tonight with Jay Leno* in 2007 and host of the show *The List* on ABC in 2008. Simon Deering is an ex-real estate agent who achieved public recognition for his participation in the reality television show *Big Brother* in 2005. Later, he went on to host *The Up-Late Game Show*, an interactive late-night game show, on national television. The results of

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a *t*-test indicate that the two celebrities differ significantly on credibility ( $t[25] = 12.65$ ,  $p < 0.001$ ).

### *Data collection*

The population of interest was consumers aged 18 years and older. A shopping mall was the sampling frame and the final sample was selected using a systematic sampling design. Every tenth consumer was asked to participate in the study after a random starting point. A total of eight data collection instruments were developed: one version for each treatment condition. The questionnaire included questions related to the credibility of the celebrity endorser and the credibility and consumer-based equity for the endorsed brand. There were also questions related to covariates and demographics.

### *Measures and measurement*

Measurement scales have been adapted or adopted from past research and are summarised here (See Appendix 1). Endorser credibility is a higher-order construct consisting of three sub-dimensions, attractiveness, expertise and trustworthiness, according to the source model theory (La Ferle and Choi, 2005; Ohanian, 1990). Expertise and trustworthiness have generally been considered sub-dimensions of source credibility (Goldsmith *et al.*, 2000). Expertise refers to the extent to which a source is perceived to hold valid assertions, whereas trustworthiness refers to the degree of confidence in the source's intent to communicate the assertions considered to be most valid (Hovland *et al.*, 1953). The source-attractiveness model identifies attractiveness as a dimension of credibility (McGuire, 1958). Physically attractive communicators have a positive impact on opinion change as well as product evaluations (Joseph, 1982). Endorser credibility was measured using a 15-item scale developed by Ohanian (1990), which measures credibility on the dimensions of attractiveness, expertise and trustworthiness. The three dimensions were measured on a seven-point semantic differential scale.

Brand credibility encompasses expertise and trustworthiness (Erdem *et al.*, 2006). That is, a brand is deemed "credible" if consumers perceive this brand as having the ability (i.e. expertise) and willingness (i.e. trustworthiness) to consistently deliver what has been promised (Erdem and Swait, 2004, p. 192). Expertise and trustworthiness were considered sub-dimensions of a higher order brand credibility construct, based on past research (e.g. Erdem and Swait, 1998). Measures for brand credibility were sourced from brand signalling research (Erdem and Swait, 2004). Seven items encompassing expertise and trustworthiness were used for measuring brand credibility on a seven-point Likert scale, where "1 = Strongly Disagree" and "7 = Strongly Agree".

Consumer-based brand equity was treated as a four-dimensional construct consisting of brand awareness, brand associations, perceived quality and brand loyalty. All items measuring brand equity were measured on a seven-point Likert scale anchored by "1 = Strongly Disagree" and "7 = Strongly Agree". Brand awareness was measured using a three-item scale adapted from the branding literature (Yoo and Donthu, 2001). Items used to measure brand associations included measures for brand identity, brand value and organisational associations. Measures for brand value and organisational associations were sourced from Aaker (1991). Additional brand association measures were adapted from the retail branding literature (Pappu and

Quester, 2006). Perceived quality was measured using items originally suggested by Aaker (1991). Finally, brand loyalty was measured using items from the work of Yoo and Donthu (2001). These measures have been shown to be reliable and valid in several brand equity studies.

Endorser familiarity, brand familiarity, celebrity-brand congruence and product knowledge were the covariates included. Past research has shown that these variables affect celebrity endorsement (Silvera and Austad, 2004; Till, 1998). Measures for endorser familiarity and brand familiarity included three items each, measured on a seven-point semantic differential scale adopted from Simonin and Ruth (1998). Celebrity-brand congruence was measured using three items on a seven-point semantic differential scale adapted from Keller and Aaker (1992). Product knowledge was measured using three items on a seven-point Likert scale adapted from Cole and Balasubramanian (1993).

### **Analysis and results**

The sample ( $n = 244$ ) contained a higher proportion of females (74.1 per cent) than males (25.9 per cent). A large percentage of younger consumers, aged 18-29 years, were also included in the sample (46.5 per cent). Although the sample was skewed toward women and younger consumers, this is not uncommon in mall-intercept samples.

#### *Validation of key constructs*

*Reliability.* Established scales are employed in the present research, hence the reliability of key constructs was examined using conventional methods. The Cronbach's alpha ( $\alpha$ ) of each construct exceeded the suggested cut-off value of 0.70 (See Appendix 1). Table I presents means, standard deviations and correlations among the variables. Based on the results of the exploratory factor analysis conducted to examine the factor structure, one item measuring brand awareness and another measuring brand associations were trimmed from the final consumer-based brand equity scale because of low communalities.

#### *Manipulation checks*

Significant differences were observed in the credibility levels of the celebrity endorsers used in the study as indicated by the results of a one-way ANOVA ( $F[1, 242] = 74.77$ ,  $p < 0.01$ ). As expected, the high credibility celebrity (Rove McManus) was considered more credible ( $M = 4.77$ ) than the low credibility celebrity (Simon Deering) ( $M = 3.56$ ). It can, therefore, be concluded that endorser credibility was adequately manipulated in the present experiment.

A second ANOVA was conducted with type of endorser (High credibility vs. low credibility) and type of branding (Parent brands vs. sub-brands) as the independent variables and endorser-brand congruence (hereafter called congruence) as the dependent variable. Congruence varied significantly by the type of endorser ( $F[1, 240] = 24.96$ ,  $p < 0.001$ ), with the high credibility celebrity ( $M = 4.19$ ) being considered more congruent with the brand in comparison to the low credibility celebrity ( $M = 3.09$ ). Congruence also varied significantly by the type of branding ( $F[1, 240] = 10.52$ ,  $p < 0.01$ ). The celebrities were considered more congruent for parent brands ( $M = 3.99$ ) than for sub-brands ( $M = 3.28$ ).

Variables	M	SD	1	2	3	4	5	6
1. Endorser credibility	4.14	1.24						
2. Brand credibility	4.16	1.30	0.26**					
3. Consumer-based brand equity	3.70	1.29	0.21**	0.77**				
4. Endorser familiarity	4.61	2.37	0.44**	0.04 ns	0.12 ns			
5. Brand familiarity	3.00	2.08	-0.01 ns	0.19**	0.43**	0.13*		
6. Endorser-brand congruence	3.62	1.89	0.50**	0.27**	0.22**	0.19**	0.09 ns	
7. Product knowledge	3.79	1.51	0.08 ns	0.09	0.14*	0.09 ns	0.20**	-0.01 ns

**Notes:** \*  $p < 0.05$  (two-tailed); \*\*  $p < 0.01$  (two-tailed); ns = not significant;  $n = 244$

**Table I.**  
Means, standard  
deviations and  
correlations of variables

The results of a one-way ANOVA indicated significant differences in respondents' brand familiarity by the type of branding employed ( $F[1,242] = 45.07, p < 0.001$ ). As expected, parent brands ( $M = 3.18$ ) were more familiar to the respondents in comparison to the sub-brands ( $M = 2.18$ ). Panasonic ( $M = 4.58$ ) and Akai ( $M = 3.03$ ) were more familiar to the respondents compared to the fictitious sub-brands Panasonic Nexus ( $M = 2.26$ ) and Akai Nexus ( $M = 2.10$ ).

#### *Analysis procedures*

The proposed hypotheses were tested using structural equation modelling (SEM). Two models were tested. Model 1 (Partial mediation model) was used to test *H1*, *H2*, *H3*, *H5* and *H6*. The combined results of Model 1 and Model 2 (Direct effect model) were useful in testing *H4*. The data were checked and there were no major departures from the assumptions required for use of SEM (e.g. independence of observations, outliers and multivariate normality). The sample size used ( $n = 244$ ) is above the threshold of 200 and is adequate for the analysis (Hoelter, 1983). Though the sample sizes used for the sub-group analyses were smaller than 200, these exceed the cut-off value of 75 and Hoelter's critical *N*-values.

Measures for the key constructs included in the models are assumed to be reflective in nature consistent with previous research. Hence, a reflective specification of the first-order dimensions is assumed. By definition, consumer-based brand equity is "reflected in the dimensions of brand awareness, brand associations, perceived quality and brand loyalty" (Pappu *et al.*, 2006, p. 698). These four dimensions constitute a higher-order consumer-based brand equity construct (Pappu *et al.*, 2005). Hence, consistent with previous research in the area of brand equity (e.g. Yoo and Donthu, 2001) a reflective specification of consumer-based brand equity is appropriate. Similarly, consistent with previous research in the areas of brand signalling (e.g. Erdem *et al.*, 2006), and source credibility (e.g. Ohanian, 1990), measures for brand credibility and endorser credibility are assumed to be reflective in nature.

Endorser attractiveness, expertise and trustworthiness were modelled as observed independent variables, which measured endorser credibility. Brand expertise and trustworthiness were modelled as observed independent variables, which measured brand credibility. Brand awareness, brand associations, perceived quality and brand loyalty were modelled as observed dependent variables which measured consumer-based brand equity[1].

Composite variables were created for all observed variables using summated scales. Successful use of summated scale model was reported in literature (e.g. Raajpoot *et al.*, 2008). We assessed the significance of the structural path estimates through bootstrapping approach with 2,000 resamples. The CFI, GFI, NFI and RMSEA values have been used to assess model fit.

The analysis was first carried out including covariates. Only brand familiarity had a significant effect on the dependent variables. The inclusion/exclusion of brand familiarity as a covariate did not make any difference for the structural relationships among the three main constructs of interest. Hence, covariates were not included in further analysis.

*Results for the main effects*

*Model 1 (Partial mediation model).* Endorser credibility, brand credibility and consumer-based brand equity were the latent variables in Model 1. The direct effect of endorser credibility on brand equity and the indirect effect of endorser credibility via brand credibility on brand equity are examined in Model 1 (See Figure 1). *H1* predicted that endorser credibility would positively affect brand credibility and *H2* predicted that brand credibility would positively affect brand equity. *H3* predicted that endorser credibility would positively influence brand equity. Model 1 examines these predictions.

Model 1 displayed reasonably good fit to the data ( $\chi^2$  [24] = 61.23,  $p < 0.01$ ; GFI = 0.951; CFI = 0.978; RMSEA = 0.080) (See Tables II and III). In Model 1, the endorser credibility-brand credibility path is positive and statistically significant ( $\beta = 0.29$ ,  $p < 0.001$ ) supporting *H1*. *H2* is also supported as the brand credibility-brand equity path is positive and statistically significant ( $\beta = 0.89$ ,  $p < 0.001$ ). However, the direct effect of endorser credibility on brand equity was not significant ( $\beta < 0.01$ ,  $p = 0.969$ ) failing to offer support for *H3*. Model 1 displayed good fit to the data for both the high credibility endorser ( $n = 118$ ) and the low credibility endorser ( $n = 126$ ) as shown in Tables II and III. In both cases, relationships were similar to those observed from the analysis of the pooled data.

We examined discriminant validity of the key constructs using the procedure recommended by Bagozzi *et al.* (1991) and conducted a series of CFAs. For each pair of constructs in the measurement model, we tested whether a two-factor model would fit better than a single factor (constrained) model. Discriminant validity is supported if the two-factor model provides significantly better fit than the one-factor (constrained) model. Chi-square differences tests had indicated that, in all cases the fit for the

Fit statistics	Pooled data $n = 244$	High credibility celebrity $n = 118$	Low credibility celebrity $n = 126$
$\chi^2$ (df)	61.23 (24)	38.76 (24)	45.51 (24)
$p$	<0.001	0.029	0.005
GFI	0.951	0.937	0.933
NFI	0.965	0.953	0.948
CFI	0.978	0.981	0.974
RMSEA	0.080	0.072	0.085

**Table II.**  
SEM results for model 1  
(partial mediation): 1

Path	Standardised path estimates		
EC $\rightarrow$ BC	0.29***	0.21*	0.33**
EC $\rightarrow$ CBBE	-0.00 ns	0.86***	0.90***
BC $\rightarrow$ CBBE	0.89***	-0.01 ns	0.03 ns
$R^2$			
BC	0.083	0.045	0.107
CBBE	0.786	0.731	0.835

**Notes:** \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; ns = not significant; EC = Endorser credibility; BC = Brand credibility; CBBE = Consumer-based brand equity

**Table III.**  
SEM results for model 1  
(partial mediation): 2



two-factor model was significantly better than the fit for the single factor (constrained) model (See Table IV). These results provide support for discriminant validity.

We checked for common method variance bias using Harmon’s one factor test, as recommended by Podsakoff and Organ (1986). The results indicated that common method variance does not pose a problem. Using all of the items of all our latent variables, we tested a single factor model using CFA procedures. This model displayed very poor fit to the data ( $\chi^2$  [27] = 532.02,  $p < 0.001$ ; GFI = 0.682; CFI = 0.706; RMSEA = 0.277), indicating that there is no general factor that accounts for the majority of covariance across these variables.

*Results for the mediating role of brand credibility*

*Model 2 (Direct effect model).* This model examines the direct effect of endorser credibility on brand equity, but does not include brand credibility as a mediating variable. Model 2 fits the data well ( $\chi^2$  [13] = 10.21,  $p = 0.677$ ; GFI = 0.988; CFI = 1.00; RMSEA < 0.001) and shows that endorser credibility significantly affects brand equity ( $\beta = 0.21$ ,  $p < 0.001$ ). *H4* predicted that brand credibility would mediate the relationship between endorser credibility and brand equity. The combined results of Models 1 and 2 help in examining *H4*.

Four conditions should be satisfied for the existence of a mediation effect (Baron and Kenny, 1986):

- (1) the predictor variable (endorser credibility) should significantly influence the mediating variable (brand credibility);
- (2) the mediating variable (brand credibility) should significantly influence the dependent variable (brand equity);
- (3) the predictor variable (endorser credibility) should significantly influence the dependent variable (brand equity); and
- (4) the effect of the predictor variable (endorser credibility) on the dependent variable (brand equity) should no longer be significant (full mediation) or weaken (partial mediation), after we control for the mediating variable (brand credibility).

Model 1 (Partial mediation model) meets with the first two conditions (See Tables II and III). Endorser credibility significantly affects brand credibility, and there is a significant effect of brand credibility on brand equity. Model 2 shows that endorser credibility significantly affects brand equity, and provides support for the third condition. Model 1 also provides support for the fourth condition. Model 1 shows that

Factors	Two-factor model		One-factor model		$\Delta\chi^2$	$\Delta df$
	$\chi^2$	df	$\chi^2$	df		
EC & BC	4.93	4	365.31	5	360.48	1 *
EC & CBBE	10.21	13	400.88	14	390.67	1 *
BC & CBBE	44.27	8	135.44	9	91.17	1 *

**Table IV.**  
CFA results for model 1 –  
evidence of discriminant  
validity

**Notes:** \* $p < 0.001$ . EC = Endorser credibility; BC = Brand credibility; CBBE = Consumer-based brand equity

the effect of endorser credibility on brand equity disappears after controlling for the mediating variable brand credibility. Thus, the combined results of Models 1 and 2 fail to offer support for a direct effect of endorser credibility on brand equity (*H3*). However, these results indicate that brand credibility fully mediates the relationship between endorser credibility and brand equity and provide support for *H4*[2].

#### *Results for the moderating role of type of branding*

Multiple group analysis (MGA) was performed using Model 1 for testing the moderation relationships proposed in *H5* and *H6*. The MGA revealed (See Tables V and VI) that the Model 1 was a close fit with the combined data representing the two groups (Parent brands vs sub-brands).

*Endorser credibility-brand credibility.* *H5* predicted that the type of branding employed by the endorsed brand (Parent brands vs. Sub-brands) would moderate the relationship between endorser credibility and brand credibility. The relationship between endorser credibility and brand credibility was slightly stronger for the sub-brands ( $\beta = 0.29, p < 0.001$ ) than for the parent brands ( $\beta = 0.26, p < 0.001$ ). However, these differences were not statistically significant ( $\Delta\chi^2 [1] = 0.04, p = 0.843$ ) (See Tables V and VI). Thus, *H5* was not supported.

*Endorser credibility-brand equity.* *H6* predicted that the type of branding employed would moderate the relationship between endorser credibility and brand equity. The MGA reveals that the relationship between endorser credibility and brand equity does not vary significantly by the type of branding ( $\Delta\chi^2 [1] < 0.01, p = 0.947$ ) (See Tables V and VI). Thus, *H6* was not supported.

*Brand credibility-brand equity.* In addition, the relationship between brand credibility and brand equity varied by type of branding ( $\Delta\chi^2 [1] = 8.06, p = 0.005$ )

Fit statistics	Parent brand <i>n</i> = 123	Type of branding Sub-brand <i>n</i> = 121	Baseline model <sup>a</sup>
$\chi^2$ (df)	53.22 (24)	36.38 (24)	89.60 (48)
<i>p</i>	<0.01	0.050	<0.001
GFI	0.920	0.939	0.929
NFI	0.948	0.952	0.950
CFI	0.970	0.983	0.960
RMSEA	0.100	0.066	0.060

**Table V.**  
MGA results for model 1  
(partial mediation): 1

Fixed path	Parent brand	Standardised path estimates		df <sup>a</sup>
		Sub-brand	$\Delta\chi^2$	
EC → BC	0.26*	0.29*	0.04	1 ns
BC → CBBE	0.92**	0.84**	8.06	1 *
EC → CBBE	<0.01 ns	-0.01 ns	<0.01	1 ns

**Notes:** \* $p < 0.01$ ; \*\* $p < 0.001$ . ns = not significant; EC = Endorser credibility; BC = Brand credibility; CBBE = Consumer-based brand equity. <sup>a</sup> $\Delta\chi^2$ df was calculated on a baseline model where all parameters were freely estimated

**Table VI.**  
MGA results for model 1  
(partial mediation): 2

as shown in Tables V and VI. Specifically, the relationship was slightly stronger for the parent brands ( $\beta = 0.92$ ,  $p < 0.001$ ) than for the sub-brands ( $\beta = 0.84$ ,  $p < 0.001$ ).

## Discussion, implications and conclusions

### *Theoretical implications*

The results indicate a direct and positive relationship between endorser credibility and brand credibility, and provided support for *H1* (See Tables II and III). This relationship has not been addressed in previous research: hence, this finding contributes to the celebrity endorsement and branding research streams.

Results confirming the positive relationship between brand credibility and consumer-based brand equity (See Tables II and III), hypothesised in *H2*, support past research. In particular, the credibility of a brand signal is believed to increase perceived quality and decrease information costs and perceived risk for consumers (Erdem and Swait, 1998). These outcomes are expected to increase the expected utility of a product, and, in turn, improve brand equity. Furthermore, our results indicate that the relationship between brand credibility and brand equity varies by the type of branding employed, with the relationship being slightly stronger for parent brands compared to sub-brands.

*H3* predicted a direct and positive relationship between endorser credibility and consumer-based brand equity; however, there was no support for this relationship. There are several possible explanations for this result. In this study, participants were exposed to an advertisement and rated brand equity based on this single exposure. Positive associations from the celebrity would be transferred to the brand upon consumers' exposure to multiple celebrity-brand pairings (Silvera and Austad, 2004). Some researchers argue that the impact of celebrity endorsement on brand equity is strengthened over time (Till, 1998). One study on the effect of brand placements on brand image found that brand placement affected brand image only when participants were exposed to a brand placement two or more times (Van Reijmersdal *et al.*, 2007). Therefore, the absence of a relationship between endorser credibility and brand equity could be attributed to the cross-sectional design of this study. Furthermore, brand equity is enhanced when all marketing mix elements are focused on the celebrity-brand pairing (Till, 1998). Endorser credibility might have had a significant influence on brand equity if participants had received an array of promotional material featuring this celebrity endorser.

*H4* predicted that brand credibility would mediate the relationship between endorser credibility and consumer-based brand equity. This relationship was supported. The results suggest that celebrity endorsement does not build brand equity directly; rather it impacts on a brand's credibility, which subsequently leads to improved brand equity. This finding is a valuable contribution to our understanding of celebrity endorsement, brand credibility and brand equity. The present research offers empirical support for a previously theorised relationship between endorser credibility and brand equity. For example, Till (1998) argued that celebrity endorsement impacts brand equity using principles from associative learning. Seno and Lukas (2007) approached this relationship from a co-branding perspective, stating that endorser equity can create equity for the endorsed brand while brand equity can create equity for the endorser. The results of the present study provide empirical evidence supporting the indirect impact of endorser credibility on brand equity, despite arguments in the literature in favour of a direct relationship.

The present research extends the body of knowledge in the area of source credibility. According to the source credibility theory, an individual's tendency to accept information from a communication source depends on perceived credibility of that source (Hovland *et al.*, 1953). While previous research has demonstrated that endorser credibility positively and significantly influences attitude towards the ad, attitude towards the brand shown in the ad and even purchase intention (Goldsmith *et al.*, 2000; Lafferty *et al.*, 2002; Lafferty and Goldsmith, 1999), the results of the present research suggest that endorser credibility also influences brand credibility. While the majority of source credibility literature examines the impact of spokesperson credibility on ad evaluations and brand evaluations, the present research demonstrates that intangible assets such as brand equity are also affected by the credibility of the source via brand credibility.

*H5* predicted that the relationship between endorser credibility and brand credibility would vary depending on whether the endorsed brand was a parent brand or sub-brand. *H6* predicted that the type of branding employed moderates the relationship between endorser credibility and consumer-based brand equity. *H5* and *H6* were not supported. There are several possible explanations for these results. Positive evaluations of a parent brand tend to be transferred to extensions as the fit between the parent brand and its extension improves (Boush and Loken, 1991). In the present case, the sub-brand category was selected in such a way that it was a viable extension category and offered a better fit to the parent brand. This better fit might have lead respondents to evaluate the sub-brands more favourably and similarly to the parent brand. Moreover, better fitting brand extensions produce more favourable brand attitudes particularly when limited information is made available to the subjects about the brands being evaluated (McCarthy *et al.*, 2001). In the present study respondents had limited information about the brands being evaluated (e.g. brand name and celebrity endorsement in the ad), which might have led to the attenuation of the impact of endorsement on respondent brand credibility and brand equity perceptions. Furthermore, past research has shown that the degree of technological similarity between a parent brand and its extension affects consumer brand extension evaluations in such a way that downward extensions are evaluated more favourably (Jun *et al.*, 1999). The USB product used for the sub-brands is from a low technology category in comparison to the high technology parent brand of flat panel television. This can be categorised as a downward extension. Therefore, the impact of endorser credibility on consumers' brand credibility and brand equity perceptions for sub-brands may not have been more pronounced in comparison to parent brands. Previous research has also shown that when the relevance of a parent brand's associations for the extension category is high, consumer attitudes towards the parent brand are more likely to transfer to the brand extension (Broniarczyk and Alba, 1994). Applying this logic to the present context, the sub-brand involved is likely to have shared relevant associations with the parent brand, as both products (television and USB) are consumer electronics. Hence, consumers might have evaluated the sub-brand similarly to its parent brand on important brand associations.

#### *Managerial implications*

Marketing managers can effectively use the findings of this research given that a brand is a critical asset for a firm and brand equity is a key strategic concern. The

present research indicates that celebrity endorsement is an effective tool for building brand equity indirectly through building brand credibility and suggests guidelines for selecting an effective endorser. Based on these findings, a celebrity endorser should be one who is perceived as credible based on their attractiveness, expertise and trustworthiness. Moreover, in this research, even a moderately low credibility celebrity endorser proved to be able to build the brand.

The results of the present research show that local celebrities (who mainly operate in the local market) can be successful in influencing brand credibility and hence, brand equity for the selected global brands. Past research has shown that high equity sponsors are more congruent with the high equity sponsored events, compared to sponsors with low brand equity (Roy and Cornwell, 2004). Using this logic, it could be expected that global or "high equity" celebrities are more congruent with global or "high equity" brands. However, the present research shows that local celebrity endorsers are sufficient for improving brand credibility and hence equity of global brands. This finding provides direction for global firms seeking entry into a new national market by highlighting local celebrity endorsement as a means of localising a marketing strategy and connecting with consumers, and boosting brand evaluations. Global firms will need to assess the cost-effectiveness of the use of expensive global celebrities who can be used in more than one market versus local celebrities who may not be as expensive but still could be effective in a single national market as our results demonstrate.

#### *Limitations and future research directions*

The limitations of this research were primarily related to the generalisability of the findings and the cross-sectional nature of the research design. Only male celebrities were used in the present study; the use of female celebrities might have revealed different results. Both the selected celebrities included in the present study are television presenters. Celebrities from other areas such as sports might have yielded different results. This study used a systematic random sample from a shopping centre in an Australian state capital city. Therefore, findings may not generalise to other markets.

Also, this research solely investigated consumers' responses to print advertisements, which were all identical in size, colour, graphics, caption length and arrangement. This was a fundamental aspect of the experimental design, which minimised extraneous variance. A corresponding shortcoming was that findings were limited to results from a single exposure. The design used was cross-sectional and required participants to judge brand credibility and brand equity after only a single exposure to an advertisement. While the field setting was within a commercial environment the experimental session may have resulted in a higher level of attention than advertisements naturally receive.

There are several overarching directions for future research. First, longitudinal research could be conducted with a within-subjects repeated measures experimental design. A repeated measures design would allow brand credibility and brand equity to be measured before and after participants are exposed to experimental treatment. Furthermore, endorsement could be most effective for building brand equity when it is used consistently over time (Till, 1998). Longitudinal research allowing a series of experimental treatments could reveal whether relationships between endorser

credibility, brand credibility and brand equity would strengthen over time as the associative link between the endorser and brand is reinforced through repeated exposure.

Future research should investigate the effectiveness of local “only” celebrities relative to local celebrities known in the global arena. Celebrity endorsement is a commonly used strategy in Australian advertising, with many successful endorsers including: film star Nicole Kidman (Chanel No. 5 perfume); former Miss Universe Jennifer Hawkins (Myer department store); model and film star Megan Gale (David Jones department store); pop singer and entertainer Kylie Minogue (Darling perfume); and professional golfer Greg Norman (Land Rover automobiles). While the majority of these names are known to consumers in several countries, a host of local celebrities whose names would be unfamiliar to consumers outside the country are used successfully for endorsement. There is some empirical evidence to say that celebrities who operate at different levels (regional versus national) differ in terms of their perceived credibility (Toncar *et al.*, 2007). As previously mentioned, an important finding of this research is that local celebrity endorsers are sufficient for shifting perceptions of global brands. However, a key advantage of celebrity endorsement is its ability to be used across international borders because of the global appeal of a known celebrity (Erdogan, 1999). Furthermore, using the same celebrity endorser across geographic markets would allow economies of scale in advertising and consistency in brand image. For example, Gillette also uses the Tiger Woods, Roger Federer and Thierry Henry endorsement ad in Australia. It is already expected that a global celebrity would influence the credibility and equity of the endorsed brand so perhaps a better question for future research is whether a global celebrity would have an even stronger impact on brand credibility and brand equity than a local only celebrity.

The framework proposed in this study could be utilised with other product categories, brands and celebrities to increase the generalisability of the results. We expect the results to be similar for other non-durable product categories. As previously mentioned, endorsement by credible celebrities such as cricket player Ricky Ponting was found to improve brand awareness, and was expected to generate favourable brand associations for a non-durable product such as automotive lubricating oil (Valvoline).

Previous research has shown that perceptions of certain dimensions of a celebrity endorser’s credibility (e.g. trustworthiness and expertise) and even purchase intentions vary depending on whether the endorsed product (service) is utilitarian or hedonistic (Stafford *et al.*, 2003). While USB is a utilitarian product, a flat panel television would be considered more hedonic. Hence, whether or not the effect of endorser credibility on brand credibility and brand equity would be similar for hedonic and utilitarian products is another avenue for possible future research.

## Notes

1. We have used the terms brand equity and consumer-based brand equity interchangeably hereafter.
2. We also employed ordinary least squares regression to test the mediating role of brand credibility. The results are consistent and provide support for the mediating role of brand credibility. Since ordinary least squares does not account for measurement error, we report the results based on the SEM for all hypotheses. Furthermore, SEM allows for the comparison of rival models.



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Construct	Cronbach's alpha	Source
<i>Endorser credibility</i>	0.88	Ohanian (1990)
Attractiveness	0.80	
1. Attractive – unattractive		
2. Classy – not classy		
3. Beautiful – ugly		
4. Elegant – plain		0.89
5. Sexy – not sexy		
Expertise		
1. Expert – not an expert		
2. Experienced – inexperienced		
3. Knowledgeable – unknowledgeable		0.92
4. Qualified – unqualified		
5. Skilled – unskilled		
Trustworthiness		
1. Dependable – undependable		
2. Honest – dishonest		0.93
3. Reliable – unreliable		
4. Sincere – insincere		
5. Trustworthy – untrustworthy		
<i>Brand credibility</i>		Erdem and Swait (2004)
1. This brand reminds me of someone who's competent and knows what he/she is doing		
2. This brand has the ability to deliver what it promises		
3. This brand delivers what it promises		
4. This brand's product claims are believable		
5. Over time, my experiences with this brand have led me to expect it to keep its promises, no more and no less		
6. This brand has a name you can trust		
7. This brand doesn't pretend to be something it isn't		0.79
<i>Consumer-based brand equity</i>		
Brand awareness	0.93	Yoo and Donthu (2001)
1. I am aware of (brand) (product category)		
2. I can recognise (brand) (product category)		
3. Some characteristics of (brand) (product category) come to mind quickly <sup>a</sup>		0.85
Brand associations		
1. It is likely that (brand) (product category) offer good value for money		
2. It is likely that (brand) (product category) would be technically advanced		
3. I like (brand) (product category)		
4. I trust (brand) as a manufacturer of (product category)		Aaker (1991)
5. I would feel proud to own a (brand) (product category) <sup>a</sup>		

(continued)

**Table AI.**  
Measures used in the  
main empirical study



Construct	Cronbach's alpha	Source
Perceived quality 1. It is likely that (brand) (product category) are of very high quality 2. It is likely that (brand) (product category) are of very consistent quality 3. It is likely that (brand) (product category) offer excellent features 4. It is likely that (brand) (product category) are very reliable	0.91	Yoo and Donthu (2001); Aaker (1991)
Brand loyalty 1. I feel loyal to (brand) when considering the purchase of a (product category) 2. It is likely that (brand) would be my first choice when considering the purchase of a (product category) 3. I would not buy another brand of (product category) if (brand) was available at the store	0.84	Yoo and Donthu (2001)
<i>Endorser familiarity</i> Please tell us how familiar you are with (celebrity name) shown in this advertisement 1. Not Familiar – very familiar 2. Do not recognise – do recognise 3. Have not heard of before – have heard of before	0.93	Simonin and Ruth (1998)
<i>Brand familiarity</i> Please tell us how familiar you are with (brand name) shown in this advertisement 1. Not Familiar – very familiar 2. Do not recognise – do recognise 3. Have not heard of before – have heard of before	0.91	Simonin and Ruth (1998)
<i>Endorser-brand congruence</i> Please tell us how suitable you think the person in this advertisement is for endorsing (brand name). 1. Bad fit between person and the brand - Good fit between person and the brand 2. Not logical for the person to endorse - Very logical for the person to endorse 3. Not appropriate for the person to endorse -Very appropriate for the person to endorse	0.96	Keller and Aaker (1992)
<i>Product knowledge</i> Please tell us how much you know about (product category), by indicating how much you agree/disagree with each of the following statements (1 = strongly disagree; 7 = strongly agree). 1. I am interested in (product category) 2. Compared to other people I know more about (product category) 3. My friends consider me an expert on (product category)	0.76	Cole and Balasubramanian (1993)

**Notes:** <sup>a</sup>Items removed based on the results of exploratory factor analysis. All items were measured on seven-point scales

Table AI.

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