BRAND VALUATION: A REVIEW OF INTERBRAND™ AND BRAND CAPABILITY VALUE™ MODELS

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Herewith, the authors present a review of Interbrand™ brand valuation model and Brand Capability Value (BCV™) model developed by Ratnatunga and Ewing (2009), which have some issues in common. Therefore, the authors propose an addition to the BCV model based on some inconsistencies detected, and suggests the use of financial tools like the Capital Assets Pricing Model (CAPM) in order to estimate a discount rate used for brand valuation.

Keywords: Brand valuation, Interbrand, Brand Capability Value, Branding

INTRODUCTION

It has been shown that intangible assets may become more valuable than tangible assets within companies (Hulten and Hao, 2008) and it has been held that brands are considered the most valuable intangibles assets (ISO, 2010). Quantifying the financial value of brands is relevant to business activities since it allows, among other things, to conduct financial transactions involving the brand, to report its value to shareholders and the market (ISO, 2010), to register the outcomes of branding actions over brand equity and firm value (Salinas and Ambler, 2009), to estimate royalties for trademark licensing contracts and count on an estimation to demand monetary compensation in cases of legal infringements by third parties (Freno, 2007).

In consequence, the brand valuation has undertaken an important role in there search of academics and practitioners (Salinas and Ambler, 2009). Indeed, the International Organization for Standardization (ISO) issued the 10668 Norm to standardize this practice in the firms that choose to report the brand value as complementary information in their financial statements or any other purpose, as mentioned above.

One of the best known brand valuation methodologies within the marketing community is the one developed by Interbrand™ Consulting Firm. Ratnatunga and Ewing (2009) extended the Interbrand brand valuation model by developing an approach that guides managers in their budgets and processes of strategic decision making, focusing on the creation of brand value. This model is called Brand Capability Value, BCV™, and it is considered an ex ante approach,

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since it estimates the future impact of branding decisions over the brand value.

The BCV model was based on previous papers, where it was argued that companies need to focus on knowing how to combine all of its assets to produce its ability to increase its economic value (Ratnatunga Gray and Balachandran, 2004). The BVC model uses the so called Expenses Leveraged Value Indices (ELVIs), in order to estimate the economic value of company’s tangible and intangible assets, upon its expense budget allocated to different type of assets (Ratnatunga et al., 2004; and Ratnatunga and Ewing, 2005). In other words, it is based on the premise that the expenses budget goes to activities that create value and ELVIs reflect the expenses multiplier effect on the value of tangible and intangible assets.

In this paper, there are made some modifications to the BCV approach. For instance, it is considered in a different way the contribution brand factor in generating cash flows, in order to reflect that like the contribution of the brand in generating sales increases, the value of the brand also increases. Besides, we suggest using, as an input of the valuation model, a discount rate from models like the Capital Assets Pricing Model (CAPM), a widely used model in the financial field (Graham and Harvey, 2001). A correction to one of the BCV model formulas is also made, which has to do with the forecasted incremental value derived from the branding budget and ELVIs.

The next section summarizes the most important issues of the BCV and Interbrand models and explains the additions suggested by the authors in order to improve the measuring of brand value. The final part is a conclusion about the contribution of the proposed methodology.

A Review of Interbrand™ Model

The brand valuation model of the Interbrand Group is a famous model that is very well accepted in the marketing community. However, it cannot be used by any practitioner since some of its parameters, as the Brand Role Index and the Brand Strength Score, are estimated upon formulas protected by the consultant, which is the one that markets the valuation services.

Summing up, the Interbrand model has its starting point in the company’s operating profits after taxes (or business unit’s), subtracting a charge for the invested capital, obtained from the result between the amount of capital invested intangible assets and the cost of capital, in order to reach what they call in tangible profit. Then, the previous result is multiplied by the Role of Brand Index (RBI). The RBI is mainly determined through primary sources from market researches, where the goal is finding in what percentage the purchasing decision is generated by the brand instead of other determinants such as price or product attributes (Rocha, 2012).

Finally, these projected earnings in the next five years are translated to present value with a discount rate that considers the Brand Strength Score (Brand Strength Discount Rate), resulting into the brand value (Figure 1). Interbrand currently uses 10 components to obtain the Brand Strength Score (Rocha, 2012):

1. Internal commitment (within the organization) with the brand, in terms of time, influence and investment.
2. Brand protection which includes: legal protection, proprietorship ingredients or design, scale or geographical jurisdiction.
3. Clarity of values, positioning and brand proposal within the organization, targeting the audience.
4. Brand Responsiveness (adaptability) to changes in the environment.
5. Brand’s authenticity regarding to its distinctive values.
6. Relevance for customers’ needs desires and decision criteria.
7. Customers’ understanding (not only knowledge) of brand’s distinctive qualities and characteristics.
8. Consistency while experimenting with the brand, with regard to their expectations.
10. Differentiation from competition, based on customers’ perception.

Ratnatunga and Ewing model is based on an earlier version of Interbrand model, which used 7 components for Brand Strength Score.

**THE BCV™ MODEL**

The BCV model is based on projected cash flows attributable to the brand, which are brought to a present value. In this sense, the BCV model is aligned with the Interbrand Model. However, a difference and main strength of BCV is the fact that the model can be used to optimize the
branding budget, with the aim of increasing the expected value of the brand; due to this, the authors call this model an ex-ante model. Moreover, the model is participative, in the sense that many of its parameters are obtained from a consensual analysis conducted together the company executives.

**Review and Extension of BCV Model**

Table 1 shows the main elements of the BCV

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**Table 1: Changes on BCV Model**

<table>
<thead>
<tr>
<th></th>
<th>BCV (Ratnatunga and Ewing, 2009)</th>
<th>This Proposal</th>
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<tbody>
<tr>
<td><strong>To determine:</strong></td>
<td></td>
<td></td>
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<tr>
<td>Current company sales (recent historical average)</td>
<td></td>
<td>To determine operating cash flow instead of sales, because of the costs associated to the products or services sold. We call:</td>
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<tr>
<td>Maximum possible company sales (average of two subsequent years)</td>
<td></td>
<td>• Cash flow Statu Quo, CF&lt;sub&gt;SQ&lt;/sub&gt;</td>
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<tr>
<td></td>
<td></td>
<td>• Cash flow Maximum, CF&lt;sub&gt;M&lt;/sub&gt;</td>
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<tr>
<td><strong>To determine the brand contribution to the sales:</strong></td>
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<td>The same</td>
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<tr>
<td>• To separate the activities of the sales process and weigh their importance, a</td>
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<tr>
<td>• To determine the role of brand recognition in achieving each activity listed previously, b</td>
<td></td>
<td></td>
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<tr>
<td>• To estimate the total contribution of brand recognition, c: c = Σa + b</td>
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<tr>
<td><strong>To determine the maximum capability, M, and the current capability of the value of the brand, S:</strong></td>
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<tr>
<td>Current Sales</td>
<td>S = C</td>
<td>To determine:</td>
</tr>
<tr>
<td>Maximum Sales</td>
<td>M = C</td>
<td>• Cash flows attributable to the brand, BCF, as a direct relationship to the brand's contribution factor:</td>
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<tr>
<td></td>
<td></td>
<td>Maximum capability, M, and the current capability value of the brand, S, applying a discount rate, k, to the cash flows:</td>
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<tr>
<td></td>
<td></td>
<td>S&lt;sub&gt;0&lt;/sub&gt; = $\frac{BCF_{SQ}}{k}$</td>
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<tr>
<td></td>
<td></td>
<td>M&lt;sub&gt;0&lt;/sub&gt; = $\frac{BCF_{MAX}}{k}$</td>
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<td></td>
<td></td>
<td>• The discount rate can be estimated with the CAPM, where the risk factor $\beta$ is inversely related to the brand strength score. Include an illiquidity premium.</td>
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<td>• The brand strength score could be an overall score based on a consumer market research evaluating the 10 Interbrand components, or a subjective evaluation by firm executives.</td>
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<tr>
<td><strong>To list variables (marketing activities) that contribute to brand recognition, based on 7 Interbrand Brand Strength components (previous version) and weigh their importance, w; (Equation 2, Ratnatunga and Ewing, 2009)</strong></td>
<td></td>
<td>To extend from 7 to 10 actual Interbrand components and their weights, w,</td>
</tr>
<tr>
<td>$\frac{dS}{dt} = \sum_{i=1}^{N} \left[ \eta E_i \left( \frac{M_i - S_i}{M_i} \right) p_i - \delta_i S_i \right]$</td>
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<tr>
<td><strong>To apply the model of change in the value of brand capability, optimizing the branding budget:</strong></td>
<td></td>
<td>To exclude the $p_i$ term, since it is already implicit in $E_i$, meaning $E_i$ the total budget multiplied by the proportion spent on component $i$. $N$ can include up to 10 components.</td>
</tr>
<tr>
<td>$\frac{dS}{dt} = \sum_{i=1}^{N} \left[ \eta E_i \left( \frac{M_i - S_i}{M_i} \right) - \delta_i S_i \right]$</td>
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<tr>
<td><strong>To extend from 7 to 10 actual Interbrand components and their weights, w,</strong></td>
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<tr>
<td>$dS/dt$ (corrected) to $S_0$ in order to obtain the expected value of the brand.</td>
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model and the improvement proposal as well as the addition that are hold throughout this paper, which are explained below.

**Brand Contribution and Cash Flow Attributable to the Brand**

Considering the weaknesses of the BCV model, it has been considered the proposal of a variation thereof. In first place, instead of assessing the brand from sales, it is suggested to use operating cash flow due to the costs involved in the goods or services of the brand. We define:

\[ \text{BCF}_{SQ} = \text{CF}_{SQ} \times c \]  

where, \( k \) is the discount rate for the cash flow attributable to the brand. Among the models to estimate discount rates, according to a study by Graham and Harvey (2001), the most widely used model is the CAPM. The risk reflected in the rate should consider brand strength variables. Interbrand uses an algorithm in which a higher score of brand strength means a lower discount rate, reflecting lower risk. This approach is supported by studies demonstrating that with higher branding efforts and increased customer satisfaction, it is reduced the variability of cash flows and company’s returns (Gruca and Rego, 2005; and Krasnikov et al., 2009).

\[ S_0 = \frac{\text{BCF}_{SQ}}{k} \]  

An option proposed to relate the brand strength with the discount rate is similar to the approach of Interbrand. In view of the fact that the discount rate should consider the characteristics of the industry of the brand being evaluated, its determination may obtain the information from companies in the same industry that operate in the stock market.

Suppose that the brand strength score is assigned from a market survey of its ten evaluated components on a scale from 1 to 10. A score of 1 should have to be associated to the highest risk and 10 to the lowest. These risk levels depend on observed betas in the industry. In order to illustrate this, Figure 2 shows the statistical information of unlevered betas of the restaurant industry in the United States, and upon it can be set an interval at 95% confidence with minimum values of –0.42 and maximum of 2.14.

The beta of 2.14 reflecting high risk levels of industry would have to be associated with lowest brand strength score 1, while the beta of –0.42...
would have to be associated with the highest brand strength score, 10, corresponding to this specific case, a discount rate even lower than the risk-free rate, according to the CAPM\(^1\).

For example, for a brand of restaurants with a brand strength score equal to 8, the unlevered beta would be 0.51. Obtaining the information from the stock market on October 2012, the risk-free rate would be 0.71\(^2\). With an estimated risk premium of 4.10\(^3\), the resulting discount rate is 1.32\(^%\). In addition, you can include an illiquidity premium in the discount rate, because brands are less tradable than other kind of assets like stocks. There is evidence that investors spenalize asset prices based on the perceived illiquidity and a way to apply this is with a premium in the discount rate (Damodaran, 2005). If we add a 1\(^%\) illiquidity premium, the discount rate would be 2.32\(^%\).

Making the same exercise for a brand in the same industry, with brand strength score set to 4, the equity discount rate including 1\(^%\) of illiquidity premium would be 6.98\(^%\).

The BVC model used to treat the contributing factor of the brand in a way opposed to the proposal of this article. The cash flow of the company was divided by the factor, obtaining the estimated brand value in the current situation. However, with this treatment, a greater role of the brand would turn into a lower brand value, which has no theoretical basis.

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\(^1\) Because of the negative beta of –0.42, the discount rate associated is lower than the risk-free rate.

\(^2\) Source: Yahoo Finance. 5 years yield, average of the last month, October 16, 2012.

\(^3\) Source: Damodaran Online. Historic estimated risk premium (1928-2011) over US treasury bonds.
Maximum Capability Value of the Brand

The BCV model makes an estimation of the maximum capability value of the brand, $M_0$, with the same in consistencies described above. In this case, the maximum cash flow that could be achieved in future periods is divided by the brand contributing factor. One more time, a greater brand contribution used to result into a lower value brand capability.

This proposal consists in using the maximum estimated cash flow, multiplied by the factor of brand contribution, obtaining the maximum cash flow attributable to the brand, and then dividing it by the appropriate discount rate:

$$M_0 = \frac{BCF_{\text{MAX}}}{k} \quad \ldots(3)$$

$$BCF_{\text{MAX}} = CF_{\text{MAX}} \times c \quad \ldots(4)$$

where

- $M_0$ is the maximum capability value of the brand
- $BCF_{\text{MAX}}$ (Brand Cash Flow, Maximum Capability): Maximum cash flows attributable to the brand.

The $BCF_{\text{MAX}}$ is calculated upon the maximum cash flow that the company could reach in the projection period, optimizing its branding budget, $CF_{\text{MAX}}$, multiplied by the brand contribution factor.

Change in Brand Capability Value

The contribution of the BCV model, which mainly differentiates it from the Interbrand’s approach, is that it permits estimating the change in the economic value of the brand based on the assigned budget for $N$ components (or activities) oriented to the construction of brand strength, and the multipliers of value of those expenses, which are named ELVIs. The $N$ components used by Ratnatunga and Ewing (2009) are proxies of the Interbrand brand strength components.

We propose the following equation for the change in the BCV in time, $ds/dt$, which corrects the Equation (2) of Ratnatunga and Ewing (2009) excluding the $p_i$ term, which is implicit in the $E_i$ term:

$$\frac{ds}{dt} = \sum_{i=1}^{N} r_i E_i \left[ \frac{M_i - S_i}{M_i} \right] - \delta_i S_i \quad \ldots(5)$$

where,

- $N$ is the total number of components and brand strength
- $r_i$ is the value-increasing ELVI multiplier of the $i^{th}$ component (value generated per dollar spent).
- $E_i$ is the expense incurred in carrying out the activities of the $i^{th}$ component. It is obtained by multiplying the total budget that supports the brand strength, by the proportion assigned to the $i^{th}$ component.
- $M_i$ is the maximum capability value of brand due to the $i^{th}$ component.
- $S_i$ is the current capability value of the brand due to the $i^{th}$ component.
- $\delta_i$ is the value-decay ELVI multiplier of the $i^{th}$ component, this implies that there must be a minimum expenditure to maintain the value of brand capability.

Both ELVIs, the one that increases value and the one that reduces it, are obtained from consensus among executives of the company or business unit evaluated. This feature of the approach has the advantage of being participative, allowing the company a better understanding of...
the determinants of its brand value, which is kept in our proposal.

Projected Brand Capability Value
The value obtained with the above Equation (5), represents the expected change in the BCV during the budget period, which added to the current value, $S_0$, would give the new expected BCV. Using this tool, managers can modify the budget allocation in different components of brand strength, to maximize the projected brand value, without neglecting any of the activities.

CONCLUSION
The BCV model for valuing brands has some advantages. It is participative, in the sense that it considers the internal consensus of company’s executives to determine the relative importance of the activities involved in the sales process, and multipliers of the expenses related to branding activities. Besides, it allows an optimization of branding budget, since the brand projected value is expressed in terms of expenses and multipliers. However, the model has some inconsistencies in the treatment of brand contribution factor, as it proposes an inverse relationship between the brand contribution and its value.

The changes proposed in this paper correct the inconsistencies, suggesting a direct link between the brand contribution and its value. Furthermore, we propose the use of tools available in the financial literature, showing how they could be included in the process of estimating the value of a brand. Given the relevance that valuing brands has, which has been recognized by several authors (International Standard Organization, 2010; Salinas and Ambler, 2009; and Freno, 2007), we consider important the efforts to improve the available methodologies for professionals in marketing and finance areas.

REFERENCES


