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WHITE PAPER

Applying the MASB Brand Investment & Valuation Model

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Marketing Accountability Standards Board
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themasb.org

About MASB

The Marketing Accountability Standards Board began as a visionary initiative by industry professionals and academics who saw an opportunity to increase the contribution of the marketing function through the development of standards for marketing performance measurement and processes that link marketing activities more objectively and closely to financial performance.

"As it was for product quality in manufacturing (with ANSI & ISO) and financial accounting and reporting (FASB & IASB), marketers taking the lead in this will gain sustained competitive advantage." – Dr. Joseph Plummer, MASB Founding Director

Establishing MASB in 2007 was viewed as the seminal opportunity to approach the measurement foundation of accountability and continuous improvement at the highest level. Membership crosses all industries and includes marketer companies, business schools, industry associations, media providers, media & advertising agencies, measurement providers and independent consultants that believe in linking marketing actions to financial performance.

Establishing and Advancing Accountable Marketing Practices that Drive Business Growth

Current MASB Projects

Sponsorship Accountability Metrics (SAM)
determining sponsorship contribution to brand and business

Brand Investment & Valuation (BIV)
valuing brands and guiding investment decisions

Brand Evaluation Standards (BES)
representing the U.S. on ISO Technical Committee 289, Brand Evaluation

MMAP Metric Catalog (MMC)
comparing competing measures using the Marketing Metric Audit Protocol

Continuous Improvement in Return (CIR)
creating an assessment to measure and track success

Finance in Marketing Course (FMC)
teaching financial principles in a marketing context

Improving Financial Reporting (IFR)
establishing brand as a cash-generating unit & sizable intangible asset

Common Language Marketing Dictionary (CMD) marketing-dictionary.org
establishing industry-endorsed definitions to eliminate ambiguity and encourage trust

The BIV Project

MASB's **Brand Investment & Valuation Project** was formed in 2010 to establish "generally accepted brand investment and valuation standards."

Phase 1 of the project brought together leading academics, marketing and finance practitioners from six blue-chip corporations, and specialists from several research companies to identify a cornerstone brand strength metric and validate a practical model for brand valuation. The result was an empirically proven model for brand valuation and guiding investment decisions.

Based on the results of Phase I, MASB recognized **brand preference** as the standard measure for total brand strength. Prior to the project, popular branding theories hypothesized that brand preference plays this critical role. This includes the theoretical frameworks put forward by Lehman,[1] Farris & Reibstein,[2] Vakratsas & Ambler,[3] and Stewart & Furse.[4] Phase I results confirmed this and also demonstrated that brand preference exhibits the characteristics of an ideal metric monitored by the Marketing Metric Audit Protocol.[5]

Phase 2 of the project is to find empirically proven drivers to continuously improve brand preference among consumers and thus positively impact customer brand strength leading to improved brand financial performance and value.

The Authors

Jim Meier is Vice President, Marketing Finance, at MillerCoors. He has spent over 25 years with Philip Morris, Miller Brewing Company, and now MillerCoors in a variety of financial support roles across all functions including sales and integrated supply chain. In his current role, he reports directly to the MillerCoors Chief Financial Officer and on a dotted-line basis to the Chief Marketing Officer. He holds a BS in accounting from Marquette University and is a certified public accountant in the State of Wisconsin. A MASB Director since 2013, Meier currently co-leads the MMAP Metric Catalog Project team and previously led the BIV Project Finance Sub-team.

Frank Findley is MASB Executive Director. His previous work as EVP of Research for MSW•ARS Research resulted in improvements to the copytest, tracking, media and competitive intelligence product lines. He led collaboration with market mix modelers and co-invented the patented Outlook media planner. He designed the industry's first multi-touchpoint holistic campaign testing system and popularized this approach through trade conferences and publications. More recent work has focused on panel quality, sales effectiveness of digital advertising (with comScore), and transitioning behavioral measurement systems online. He previously led the BIV Project Analytics Sub-team.

David W. Stewart holds the President's Chair in Marketing and Law at Loyola Marymount University in Los Angeles. He has served on the faculties of Vanderbilt University, the University of Southern California, and the University of California, Riverside. He has authored/co-authored more than 250 publications and 12 books. He received his BA from the Northeast Louisiana University and his MA and PhD in psychology from Baylor University. In addition to being a founding Director and Chair of MASB, Stewart co-leads the BIV Project team and also serves as a member of the Improving Financial Reporting Project and MMAP Metric Catalog Project teams.

Applying the MASB Brand Investment & Valuation Model

Background

In September 2015, MASB released its Brand Investment & Valuation (BIV) Model. This empirically proven[6] framework provides Finance and Marketing teams a practical approach for monitoring the value of their commercial brands. Its positive reception has fueled demand for information on how to deploy it.

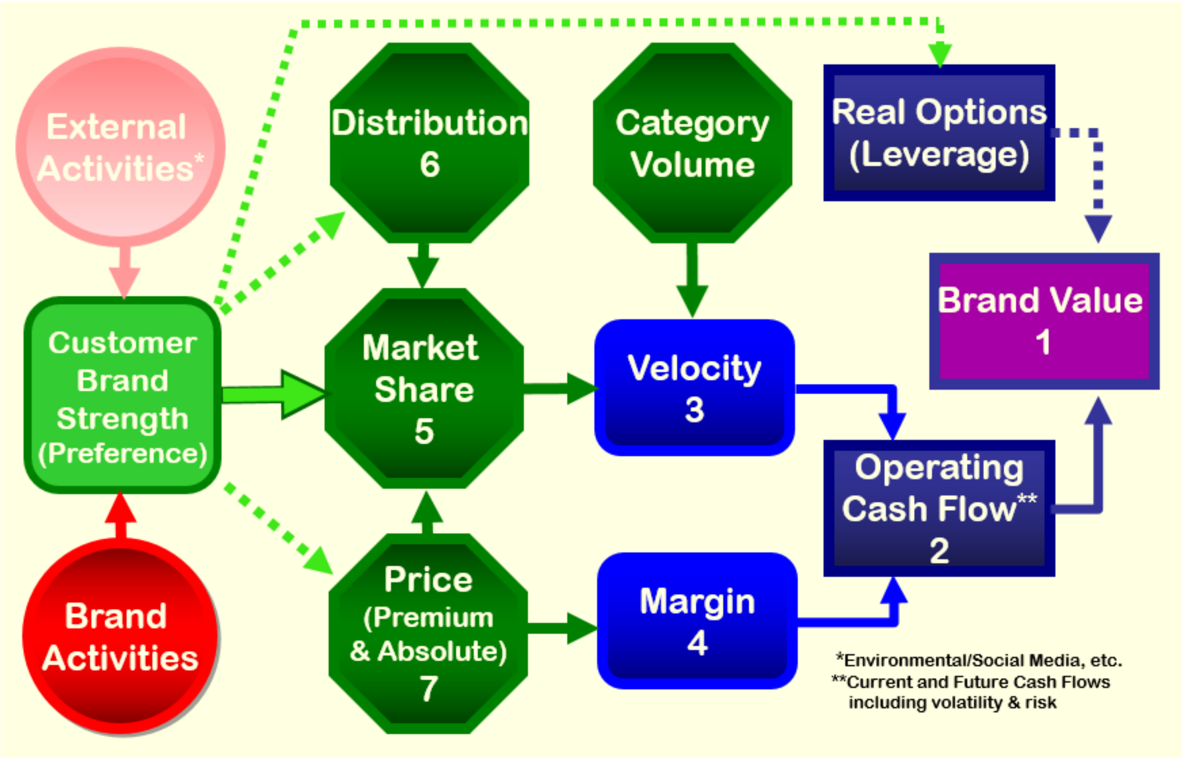
This updated version of the original May 2017 release includes new material addressing environmental factors such as changes in tax and interest rates and their corresponding effect on brand value.

Understanding the model

Two key aspects differentiate the MASB BIV Model from other valuation models. First, it incorporates a behavioral measure of brand strength in the hearts and minds of customers, brand preference. Second, it establishes mathematical linkages from customer brand strength to brand monetary value. These linkages provide bridges from customers (brand preference) to their behavior in the marketplace (market share, category volume, price vs. competition, relative distribution) and to resulting internal corporate financial metrics (velocity, margin, cash flow). The arrows in the below chart represent these linkages.

The definitions for each of the elements, as well as the mathematics underlying the linkages, are included in the appendices.

MASB Brand Investment & Valuation Model



Read from left to right, the model describes how branding translates into value for the firm. The brand engages in activities such as advertising, packaging, product quality initiatives, and customer relations that make it distinct from competitive offerings. If these activities prove effective, more people will prefer the brand versus others. External activities, such as competitive advertising and social media conversations, can also influence preference for the brand.

Increases in customer brand strength can translate into several advantages in the marketplace: a higher unit market share as people will choose it more often over other options, a higher price point as customers will be willing to pay more for it, and increased distribution as retailers are apt to carry the brands people want most. This results in a greater velocity of sales given the size of the category and a higher margin for each of these sales. Together these lead to greater operating cash flows for the firm.

The quantification of this stream of cash flows enables the calculation of a brand's value. By applying a discount rate to a future stream of cash flow, a ***present value*** can be readily calculated.[7] This present value represents its contribution to the firm in terms of today's value of money.

Steps in Calculating an Appropriate Present Value

The following steps are taken for each category in which the brand competes:

1. **Decide on a discount rate.** Most organizations have a discount rate, typically referred to as "cost of capital," which is used for investment decisions based on that firm's unique situation. If one is not available, then a weighted industry average cost of capital from a source like the NYU Stern School of Business[8] can be used. When using industry averages, care must be taken that category-specific inflation/deflation factors are taken into account.

2. **Extract historical financial results from accounting systems.** In most categories, this will mean using the last 12 months of financials. The use of a year's worth of data will help minimize seasonality and other short-term effects. These will be used as a starting point for estimating future cash flows.

3. **Determine Cash Flow Implication.** Generally the current year's cash flow is not a good estimate for future years. Oftentimes it represents too conservative an estimate of brand value as it assumes no growth. On the other hand, if a brand is facing substantial headwinds using current cash flow can generate a substantial overestimation. Therefore it is necessary to adjust the cash flow based on expectations. There are four primary drivers from the model to consider in this process:

    - **Category Size.** Are the category and the specific segments in which the brand competes flat, growing or declining? Many brands exist in categories such as consumer staples, which grow linearly with population. In these cases, population growth estimates can be used to adjust cash flows up accordingly. But some brands exist in categories or segments which are declining. An example is personal computers where tablet and mobile devices are substituting for many applications and therefore replacing some PC unit demand. In these cases, cash flow estimates should be lowered. Of course, there is also the case of emerging categories where demand is growing substantially. An example would be streaming media services. In this case, the cash flow estimate should be raised in alignment with conservative, documented growth estimates since the sustainability of growth must be considered. Finally, some categories with long purchase cycles may face a saturation point where initial robust purchase demand is followed by lower replacement demand in future time periods. Again, cash flow estimates should be adjusted accordingly.

- **Brand Preference.** What is the brand's current brand preference level? Is its recent trend up or down? How is it performing among growing population groups? Brands with higher preference and marketing support tend to be more stable over time, giving confidence to the use of existing cash flow. However, if a brand is experiencing a downward trend or is losing ground among growing population groups (for example exhibiting lower preference among younger age groups), then cash flow estimates should be lowered accordingly. Another circumstance for lowering cash flow estimates is when a brand previously supported by substantial marketing efforts is reducing that support going forward.

- **Pricing.** If a brand has a sustainably lower price than the competition, that will help maintain a steady cash flow and even growth in times of economic recession. Contrary to this, premium priced brands can be vulnerable to future declines unless brand preference is maintained or grown. This is especially the case in highly fragmented categories where brands are more apt to use price reduction strategies to sustain or grow their share of market.

- **Distribution.** In most instances, a brand's distribution will be high (readily available to 80%+ of market) and stable. It is only in cases where a brand faces a substantial growth or drop in distribution that cash flow should be adjusted.

Based on these factors it should be determined whether the cash flow will be growing, sustainable or unsustainable. It is also possible in the case of emerging categories or segments that a solid determination can't be made. In these cases, a brand value can be calculated but it is unproven, and that caveat should be noted.

4. **Set a Time Horizon.** Once the cash flow implication is determined, an assessment should be made of the time horizon for the brand. While mathematically it is possible to treat a brand as a perpetual annuity, brands typically have a shorter expected life. Therefore a finite time horizon should be chosen for the calculation. If the cash flows are sustainable, a good rule of thumb is to use a ten to fifteen year time horizon. If the cash flow is expected to be unsustainable, a shorter lifespan should be chosen, including making the choice of assigning no value at all. Also, if for strategic reasons the brand is expected to exist only for a limited time, then that should be chosen as its time horizon. Finally, if a brand is expected to be sustainable over a much longer time period than the rule of thumb, a terminal value of a pre-determined percentage can be added to the present value calculation to denote the added potential.

The following table provides an example of three brands facing very different market conditions. Two are well established brands with multi-year tenures in market while one is a newly-introduced brand. Please note the resulting Cash Flow Implication and Time Horizon.

Table 1: Example Brand Decisions

Brand	Category Size		Brand Preference	Pricing	Distribution	Cash Flow Implication	Time Horizon
	Broad	Segment					
Brand A (Established)	Flat	Growing	Very Strong	In Line with Competition for Segment	Strong	Growing Slowly/ Sustainable	10-Year Plus Terminal Value
Brand B (Established)	Growing	Growing	Very Weak and Falling Among Younger Consumers	In Line with Competition for Segment	Strong	Likely Unsustainable	No Brand Value Assigned
Brand C (Newly Introduced)	Flat	New and Growing Substantially	Strong Relative to Current Similar Offerings	Sustainably Advantaged (Lower) vs Competition	Solid	Unproven but Promising	Limited Life < 5 Years

5. **Apply a present value formula.** Using the estimated cash flow stream for the given time horizon and the predetermined discount rate, calculate the present value. This will produce a realistic estimate of the brand's value.

Brand Valuation Implications of Certain Key Inputs

Since the proposed model is fundamentally a discounted cash flow model, significant inputs such as the discount rate and income tax rate come into play. While acknowledging that these inputs could be impacted by forces largely outside the control of the enterprise, MASB believes that since these key inputs impact the present value of future cash flows, they must impact brand valuation.

Therefore, the December 2017 passage in the United States of a revised corporate tax rate structure has an impact to brand valuation. In simple terms, the top corporate Federal tax rate was reduced from 35% to 21%, a 14 percentage point (pp) reduction. This rate reduction and other accompanying changes in the tax legislation will generally result in a net reduction of tax-related cash outflows which will lead to higher brand valuations in the model. Each enterprise would need to carefully estimate the tax rate used in the model, since it may not exactly experience the 14pp change computed above.

Similarly, changes in interest rates by central banks could impact the discount rate and therefore brand valuations.

The implications of these impacts should prompt significant thought by enterprises (the owners of brands), shareholders (the investors in brands), financial institutions (the lenders to brands), and policy makers alike.

Application

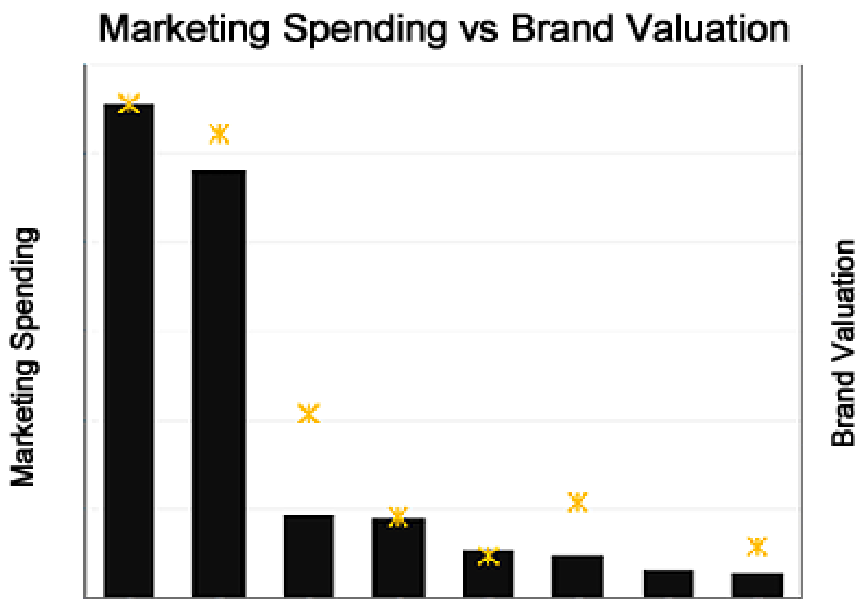
The opportunity for using this approach to enhance corporate stewardship is dramatic. One immediate benefit is greater C-Level recognition of marketing's unique contribution to the financial success of the firm.

Jim Meier, one of the authors of this paper, explained it this way when first introducing the logic of the BIV model:

> **"***The manufacturing side of the business can purchase and maintain an asset. Marketers can create and grow one... Brands could 'earn' a higher valuation based on improved brand preference which would remove uncertainty relating to future financial assumptions and the longevity of the brand."*[9]

By applying this model, Finance teams can more easily tie changes in brand strength to changes in a financial metric, i.e. brand value.

Furthermore, this brand valuation can be tracked over time. As an example, this model has been used within one company to illustrate the relationship between long-term marketing spending for eight of their brands and the corresponding calculated brand valuations.



In this chart, the bars represent the marketing spend placed behind the brand while the gold symbols represent the calculated brand valuation.[10]

A strong correlation between the two is clear. What once was taken only on faith is now visibly demonstrated. Note that in the case of the seventh brand, uncertainty of sustainability resulted in assigning no brand value.

The implementation of the brand valuation process itself can pay large dividends. The process creates greater clarity into the status of the brand within its competitive set, its category, and a firm's multi-brand portfolio. This can be very helpful in strategic planning for investments in the brand in the medium term and resource allocation in the near term.

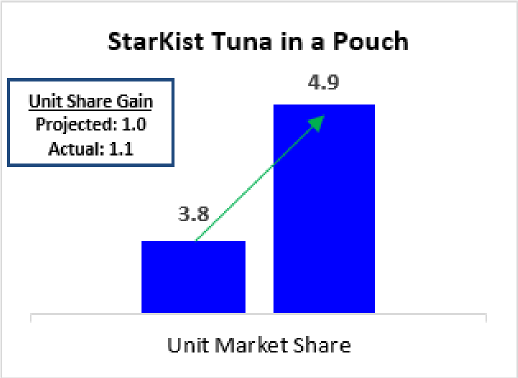
Table 2 shows an investment implication added to the previously described example. Note how different conditions the brands face translate into different profiles of future investment.

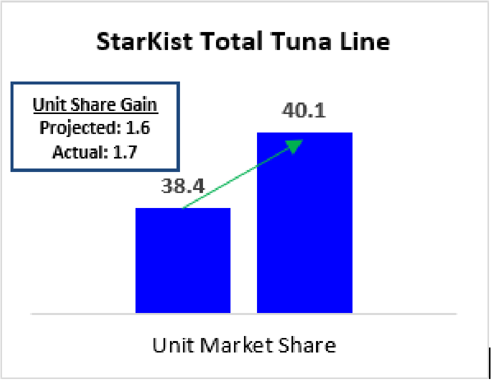
Table 2: Example Brand Decisions with Investment Implication

Brand	Category Size		Brand Preference	Pricing	Distribution	Cash Flow Implication	Time Horizon	Investment Implication
	Broad	Segment						
Brand A (Established)	Flat	Growing	Very Strong	In Line with Competition for Segment	Strong	Growing Slowly/ Sustainable	10-Year Plus Terminal Value	High and Increasing
Brand B (Established)	Growing	Growing	Very Weak and Falling Among Younger Consumers	In Line with Competition for Segment	Strong	Likely Unsustainable	No Brand Value Assigned	Minimal With Ability to Curtail
Brand C (Newly Introduced)	Flat	New and Growing Substantially	Strong Relative to Current Similar Offerings	Sustainably Advantaged (Lower) vs Competition	Solid	Unproven but Promising	Limited Life < 5 Years	Early Heavy-Up With Close Monitoring

Use of the BIV model is not restricted to longer-term strategic decisions; it also informs short-term tactical ones. By establishing a direct mathematical link between customer brand strength and external market metrics such as market share and price premiums, the model can be used to predict the immediate financial impact from various brand activities. Any anticipated brand activity that is expected to significantly impact brand preference can be measured either beforehand "in the lab" or as it first occurs in market, and therefore can be predicted and managed.

An early example of this was implemented by the StarKist® Tuna brand to manage the launch of their Tuna-in-a-Pouch line extension.[11] Faced with the daunting task of releasing a radical new product form in an 80-year stable category, StarKist had to assure that their advertising grew not only the line extension but the brand overall. By pre-testing advertising using a brand-preference-based metric, they accurately predicted the quarterly market share changes months before release.[12]





Based on this success and projections for even higher returns, the marketing team secured an additional several million dollars from management to extend the campaign. The result was a 368% return on their advertising activity – all predicted beforehand.

Potentially even more valuable to the firm was a change in the process of managing brand investments:

> "Our experience has not only shown us the importance of using quality measurement to gauge the effectiveness of our advertising, but of applying this measurement and related planning tools throughout our development and airing processes."

Marketing and Finance Collaboration

As shown by the above examples, application of the BIV model helps bridge the chasm that has historically separated Marketing and Finance teams. Enterprise value increasingly has more to do with intangible assets, the largest often being brands, but until now boards and management teams have had little guidance for allocating resources to brand-building activities for lack of cross-discipline agreement on how to monetarily quantify the value being generated. Marketing teams have rightly worried that traditional accounting approaches can lead to marketing being viewed purely as a cost of doing business with no recognition of its contribution to cash flow or enterprise value.

On the other hand, Finance teams have rightly expressed concern with isolating brand contribution from other, more tangible, business drivers. The use of the BIV model alleviates these issues by enabling a robust internal brand portfolio management process. Through this process, marketing teams are assured that general management will view marketing spend as an investment with a return rather than just a line item under SG&A expenses. And Finance teams will have confidence that brand valuations and marketing ROIs are accurately calculated through a consistent, objective approach. The result is greater collaboration between these teams.

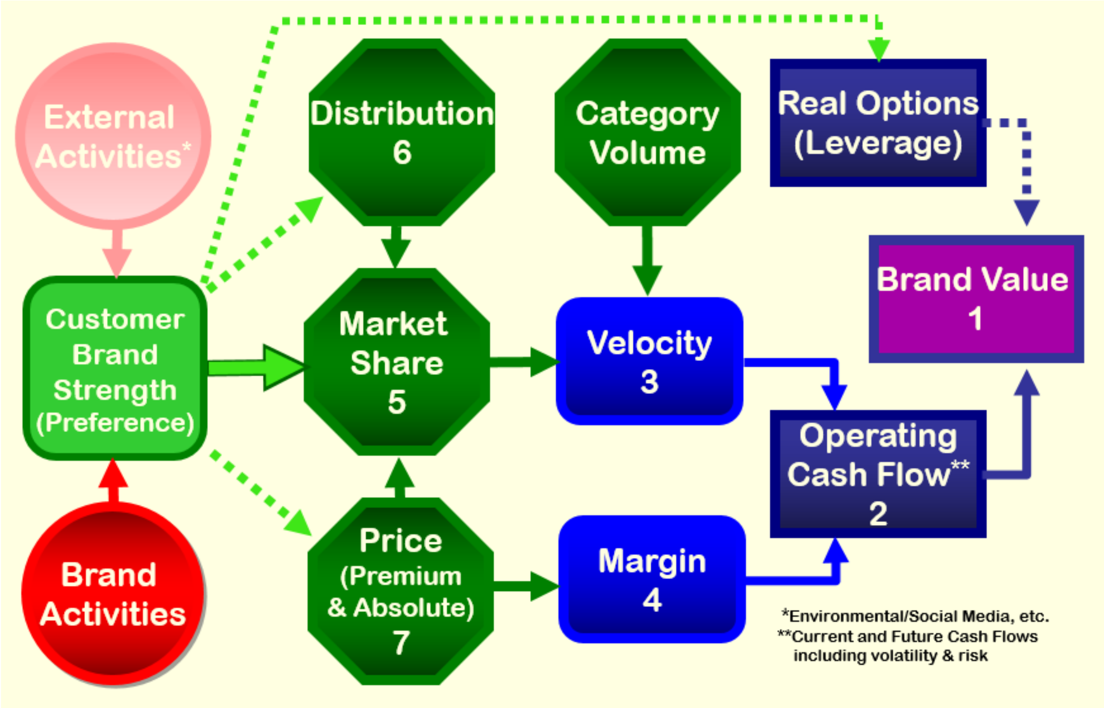
The BIV approach also places a shared burden on marketing and finance teams as it relates to stewardship of assets. Finance has historically focused on activities such as periodic inventory counts to fulfill its mission in safeguarding enterprise assets. But what of brands and their values, even if not recorded on the balance sheet? It is difficult to imagine that either marketing or finance working alone could adequately answer this important question.

One corporate participant in the MASB BIV Project characterized this improved interaction to colleagues through a simple thought experiment.

> *Wouldn't it be great if a brand director and a finance director could stand side-by side presenting the following report to the senior management: 'Based on Brand Y being successful with a line extension which has improved brand franchise volume performance, net of cannibalization, and has also increased margin per unit, we estimate that brand value has increased from $125 million at the beginning of the year to $145 million at the end.'*

The MASB Brand Investment & Valuation Model provides the means by which such reports can be made.

Appendix A – Model Definitions



Note: *The definitions provided below are model-specific variations of definitions contained in the Common Language Marketing Dictionary. Please visit marketing-dictionary.org for more general definitions.*

Brand Value (Valuation) is a monetary estimate of a brand's "worth" - that is, a determination of that brand's financial value.

Operating Cash Flow is the net movement of cash into and out of the enterprise that is associated with the brand including the initial investment (if any), computed on an after-tax basis.

Velocity (Cash Flow Velocity) refers to the rate of sales, the monetary value of the number of units sold per period.

Margin (on sales) is the difference between selling price and cost. This difference is typically expressed either as a percentage of selling price or on a per-unit basis. Managers need to know margins for almost all marketing decisions.

Category Volume is the sum of equivalized units sold by all entities within the competitive set for a given time.

Market Share is the percentage of a market (i.e. category volume) accounted for by a specific entity.

Distribution is the extent of market coverage for a given product usually denoted as the percent (absolute or weighted) of retail outlets which carry the brand/product.

Price is the formal ratio that indicates the quantity of money, goods, or services needed to acquire a given quantity of goods or services. In absolute form it is the amount a customer must pay to acquire a product. In relative form it is the amount a customer must pay to acquire a product relative to other offerings in the competitive set (e.g. average among all competitors).

Brand Preference is a measure of the strength of a brand in the hearts and minds of customers. Also known as brand choice, it represents which brands are preferred under assumptions of equality in price and availability. It is most commonly expressed as the percent of consumers choosing the brand versus other options.

Appendix B – Equations and Variables

Equations

Brand Value = Present Value of Cash Flows = ∑ {Net Period Cash Flows / $(1 + R)^T$} + Terminal Value

Operating Cash Flow = Period Cash Flows = Brand Sales - Brand Costs

Velocity = Category Size * Average Brand Unit Price * Unit Market Share

Brand Costs = Costs associated with producing sales for the brand

Unit Share ~ Brand Preference * Distribution Factor / Relative Price Factor

Distribution Factor = ƒ (B0 + B1 * ln (Distribution))

Price Ratio = ƒ (B2 * Average Brand Unit Price / Average Category Unit Price)

Variables

R = discount rate which represents the opportunity cost of capital

T = The time of the cash flow

Terminal Value = net present value beyond measured times (∑ T)

Brand Costs = cost to produce, delivery, and service continued brand sales

Category Size = number of units sold for the category as a whole per period

Brand Preference = the percent of consumers who choose brand among competitive offerings of the category regardless of other market factors

Distribution = a measure of the presence of the brand across possible outlets

B0 and B1 = Beta Weights which calibrate category's elasticity to distribution (empirically derived)

Average Brand Unit Price = average price across all units sold

B2 = Beta Weight which calibrates the category's elasticity to price (empirically derived)

Footnotes

1 *Linking Branding to Financial Results (The Value Relevance of Branding)*; Donald R. Lehmann, MASB, Aug 2010

2 *Marketing Metrics: The Definitive Guide to Measuring Marketing Performance*, 2nd Ed.; Paul W. Farris, Neil Bendle, Phillip Pfeifer, David Reibstein; Pearson Education, Jan 2010

3 *How Advertising Works: What Do We Really Know?,* Demetrios Vakratsas & Tim Ambler; Journal of Marketing, Jan 1999

4 *Effective Television Advertising: A Study of 1000 Commercials;* David W. Stewart & David H. Furse; Lexington Books 1986

5 *Brand Preference/Choice in Tracking*; MMAP Metric Catalog, MASB, Feb 2016

6 *Brand Investment and Valuation – A New, Empirically-Based Approach*, Frank Findley, MSW•ARS Research/ Marketing Accountability Standards Board (MASB); 2016

7 https://en.wikipedia.org/wiki/Present_value#Net_present_value_of_a_stream_of_cash_flows

8 http://people.stern.nyu.edu/adamodar/New_Home_Page/datafile/wacc.htm

9 *Brand Investment & Valuation Project Review & Status of Finance Sub-Team*, J. Meier, MASB 2015

10 *Brand Investment & Valuation (BIV) Project Review & Status*, MASB, Aug 2015

11 *A True Return on Investment – Developing and Managing Advertising for StarKist Tuna in a Pouch;* B. Shepard, Quirk's Marketing Research Review, Mar 2003

12 *ARS Persuasion/APM Facts* measure now offered as part of the MSW•ARS Research testing system.