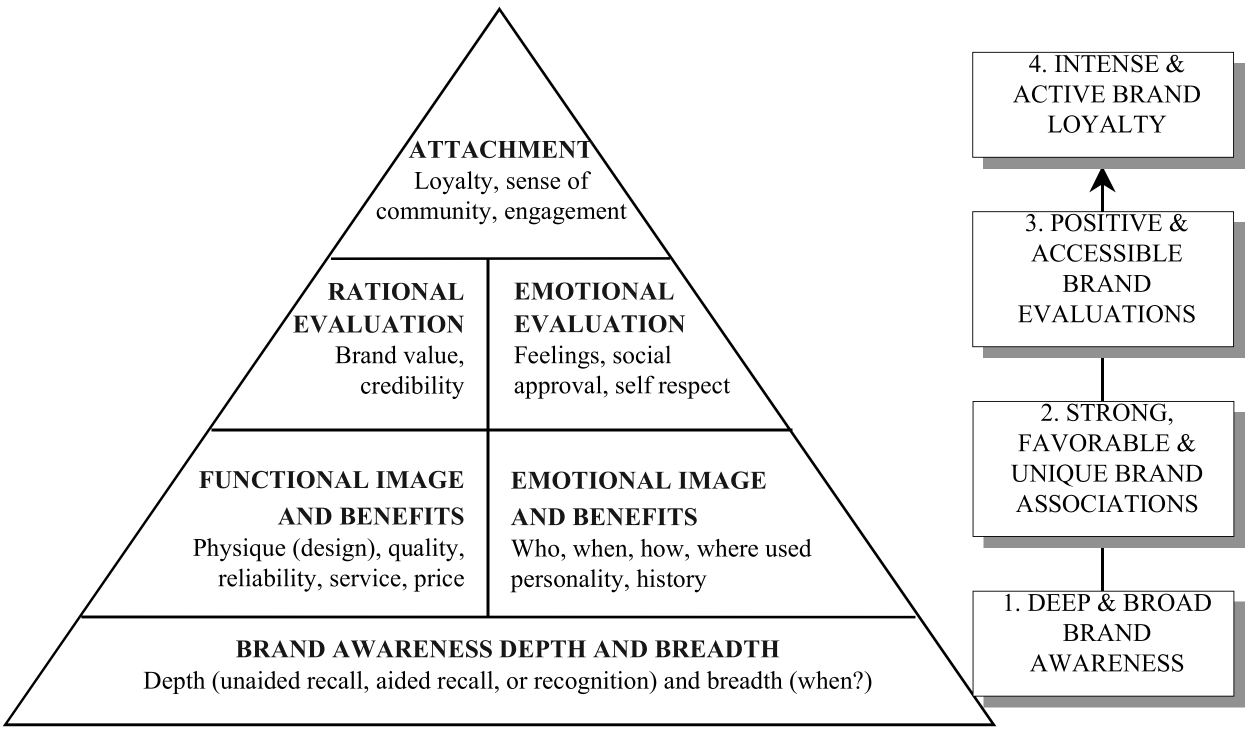
How to Measure Brand Awareness, Brand Image, Brand Equity and Brand Value

The purpose of this note is to provide an overview and references on the various methods that can be used to measure brand knowledge (brand awareness and brand image), brand equity and brand value. This note provides a short definition of each concept and illustrations of the most widely used measurement techniques. Once you know what you want to measure, it is important to look at the original sources cited to understand how to use these techniques properly. Keller's (2003) excellent book also provides detailed information on each concept and its measurement.

Brand Knowledge

Brand knowledge refers to brand awareness (whether and when consumers know the brand) and brand image (what associations consumers have with the brand). The different dimensions of brand knowledge can be classified in a pyramid (adapted from Keller 2001), in which each lower-level element provides the foundations of the higher-level element. In other words, brand attachment stems from rational and emotional brand evaluations, which derive from functional and emotional brand associations, which require brand awareness. Brand knowledge measures are sometimes called "customer mind-set" measures because they capture how the brand is perceived in the customer's mind.

Figure 1
The Brand Knowledge Pyramid



Brand Awareness

Brand awareness measures the accessibility of the brand in memory. Brand awareness can be measured through brand recall or brand recognition. Brand recall reflects the ability of consumers to retrieve the brand from memory when given the product category, the needs fulfilled by the category, or some other type of probe as a cue.

Brand Recall

Measures:

- *Please name all the brands of beverages/soft drinks/carbonated soft drinks you can think of.*
- *Please name all the brands of beverages you can think of that you would bring to a student party.*

Possible Results:

- 15% of consumers think of Orangina when asked to provide the name of a soft drink (versus 30% for Coca-Cola).
- Orangina is in the top three brands of party beverages for 30% of consumers (versus 70% for Coca-Cola).

It is important to measure not only the *depth* of recall (the percentage of people who know the brand) but also the *width* of recall (the cues that lead to brand recall). Therefore, it is important to ponder the choice of the cue that will be used in the recall question. A good start is to think about who, when, where and how the brand will be bought or used). Typical cues are:

- Subcategories (beverages/soft drinks/colas/diet colas, etc.).
- Consumption occasions/goals (beverages that you would consider purchasing for a romantic date, etc.).
- Places (available in a supermarket, in a bar, etc.).
- People (drink alone, in a group, etc.).

Brand Recognition

Brand recognition reflects the ability of consumers to confirm prior exposure to the brand (i.e., recognize that it is an “old” brand that they have seen before and not a “new” brand that they are seeing for the first time). In a recognition task, consumers see a stimulus (e.g., an ad for the brand, a brand name) and must say whether they have seen it before (e.g., last night on television, in magazine X, etc.).

It is important to make the task as realistic as possible by allowing only a short amount of time to answer the recognition question and by using realistic stimuli and context. If you want to use recognition as a measure of the performance of different marketing decisions (say, different logos or ads), you should expose one group to one version of the target stimulus and another group to the other version of the target stimulus. However, to make the task more realistic, both groups should also be exposed to other stimuli (e.g., competitors' brands). In a second step, people see the "old" stimuli again, along with completely new ones, and are asked to decide if each stimulus is "old" or "new" (i.e., if they have seen them before or not).

To correct for people's tendency to guess (to say that they recognize when in fact they are uncertain), you can compute a recognition score called *d prime*, as follows: d' = HR – FA, where HR is the hit rate (the percentage of respondents who correctly recognize the target stimulus) and FA is the false alarm rate (the percentage of respondents who incorrectly "recognize" a "new" stimulus, i.e., a stimulus not shown before).

The following questions could be asked:

- *Here is a list of brand (ads, logos). Do you remember having seen this brand (ad, logo) before (yesterday/last month)?*
- *Complete the following words: NI_E; _N_EA_; K_DA_.*

Brand Image

Brand image is defined as consumer perceptions of a brand and is measured as the brand associations held in consumers' memory. To measure brand image, you can either use and adapt an existing list of brand associations (e.g., Young & Rubicam's BrandAsset Valuator® or Aaker's brand personality list) or start from scratch by eliciting brand associations and then measuring the strength of these associations.

The outcome of this exercise is usually a short list of the positive and negative associations consumers have with the brand, ranked by strength. For comparison purposes, it is useful to report the average strength of each association with the brand and the strength of the association with competing brands, and to do this for each target segment (e.g., brand users and users of competing brands). For example, you can list the five positive and negative associations INSEAD MBAs and LBS MBAs have with the INSEAD and LBS brands and report the four scores for each association.

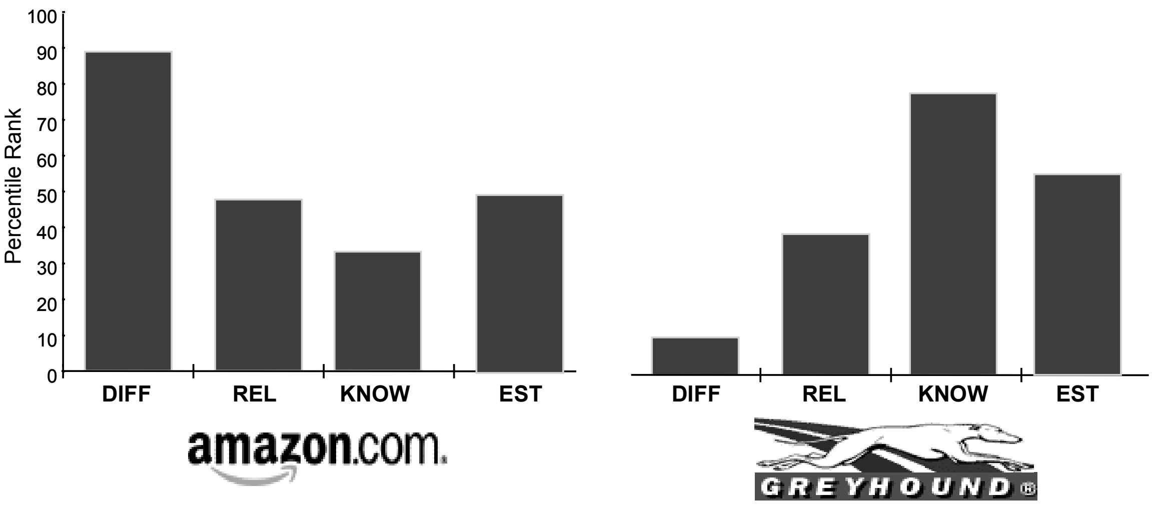
Young & Rubicam's BrandAsset Valuator

The BrandAsset Valuator is a proprietary tool developed by Young & Rubicam to measure four dimensions of a brand's image. We do not know exactly how each dimension is measured, but I mention it here to provide an illustration of a commercial measure of brand image. The four dimensions are (1) the brand's perceived differentiation (i.e., an evaluation of how different the brand's attributes are from those of its competition), (2) its relevance (an evaluation of the brand's utilitarian benefits), (3) its knowledge (an evaluation of the brand's emotional and symbolic benefits) and (4) its esteem (an overall evaluation of the brand). The main value of the BrandAsset Valuator is that it has measured 13,000 brands with 100,000 consumers on 50 dimensions since 1993, and thus allows many benchmarking opportunities.

As an illustration, Figure 2 shows the BrandAsset Valuator scores of two brands in 1999. Interestingly, both brands had, at that time, a similar score on "esteem," indicating a similar level of overall evaluation. However, this score is achieved by a very different profile on the other three dimensions. Amazon.com gets a high score on differentiation and moderate scores in terms of relevance and knowledge, indicating that consumers evaluate only moderately positively the utilitarian and emotional benefits that Amazon.com's different attributes bring to them. On the other hand, consumers don't see Greyhound's bus services as very different from those of their competitors but have a very strong emotional attachment to the brand (high knowledge), probably because it reminds them of their backpacking trips across the US in their youth!

Figure 2

BrandAsset Valuator Scores for Amazon.com and Greyhound in 1999



Brand Personality List

The problem with BrandAsset Valuator and with other similar proprietary measures is that we do not know exactly how each dimension is measured. In contrast, Jennifer Aaker's (1997) academic research gives us a set of adjectives that can be used to describe the personality of a brand, much like the personality of an individual (see Keller 2003, Chapter 9, p. 448). She distinguishes five facets of brand personality: Sincerity, excitement, competence, sophistication and ruggedness. Two or more adjectives measure each facet. The method consists of asking subjects to what extent each adjective describes the brand.

- *Sincerity* (down-to-earth, honest, wholesome, cheerful)
- *Excitement* (daring, spirited, imaginative, up-to-date)
- *Competence* (reliable, intelligent, successful)
- *Sophistication* (upper-class, charming)
- *Ruggedness* (outdoorsy, tough)

Example:

Overall, I think that Nike is down-to-earth:

Disagree 1 2 3 4 5 6 7 Agree

In theory, Aaker's five dimensions of brand personality can characterize all US brands (for an extension to Japanese and Spanish brands, see Aaker, Benet-Martínez, and Garolera 2001). However, you may feel that these dimensions are not relevant to your brand and want to measure other associations, or you may want to use consumers' own words to describe one association with the brand. The following techniques show you how to do this.

Projective Techniques

Unstructured, indirect forms of questioning encourage respondents to project their underlying motivations, beliefs, attitudes or feelings regarding the issues of concern (for more details, see Malhotra 1996). Consumers usually see an incomplete stimulus (e.g., a sentence) and are asked to complete it. Alternatively, they see an ambiguous stimulus and are asked to make sense of it. There are three types of projective techniques:

Association techniques: Consumers see a stimulus and are asked to respond with the first thing that comes to mind. To elicit multiple attributes, you can use the methods at varying levels of abstraction, starting from the brand down to the attribute.

Start with the brand:

- *When you think of Nike, what comes to mind? What does Nike mean to you?*

Continue with product attributes:

- *What does the air pocket evoke for you?*

User:

- *Who is the typical user of Nike? (ask for demographics and lifestyle)*

Usage imagery:

- *When would you use Nike? (ask for occasions and moods)*

Brand personality:

- *If Nike were a person, what would its personality be like?*

Feelings and experiences:

- *If I say Nike, what kind of feelings does it evoke?*

Construction techniques: This requires the respondents to construct a response in the form of a story, dialogue, or description in a less structured form than completion techniques.

- *Picture response techniques*: Respondents are asked to tell stories of the pictures shown. The picture might represent a typical interaction between consumers and the brand.

- *Cartoon tests* (or bubble drawings): Respondents are asked to indicate what one cartoon character might say in response to the comments of another character.

Expressive techniques: Respondents see a verbal or visual situation and are asked to relate the feelings and attitudes of other people to the situation.

- *Role-playing*: Respondents are asked to play the role or to assume the behavior of someone else.
- *Third-person techniques*: Respondents are presented with a verbal or visual situation and are asked to relate the beliefs and attitudes of a third person rather than directly expressing personal beliefs and attitudes. This person can be entirely hypothetical (e.g., "Imagine that a Martian visits a Nike store. What would he tell his friends when he goes back home?").

Laddering Method

Laddering methods are a useful way to elicit the higher-order benefits and values offered by the brand beyond immediate product-, user- or usage-related attributes (for more, see Reynolds and Gutman 1988). It works by asking consumers to explain why the first elicited associations (e.g., a product attribute) are important for them (thus eliciting the benefits) and then why these benefits are important (thus eliciting terminal values).

Zaltman Metaphor Elicitation Techniques (ZMET)

Given that more than 80% of all human communication is nonverbal, this technique uses qualitative methods (e.g., a personal interview) to elicit the metaphors, constructs and mental models that drive customers' thinking and behavior (see Zaltman and Higie 1993 and Keller 2003, p. 470, Figure 9-12, for an example of consensus map).

Procedure

1. Recruit a group of 20 or so individuals to participate in a research study that requires them to take photographs and/or collect pictures that indicate what the brand means to them.
2. Perform a one-to-one interview as a guided conversation using the following steps: storytelling, missed images, sorting task, construct elicitation, the most representative picture, opposite images, sensory images, mental map, summary image, vignette.
3. Identify key themes or constructs, code the data, and assemble a consensus map involving the most important constructs.

Evaluating the Strength of Each Association

Strength

To simplify, you can assume that all associations are equally important. However, this assumption may not hold, especially if you used a small sample of nonrepresentative consumers in the elicitation phase. In general, researchers use the first data collection to assemble a list of associations and then conduct a second study, administered on a larger sample of representative customers, to assess the strength of each association, i.e., the extent to which the brand is associated with each image (see Keller 2003, Chapter 9). To do that, simply ask consumers to rate how much they agree that each brand is associated with each element (e.g., for “Nike is international,” from 1 for “completely disagree” to 7 for “completely agree”). If you cannot collect data on a second sample of consumers, you can use the data from the first data collection and measure the strength of each association by computing the percentage of respondents who named it or by computing the average rank order of the association (strongest associations are elicited first).

Favorability

The favorability of most associations is straightforward. However, some associations may be ambiguous (e.g., is associating a brand with country X positive or negative?). In these cases, you may want to measure the favorability of each association and then report positive and negative associations separately.

In general, I think that France is

Good	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Bad*
Pleasant	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Unpleasant*

Brand Equity

Definition

Brand equity is the differential effect that brand awareness and brand associations have on consumer response to the marketing of that brand. By marketing, we include advertising, distribution, pricing and promotion as well as new products and brand extensions (for a review of concepts and methods, see Keller 2003, Chapter 10, and Agarwal and Rao 1996).

Methods

Self-reports

Overall brand evaluation (also known as attitude toward the brand):

What do you think of ___?

Unappealing	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Appealing*
Low-quality	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*High-quality*
Unpleasant	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Pleasant*

Purchase intentions: Likelihood of buying the brand or likelihood of switching from the brand to another brand.

I will certainly buy _____ in the next three months

Disagree	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Agree*

Purchase behavior:

I am extremely loyal to ________

Disagree	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Agree*

I buy _________

At every purchase occasion *from time to time* *never*
(circle most appropriate answer)

Customer satisfaction:

I am fully satisfied with ____

Disagree	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Agree*

Blind Tests

Two groups of consumers rate the target brand and its key competitors. One group has only branded products. The other group sees only unbranded products. Alternatively, you may "brand" the target product with its actual brand or with a competitor's brand and compare the results (e.g., serve the same beer from a Heineken bottle and from a Stella bottle and ask people to rate the beer's taste).

Dollarmetric

This method gives you an idea of the potential (not the actual) price premium for each consumer.

- *Brand X is priced at ____. How much extra would you be willing to pay to obtain brand Y?*

Conjoint Analysis

Conjoint analysis is a widely used technique that measures the value of each product attribute (e.g., technical attributes, warranty, price, the brand name itself, etc.) from people's overall choices or evaluations. The positive aspect of conjoint analysis (also called trade-off analysis) is that consumers are not asked to evaluate the importance of each attribute directly but rather to make choices between bundles of attributes (e.g., products), which is something that they are used to doing. Measuring brand equity is not the primary use of conjoint analysis, which is most often used to test and forecast the market share of new products. For a complete description, see Keller (2003), Chapter 9, and Dolan (1990).

Hedonic Regression

Hedonic regressions are an extension of the dollarmetric approach. Their objective is to explain the price of a product on the basis of its attributes. To run a hedonic regression, you need to know the actual prices of all or most of the products in a given product category and to know their attributes (e.g., for bikes, the number of speeds, size, weight, material, etc.).

Instead of using the attributes themselves, you can use measures of each attribute's "objective" quality from tests done by magazines such as *Consumer Reports*.

After running the regression, you obtain estimates of the price impact of each attribute (how much companies charge for a given attribute level). You can then compute a predicted price for each brand. The difference between the predicted and the actual price is the price premium of the brand and is a measure of the brand's equity. For instance, the same product (same attributes) sold under two different brand names will have a different price premium depending on the equity of each of the two brands.

For example, Randall, Ulrich and Reibstein (1998) used the following regression to explain the prices of mountain bikes:

> *ln(price) = 5.21 + 0.08 ln(chromoly steel frame material) + 0.22 ln(butted chromoly steel frame material) + ... etc.*

Here the manufacturer's suggested retail price is used. The attributes (chromoly steel frame material) are binary (0/1) variables. Because of the double-log form, the coefficients can be interpreted as elasticities of prices with respect to attributes. For example, the use of chromoly steel frame material results in an 8% increase in the price of the bike.

Expert Opinions

Interbrand's evaluation of brand equity uses seven criteria to assess the *volatility* of the earnings attributable to the brand (Interbrand 2002). The problem with this approach is that it is subjective (no two experts will agree) and hinges on the expert's true expertise. More fundamentally, these methods are limited because they are not customer-based, whereas brand equity is driven by the brand's awareness and associations *in the customer's mind*.

-	*Market*	*(10%)*	Type, size, volatility, dynamics, barriers to entry
-	*Stability*	*(15%)*	Longevity, coherence, consistency, identity risks of the brand
-	*Leadership*	*(25%)*	Market share, awareness, positioning, competitor profile
-	*Trend*	*(10%)*	Long-term market share performance, sensibility of brand plans, competitive actions
-	*Support*	*(10%)*	Consistency of message, spending above vs. below line, brand franchise
-	*Geography*	*(25%)*	Geographical spread, international positioning, prestige, ambition
-	*Protection*	*(5%)*	Trademark registration, litigation, disputes

Brand Value

Definition

Brand value is the financial value of the brand, i.e., the net present value of the financial benefits derived from the brand. Brand value is a function of the brand's equity, of course, but also of the brand's sales. For example, although Rolls-Royce has a higher brand equity than Bentley (people would prefer the same car with an RR logo than with a Bentley logo), its sales are so much lower than Bentley's sales (and must remain so to retain the brand's exclusivity) that, in the end, Interbrand estimated that the value of the Rolls-Royce brand is lower than the value of the Bentley brand.

The ability to value and put a price tag on a brand's value may be useful for a number of reasons, including mergers and acquisitions, brand licensing, fund-raising and brand management decisions. As noted by Kapferer (1997), it can also be useful to include the brand value on the balance sheet to determine (1) the value of liquidity in case of a forced sale, (2) the book value for company accounts, (3) the value needed in order to encourage banks to lend the company money, (4) the value of losses or damage to the worth of the brand, (5) the amount of a licensing agreement, (6) the value for the partial sale of assets, and (7) the value in case of a takeover or of a merger and acquisition.

Methods

Cost Approach

Brand equity is the amount of money that would be required to reproduce or replace the brand (including all costs for R&D, test marketing, advertising, etc.). The problem with this approach is that historical costs (e.g., the amount of money spent on building the brand over the years) are often a poor indication of replacement costs (think about how much money would be needed to build the eBay brand now when the market has changed so much from what it was when eBay started).

Market-based Approach

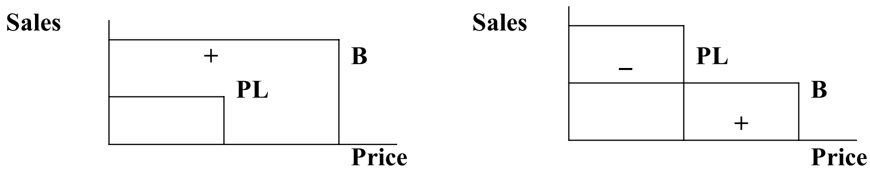
As shown in Figure 3, the basic idea is to compute the profits due to the brand by subtracting the profits that would be made if the product were unbranded and the incremental expenditures needed to build the brand. In the best-case scenario, shown in the bottom left of Figure 3, the brand enables the product to sell both more and at a higher price than the private label ("PL"). In most cases, however, the branded product will sell fewer units but at a higher price, and so the value of the brand is the difference between the area with the "+" sign and the area with the "–" sign (see bottom right of Figure 3). For more information, see Ailawadi, Neslin, and Lehmann (2003).

This approach uses easily available marketplace information on the sales and price of the generic and branded product as well as harder-to-find data on branding costs for both products. The pros of this approach are that it is transparent, which facilitates buy-in, and is easy to implement with market-level data.

The main inconvenience of this method is that it is static (it does not take into account the future). This approach also assumes the existence of an unbranded product that is similar to the branded product on every point but the brand (e.g., both products have the same quality). However, it is possible to collect this information in a survey if such a product does not exist by creating a prototype with the exact same objective attributes as the branded product, minus the brand.

Figure 3
The Market-based Approach to Brand Valuation

$$V = \boxed{\text{Price x volume (brand)}} - \boxed{\text{Price x volume (generic, PL)}} - \boxed{\text{Branding costs (MKG, R\&D)}}$$

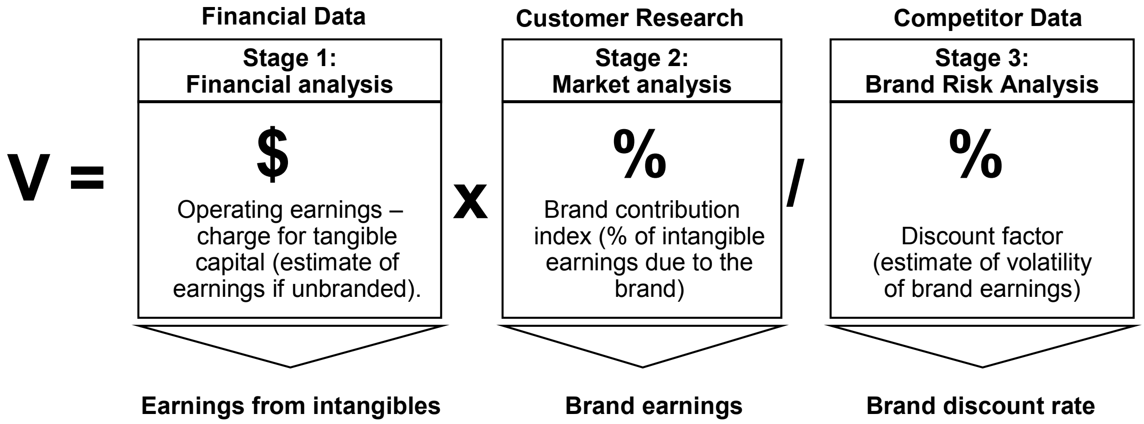


Overall, this approach is particularly appropriate for the regular tracking of marketing ROI, for sensitivity analysis (e.g., using data in different markets to understand the drivers of brand value) and for individual brand management.

Financial Approach

The financial approach uses the tools of economic value added analysis and discounted cash flow analysis to compute the net present cash flow value derived from the brand's future earnings. For example, as shown in Figure 4, the method boils down to (1) predicting the future earnings attributable to the brand and (2) capitalizing the earnings by applying a multiple (in fact, a discount rate).

Figure 4
The Financial Approach to Brand Valuation



In practice, brand earnings are calculated by first estimating earnings from intangibles (by subtracting from operating earnings the costs of brand sales, the marketing costs, the variable and fixed overheads, the remuneration of capital charge and taxation). Once the intangible earnings are determined, the next step is to estimate the proportion that is due to the brand and not, say, to superior services and other intangible factors (e.g., country of origin reputation, etc.). The brand contribution index is estimated from a series of customer mind-set measures (brand awareness, brand image, conjoint analysis estimates). Finally, the discount rate is estimated on the basis of current risk-free rates, augmented by expert judgment on the volatility of the brand future earnings.

The pros of this method are that it is widely used (it was first proposed by Interbrand (see Interbrand 2002), and variations of it are used by most brand valuation consultants) and that it is recognized by US GAAPS (Generally Accepted Accounting Principles) making it the method of choice when a brand needs to be accounted in a balance sheet. The cons are that it is a complex method with multiple moving parts and at least four subjective inputs. Judgment is first needed to choose the time horizon and forecast revenues. Second, it is needed to estimate the return on tangible capital (which is used as a proxy for the return on an unbranded product). It is needed third to establish the brand contribution index (a measure of the brand’s equity) and fourth to determine the appropriate discount rate. In addition, this method requires detailed information that can be obtained only with the collaboration of the brand’s owner. Overall, the financial method is particularly appropriate for accounting and financial purposes (M&A, tax planning, royalties), for financial communication and for brand portfolio management.

Recommendations for a Brand Audit Report

As this note shows, there are numerous ways of measuring consumers' perceptions and responses to brands. I recommend always measuring brand awareness and using at least two methods to elicit brand associations (e.g., free elicitation and laddering technique, or free elicitation and brand personality) and at least two other methods to measure brand equity (e.g., dollarmetric method and perceived quality). Similarly, it is advisable to use both a market approach and a financial approach to measure brand value.

Most of the methods described here do not have an absolute meaning, and some are only ratio scales (e.g., they do not have a “true” zero). To be meaningful, the results of these methods must be used in comparison with a benchmark. For example, knowing that 50% of the target consumers know a brand is useless, unless you know what the typical awareness score is in the category. One should therefore measure the dimension studied for the target brand but also for its direct competitors. At a minimum, these questions should be asked of people who belong to the target segment. However, it is often helpful to ask these questions of different target segments and to compare their perception (e.g., users and nonusers).

A typical brand audit report should include the following information:

1. A one-page executive summary. This should include a brief explanation of the problem facing the brand and of how the audit will help. It should also mention the key findings of the brand audit and provide recommendations on how to improve the dimensions studied.
2. A description of the measurement instrument and procedure. For instance, if you choose to conduct a survey, include a copy of the questionnaire and say how many people were surveyed and how the sample was chosen. If you are using qualitative methods, include a copy of the interview guidelines (e.g., stimuli used, questions asked, etc.). If you are using quantitative analyses, provide full statistical outputs. In all cases, include some information on the target sample and on the actual sample used.
3. Results and discussion of these results.

I recommend that you also include a section in which you write down your assessment of the value of the methods you used. What difficulties did you encounter? What do these difficulties tell you about the usefulness of the method used? This will be very useful to communicate the limit of the method and to decide which method to use for your next brand audit.

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