Measurement-based Accountability and Standards

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Abstract

There is increasing scrutiny of marketing activities and a growing demand for greater accountability of the marketing function. The present paper asserts that such accountability cannot be achieved until generally accepted standards for the measurement of marketing outcomes and marketing communication activities are adopted. The paper identifies three broad types of marketing outcomes and suggests that two of these types of outcomes are candidates for the development of standardized measures. The role of standards, essential characteristics of standards, and how they may be developed are addressed. Finally, the paper offers an illustration of how a standard metric can be used to make budget allocation decisions in the context of television advertising.

Introduction

The demands for accountability and the justification of expenditures within the marketing discipline have reached epic proportions. While few would disagree with the view that marketing is important and adds value to the firm and for the customer, measuring and quantifying such contributions remain a challenge. Numerous surveys of industry professionals offer similar conclusions: there is broad dissatisfaction with marketing's ability to measure its contributions (American Productivity and Quality Center with the Advertising Research Foundation 2001, American Productivity and Quality Center with the Advertising Research Foundation 2003, Nail, et al. 2002, Nail 2004). A survey by the Council of Chief Marketing Officers concluded:

> "Marketing -- known more as art than science -- has been the last of the corporate functions to formally develop and adopt processes and standards that can be tracked and measured quantitatively." (CMO White Paper 2004, p. 2.)

Even as pressure from senior executives and boards of directors for greater marketing accountability has mounted, recent legislation has added to the challenge. Sarbanes-Oxley places marketing squarely in the sights of regulators. Forecasts by marketers are used by virtually all other functions within the firm so marketing will increasingly be called upon to provide more accurate and complete information regarding their expenditures and their expectations of future results. The new regulatory environment also changes the questions asked of managers from "what did you know?" to "why didn't you know?" (Kornbluh 2004). As one observer notes:

> "Marketing has broad exposure to Sarbanes-Oxley compliance. According to industry research firm Gartner, 'Sarbanes-Oxley will require enterprises to closely monitor and track their marketing expenditures. To do this, the marketing function must be transformed to comply with the new

> requirements.' Indeed, Sarbanes Oxley compliance requires significant operational changes and investments in new systems and processes. Marketing is a particularly visible target for efforts associated with Sarbanes-Oxley compliance because it manages material amounts of spending, often with weak systems and processes." (Kornbluh 2004, p. 2).

The imperative for greater accountability co-exists with an environment in which there is little agreement on how to measure the contributions and outcomes associated with marketing activities. Indeed, there is no generally accepted definition of return on marketing investment even within the same organizations (Nail 2004) and the vast majority of firms are ill-prepared to generate the types of accountability measures that will be required in the future. Marketing requires generally accepted measurement standards if it is to meet the challenge of accountability and retain credibility in the boardroom. Should marketing fail to develop such measurement standards, other business functions will certainly do so and marketing will be marginalized as just a tactical function to be managed by more strategic disciplines.

Defining Relevant Metrics for Return On Marketing Investment (ROMI)

Marketing has a long history of paying attention to measurement and the creation of metrics. There is no shortage of outcome metrics in marketing and these metrics can be very useful when appropriately applied. The problem is that most of the metrics used to assess the outcomes of marketing activities are tactical and not directly relevant to the overall financial performance of the firm. The link between traditional marketing metrics and the financial performance of the firm is seldom explicit. In contrast, Powell (2002) defines ROMI "as the revenue (or margin) generated by a marketing program divided by the cost of that program at a given risk level." (p. 6). This is an economic measure.

There are several reasons why ROMI must ultimately be defined in financial terms. First, this is the way the firm reports its results. If marketing is to be a credible contributor to the strategic success of the firm it must translate the outcomes of its activities into economic metrics. Second, economic metrics, or metrics that can be clearly linked to economic outcomes are the only measures that provide managers with the information necessary for planning, budgeting and prioritization. Most management decisions involved trade-offs among alternative actions that have non-comparable outcomes, at least at the tactical level. It is impossible to be confident in any decision involving non-comparable alternatives unless the outcomes associated with those alternatives can be translated to a common scale: the decision to invest more in a firm's website must be weighed against using the same resources to develop and run more television advertising; the decision by a soft drink manufacturer to obtain exclusive pouring rights at a particular venue (at a cost) must be weighed against alternative marketing activities; and any marketing expenditure must be weighed against alternative non-marketing investments and the potential for increasing profitability in a given quarter by not making the expenditure at all. Every management action also carries some risk and there is no easy way to determine whether risk is justified without also understanding the associated financial return. Finally, marketing will always be

suspect if it is unable to quantify its contributions in economic terms. The firm is ultimately held accountable for financial results, among other things, and marketing cannot be a credible exception.

The trouble with ROMI is that it is difficult and time consuming (Woods 2004). It also requires the investment of resources to do it well. This is not to suggest that many firms do not presently invest in trying to determine the return on marketing investment. The growth in the use of marketing mix models is one clear sign that firms are investing in attempts to better understand their return on marketing investments. Marketing mix models are powerful tools. They are not, however, a substitute for sound, standardized metrics. Such models are fraught with problems: (1) the development of such models is frequently costly and time consuming, (2) although the results of model building can be used for forecasting, the model building exercise involves looking backwards because it depends on historical data, (3) because model building is based on statistical analysis it yields a necessarily noisy result, and (4) the results tend to be data dependent, that is, the results of any modeling exercise are bound by the available data and its quality.

Indeed, a review of the use of marketing mix modeling using UPC scanner data reports a mixed record of success (Bucklin and Gupta 1999). This review found that marketing mix modeling generally produces very useful results in the context of questions about the outcomes of promotions and pricing changes. On the other hand, the review concluded that there has been far more limited success in addressing questions related to product strategy, advertising and distribution management. These results might be interpreted to mean that market mix modeling is more useful for addressing questions related to the short-term impact of more tactical marketing activities than for more strategic actions that have their influence over a longer period of time. This interpretation has some merit if only because analyses of tactical activities that produce results rather quickly provide a simpler set of estimation issues. However, there is more to this problem than the relative simplicity or complexity of the estimation problem.

Based on their review of industry and academic practices involving marketing mix modeling, Bucklin and Gupta (1999) conclude:

> "We found packaged goods companies to be bombarded with a variety of methods from third-party consultants, the details of which are often not disclosed to clients or outsiders. This creates methods confusion and makes it impossible to compare results and resolve controversies. …this problem is most acute in the area of advertising. We believe that it may be quite helpful for an industry council (or similar forum) to actively promote open discussion and debate to help establish methods standards for scanner data analysis." (p. 269-270).

The Standards Imperative

Standard metrics for assessing the outcome of marketing activities have the potential to facilitate and improve a variety of management decisions: (1) optimization of resources in such activities as media planning and design of the marketing mix, (2) forecasting,

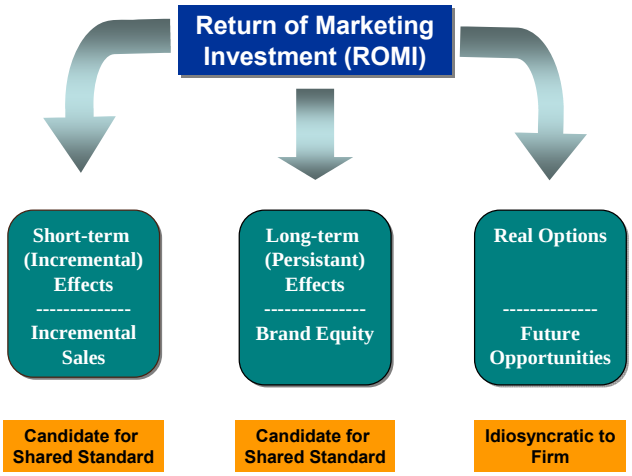
including both forward forecasting and the analysis of various "what if" scenarios, and (3) the assessment of financial return and return on investment. One impediment to the identification and adoption of standard metrics is the perception that the effects of marketing activities tend to be highly idiosyncratic with respect to an individual business. This perception appears to be particularly acute with respect to the effects of advertising (Bucklin and Gupta 1999, p. 264). The perception of such idiosyncratic effects almost certainly has a basis in reality, but it is less clear that such differences are associated with the actual outcomes of marketing activities. Rather, such idiosyncratic effects may be attributable to the limitations of the marketing mix models employed and the idiosyncratic nature of the data on which such models are constructed. If these are the reasons for such apparent idiosyncratic effects it is all the more reason for development of standard metrics for directly assessing the impact of marketing activities rather than trying to tease them out of historical data.

It is also important that outcomes arising from marketing activities be clearly identified with respect to their effects over time and the degree to which they may be common to all (or most firms) or are genuinely idiosyncratic to the individual firm. Only those effects that are common across firms are candidates for a shared measurement standard.

Three Classes of Marketing Outcomes

Although there are many types of marketing metrics there are three broad classes of measures that can be identified based on the duration of the measured effect and the extent to which the measured effect is common to all firms. These three classes of measures are (1) short-term (short lasting) effects, (2) long-term (effects that persist over time), and (3) real options. **Figure 1** provides an illustration of these three classes of marketing outcomes (see Figure 1).

Figure 1
Three Types of Return on Marketing Investment



Short-term effects are well recognized in marketing. They are the focus of much of the marketing mix modeling activity that is carried out by firms. Most often, the economic manifestation of such short-term effects is relatively immediate incremental sales (relative to some baseline). However, it is also important to recognize that there may be opportunity costs associated with **not** engaging in a particular marketing activity. Thus, loss of sales in the short-term may also provide an economic indicator of marketing decisions (in this case, the decision not to spend on some activity).

Long-term outcomes are effects that also occur rather immediately but these effects tend to persist over time (DeKimpe and Hanssens 2004). Although there have been efforts to estimate such long-term effects (see e.g., Hollis 1997, Scott and Ward 1997), such effects are generally recognized to be difficult to estimate and there is no generally accepted standard for measuring these effects directly (Bucklin and Gupta 1999, p. 262). Nevertheless, these longer-term effects have the potential for translation into economic metrics, such as a persistent change in incremental sales relative to a baseline or a price premium for each unit sold. As a result, these longer-term effects are also candidates for standardized measurement, that is, use of a metric comparable across brands and firms.

Finally, there are outcomes of marketing actions that are genuinely idiosyncratic to the firm. In recent years there has been growing interest in what has been called “real options” (Copeland and Antikarov 2003, Luehrman 1998 a & b). The concept of real options is of relatively recent origin in finance. At the simplest level it is an approach to decision making that attempts to explicitly recognize the dynamic nature “of future decisions where management has the flexibility to adapt given changes in the business environment.” (Mun 2002, p. 82). Copeland and Antikorov (2003) define a real option as “the right, but not the obligation, to take an action…at a predetermined cost…”(p. 5). Options cost money to create, just as investing in financial options costs real money. However, they also create flexibility and opportunities in the future that would not otherwise be available. Options tend to be highly idiosyncratic to the firm (only a firm that has already invested in a customer relationship system has the option to use this system as part of its marketing to its customers; only Procter and Gamble has the option to develop extensions of its Tide brand). Pindyck (1988) suggests that as much as half the value of a firm lies in the portfolio of real options it possess. Among the most important options in which firms invest are brands.

Marketing investments are different from financial investments (Devinney and Stewart 1988). Many marketing activities are about creating and sustaining real options. These options have value because they afford future opportunities for the firm. The creation of a Website creates opportunities for communication with consumers and for product distribution that would not be available but for the creation of the site. Brands represent options because they provide opportunities for brand extension and for charging a higher price in the future. Indeed, one especially important option open to a firm that has invested in the creation of a brand is to sell the brand, The value of a brand if the option to sell it were exercised is a measure of the potential value of the option. Although firms may not, and most certainly do not exercise all options available to them,

these options have economic value. To the extent that marketing activities create such options they must be considered part of the return on marketing investment.

Because real options exist only within the context of the individual firm and its unique resources, they are idiosyncratic. Although they can certainly be compared with respect to their economic value, both within and across firms they are not suitable for a shared standard metric in the same way short-term and long-term effects are. Nevertheless, they should be considered in any comprehensive analysis of the return on investment associated with marketing activities.

Developing Standards

Standards are so common that they are often taken for granted. The history of particular standards and how they came into being is often lost. Setting standards has never been easy. There is a rich literature of the economics of standards and standardization that makes it clear that marketing is not unique with respect to the difficulty it has experienced developing generally accepted measurement standards (Blind 2004, Grindley 1995, Toth, 1984). Standards are important because they provide economic benefits. The availability of a generally accepted standard relieves the individual firm of the costs of developing and maintaining its own unique internal standards. Absent a standard, whether broadly available or unique to an individual firm, there is no efficient means for assessing quality. Standards are an efficient means for discriminating high quality from low quality. If buyers cannot distinguish a high quality seller from low quality seller, the high quality seller's costs cannot exceed those of the low quality seller or the high quality seller will not survive. This is called adverse selection or the moral hazard problem in economics. This type of problem currently exists in the areas of marketing measurement, marketing research, and marketing mix modeling. The "black boxes" to which Bucklin and Gupta (1999) refer are illustrative of the problem.

There are, or course, potential solutions to the adverse selection problem other than the development of a standard. Buyers can carefully screen the quality of measures and models, but this requires significant investment in developing internal expertise, the expenditure of time and resources on the review of alternatives, and an organizational infrastructure to support such activities. Standards reduce such transaction costs because there is less need for buyers to spend time and money evaluating products and services prior to purchase. Alternatively, sellers can build long-term reputation or can guarantee a certain level of quality, but this increases the costs of the seller and creates a moral hazard problem if the buyer does not accept the representation of higher quality and the seller cannot recoup its higher costs. Thus, the presence of generally accepted standards resolve these problems and creates opportunities for the realization of economies of scale by the standards provider and lower costs to buyer through cost sharing.

One major impediment to the develop of standard metrics within marketing is the view of some firms that they may be able to achieve competitive advantage if they are able to create a better measurement tool for informing management decisions than is available

to their competitors. This issue is not unique to marketing or market metrics. Indeed, this issue has been played out in a broad array of contexts. Any potential competitive advantage must not only be weighed against all of the on-going costs of going it alone but also relative to the opportunity costs and comparative advantages of the firm (that is all of the other ways in which a firm could invest its resources). It is not at all clear that a firm that is very good at product development is better off investing in the development of metrics instead of developing additional products.

History suggests that there are three general approaches by which standards have been developed: (1) government edict, (2) agreement by industry bodies and (3) market contests. Although it might appear that government edict or agreement by industry bodies are the more efficient means for standard setting, the reality is that most standards are set through market competition. Government standards are usually created only after a long and labor intensive process, and there are many areas in which government has no interest or where the parties involved are so narrow as to make government intervention inefficient (Grindley 2002). While agreement by an industry body might appear to offer advantages, Grindley (2002) has observed that:

> "Strategies that rely on official acceptance divert effort and alone are unlikely to be effective. Agreement is hard to achieve and is unlikely to be adhered to unless backed up by market pressures. Standards bodies are inherently conservative… . …official adoption takes a great deal of precious time. Standards bodies also tend to concentrate on the technical aspects of standards, whereas the most important factors may be on the market side…. …standards may be too important to the firms' future to be negotiated in committees and have to be settled in the market-place. Years of negotiation over DAT [digital audio tape] within standards organizations failed to resolve basic differences between manufacturers and recording companies over copying, and meetings became platforms for dissent." (p. 13).

The empirical reality is that most standards evolve by following the main firm in the market or as the outcome of a standards contest in the market. Generally, the most effective way to establish an efficient standard is not by refining the committee process but by turning over more of the standard setting process to the market. Indeed, within marketing today there are a number of standards that exist by virtue of market competition. Examples of such standards include the media ratings data provided by A.C. Nielson and Arbitron.

Thus, it may be most efficient for marketing organizations to encourage competition among third party measurement providers in order to facilitate the identification of alternative standards for specific purposes and the emergence of a standard provider. It is, of course, conceivable that such a market competition could produce alternative providers who meet a common standard that is established by some industry body. It is likely that identification of such a common standard will follow from market competition. If common measurement standards are to be developed there is a need to identify general characteristics of an ideal measurement standard as well as exemplars of

measures that might meet these standards in order to inform the market. The remainder of this paper focuses on such characteristics and describes one potential exemplar.

Observations, Measures and Principles of Marketing

Marketing metrics must be identified along at least two dimensions.[2] First, the activity that gives rise to an outcome for which the metric is appropriate must be identified. A sales call is different from a network television commercial. Though both may ultimately be measured in terms of incremental sales, the ability to command a premium price or some other economic measure, more proximate metrics for these two activities may be different (though they should still be linked to economic outcomes).

Second, there are the characteristics of the metric itself. These are the basic observations or the underlying data. There is a need to assure the integrity of underlying data (observations) whether it be UPC scanner data, television ratings data, consumers' responses to survey questions, or some other type of raw data. Obviously, the failure of basic research hygiene compromises the quality of data, and this, in turn, increases error in the data and any inferences drawn from it. Marketing has done a creditable job of establishing standards for observations. Such organizations as CMOR, CASRO, and ARF, among others have developed comprehensive standards for the collection of data. However, there is little in the way of formal audit processes for most data collection activity and the market is largely the vehicle by which quality is, or is not, assessed.

Raw data is not, in itself, of much use for marketing planning and measurement of outcomes. Rather, inferences based on the observations are more useful because they provide insights regarding traits and processes. Thus, a set of observations regarding consumers' choices, attitudes, and associations may be inferred to be a measure of brand equity; observations regarding consumer satisfaction, intention to repurchase, and willingness to recommend a brand may be inferred to represent customer loyalty. These inferences or "derived facts" are subject to verification.[3] There are well known methods for establishing the reliability and validity of such measures. These methods are commonly employed in academic research in marketing and are frequently a requisite for publication in the field. In practice, reliability and validity are often assumed, though there are clearly data providers and firms that pay considerable attention to such characteristics of measurement. Increasing requirements for marketing accountability will undoubtedly increase the focus on the reliability and validity of derived measures. At a minimum there will be pressure to show that decisions based on derived measures include attention to the measurement characteristics of the underlying data and inferences based on it.

Finally, various derived facts, or measures, are used to make inferences and decisions about the firm, its businesses, and its customers. Thus, measures of brand equity or

[2] I am grateful to Michael Duffy of VNU who suggested this taxonomy to me.
[3] The differences between observations and inferences based on observation have been discussed in the measurement literature, which distinguishes between fundamental measurement and derived measurement (Campbell 1920, Wright 1997).

customer loyalty must be related to the economic value of the brand or some other factor relevant to the firm and its business. Relationships among marketing activities, specific measures of outcomes, and relevant financial results provide justification for management decisions. It is likely that Sarbanes-Oxley will ultimately require marketers to justify expenditures and decisions in terms of principles derived from analyses of these relationships. The identification of such principles will rest on the integrity of the underlying observations and the validity of the derived measures and associated inferences.

Characteristics of an Ideal Measurement Standard

The prior discussion raises the question of what characteristics an ideal measurement standard should possess. Ailawadi, Lehmann and Neslin (2003) have offered a discussion of such characteristics in the context of measures of brand equity. However, the characteristics they identify are applicable to any marketing measure. **Table 1** provides a list of these characteristics (see Table 1).

Table 1
Characteristics of an Ideal Measurement Standard

- **Grounded in theory**
- **Complete and distinct**
- **Diagnostic**
- **Captures future potential**
- **Objective**
- **Based on readily available data**
- **Single number (to enable easy tracking and communication)**
- **Intuitive and credible**
- **Robust, reliable, stable over time, but able to reflect real changes**
- **Validated against other measures and constructs**

Source: K.L. Ailawadi, D. R. Lehmann & S. A. Neslin, "Revenue Premium as an Outcome Measure of Brand Equity," Journal of Marketing, 67 (October 2003), 1-17.

These ten characteristics are intuitively appealing but a surprising number of measures used in marketing fail on one or more of these dimensions. One reason for such failure is that development and demonstration of these characteristics require investments. However, it is the development of metrics that possess these characteristics that are increasingly recognized as both necessary and challenging (CMO Council 2004, Nail 2002, 2004). It would be useful to catalog available metrics in marketing, especially those offered by commercial providers and compare their characteristics against these characteristics. Such an exercise would provide a useful starting point for any market competition designed to identify standard metrics.

An Illustration of the Power of a Standard Metric[4]

The power of a standard metric is best demonstrated by example. A metric that has been in use for more than forty years is rsc's *ARS Persuasion*® metric for TV ads before airing, or what is now being termed *APM*SM Facts for ads that have actually aired.. The long history of this brand preference measure makes it an especially relevant example since much is known about the measure. It is also particularly relevant because it focuses on the power of television advertising, an area that involves considerable expenditures and that has been identified as especially murky (Bucklin and Gupta 1999). Although it is generally recognized that copy quality plays a major role in the effectiveness of television advertising, much of media scheduling is largely copy neutral.[5] Thus, this is an area where a measurement standard, if it works, could have a substantial economic impact.

First, consider what is known about *APM* Facts and how it stacks up against the characteristics of an ideal standard listed in **Table 1**. This measure of change in brand preference has been rigorously managed through on-going research hygiene programs and validated against various types of panel data, syndicated sales data, and marketing mix modeling outcomes. **Table 2** summarizes the history of these validation efforts (see Table 2).

Table 2
Validity of *APM* Facts Over Time and Sales Measures

	Correlation To Sales/Market Share
1970s New Product *Reported* Trial (isolated impact)[1]	**r = +.85**
1980s Split-cable Copy Tests (isolated impact)[2]	**(7/7)**
1990s Split-cable Weight Tests (isolated impact)[3]	**r = +.90**
2000s Market Mix Modeling Output (isolated impact) [4]	**r = +.91**
2000s Scanner Share Change (non-isolated impact) [5]	**r = +.71**

***APM* Facts predict TV advertising's impact on business results at ~.90 level when the TV activity is *isolated* from other elements of the marketing mix and at ~.70 level *within* the context of other marketing activities (demonstrating the relative power of TV in the mix, as well as the *precision* of this consumer brand preference/choice methodology).**

Sources:
[1] "Advertising Wearin and Wearout: 10 Years Later."*Journal of Advertising Research.* September/October, 1998.
[2] "Persuasive Advertising and Sales Accountability: Past Experience and Forward Validation." *Journal of Advertising Research,* March/April, 1992.
[3] "Advertising Wearin and Wearout: 10 Years Later."*Journal of Advertising Research.* September/October, 1998.
[4] *Summary of The ARS Group's Global Validation and Business Implications: 2004 Update.*
[5] "Better Practices in Advertising Can Change a Cost of Doing Business to Wise Investments in the Business."*Journal of Advertising Research.* March, 2004.

Now consider how this standard can be applied to derive empirical generalizations that can inform decision-making. Advertising wear out has long been recognized within marketing, but the form wear-out takes over time, and even whether it occurs is highly dependent on what is measured and/or the specific metric employed (Stewart 1999).

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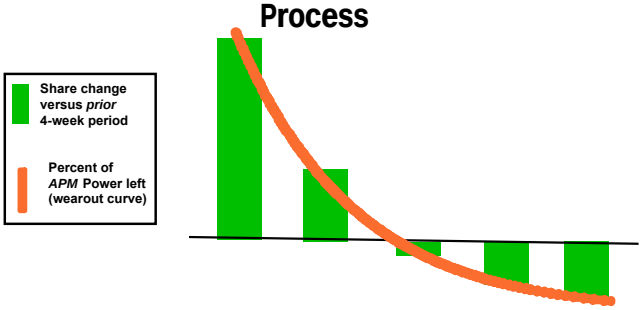
[4]I am grateful to rsc THE QUALITY MEASUREMENT COMPANY for providing me with the data and case studies that follow.
[5]Based on interviews with executives in major media buying organizations during the fall of 2004 and winter of 2005.

This is why a standard is so important. *APM* Facts provides a consistent and well-defined indicator of advertising wear out. Not only can advertising's impact on market results be predicted as to how much will be achieved, but also when and for how long the advertising will have its effect. **Figure 2** illustrates this phenomenon (see Figure 2).

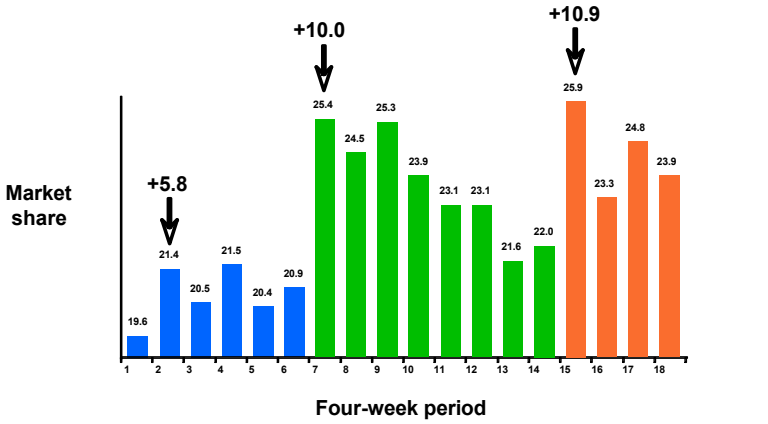
Figure 2
Advertising Works Quickly to Build Sales & Market Share With Diminishing Returns . . . and Wears Out in the Process



Source: Blair and Rabuck, "Advertising Wearin and Wearout 10 Years Later," *Journal of Advertising Research*, September/October, 1998.

The way this plays out in practice is illustrated in **Figure 3** (see Figure 3).

Figure 3
The Relationships Among Market Share, *APM* Facts, and Time



Source: Adams and Blair, "Persuasive Advertising and Sales Accountability: Past Experience and Forward Validation," *Journal of Advertising Research*, March/April, 1992.

Some important business implications for managing advertising can be derived from the observed relationships among *APM* Facts, time and market share. First, it makes sense to put the most media weight behind the strongest ads, relative to the size of market

and profit margins, and for only as long as they are working (wear out). Second, the application of *APM* Facts provides a means for using the whole portfolio of finished commercials. The development of advertising is inherently a creative process. As a result, it is usually the case that some commercials are more effective than others. This does not have to mean that some finished commercials should never run, however. Once a commercial is finished it represents an investment to be maximized. By recognizing that even the most effective commercial executions wear out and weaker executions may have some effectiveness it is possible to leverage the creative product of agencies through differential media weight. **Figure 4** provides an illustration of how this might work (See Figure 4).

Figure 4
Example: Projected Business Value
When *APM* Facts are Used to Traffic GRPs for A Brand

	Ad 1:30	Ad 2:15	Ad 3:30	Ad 4:15
***APM* Facts:**	**6.9**	**4.3**	**5.8**	**3.4**

Given: $1,700 MM Category
$5,000,000 in media in the quarter

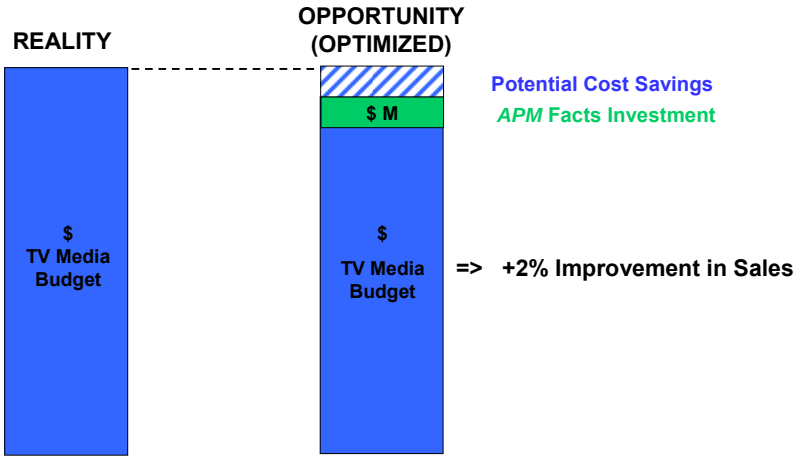
Return:	**Quarterly $ Volume Impacted**
75/25 30 vs. 15 Split:	**8,480,000**
Optimized:	**8,930,000**

Increase in Incremental Sales/Same Media Cost = $450,000 for the quarter

An analogy for this process can be found in another creative industry, the movie business. Like any creative enterprise it is difficult to know in advance just what you will get even with the best pre-screening procedure. There is an investment in making a movie and a producer would like to get some return on this investment. In the movie business the finished product is evaluated and a determination is made as to how much to invest in promoting the movie. Some movies go into major theatrical release with considerable promotional support, some go into theatrical release with less support, some are released on a limited basis (in terms of time and/or number of theaters), and some go directly to the video store. *APM* Facts provide a means to do the same thing with television commercials. In fact, by thinking about the media allocation decision differently and by making use of the information provided by *APM* Facts, the working media budget might be reduced even after considering the additional costs of acquiring *APM* Facts. This is demonstrated in **Figure 5** and illustrates the potential power of standardized marketing metric (see Figure 5).

Two brief case studies illustrate the potential power of a measurement standard, like *APM* Facts. First is the case of spaghetti sauces. During a five-year period in the late

Figure 5
"Cost Neutral" Example



This allocation of *APM* Facts $$ *within* the Working Media Budget is important in that it becomes a non-discretionary part of the media process

1980's and early 1990's new brands entered the spaghetti sauce category and took a seventeen percent share from the incumbent brands. The largest brand at the beginning of this period, Ragu, lost sixteen share points over a five-year period. Prego, the second largest brand at the start of the period actually gained six share points over the same period.

As illustrated in **Table 3** Ragu spent lots of money on television advertising, displays, retailer ads, etc., to protect itself from the onslaught of new brands; while Prego spent

Table 3
Prego & Ragu
5 Year Overview

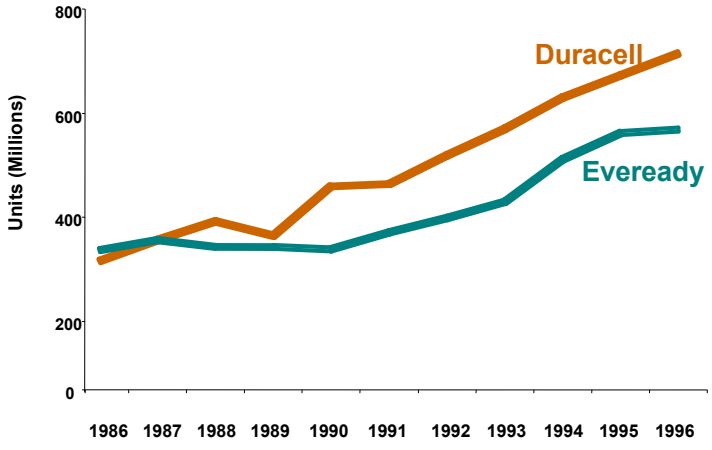
	Prego	Ragu
Total GRPs	15,034	20,400
Average Displays	22	43
Average Retailer Ads	29	37
Average Selling Price	$1.80	$1.64
Average *APM* Facts Level	+7	+2
Total TV Persuasive Power (*PPDs*)	679	448
Δ *Brand Preference*	+11 pts	-21 pts
Δ Market Share	+6 pts	-16 pts
Δ Sales (Units)	+22%	-19%

Source: "Observations: The Long and Short of Persuasive Advertising." *Journal of Advertising Research* 34, 4 (1994): 63–69.

less money all the way around (see Table 3). The difference in performance was the result of Prego's powerful television branding activity that drove consumer brand preference and *business performance* high enough (in both the short term and over time) to support a 10% higher selling price, even in the face of the many new brands entering the market and Ragu's heavy spending and price discounting. *APM* Facts provided the metric by which the effectiveness of this branding effort was assessed and managed.

The second case study focuses on a rather different product, batteries. Driven by the rapid growth of new consumer electronic products, alkaline battery sales began to take off in the late 1980s, with Duracell and Eveready starting the race at about the same place. They each sold millions of units more each year to meet the electronics demand. As **Figure 6** illustrates, Duracell sold more over time and moved into the lead over Eveready in terms of both unit sales and market share (see Figure 6). Duracell achieved these leads even as it sold for a premium price. What made the difference, at least in part, was that Duracell aired commercials with a consistently higher *APM* levels. Over

Figure 6
Duracell and Eveready



Source: Blair and Schroiff, Advertising: today sales or brand-building for tomorrow? *Quirk Marketing Research Review*, May 2000.

time, this increased brand preference and brand equity of Duracell relative to Eveready. This difference in brand equity was confirmed when the two companies were sold. While both brands began the alkaline race at the same starting point in unit sales, Duracell managed its brand equity by continually building brand preference, sales, and market share while charging a premium price; the prize at the end of the 10 years was more than a 2 to 1 market value of the Duracell brand over Eveready (see **Table 4**). Thus, *APM* Facts provided strong direction for marketing actions and these actions, in turn, were linked to the financial performance and value of the firm. This is the value of a standardized marketing metric.

Table 4
Duracell & Eveready
10 Year Overview
Overall Financial Terms (The End Game)

	Duracell		Eveready
Sales (Units)	**715M**	→	**568M**
Brand Preference	**57%**	→	**37%**
***Average APM*[SM] Facts**	**5.1**	→	**3.9**
Market share	**44%**	→	**35%**
Price per unit	**$1.02**	→	**$.86**
Profit	**$609M**	→	**$275M**
Market Value*	**$7.8B**	→	**$3 B**

* Duracell was sold to Gillette within a year or so of the study end. Eveready, after several more years of stagnant sales was spun off a separate company three years later.

Source: Blair and Schroiff, "Advertising: today's sales or brand-building for tomorrow?" *Quirk's Marketing Research Review*, May 2000.

Summary and Conclusions

Serious attention to ROMI is long over due. Pressures from senior management, boards of directors, and regulatory agencies arising from Sarbanes-Oxley will force marketers to become more accountable or be reduced to the role of executing tactics while other business functions make decisions about resource allocations and marketing actions. It behooves the marketing discipline to develop defensible measures of its contributions and the return on investment in its activities.

There is much unnecessary confusion about ROMI. While there are many marketing metrics that may be useful for diagnostic and tactical purposes, ROMI is ultimately about economic outcomes, i.e., financial results. Only measures that can be linked to financial results will be credible because the firm is required to report its results in financial terms. Managers must make trade-offs involving decisions with non-comparable outcomes that can only be evaluated in financial terms.

The present paper identifies three broad classes of marketing outcomes: short-term outcomes, long-term (persistent) outcomes, and the creation of real options. It is suggested that measures of short-term and long-term outcomes lend themselves to the development of standard measures within and across firms. Real options are idiosyncratic to the firm and therefore require firm specific metrics for assessing their value and the return on the investment required to create them.

The paper identifies characteristics of ideal measures and argues that effective measurement standards for marketing outcomes are more likely to develop through market competition rather than through the efforts of a single firm or the actions of an industry body. A first step in facilitating such market competition is the cataloging of candidate measures for various purposes.

The paper concludes with an illustration of the value of one such candidate measure in the context of television advertising, rsc's *APM* Facts, a measure of change in consumer brand preference.

References

Adams, Anthony J. and Blair, Margaret Henderson (1992), "Persuasive Advertising and Sales Accountability: Past Experience and Forward Validation," Journal of Advertising Research, 32 (2), 20–25.

Ailawadi, K. L., D. R. Lehmann & S. A. Neslin, (2003), "Revenue Premium as an Outcome Measure of Brand Equity," Journal of Marketing, 67 (October), 1-17.

ARS Group (2004), Summary of The ARS Group's Global Validation and Business Implications: 2004 Update, (Evansville, IN: rsc The Quality Measurement Company).

American Productivity and Quality Center with the Advertising Research Foundation (2001), The APQC-ARF 2001 ROI Benchmarking Study, (New York: Advertising Research Foundation).

American Productivity and Quality Center with the Advertising Research Foundation (2003), The APQC-ARF 2003 ROI Benchmarking Study, (New York: Advertising Research Foundation).

Blair, Margaret Henderson (1994), "Observations: The Long and Short of Persuasive Advertising." Journal of Advertising Research, 34, (4), 63–69.

Blair, Margaret Henderson and Alan Kuse (2004), "Better Practices in Advertising Can Change a Cost of Doing Business to Wise Investments in the Business." Journal of Advertising Research. 44 (March), 71-89.

Blair, Margaret Henderson and Michael J. Rabuck (1998), "Advertising Wearin and Wearout: 10 Years Later." Journal of Advertising Research, 38, (5), 7-18.

Blair, Margaret Henderson and Hans-Willi Schroiff (2000), "Advertising: Today's Sales or Brand-building for Tomorrow?," Quirk's Marketing Research Review, May, 44–53.

Blind, Knut (2004), The Economics of Standards, Theory, Evidence and Policy, (Northampton, MA: Edward Elgar Publishing).

Bucklin, Randolph E. and Sunil Gupta (1999), "Commercial Use of UPC Scanner Data: Industry and Academic Perspectives," Marketing Science, 18 (3), 247-273.

Campbell, Norm R. (1920), Physics, the Elements, (Cambridge: Cambridge University Press).

CMO Council (2004), Measures and Metrics: The Marketing Performance Measurement Audit, (Palo Alto, CA: CMO Council).

Copeland, Tom and Vladimar Antikarov (2003), Real Options, A Practitioner's Guide, (New York: Thompson).

DeKimpe, Marnik G. and Dominique M. Hanssens (2004), "Persistence Modeling for Assessing Marketing Strategy Performance," in Christine Moorman and Donald R. Lehmann (eds.), Assessing Marketing Strategy Performance, (Cambridge, MA: Marketing Science Institute).

Devinney, Timothy and David W. Stewart (1988), "Rethinking the Product Portfolio: A Generalized Investment Model," Management Science, 1988, 34 (Sept.), 1080-1096.

Grindley, Peter (1995), Standards, Strategy and Policy, (New York: Oxford University Press).

Hollis, Nigel S. (1997), "Looking Longer-term: How Best to Identify Longer-term Advertising Effects," Presented to the 1997 Advertising Research Foundation Conference, New York, June.

Kornbluh, Ken (2004), "Sarbanes–Oxley: A Wake-Up Call for Marketing," CMO Council Newsletter, (April), 2-4.

Luehrman, Timothy A. (1998a), "Investment Opportunities as Real Options: Getting Started on the Numbers," Harvard Business Review, 76 (July-August), 51-67.

Luehrman, Timothy A. (1998b) "Strategy as a Portfolio of Real Options," Harvard Business Review, 76, (September-October), 87-99.

Mun, Jonathan (2002), Real Options Analysis, (New York: Wiley).

Nail, Jim, with Chris Charron, Eric Schmitt, and Sadaf Roshan (2002), Mastering Marketing Measurement, (Cambridge, MA: Forrester).

Nail, Jim (2004), "The Elusive Definition of Marketing ROI, Results of the Association of National Advertisers/Forrester Accountability Study," Presented to the 2004 ANA Marketing Accountability Forum, New York.

Pindyck, Robert S. (1988), "Irreversible Investment, Capital Choice, and the Value of the Firm," American Economics Review, 78, 969-985.

Powell, Guy R. (2002), Return on Marketing Investment, (Albuquerque, NM: RPI Press).

Scott, Doug R. and Kirk Ward (1997), "But Which Half Is Working? Measuring the Impact of Marketing Activity on Business Results," Presented to the 1997 Advertising Research Foundation Conference, New York, June.

Stewart, David (1999), Advertising Wearout: What and How You Measure Matters, Journal of Advertising Research, 39 (Sept./Oct.), 39-42.

Toth, Robert B. (1984), The Economics of Standardization, (Minneapolis, MN: Standards Engineering Society).

Woods, Julie A. "Communication ROI," Communication World, 21 (Jan./Feb. 2004), 14.

Wright, Benjamin D. (1997), "Fundamental Measurement," Rasch Measurement Transactions, 11 (2), 558.