Perceived quality and image: When all is not "rosy" ☆

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Abstract

The "meaning" of a brand resides in the minds of consumers, based on what they have learned, felt, seen, and heard over time. This study explores the relationship between *quality* and *image* with special attention on brands plagued with negative impressions, including instances where consumers' perceptions of a product's quality conflict with its perceived "image". Data confirm that quality and image impact attitudes in a distinct manner, and overall, low brand image is more damaging than low quality. In addition, findings show that (1) hedonic attitudes towards brands are most driven by image, whereas utilitarian attitude formation/change processes are dominated by quality, (2) non-attribute brand beliefs are a stronger predictor of hedonic attitudes when quality or image is low versus high, while (3) attribute-based beliefs are strong predictors of utilitarian attitudes across image and quality levels.
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The "meaning" of a brand resides in the minds of consumers, based on what they have learned, felt, seen, and heard over time (e.g., D. Aaker, 1991; Keller, 1993, 2003). Such "brand meanings" include functional, utilitarian, economic, and rational benefits; and associations with hedonic and sensory properties such as image and brand personality ("the set of human characteristics associated with a brand"; J. Aaker, 1997, p. 347). This study explores the relationship between perceived *quality* and *image* with special attention on brands plagued with negative impressions, including instances where consumers' perceptions of a product's quality/attributes conflict with its perceived "image". It is clear that favorable perceived quality along with a positive image is the ideal situation, but what about "image-tarnished" or "quality-challenged" brands? And how about brands with a quality/image "mismatch": i.e., "image-tarnished" brands with favorable quality ratings or "quality-challenged" brands with favorable images? For example, *Hyundai* continues to fight deeply-held negative images among some consumer

groups, at the same time reporting impressive gains in product quality (O'Dell, 2004); and *Volkswagen* pulled its *Phaeton* from the U.S. market because American consumers were not willing to buy the 6-figure "best car in the world" if it had a *VW* nameplate (Neil, 2006). In contrast, *Mercedes* manages to maintain a relatively favorable brand image in spite of quality issues related to some models (Gibson, 2006; Jensen, 2007; O'Dell, 2003); and even after press reports of screens that scratch too easily, the *Apple iPod Nano* was still a "must have" among many consumer groups (Snyder Bulik, 2005).

While the literature is overwhelmed with explorations of perceived quality (e.g., Aaker and Jacobson, 1994; Hellofs and Jacobson, 1999; Rao, Qu, and Ruekert, 1999), there is relatively little empirical attention on brand image. Surprisingly, a search of the literature finds no empirical studies that manipulate both perceived quality and image. In response, this study explores the impact of perceived *quality* and *image* on brand attitudes. Most notably, our goal is to examine the effects of negative perceptions, including quality/image "mismatches". Theoretically, it is important to understand the underlying relationship between perceived quality and brand image, including the nature of the impact that unfavorable perceptions have on brand attitude formation/change. For example, when consumers hold relatively negative (quality or image) perceptions, what types of

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brand-related beliefs drive or contribute most to attitude formation/change? From a practical perspective, should marketers/ advertisers use promotional tools that are image-oriented when a brand is quality-challenged (i.e., falls short in terms of product quality, warranties, reliability)? On the flip side, can high quality compensate for low brand image and will image-tarnished brands that make strides towards achieving higher quality also see gains in brand image?

These questions are explored experimentally, and the data confirm that quality and image impact attitudes in a distinct manner, and overall, low brand image is more damaging than low perceived quality. In addition, quality and image are manipulated via third-party objective ratings and consumer endorsements to test that (1) hedonic attitudes towards brands are most driven by image, whereas utilitarian attitude formation/change processes are dominated by quality, (2) non-attribute brand beliefs are a stronger predictor of hedonic attitudes when quality or image is low versus high, while (3) attribute-based beliefs are strong predictors of utilitarian attitudes across quality and image levels.

1. Background and hypotheses

Perhaps no other construct is more central to the basic foundations of the marketing discipline than consumer attitude. In an effort for a richer understanding of consumer attitudes, researchers have examined their hedonic and utilitarian components (cf. Batra and Ahtola, 1990; Voss, Spangenberg, and Grohmann, 2003), based on the notion that consumption behaviors are driven by hedonic (or affective) gratification (e.g., sensations derived from the experience of using products) and utilitarian (or instrumental) motives (e.g., derived from functions performed by products). Measurement of these attitudinal dimensions has both theoretical and practical benefits. For example, researchers may develop models that are more powerful predictors of consumer behavior, while managers will be able to test the effectiveness of experiential versus functional positioning strategies (Voss et al., 2003). Consistent with Homer and Batra's (1994) plea for studies of attitude formation and change that are more explicit regarding the specific attitudinal dimension(s) being investigated, a recent endeavor concludes that the two-factor (utilitarian/hedonic) conceptualization accounts for greater variance than traditional uni-dimensional brand attitude measures (Voss et al., 2003). Thus, this richer two-factor (utilitarian versus hedonic) approach serves as the basis for the hypotheses tested here.

1.1. The impact of perceived quality and image

As introduced above, this study first examines the nature of the influence of perceived quality and image on brand attitudes. Somewhat analogous to the quality/image distinctions, the social science literature is replete with evidence that voters evaluate candidates on separate and distinct dimensions: that is, *competence* and *character* (e.g., Homer and Batra, 1994). Homer and Batra (1994) argue that competence-related beliefs (e.g., expertise, qualified, hard-working) rely more on objec-

tively verifiable data (Alwitt, Deighton, and Grimm, 1991) obtained in a piece-meal fashion, whereas character-related beliefs (e.g., trustworthiness, compassion, morality) are emotion-driven and subjective, and not derived from cognitive integration of externally verifiable information (Geiger and Reeves, 1991). To the extent that the quality and image information cues used here are similar to the competence/character distinction applied to human perception, with quality being more verifiable and cognitive-driven and image more emotion-driven and affective; quality and image should impact attitudes in a way that conforms with a hedonic attitude/image and utilitarian attitude/quality "fit".

H1. Quality explains more variance in utilitarian attitudes and image explains more variance in hedonic attitudes.

1.2. Attribute-based and non-attribute-based brand beliefs

As introduced above, "brand meanings" can be distinguished most basically in terms of utilitarian, attribute, and performance-oriented associations/beliefs (e.g., features, quality, price) versus abstract, imagery-related considerations that are unrelated to product attributes (e.g., the safety image of a *Volvo* car, *Pepsi* as "young", and *Dr. Pepper* as "non-conforming" and "unique" [Plummer, 1985]). More specifically, they range from a brand's functional properties (what it does and how it does it) and its overall or attribute-specific level of quality and reliability; to the consumer benefits to be gained from those functional properties and that level of quality, and various other kinds of symbolic and cultural meanings (e.g., this is a "fun" brand or one that connotes "status"). [See Batra and Homer (2004) and Batra, Lehmann, and Singh (1993) for discussions.] These various associations/beliefs (and the values associated with those beliefs) form the basis of the hedonic and utilitarian brand attitude constructs discussed above (see e.g., Fishbein and Middlestadt, 1995).

Researchers have offered a variety of typologies (or "labels") to categorize brand-related associations and beliefs; including *characteristic*, *beneficial*, and *image* (Lefkoff-Hagius and Mason, 1993), *abstract* versus *concrete* (e.g., Johnson and Fornell, 1987), *image* versus *utilitarian* (Mittal, 1990), *cognitive* and *affective* (Dubé, Cervellon, and Jingyuan, 2003), and *attribute* and *non-attribute* (e.g., Srinivasan et al., 2004). [See Lefkoff-Hagius and Mason (1993) for a review of many of these distinctions.] While terminology may vary, the same basic two-dimensional structure serves as the foundation of these typologies. The attribute versus non-attribute brand belief typology is adopted based on its perceived relevance to the tested product category (i.e., automobiles) and the individual belief indicators measured here.

By definition, the attribute belief construct reflects brand-related functional aspects such as quality, features, and performance. Thinking about benefits and consequences, which is captured by the non-attribute construct, involves higher order processing relative to thinking about basic product attributes (cf. Homer, 2006). Non-attribute brand beliefs are of this higher order type that tends to reflect personal values (e.g., the status of

a Rolex watch) and often include subjective and emotional attachments to self. Theoretically, these symbolic and brand personality types of beliefs and associations can be formed and influenced by any direct or indirect contact that the consumer has with the brand (Plummer, 1985).

The importance of brand associations as antecedents to brand preferences such as brand attitudes and purchase intentions is well-established, but the relative import of non-attribute associations such as beliefs about a brand's "image" has only recently been examined (e.g., Batra and Homer, 2004). Furthermore, the literature neglects brands plagued with negative consumer perceptions. This study expands on the notion that non-attribute-based brand beliefs such as those related to brand image make an incremental contribution to predicting brand preferences above that associated with attribute-based evaluations (e.g., brand features, quality), arguing that their importance is especially critical to understanding hedonic attitudes (and not utilitarian attitudes) towards brands with unfavorable brand images or low perceived quality.

Batra and Ahtola (1990) confirm that the hedonic component of attitude is associated with sensory, experiential product considerations (including, e.g., brand image), the utilitarian with instrumental, functional brand attributes (e.g., quality and warranties). These hedonic/image and utilitarian/attribute connections seem rather straight-forward and grounded by definition. Thus:

H2. Non-attribute brand beliefs contribute most to predicting hedonic attitudes, whereas utilitarian attitudes are driven by attribute brand beliefs.

1.3. Perceived quality and image as moderators of the belief–attitude relationship

In addition to the hypothesized main effects proposed above, this research predicts that consumers' perceptions regarding quality and image moderate the relation that non-attribute brand beliefs have with hedonic attitudes, but not their relationship with utilitarian attitudes. There appears to be no direct support in the vast literature on attitude change for this proposition, but indirect support is visible. At first glance, two streams of research appear to suggest that being more affective/subjective in nature renders non-attribute beliefs (versus attribute beliefs) more likely to result from less elaborated peripheral processing versus central processing of cognitive cues and thus, are more susceptible to change: that is, Petty and Cacioppo's (1986) elaboration likelihood model (ELM) and Edwards' (1990) affective/cognitive bases for attitude formation. However, it has also been argued that attitudes based on affect are more resistant to persuasion than are attitudes based on cognition (Zanna and Rempel, 1988) and that affect is effortful and demands considerable elaboration (Lee and Sternthal, 1999). Furthermore, non-attribute types of brand beliefs, while more affect-driven, are also more abstract, subjective, linked to personal core values and self-concept, and lifestyle-relevant; all of which imply relatively enduring, deeply-held responses.

Recall that quality and image are here based on favorable/unfavorable third-party ratings and endorsements much like the research stream focused on the impact of positive versus negative information on evaluations. The existence of a "negativity effect" (i.e., the greater power of negative versus "comparable" positive information) is well-documented across disciplines, including the literature on attitudes towards products (see Homer and Batra [1994] and Skowronski and Carlston [1989] for reviews). This body of research is potentially more insightful to the current study than the information processing literature focusing on the impact of positive messages (i.e., favorable information cues). According to the accessibility–diagnosticity model (e.g., Herr, Kardes, and Kim, 1991), consumers tend to see negative attributes as more "diagnostic" than positive or neutral. This increased diagnostic value associated with negative information (i.e., a negativity effect) is most prominent for more (persuasive-resistant) affective types of judgments and evaluations (e.g., non-attribute-based beliefs and hedonic attitudes). In summary, quality and image moderate the relationship between non-attribute brand beliefs and hedonic attitudes: i.e.:

H3A. Non-attribute brand beliefs impact hedonic brand attitudes more strongly for brands described as suffering from either low image or low perceived quality than for high image or high quality brands.

As noted above and consistent with the ELM, attribute-based brand beliefs emerge from cognitive integration of externally verifiable information, here presented via third-party objective ratings. Past evidence (1) that a negativity bias is much stronger for morality judgments (cf. non-attribute beliefs) than for ability judgments (cf. attribute beliefs) (Skowronski and Carlston, 1989), (2) that negative information has an unequal effect on character and competence source evaluations (Homer and Batra, 1994; Klebba and Unger, 1983), and (3) that cognitive-based attitudes may be less resistant to persuasive attempts than attitudes based on affect suggest that the same pattern predicted above for the non-attribute belief/hedonic attitude relationship will not hold for the attribute belief/utilitarian attitude relationship. Rather, attribute-based brand beliefs are the sole predictor of centrally-processed/cognitively-driven utilitarian attitudes. That is:

H3B. Attribute brand beliefs are the dominant predictor of utilitarian attitudes across image and quality levels.

1.4. Low perceived product quality versus low brand image

While it is well-established that high brand equity is accompanied by favorable, strong, and unique brand associations in memory (e.g., D. Aaker, 1996; Keller, 2003), limited attention has examined the impact of various associations on preferences for brands with deficient product quality or image franchises. As noted in the introduction, a number of well-known brands have achieved acceptable success in the presence of lapses in quality (e.g., *Mercedes*) or perceived image (e.g., *Hyundai*), while others have not faired so well (e.g., the *VW Phaeton*). The final hypotheses examine brands with quality/image

mismatches to determine which is worse, (1) a brand with a favorable image but low perceived quality or (2) a brand regarded to possess high quality that suffers from a low image?

Above, an "alignment" among perceived image, non-attribute beliefs, and hedonic attitudes is proposed. In addition, brand image is a higher order type of association that is more deeply felt, connected to self, and "socially" impacted versus perceived product quality which is a lower order type of association that can be more easily altered (e.g., via verifiable product design efforts). These arguments support that overall, low image is more damaging to higher order evaluations (i.e., non-attribute beliefs and hedonic attitudes) than low quality. Thus, hedonic attitudes and non-attribute beliefs of high image/low quality mismatched brands will be more favorable than evaluations of low image/high quality brands.

H4A. Non-attribute brand beliefs and hedonic attitudes towards brands with favorable brand images and low perceived quality are higher than those for low image/high quality brands.

A similar quality/attribute belief/utilitarian attitude "connection" might suggest that utilitarian attitudes and attribute beliefs of low image/high quality mismatched brands would be more favorable than evaluations of high image/low quality brands. However, this ignores the proposed higher order status attached to image versus quality information. That is, assuming that consumers somehow incorporate both image and quality in some degree to form brand-related beliefs and attitudes, favorable quality ratings should enhance functional types of responses like the measured attribute-based beliefs and utilitarian attitudes. However, the presence of more powerful (higher order) and diagnostic image-damaging information will neutralize that effect. Thus:

H4B. Attribute brand beliefs and utilitarian attitudes towards brands with favorable brand images and low perceived quality are comparable to those for low image/high quality brands.

2. Method

2.1. Overview

In order to test the proposed hypotheses, *quality* and *image* are manipulated via product descriptions and third-party (objective) product evaluations and consumer endorsements thought to be more credible and convincing than other marketing-dominated efforts (e.g., advertisements; Dean and Biswas, 2001) in a 2 (low/high *quality*) × 2 (low/high *image*) factorial design. The target product (i.e., a "new" automobile, the "Horizon") is relevant to the sample population and is one for which third-party ratings are common information sources.

2.2. Quality and image manipulations

Quality (high/low) and image (high/low) are manipulated in two ways, positioned within a product description and "Press Release Excerpts". Subjects in the high (low) quality treatment were told: "This sedan comes standard with a 285-hp 3.5 liter 6-cylinder (175-hp 2.5 liter 4-cylinder) engine; and is nicely equipped with front and side airbags, air conditioning, power windows and door locks, second row folding seat, rear defogger, CD player, keyless entry, and anti-theft system". Below that description, "Press Release Excerpts" manipulated both quality and image-related third-party ratings and consumer "comments". For example, the high quality treatment press notes stated:

> According to tests by 3rd-party (independent) sources, the "Horizon" outperforms (6 out of 7 "stars") other cars in the product class in terms of quality and reliability, and ranks comparatively high on "image" ratings (6 out of 7 "stars"). These test results are consistent with ratings by JD Powers. In car clinics across the US, drivers' comments included "a lot of fun to drive", "good quality", "my neighbors will be so impressed", and "a massive set of features".

To create perceptions of low quality, "outperforms (6 out of 7 "stars")" was replaced with "underperforms (4 out of 7 "stars")", and consumer comments were altered to read "not good quality" and "a standard set of features". For the low image treatment groups, (1) "comparatively high on "image" ratings (6 out of 7 "stars")" was replaced with "comparatively low on "image" ratings (4 out of 7 "stars"), (2) "a lot of fun to drive" was replaced with "not fun to drive", and (3) "my neighbors will be so impressed" became "my neighbors will not be impressed". No mention was made about the manufacturer of the automobile to eliminate influence of preexisting impressions towards known/familiar brands.

2.3. Pretests

A series of independent sample pretests were conducted (1) to select a brand name that elicited few strong brand associations, especially inferences related to quality and "image", (2) to develop a reliable list of *attribute* and *non-attribute* brand beliefs relevant to mid-sized automobiles, and (3) to verify that the quality and image manipulations would behave as intended. [In the interest of space, details of these pretests are omitted, but are available from the author.]

2.4. Subjects and procedure

A total of 288 undergraduate students enrolled in an introductory business class (53.8% females, mean age = 23.4 and median age = 22) at the same large Western university sampled for the pretests participated in the main experiment. First, participants were instructed to read the instruction page including a statement of the cover story for the experiment, "Consumer Research Study". All experimental treatments were administered randomly at each session by an administrator who was blind to the individual treatment assignments and research hypotheses.

2.5. Dependent measures

Consistent with the cover story that the study dealt with opinions about certain brands, subjects first rated their overall

impressions of the cars manufactured by nine automotive companies (*General Motors*, *Acura*, *Toyota*, *Hyundai*, *Nissan*, *Chrysler*, *Mercedes*, *Buick*, and *Ford Motor Company*). The following page contained the experimental manipulations. In an introductory statement, respondents were instructed to "review the sketch, product description, and Press Release Excerpts for the new *Horizon* sedan." A sketch (line drawing) of a mid-sized sedan (no logo or other company identification), along with the verbal description detailed above were centered below those instructions. Completing the manipulations, a text box with the "Press Release Excerpts" was positioned in the lower section of the page.

Subjects then proceeded to answer the remaining questions at their own pace, presented in the following order: brand attitudes, quality perceptions (2 items; Spearman Brown reliability coefficient = .90), image perceptions (2 items; Spearman Brown reliability coefficient = .90), brand beliefs (attribute beliefs and non-attribute beliefs intermixed), brand belief importance ratings, product knowledge (4 items; $\alpha = .74$), brand familiarity, ownership status, demand effect assessments, age, and gender. Analysis of the demand effect questions show no evidence that subjects knew the underlying purpose of the experiment.

Following tradition, all multiple-item scales for the critical constructs average relevant items (9-point scales). The resultant construct scales are reliable: hedonic attitudes ($\alpha = .95$; fun/not fun, exciting/boring, enjoyable/not enjoyable, thrilling/not thrilling, and delightful/not delightful), utilitarian attitudes ($\alpha = .86$; practical/not practical, sensible/not sensible, functional/not functional, and necessary/unnecessary), non-attribute beliefs ($\alpha = .95$; "classy", sophisticated, stylish, good image, high status, special, fun, exciting, enjoyable, attractive, and pleasurable), and attribute beliefs ($\alpha = .87$; high quality, well-made, reliable, dependable, comfortable, easy to maneuver, roomy, plenty of cargo space, good warranty, and maintenance-free). Since the predictors are attitudes, it has been argued that the predictors of interest should be "adequacy importance" (AI) product terms (cf. Ajzen and Fishbein, 1980; Wilkie and Pessemier, 1973), in which the belief about a particular attribute or benefit (e.g., "is reliable") is multiplied by the stated importance of that attribute/benefit in brand choice ("not at all important/very important"). These product (AI) terms are calculated for attribute and non-attribute brand beliefs.

3. Results

3.1. Manipulation checks and potential covariates

Those who were told that third-party objective ratings of quality and other attributes were favorable, expressed higher perceptions of quality ($M_{HQ} = 6.05$) compared to those exposed to the low quality condition ($M_{LQ} = 4.58$; $F(1,283) = 69.65$, $p = .000$). As desired, image perceptions are higher for the high image treatment ($M_{HI} = 5.47$) relative to those told that the sedan was "comparatively low in terms of image" according to third-party objective tests ($M_{LI} = 4.22$; $F(1,284) = 35.31$, $p = .000$). [Any deviation in degrees of freedom is due to missing data for some individual measures.]

Table 1
Summary of treatment cell statistics

	High quality and high image	High quality and low image	Low quality and high image	Low quality and low image
Construct				
Hedonic attitudes	6.03 (1.74)	4.38 (1.97)	5.46 (1.65)	3.98 (1.88)
Utilitarian attitudes	6.05 (1.55)	5.77 (1.71)	5.34 (1.76)	5.20 (1.82)
Attribute beliefs	5.20 (1.17)	4.63 (1.42)	4.40 (1.12)	4.28 (1.27)
Non-attribute beliefs	5.51 (1.53)	4.03 (1.73)	5.17 (1.41)	3.89 (1.55)

Means and standard deviations.

There are no significant differences across treatments for product knowledge, brand familiarity, or ownership status, and these variables do not impact the analyses reported below: thus, they are not discussed further.

3.2. The impact of perceived quality and image

First, the impact of quality and image on hedonic and utilitarian attitudes (H1) is examined. Two-way (quality (low/high) × image (low/high)) ANOVAs indicate that hedonic attitudes are impacted (dominated) by image ($F(1,284) = 53.95$, $p = .000$; $M_{LI} = 4.18$ versus $M_{HI} = 5.75$; partial eta$^2 = .16$ versus $F(1,284) = 5.11$, $p < .05$; partial eta$^2 = .02$ for the quality main effect), and utilitarian attitudes by quality ($F(1,284) = 10.03$, $p = .000$; $M_{LQ} = 5.27$ versus $M_{HQ} = 5.91$; partial eta$^2 = .034$ versus $F(1,284) = 1.11$, *ns*; partial eta$^2 < .01$ for the *image* main effect). The quality × image interaction is insignificant across these two attitude constructs. [Treatment cell statistics are summarized in Table 1.]

3.3. Attribute versus non-attribute brand beliefs

To test the relative impact of attribute versus non-attribute beliefs, OLS regression equations include the attribute and non-attribute AI belief scales, the quality dummy variable (where low coded as "0", high as "1"), the image dummy variable (where low coded as "0", high as "1"), the quality × image interaction term, the four two-way interaction terms involving the two AI belief scales and the manipulation dummy variables, and the two 3-way interaction terms (i.e., quality × image × attribute AI and quality × image × non-attribute AI). [The data for the independent variables are mean-centered because otherwise interpretation of interaction terms becomes problematic (Yi, 1990).]

Consistent with H2, the effect due to non-attribute beliefs (NAB) dominates that due to attribute beliefs (AB) for hedonic attitudes ($F(11,276) = 33.27$; $b_{NAB} = 1$, $t = 8.20$, $p = .000$ versus $b_{AB} = -.16$, *ns*), and interactions between non-attribute brand beliefs and image ($b = -.33$, $t = -2.83$, $p < .01$) and non-attribute beliefs and quality ($b = -.27$, $t = -2.09$, $p < .05$) support H3A. That is, (relatively unfavorable) non-attribute beliefs are stronger predictors of hedonic attitudes for brands with low quality ($b_{NAB} = .95$ versus $b_{NAB} = .72$ for low and high quality models, respectively; $Z = 7.76$, $p < .001$) or low image ($b_{NAB} = .89$ versus

Table 2
Effects of attribute and non-attribute beliefs on brand attitudes

R^2 (df)	F	Attribute AI	Non-attribute AI	Quality dummy	Image dummy	Quality dummy × Image dummy	Quality dummy × non-attribute AI	Image dummy × non-attribute AI
Hedonic attitudes								
.299 (7,280)	17.10	.35 (3.20)[a]		.05 (.64)	.34 (4.60)[a]	.01 (.01)		
.570 (11,276)	33.27	−.16 (−1.47)	1.0 (8.20)[a]	.02 (.36)	.11 (1.80)	.05 (.61)	−.27 (−2.09)[a]	−.33 (−2.83)[a]
Utilitarian attitudes								
.228 (7,280)	11.84	.56 (4.82)[a]		.08 (1.02)	−.01 (−.09)	.02 (.15)		
.239 (11,276)	7.86	.48 (3.38)[a]	.15 (.93)	.07 (.87)	.01 (.02)	−.01 (−.06)	−.05 (−.28)	−.26 (−1.68)

Standardized coefficients (*t* statistics). In the interest of space and parsimony, insignificant effects are omitted.

[a] $p < .05$.

$b_{NAB} = .66$ for low and high image models, respectively; $Z = 5.31$, $p < .001$). Also as predicted (H3B), the main effect for attribute beliefs and lack of significant interaction effects indicate that they are the dominant (sole) predictor of utilitarian attitudes ($F(11,276) = 7.86$; $b_{AB} = .48$, $t = 3.38$, $p = .000$). [See Table 2 for a summary of these results.]

In addition, "reduced" models excluding the non-attribute belief AI scales are compared to the full models presented above to estimate their incremental contribution to explaining brand attitudes. That is, models with the following predictors are compared: (1) attribute beliefs, the two manipulation dummy variables, their interaction, the attribute AI × quality interaction, and the attribute AI × image interaction; and (2) the full models presented above. For hedonic attitudes, the R^2 of .299 for the "reduced" model (with the attribute belief and image dummy terms significant) increases to $R^2 = .570$ (incremental $F(4,276) = 43.49$, $p = .000$) when the non-attribute belief and relevant interaction terms are added to the equation. Importantly, adding the non-attribute belief terms renders attribute-based beliefs insignificant, thus implying that hedonic attitudes can be high and positive even in the absence of favorable perceptions regarding functional attributes such as quality and brand features. Regarding utilitarian attitudes, the R^2 of .228 for the reduced model and beta coefficients for attribute beliefs are unaffected when non-attribute beliefs are added to the equation (i.e., $R^2 = .239$; incremental $F(4,276) = 1.00$, *ns*; and $b_{FULL} = .48$ versus $b_{REDUCED} = .56$, *ns*), thus supporting that non-attribute beliefs make a significant contribution above that due to attribute beliefs in predicting hedonic attitudes, but show no similar predictive power for utilitarian attitudes.

3.4. Quality and image "mismatched" brands

Finally, the quality and image "mismatched" brands are compared to determine which (quality/image "mismatch") situation is worse: low perceived quality (with high image) or low brand image (with high quality)? Planned comparisons (Duncan tests; Winer 1971) support H4A that overall, low perceived image is more damaging than low perceived quality, especially for higher order beliefs and attitudes. That is, for hedonic attitudes and non-attribute brand beliefs, the low quality/high image (LQHI) brand is rated more favorably than the low image/high quality brand (LIHQ): hedonic attitudes ($M_{LQHI} = 5.46$ versus $M_{LIHQ} = 4.38$; $p < .05$) and non-attribute

beliefs ($M_{LQHI} = 5.17$ versus $M_{LIHQ} = 4.03$; $p < .05$). However, for utilitarian attitudes and attribute-based brand beliefs, these two groups are statistically equivalent (H4B): utilitarian attitudes ($M_{LQHI} = 5.34$ versus $M_{LIHQ} = 5.77$, *ns*) and attribute beliefs ($M_{LQHI} = 4.40$ versus $M_{LIHQ} = 4.63$, *ns*). So, it appears that given the choice (between high image or high quality), for the product category tested here for which hedonic and utilitarian motives are important, a favorable brand image reigns over high product quality, and high quality does not guarantee success if your brand is image-challenged.

3.5. Summary of findings

First, the basic bi-dimensional (attribute- versus non-attribute-based) brand belief and (hedonic versus utilitarian) attitude constructs are confirmed. Importantly, the data support all predictions: (1) quality most impacts utilitarian attitudes, whereas hedonic attitudes are driven by image; (2) attribute brand beliefs are predictive of utilitarian attitudes; (3) non-attribute brand beliefs are strong predictors of hedonic attitudes, especially for low image and low quality brands; (4) non-attribute types of brand beliefs make an incremental contribution to explaining the variance in hedonic attitudes, but not utilitarian attitudes; and (5) overall, brands with low perceived image are in a more vulnerable position than brands judged to suffer from low product quality.

4. General discussion

To give meaning to a brand, the firm must establish in the consumer's mind what that brand is all about. Initial analyses suggest that quality-related promotional tools dominate the utilitarian attitude formation/change process, whereas hedonic attitudes are driven by persuasive mechanisms that are image-based. These data also support that quality and image impact consumer beliefs and attitudes in a distinct manner which may explain, for example, why consumers retain relatively favorable "images" of *Mercedes* automobiles in spite of confirmed reliability issues associated with some models (Gibson, 2006; Jensen, 2007; O'Dell, 2003).

Perceptions of low quality and/or image commonly derive from exposure to negative information (e.g., advertising, third-party evaluation ratings, word-of-mouth communications) and/or personal experience. The finding that (relatively unfavorable)

non-attribute brand beliefs are stronger predictors of hedonic attitudes towards low quality and low image brands is most suggestive of an adaptation of the "negativity effect" found in studies of human impression formation (e.g., Homer and Batra, 1994; Skowronski and Carlston, 1989). Skowronski and Carlston (1989) argue that traits perceived as more diagnostic have greater influence on impression formation than less diagnostic traits, and that negative cues are more diagnostic for character/morality judgments than for competence/ability evaluations. Consistent with this "category diagnosticity approach," which has also been applied to explain the effectiveness of (negative versus positive) product features and word-of-mouth communication (e.g., Herr et al., 1991), negative image and quality ratings are seen as more diagnostic than positive reports of product quality and/or image, with some contingencies. That is, the more affective non-attribute brand beliefs (those with more subjective and sensory properties: cf. character/morality) are more predictive (diagnostic) of hedonic attitudes when based on negative quality or image cues. In contrast, the predictive power of cognitive-based attribute brand beliefs (those dealing with functional properties derived from the integration of externally verifiable information: cf. competence/ability) on utilitarian attitudes is less susceptible to a negativity bias. When considering utilitarian types of brand attitudes, attribute types of beliefs are the dominant predictive influence across varying levels of quality and image.

For brands with either low perceived quality or low perceived image, marketers ought to consider focusing on those properties captured by non-attribute beliefs, especially if consumer purchase motivations are hedonic in nature. This is not to say that product quality is unimportant, but data suggest that strides in quality are not as powerful as efforts aimed to enhance brand image, at least for some product categories such as cars. As long as a brand harbors negative images among consumers, its success is constrained: that is, even in the presence of high quality, altering some consumer attitudes may be an uphill battle, one perhaps not won. For example, *Hyundai* experienced a significant turnaround in sales and quality ratings as the result "new and improved" products and most notably, their "10-year, best in the industry" warranty. These efforts were acknowledged with the accolade, "Highest Ranked Entry Midsize Car in Initial Quality," from J.D. Power and Associates 2004 Initial Quality Study (O'Dell, 2004). More recently, *Hyundai* ranked third (only behind *Porsche* and *Lexus*) in the J.D. Power 2006 Initial Quality Study (Howard, 2006) and the National Highway Traffic Safety Administration gave their highest (five-star) rating to three 2007 models. In spite of these quality and attribute-based advances, unfavorable images remain in the hearts and minds of some consumers. As unfair as these reactions may be, findings reported here suggest that the company must implement image enhancing mechanisms for optimum success. Campaigns now de-emphasize the warranty with added focus on quality, along with aims towards improved image and brand personality associations (e.g., *Hyundai*'s "Rethink Everything" campaign (Howard, 2006)). On the other hand, consider the *Cadillac Escalade*. The once "stogy and old" image of the *Cadillac* name plate has been

"transformed" via celebrity endorsements and associations with well-known athletes and entertainers. It is now a vehicle adored and aspired by its own community of enthusiasts.

By contrast, image boosting information shows little noticeable effect on utilitarian attitudes in this study. There is little evidence that consumers use quality as a "signal" for image, nor that they transfer or "merge" quality/functional judgments with image/symbolic ones. If one's goal is to increase utilitarian attitudes, this is only possible via quality and attribute-oriented promotional efforts. But, improvements in product quality, no matter how great, can only do so much: that is, their impact on non-attribute beliefs and hedonic attitudes is limited. The good news is that high image brands can likely recover from short-term quality lapses, especially for hedonic-motivated purchases. One should not interpret this as indicating that such high image brands can ignore attribute/quality elements. Quality and reliability problems with *Mercedes* vehicles threaten the company's long tradition and enduring perception for producing only top quality automobiles (Jensen, 2007; O'Dell, 2003). A report aired on Fox News Channel suggests that reliability issues are still looming: for example, the *M Class* mid-sized SUV received the "least reliable" rating compared to all other tested (comparable) models (Gibson, 2006). In addition, Consumer Reports concludes that there has been a rapid decline in reliability for Mercedes over the past five years, giving it the lowest rank of the 36 brands evaluated (Jensen, 2007). Should this situation go unattended, a similar downturn in consumer non-attribute-related beliefs and perceived *image* may follow. For some owners of pricier *Mercedes*' models, the brand has already lost some of its cache by introducing low-end models (Halliday, 2005).

Zanna and Rempel (1988) offer conceptual arguments that attitudes are based differentially on different kinds of information, and that these information source-related attitudes are also differentially resistant to persuasion. This argument supports the above noted "match" between information type and attitude component, also seemingly reflective of Edwards' (1990) finding that influence attempts (such as the third-party ratings used here) must match an attitude's origin. That is, quality-related information (cf. Edwards' "cognitive" communication) impacted utilitarian attitudes (cf. Edwards' "cognitive-based" attitudes) and image-related information (cf. Edwards' "affective" communication) had a demonstrable effect on hedonic attitudes (cf. Edwards' "affect-based" attitudes). The superior persuasive power of the negative image (versus quality) cues at altering hedonic attitudes also conforms to past research showing that attitudes formed affectively are more likely to change when confronted with a counter-attitudinal message containing affective versus cognitive information (Edwards, 1990).

The differential results for hedonic and utilitarian attitudes support that measuring both dimensions affords advertisers/marketers a variety of benefits. For example, they may be better able to predict consumer behaviors (Batra and Ahtola, 1990) and they may identify brand differences not apparent when a single dimension attitude assessment is used (Voss et al., 2003). This bi-dimensional approach can also aid in pricing and sales promotion decisions since consumers tend to be less price

sensitive and less affected by promotional deals when hedonic motivations rule. In spite of the acknowledgement and acceptance of the hedonic/utilitarian distinction, few have examined the seemingly natural relationships (i.e., "match") between (1) attribute/functional beliefs and utilitarian attitude and (2) non-attribute/non-functional beliefs and hedonic attitude.

The quality and image manipulations used here act somewhat analogously to "hard sell" and "soft sell" communications. The terms "soft sell" and "hard sell" were first coined in the early twentieth century to distinguish the "salesmanship in print" style of John E. Kennedy and other copywriters from the more artistic creative styles of Ernest Elmo Calkens and Theodore MacManus (e.g., Fox, 1984). Practitioners of the "soft sell" tradition tend to create ads that appeal to the images associated with the use of the product, rarely making any explicit mention of the quality of the product. In contrast, ads that take a "hard sell" approach focus on "claims about the intrinsic merit, inherent quality, and functional value of the product itself" (Snyder and DeBono 1985, p. 587). The distinct effects of the quality and image third-party ratings and consumer endorsements used here suggest that advertisers can derive benefits from both types of appeals (i.e., hybrid strategies that use both types of information), depending on their objectives and/or consumer purchase motivations. That is, this should not be treated as an "either-or" strategy decision.

4.1. Limitations and future research

While the results confirm that perceived quality and image have a powerful impact on brand preferences, future studies should examine a broader range of product categories with varying purchase motivations. The affinity for luxury brands is now present across all economic groups (e.g., Francis, 2001), thus warranting further investigation into this image-seeking phenomenon. Aaker and Jacobson (1994) established the link between perceived quality and financial performance. It is fair to assume that brand image may also impact the bottom line and various financial indicators — something to be considered for future study. As a final comment, cultural differences should be explored to determine if the effects found here are robust across cultures. For example, the *Lexus* brand has a very high image in the United States, whereas Japanese drivers do not attach the same status appeal to the luxury line owned and operated by *Toyota*. In spite of the well-established quality associated with *Lexus* models, many Japanese consumers are unwilling to spend a premium for what they see as an "average" automobile due to its *Toyota* connection (Wallace, 2006).

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