

## Determining marketing accountability: applying economics and finance to marketing

In marketing there is a long history of attempts to determine the financial return on marketing efforts. Surveys indicate that most managers continue to be dissatisfied with their current ability to evaluate marketing return.

The financial return on marketing activities can be determined by applying straightforward economic and marketing concepts. This paper explains the process through which marketing determines the financial performance of an organization. That process suggests the key metrics of *perceived value* and *customer value added* to be leading indicators of financial performance. Perceived value is the maximum a customer is willing to pay for a product or service; customer value added is the difference between perceived value and the incremental unit cost for a product or service. Perceived value predicts revenue; customer value added predicts contribution.

Marketing managers can use these key metrics to obtain steering control over their marketing decisions through the ability to predict financial consequences before actions are taken. These ideas and metrics have been proven in practice as described in a case situation.

*Keywords: marketing return, marketing ROI, marketing accountability*

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## Introduction

Determining the return on marketing efforts has been the focus of discussion in the marketing community for many years. Yet, according to surveys conducted by the Association of National Advertisers (2004, 2005, 2006, 2007, 2008), relatively few managers are satisfied with their ability to evaluate the return on their marketing activities or even to forecast the revenue impact of cuts in their budgets. Their pessimism is shared by those in the finance function - 60 percent of finance managers surveyed by *Financial Executive Magazine* voiced skepticism about marketing forecasts (Marshall 2008).

The unsatisfactory state of marketing accountability has been confirmed and reconfirmed over time by studies conducted by several organizations, not only the ANA, but also The Conference Board, the American Productivity and Quality Center, the CMO Council, and various consultancies. Generally, the percentage of managers very satisfied or satisfied with their ability to evaluate marketing ROI has been found to be between 10 percent and 20 percent. For example, in a recent study sponsored by The Conference Board, managers in only 19 percent of the organizations surveyed felt that they had made "good progress" in measuring marketing ROI - more than 50 percent claimed that they had not yet begun or had just started their efforts to measure marketing ROI (Beaman, Guy, and Sexton 2008).

The absence of reliable measures of marketing return is visible in how marketing budgets are often set. According to the ANA surveys and corroborated by other studies, nearly two-thirds of marketing budgets are determined in large part by using last year's budget (ANA 2007 and 2008, and Prophet 2007).

Meanwhile, the demands of most board members and senior executives for more marketing accountability has been *increasing* (Interbrand/ANA 2008).

## Conceptual Framework/Literature Review

What have been the main factors slowing progress in determining marketing accountability? The factors include:

1. **Lack of clarity as to marketing ROI.** In many organizations, there appears to be no commonly accepted definition of marketing ROI (Ambler and Roberts 2006).

2. **Lack of time devoted to marketing ROI.** In the 2008 Conference Board study, time spent working on understanding marketing ROI was found to be the most useful predictor of progress, but many organizations have not even started to develop systems to examine

marketing ROI (Beaman, Guy, and Sexton 2008).

3. **Lack of motivation for people to work on marketing ROI.** Relatively few compensation or recognition systems seem to encourage work on marketing ROI (Beaman, Guy, and Sexton 2008).

4. **Lack of skills and resources.** Many organizations feel they do not have the appropriate analytical skills or the appropriate data to evaluate marketing ROI (Beaman, Guy, and Sexton 2008).

5. **Lack of cooperation between marketing and finance.** Marketing and finance silos still exist in many organizations (ANA 2007).

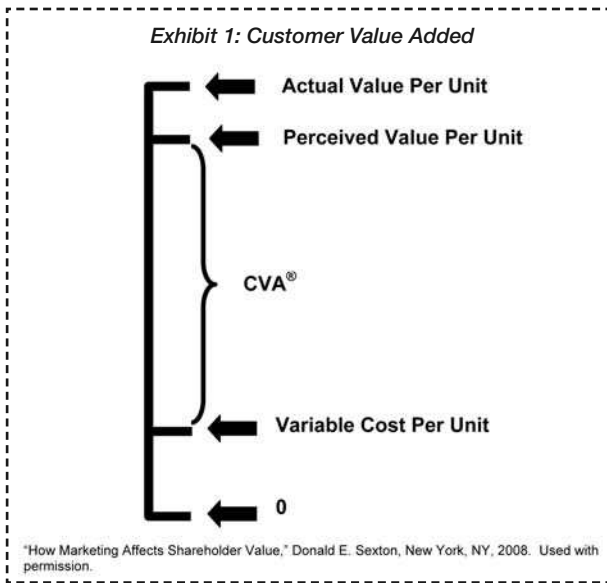
6. **Inertia.** Many managers seem comfortable with how they are currently evaluating marketing expenditures regardless of the weakness of their measures. Apparently they neither feel the pressure to change nor have the time to change their approaches. It may also be possible that some marketing managers simply choose not to work under the discipline that knowing marketing return imposes.

## Determinants of Company Financial Performance

Well-known and often-quoted management guru's have suggested that for a company to win, it must be the leader in providing superior customer value or in operating at low cost (see, for example, Porter, 1980, Tracy and Wiersema 1995, and Trout 2000). Unfortunately success is not so easy to achieve. Both customer value and cost must be managed in concert. A focus primarily on superior customer value can lead to high costs. A focus primarily on low costs can lead to inferior customer value. What determines the financial success of an organization is not just high customer value or low operating costs but the balance between customer value and costs

## Customer Value Added

The balance between customer value and costs can be measured and managed with a metric developed by the author and called Customer Value Added or CVA®. CVA® is the difference between the perceived value of a product or service and its cost per unit (Exhibit 1). It is the net value per unit that an organization provides society - as perceived by customers. ( For a more extensive discussion of the balance between value and costs and the concept of CVA®, see Sexton (2008).



CVA has two components: costs and perceived value.

Costs in CVA need to be expressed as the incremental cost per unit – the variable cost. When organizations use average cost in place of variable cost, often they distort many marketing decisions such as targeting and pricing.

Perceived value is the maximum that the customer will pay for a product or service. Perceived value is not price - it is the ceiling on price. It can be managed with marketing actions and it can be estimated with techniques such as constrained choice modeling and regression analysis. Perceived customer value is usually lower than actual value. In fact, most of the time perceived value can be expected to be less than the actual value since a customer rarely knows all the value a product or service provides.

Because all marketing decisions – design, targeting, communications, pricing, distribution – relate to perceived value, marketing should be defined as “managing perceived value.”

Support for perceived value as an important metric comes from both management opinion and empirical work. For example, members of The Conference Board’s Council on Corporate Brand Management, working with the author, selected perceived value as the most important single measure of brand performance by a nearly 2:1 margin over the next most cited measures (Sexton 2005). In addition, several analyses of different data bases by many researchers have shown various measures of perceived value often to be a leading indicator of financial performance (Buzzell and Gale 1987, Aaker and Jacobson 1994, Gregory and Wiechmann 1997, Barth *et al.* 1998, Aaker and Jacobson 2001, Gregory

2003 and 2005, Mizik and Jacobson 2008, Aksoy, et al. 2008).

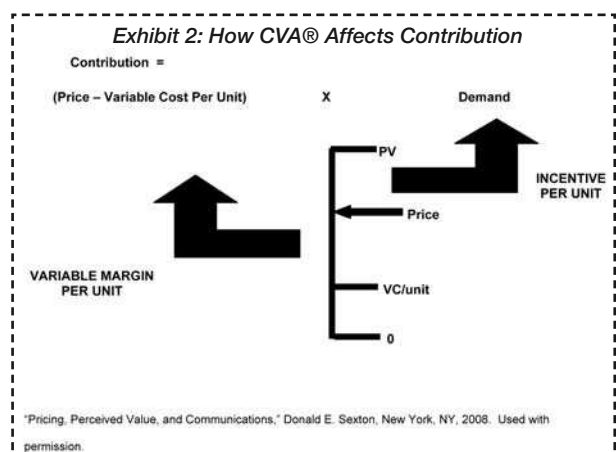
Perceived value alone is a valuable measure. For any level of costs, the higher the perceived value, the stronger the company’s position in the market, both now and in the future. Higher perceived value leads to higher demand for products and services at any price point. When perceived value is coupled with unit cost to create CVA, even more insight is obtained into what drives the financial performance of an organization.

CVA determines an organization’s contribution per unit and total contribution through its effect on the margin per unit and the demand for a product or service. If CVA is high, an organization is perceived as providing net value to society and will be rewarded with strong financial results. However, if CVA is low, the financial results will be weak. At the extreme, if CVA is negative (perceived value is below unit cost), unless the organization is subsidized, it will likely fail because the cost of the inputs used is more than the value of the products or services it is producing.

### Research Model

Keep in mind that the difference between perceived value per unit and variable cost per unit, CVA, is the *range of possible prices* that might be charged for a unit of the product or service. By definition, a customer would not pay more for a unit of the product or service than whatever they consider to be the perceived value per unit. An organization will not usually price their products below variable cost per unit - at least not for any appreciable volume or time - because then they would be losing money on every unit sold.

A specific price divides the CVA range into two parts. The difference between the price and the variable cost per unit is the *variable margin per unit or incremental profit per unit*. The difference between the perceived value per unit and the price is the *incentive per unit* for the customer to purchase – which affects unit demand (Exhibit 2).



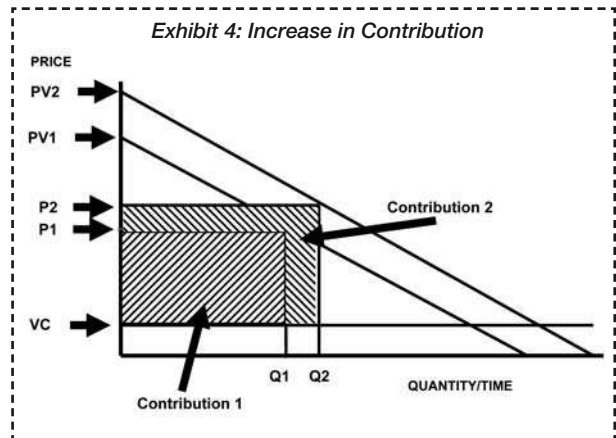
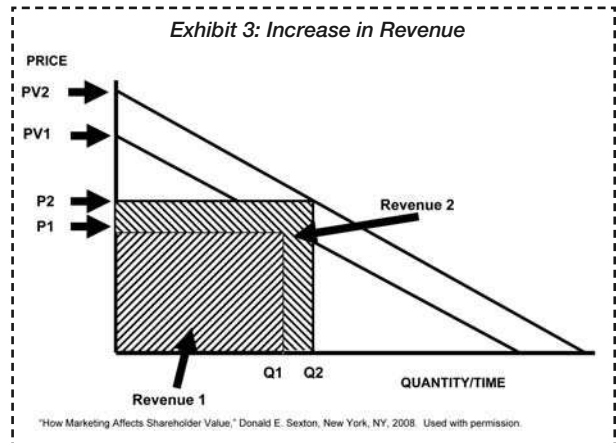
Perceived value predicts revenue and CVA predicts contribution. How that happens can be seen with the help of a demand curve.

A demand curve for a market indicates the units sold at any price level. In marketing terms, the demand curve shows the distribution of perceived values for a product or service by customers in the market. For simplicity, assume that the demand curve is linear.

At any point, the height of the demand curve is the perceived value for a group of customers in the market. (Customers who consider a product or service to have similar perceived value are known as a *market segment*.) When price is below perceived value, customers will buy. At high prices, only those customers with high perceived value for the product or service will make a purchase. At low prices, typically there will be more customers willing to buy because the price is now below their perceived value. In general, as the price for a unit of the product or service is decreased, it falls below the value perceived for the product or service, leading customers in that market segment to make a purchase. (For more discussion of demand curves, see, for example, Samuelson and Nordhaus 2004, Arnold 2007, and Pindyck and Rubinfeld 2008.)

Marketing activities such as advertising, promotion, and personal selling can increase perceived value and shift the demand curve to the right (Sexton 1970 and Joshi and Hanssens 2004). The author's research also suggests that the effect of marketing activities in shifting the demand likely has diminishing returns (Sexton 1972). When the demand curve is shifted, both the y-intercept and the slope of the demand curve may change. However, for this analysis assume that the curve is shifted equally along its length and that only the y-intercept changes.

For a specific linear demand curve, there are prices that maximize revenue and that maximize contribution. When the demand curve shifts, the optimal prices change and the maximum revenue and maximum contribution increase (Exhibits 3 and 4). The higher the perceived value, the more revenue because the incentive to the customer has increased which increases unit volume. The higher the CVA, the more contribution reflecting both a price premium and a unit volume premium.



**Sexton's Revenue Law**

*The change in revenue is in proportion to the square of the relative change in perceived value*

While this law can be derived mathematically (see appendix), it is also consistent with common sense. An increase in perceived value leads to both an increase in price and an increase in unit demand. Because revenue is the product of price and unit demand, revenue increases with the square of the relative change in perceived value.

**Sexton's Contribution Law**

*The change in contribution is in proportion to the square of the relative change in CVA®.*

The Contribution Law also makes common sense. An increase in CVA leads to an increase in both variable margin per unit and unit demand. Because contribution is the product of variable margin per unit and unit demand, contribution increases with the square of the relative change in CVA.

**Method and Findings**

Managing perceived value is a key to managing brand equity and pricing power in a consumer goods business. Measuring brand perceived value can have several uses for a business such as measuring relative branding power, estimating competitive pricing power, and finding the ROI of various marketing expenses that are aimed at enhancing brand perception. For PV and CVA® to be useful metrics in marketing decision-making, it must be shown that perceived value is a strong indicator of future revenues. As discussed below, the relationship between measures of perceived value and future revenues has been proven to hold for a few large brands in consumer good categories.

The business research group in a large multinational Fast Moving Consumer Goods company found strong associations between the perceived values and the future annual revenues of two major brands operating in two distinct categories - toilet soaps and skin creams in a key market.

The skin cream brand had annual revenues of over USD 220M in 2008. Based on the movements of the perceived value of the brand between January, 2006 and December, 2007, annual revenues for 2008 were estimated and compared with actual revenues.

*Table 1: Skin Cream Actual Versus Predicted Revenue*

Actual Revenue (USD M)	Predicted Revenue (USD M)
225.3	226.2

(Deviation ~ 1.1%)

Taking this forward as a monthly on-going exercise, 12-month forward forecasts were generated as on-going exercise for the next few months. The comparison between actual and predicted revenues is shown below.

*Table 2: Skin Cream Deviations of Predicted Revenue from Actual Revenue*

	Actual Revenue	Predicted Rev	Deviation
Feb08-Jan09	225.3	226.7	0.6%
Mar08-Feb09	227.0	219.3	-3.4%
Apr08-Mar09	230.0	233.7	1.6%
May08-Apr09	232.6	232.2	-0.2%
Jun08-May09	235.8	240.2	1.9%

Similar results came through when perceived value estimates of a toilet soap brand with 2008 revenues of over USD 200 M were tracked. Comparing actual and

predicted revenues of 2008, based on perceived value in 2006 and 2007, 12-month moving forward revenue predictions were found to be highly accurate again, also for the first half of 2009.

*Table 3: Toilet Soap Actual Versus Predicted Revenue*

2008 Actual Revenue (USD M)	2008 Predicted Revenue (USD M)	Deviation
255.6	255.6	0.0%

	Actual Revenue	Predicted Rev	Deviation
Feb08-Jan09	256.1	256.2	0.0%
Mar08-Feb09	256.5	251.9	-1.8%
Apr08-Mar09	258.4	260.4	0.8%
May08-Apr09	259.7	260.6	0.3%
Jun08-May09	261.0	271.2	3.9%

These forecasts based on recent and actual data, have generated confidence in the business research group to use this method widely across ten to thirteen brands in the home and personal care businesses. Once this work is extended, this analysis will be powerful in determining the highest PV-enhancing activities and spends, estimating future revenue flow from these activities, and thereby estimating a priori ROI by business (brand) and formulating plans that enhance future ROI.

Research on these brands has also supported Sexton's Laws. For example, changes in revenue were found to equal very nearly the square of the relative change in perceived value.

**Limitations and Further Research**

The derivation of Sexton's laws assumes that the demand curve is linear and that marketing activities shift the demand curve to a new curve parallel to the first and the y-intercept of the demand curve is used as a proxy for perceived value. These assumptions describe the simplest situation, but may be no less powerful for that. Many or most demand curves, if not linear, can be handled with a piece-wise linear approximation.

Further research will be focused on nonlinear demand curves and nonlinear cost curves.

**Managerial Implications**

Over the years there has been little progress in evaluating the return on marketing efforts. The reasons are many, ranging from lack of effort to lack of understanding of how marketing drives financial performance to lack of resources.

Marketing and economics provide support for the use of perceived value and CVA as key measures to evaluate marketing accountability. Both theory and practice have shown that these metrics are *leading* indicators of revenue and contribution. They provide marketing executives with *steering* control – the ability to evaluate decisions before actions are taken.

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**Derivations of Sexton's Laws.**

Suppose that:

$$\text{Price} = a - b \text{ Quantity}$$

And therefore

$$\text{Quantity} = (a/b) - (1/b) \text{ Price}$$

**Sexton's Revenue Law**

$$\text{Revenue} = R = \text{Price} \times \text{Quantity}$$

$$= \text{Price} \times ((a/b) - (1/b) \text{ Price})$$

$$= (a/b) \text{ Price} - (1/b) \text{ Price}^2$$

$$dR/dP = (a/b) - (2/b) \text{ Price} = 0 \text{ when Price} = a/2$$

and the maximum Revenue =  $a^2/4b$

So relative change in Revenue =  $(a_2 / a_1)^2 = [PV_2/PV_1]^2$

**Sexton's Contribution Law**

$$\text{Contribution} = C = (\text{Price} - \text{Variable Cost Per Unit}) \times (\text{Quantity})$$

$$= (\text{Price} - c) ((a/b) - (1/b) \text{ Price})$$

$$= ((a + c)/b) \text{ Price} - (1/b) \text{ Price}^2 - (a/b) c$$

$$dC/dP = (a + c)/b - (2/b) \text{ Price} = 0 \text{ when Price} = (a + c)/2$$

So maximum Contribution =  $(a - c)^2 / 4b$

So relative change in Contribution =  $[(a_2 - c_2) / (a_1 - c_1)]^2 = [CVA^{\text{®}}_2 / CVA^{\text{®}}_1]^2$