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What Is Known About the Long-Term Impact of Advertising

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Marketing Accountability Standards Board

of the Marketing Accountability Foundation

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 to financial performance.

After comprehensive review of current practices, needs and accountability initiatives sponsored by industry organizations, it was determined that while marketing was not ignoring the issues surrounding metrics and accountability, the practices and initiatives underway were narrow in focus, lacking integration and generally not tied to financial performance in predictable ways.

"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

MASB is THE independent, cross-industry forum that sets the measurement and accountability standards that visionary leaders in Finance and Marketing rely on to guide investment decisions for enterprise value.

MASB Members

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.

"There is one group exclusively devoted to marketing measurement…predictive of financial return…and all marketers who are serious about meeting the accountability mandate should get involved." – Bob Liodice, CEO, Association of National Advertisers

MASB members belong to an elite, forward-thinking community of marketer companies, measurement providers, industry associations and business academics committed to linking marketing actions to financial return.

MASB Summits

Each February and August, MASB gathers top Finance and Marketing thought leaders for its **Marketing Accountability Summit** with project updates from members and guest speakers addressing the latest topics. For more info, visit **themasb.org/masb-summits**.

MASB is a 501(c)(3) nonprofit organization dedicated to establishing marketing measurement and accountability standards across industry and domain for continuous improvement in financial performance and for the guidance and education of business decision-makers and users of performance and financial information.

The Issue

The focus of most measures of marketing's impact on sales is "short term." This focus may bias return-on-investment calculations for marketing activities that have both short- and long-term impact, as it takes into account the complete expenditure but only a portion of the impact.

This is an important consideration, as there is evidence that advertising has both short- and long-term impact while other marketing tactics (such as price promotions) have only short-term effects. Measurement and analyses that consider only short-term impact may put advertising at an unrealistic disadvantage when allocating marketing resources to maximize long-run profitability.

The majority of marketing analyses address only short-term impact, with "short term" defined as the current budget or planning period (usually a quarter or a year). For the consumer-packaged-goods industry, results of these analyses have caused marketers to shift spending to programs closer and closer to the point of purchase, primarily at retail. This shift in marketing strategy can be seen in the growth of trade promotion budgets at the expense of programs with impact that accrues over time, like advertising.

Objectives

The Long-term Project was undertaken by MASB to help improve fact-based marketing resource allocation through better understanding of the short- and long-term impact of advertising. Included in the project and this paper are:

- review of the literature as to what is known about the short- and long-term impact
- illustration of the findings with practitioner examples
- clear direction for business application and improving financial return

The Author

Dominique Hanssens is the Bud Knapp Professor of Marketing at the UCLA Anderson School of Management, a founding Director of MASB, and a widely recognized authority on marketing strategy and effectiveness of marketing efforts. He served as Executive Director of the Marketing Science Institute, 2005–2007. He has published several books and over 50 journal articles on marketing strategy, in particular the assessment of long-term impact of marketing activities.

He has served as area editor for *Marketing Science* and associate editor for *Journal of Marketing Research* and *Management Science*. He holds a Licentiate in Applied Economics from the University of Antwerp, and Master's and PhD degrees in Management from Purdue University.

The MASB Book

What is Known About the Long-Term Impact of Advertising was originally published as Chapter 9 of the MASB book, ***Accountable Marketing: Linking Marketing Actions to Financial Performance***, edited by David Stewart, Ph.D., President's Chair in Marketing and Law at Loyola Marymount University, and Craig Gugel, CEO of Gugelplex TV. With contributions from 20 Finance and Marketing thought leaders, this text tackles such critical issues as brand preference, brand valuation, improving financial reporting and social media. Ordering info at **themasb.org**.

What Is Known About the Long-Term Impact of Advertising

There are six main factors that determine how advertising's long-term impact builds up (Dekimpe and Hanssens, 1995). The first three involve consumer response to the advertising and the product. The second three factors involve corporate behavior:

Consumer Response

1. **Immediate Effects**: The immediate consumer response to advertising
2. **Carry-over Effects**: Delayed buyer response
3. **Purchase Reinforcement**: Repeat-buying as a result of the initial, advertising-induced purchase.

Corporate Behavior

4. **Feedback Effect**: Influence of the initial sales lift on subsequent advertising spending
5. **Decision Rules**: Effect of advertising spending on other parts of the marketing mix
6. **Competitive Reactions**: Can be share stealing or category expanding

Producing a short-term consumer response to the advertising is important: without it there is no longer term impact, and with it comes double the effects over a longer period of time (Lodish et al, 1995; Hu et al, 2007).

Corporate behavior and business practices are also important and can result in over five times stronger and longer lasting impact than from consumer response alone (Pauwels, 2004).

For each of the six factors, we'll provide a definition, look at the key metrics used to assess them, available analytics, and the processes within the marketing area (or across the company) which should be targeted. We'll also summarize the key learning, using practitioner examples for illustrative purposes and conclude with implications for practitioner action.

We hope this paper will provide a better understanding of the short- and long-term impact of advertising and the knowledge necessary to improve fact-based marketing resource allocations across brands, marketing strategies, and time.

CONSUMER RESPONSE

Factor 1: Immediate Effects

Immediate consumer response to advertising is the focus of most advertising research. As we will see later in the section called "Key Findings Based on Consumer Response," this factor is a necessary long-term building block, because immediate responses are essential for the creation of long-term impact.

Factor 2: Carry-over Effects

Carry-over effects reflect a delayed buyer response to advertising. Carry-over is not fundamentally different from immediate response; it is simply the result of "letting the dust settle"—a time shift in impact.

Factors 1 & 2: Short-term Lift

If you add immediate and carryover effects, you get what we will refer to as total *short-term lift.* Beyond their definitions, the remainder of the discussion on Factors 1 and 2 is combined, because the distinction is simply between immediate effects and those that occur one or two months later.

Short-term impact is observed through a lift in a performance metric that is known to be financially relevant (e.g., market share, unit sales, leads, etc.). The analytics used are market-response models and controlled experiments.

The processes targeted for achieving short-term lifts from advertising are pre-market testing and review of advertising activity with tangible action. Process implications involve the effects of the advertising:

Shift resources towards marketing that provides a tangible lift

Discontinue unproductive marketing

Factor 3: Purchase Reinforcement

Purchase reinforcement refers to repeat buying as a result of the initial, advertising-induced purchase (i.e., experience with the product or service). It is equivalent to "customer retention" in relationship businesses. It can also build through word-of-mouth. If customers have a good experience with the product, its long-term potential increases.

If the consumer has a negative experience with the brand (that is, there is no purchase

reinforcement), the short-term effect of the advertising will not materialize into long-term impact.

The metric used to measure purchase reinforcement is improvement in a reinforcement variable (e.g., repeat-purchase rate, retention rate, customer referrals, or customer satisfaction). Analytics involve monitoring the metric in controlled experiments or dynamic market-response models.

The process is simple: periodic monitoring with diagnostic action when needed. For example, you suddenly see your brand's normal repeat rates decline. Why? At this point a red flag should be raised, and the brand group should immediately work to correct the problem.

Key Findings & Examples Consumer Response Factors

Persuasive advertising produces an immediate impact.

Numerous industry studies have shown that persuasive advertising (that is, advertising that causes a positive shift in brand preference/choice) produces an immediate market place impact. In the *Journal of Advertising Research classic* article, "An Empirical Investigation of Advertising Wearin and Wearout," Blair (1987) wrote: "Effective delivery of advertising occurs much faster . . . than has been indicated through traditional (consumer) tracking measurements."

Based on his STAS (Short-Term Advertising Strength) research in the mid-1990s, John Philip Jones found that “advertising can have an immediate and short-term (seven-day) influence on sales” (Jones, 1995b). Information Resources Inc. (IRI) has reported similar findings: “When a particular advertising weight or copy is effective, it works relatively rapidly” (Abraham and Lodish, 1990).

Exhibit 1 is an Oscar Mayer Lunchables example of this finding. At the time the Lunchables case study took place, Oscar Mayer tested each of the brand’s TV ads before airing (using the ARS brand preference/choice methodology), and then examined its impact after airing. An ad called “Bad Week” achieved an APM Fact above +8.0, the highest score ever achieved by the brand—a huge accomplishment in a category where the brand already dominated the market. Sales volume for the first 12 weeks the ad aired was 48 percent higher than that observed during the previous year.

*Note: APM Facts is the **A**RS **P**ersuasion **M**easure for ads that actually air (versus the same methodology used at other stages of the marketing process).*

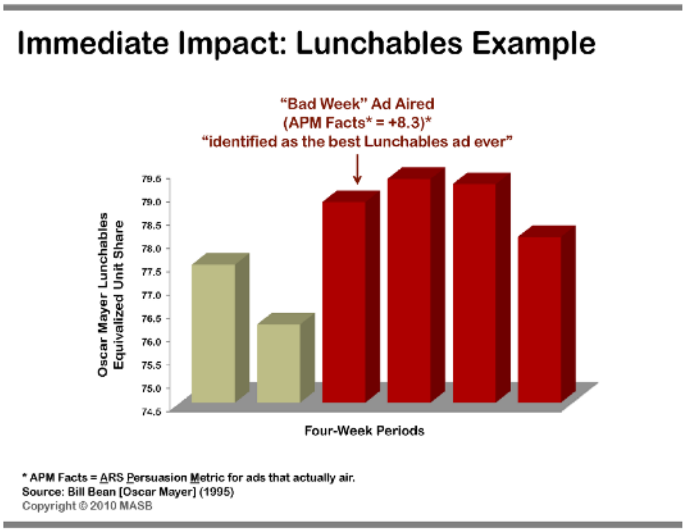


Exhibit 1 | *Immediate impact of Oscar Mayer Lunchables ad*

At the time, Category Information Manager Bill Bean stated: “Subsequent sales decomposition modeling revealed that ‘Bad Week’ accounted for 15 percent of the total Lunchables volume, the largest incremental sales increase Oscar Mayer and A.C. Nielsen had ever seen from television advertising!” (Bean, 1995).

Without this short-term impact, there is no long-term impact..

Consistently, it has been found that a short-term impact on consumer purchasing (sales) is a prerequisite for a long-term effect. IRI’s “How Advertising Works” study found that “if advertising (does not) show an effect in six months, then (it) will not have any impact, even if continued for a year” (Abraham and Lodish, 1990). In a follow-up study nearly two decades later, IRI’s earlier conclusion was confirmed: “If the . . . advertising does not work the first year, it will not have any long-term impact” (Hu et al, 2007).

Likewise, Jones STAS research “rejects the possibility of a ‘sleeper’ effect—the supposed build-up . . . which does not work immediately and only causes sales to rise after a prolonged period of media exposure” (Jones, 1995a).

The size and duration of the impact are determined primarily by the persuasiveness of the ad (message), along with effective delivery (media) and purchase reinforcement (product).

The influence of the product on market impact is illustrated by a case study for Starkist “Tuna in a Pouch.” In September 2000, the tuna industry was stagnant and had become a price-based commodity. The “no drain” vacuum-sealed foil pouch was the biggest innovation to the category since canned tuna was introduced in the 1920s.

The product was tested by BASES (Nielsen's new product forecasting service) to determine purchase reinforcement after product use. Results showed a purchase intent of 90 percent after product trial (even higher than the 74 percent interest based on product concept), indicating that consumers were likely to buy the product again (**Exhibit 2**).

The size and duration of advertising's short-term impact is illustrated in a Campbell's Prego Spaghetti Sauce case study (**Exhibit 3**). The more persuasive the message, the higher and longer the impact.

Purchase Reinforcement: The Product

BASES results show consumers loved it!

	Concept		After use		Percentile score vs. BASES database
Top two box purchase intent	74%	→	90%	➞	Top 20%
Liking	4.3	→	5.0	➞	Top 20%
Uniqueness	3.9	→	4.0	➞	Top 20%
Value	3.7	→	4.3	➞	Top 20%

Source: Barry Shepard [Heinz North America], (2002)

Exhibit 2 | *Bases results for Starkist Tuna in a Pouch*

The relative contribution of media weight and persuasiveness of the message across more than 100 cases and over a business quarter is shown in **Exhibit 4**. While there would be no impact at all without media delivery, the persuasive power of the ad accounts for most of the overall variation in market impact (as derived independently by marketing mix modelers).

As shown in **Exhibit 5**, an ad's persuasive power works quickly, with diminishing returns, wearing out in the process. Both occur in a predictable fashion given GRPs, indicating how fast effective delivery is achieved, when/where to look for the market impact, and when to refresh with new executions.

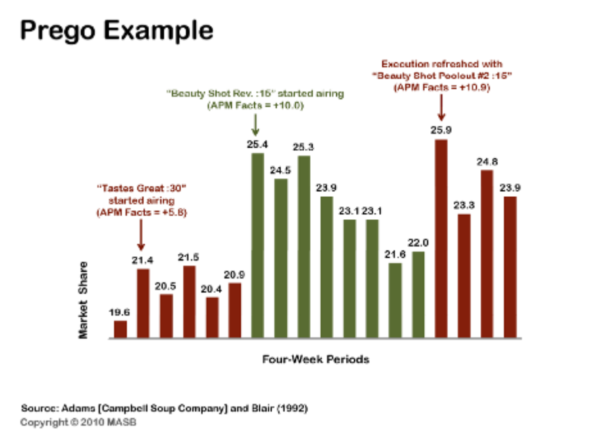


Exhibit 3 | *The more persuasive the ad, the higher and longer the impact*

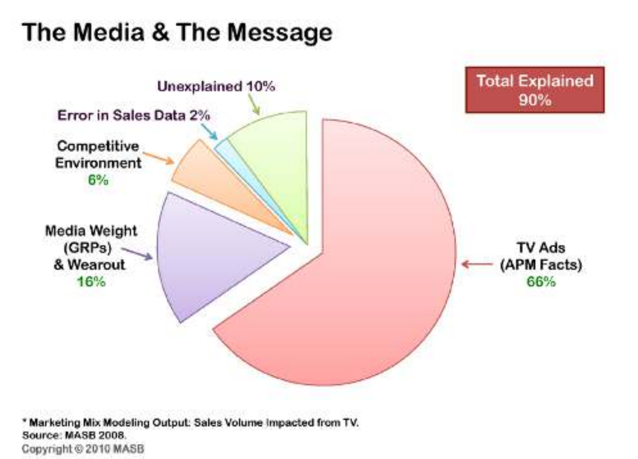


Exhibit 4 | *Explaining variation in volume impacted by TV quarter-to-quarter*

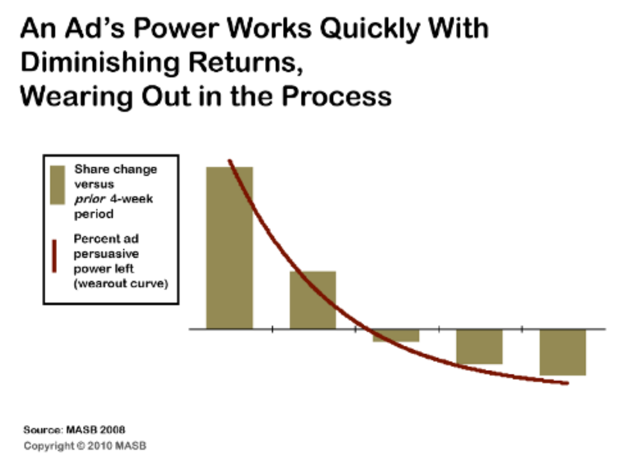


Exhibit 5 | *Ads work quickly with diminishing returns and wear out*

CORPORATE BEHAVIOR

Factor 4: Feedback Effect

Feedback effect is the influence of the initial sales lift on subsequent advertising spending. For example: Does advertising become "policy" as a result of its initial success?

Reacting properly to advertising's success or failure is key to building long-term impact. Note that feedback effects can result in unproductive escalation of spending if the response effect wanes, and spending alone is considered to achieve the desired effects.

The metric for feedback effect is the evolution of budget allocations as a result of market response insights—that is, continuing successful campaigns with execution refreshment, and discontinuing or rejuvenating worn-out campaigns. The analytics used for this factor include monitoring the metrics and advertising decision modeling. The process involves a move to response-based marketing.

What is meant by a response-based marketing process? First, it requires that the brand group recognizes past allocation successes and errors and implements any resulting learning that may increase the advertising's—and hence the brand's—chance for success. Ultimately, response-based marketing will result in a conversion to better business practices (process management). It is important to note that organizations tend to fall back on "tradition-based marketing" when there is turnover in the marketing and/or brand team.

In the following examples, you will see the results of using feedback in decision-making. In some cases, this resulted in a *best practice* approach to advertising. For "best practice," we will use the following definition: "A documented method of operating behavior that yields a higher level of performance than other operating behaviors." (ESOMAR and ARF, 2003).

Starkist Example

In the section on purchase reinforcement, we looked at a case study for Starkist Tuna in a Pouch. In retrospect, the brand team looked at what would have happened if they had used a traditional approach instead of the successful feedback-based approach. For each approach, return on investment was based on incremental profits achieved less the costs of the marketing activity (advertising production, media costs, advertising research costs, etc.).

The traditional approach, which was calculated from test market data, shows that the advertising during Quarter A resulted in a break-even return on investment. The feedback -based approach, on the other hand, resulted in an ROI of 76 percent for the roll-out Quarter A. This was achieved by airing only ads with high APM facts (i.e., ARS Persuasion scores for the ads that actually aired) (**Exhibit 8**).

Feedback Effect: Starkist Example

	Advertising ROI
Traditional approach: Quarter A test-market	-1%
Feedback-based approach: Quarter A roll-out	76%
Feedback-based approach: Quarters A & B roll-out	368%

Source: B. Shepard [Heinz North America] (2002)

Exhibit 8 | *Return on investment for Starkist's feedback-based approach*

Because the wear-out learning indicated that the ads had persuasive power left after roll-out Quarter A, they were aired for an additional quarter (Quarter B). When the ROI for the initial quarter was added to the unplanned second quarter, the ROI jumped to 368 percent.

The short-term impact of advertising is doubled over the longer term.

IRI's BehaviorScan Tests highlight the long-term effects of advertising: "(When) advertising works in the short term (year 1), its impacts are doubled over the next 2 years" (Lodish et al, 1995; Hu et al, 2007). The results of the 1995 and 2007 studies are combined in **Exhibit 6**.

While the results showed no change in impact for unproductive ads (p>0.2), persuasive advertising's effects more than doubled in the longer term. Even when all the ads (both productive and unproductive) are considered in total, profit more than triples over the long haul ($.56 million for year 1, versus $1.85 million by the end of year 3).

BSCAN Split-Cable Tests

		Short-term (1-year) impact		Long-term (3-year) impact	
Category	Average elasticity	Revenue change ($million)	Profit change ($million)	Revenue change ($million)	Profit change ($million)
(Persuasive) advertising $p \leq 0.2$	0.235	4.69	2.05	9.39	5.10
Other $p > 0.2$	0.036	0.72	-0.53	0.72	-0.53
All	0.120	2.40	0.56	4.38	1.85

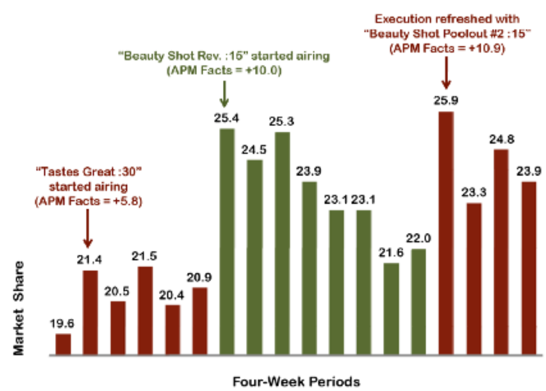
Note: Chart shows combined results from before 1995 and after 1995, weighted for sample size.
Source: Hu et al (2007)

Exhibit 6 | *The short-term impact of advertising is doubled in years 2 and 3*

Given competitive markets, reversion to the mean in net positive results is the rule (lift is temporary).

In competitive markets, ad wearout and reversion to the mean are the rule, requiring sustained advertising activity to maintain net positive impact, as illustrated by the Campbell's Prego case study in **Exhibit 7** (Adams and Blair, 1992). Prego's market share increased with the airing of each (fresh) persuasive ad, achieving a net positive trend in share over the 18-month period.

Prego Example



Source: Adams [Campbell Soup Company] and Blair (1992)

Exhibit 7 | *Wearout (reversion to the mean) and sustained advertising activity*

Without sustained activity, market share losses are the rule.

In a 2004 *Journal of Advertising Research* article, Blair and Kuse reported that airing ads with APM Facts greater than zero has an impact in the marketplace (versus not advertising or airing ads with zero-level APM facts). In fact, the study showed that *not* advertising (going dark) results in a *loss* of 0.4 share points over the next quarter (in the average market).

Citrucel Example

Citrucel fiber supplement had observed a gradual decline in sales using a tradition process, with advertising spending at a competitive level.

In July 1993, Citrucel began using a feedback-based process that began with testing the brand's selling propositions (using the same measurement methodology applied to the ads). Two propositions were tested: the traditional one, which emphasized "no grit," and a new one that focused on "no gas."

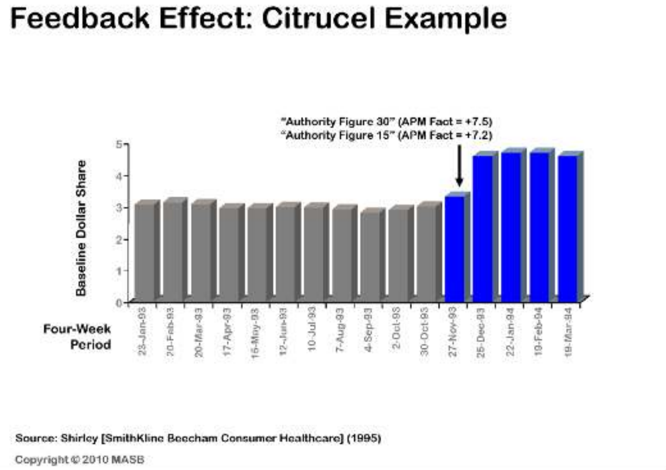


Exhibit 9 | *Citrucel share responds to airing of persuasive ads*

The results showed the "no gas" proposition to be significantly more persuasive than the brand's traditional selling proposition (an ARS Persuasion score of +7.8 versus +4.1). Two executions were produced based on the new "no gas" selling proposition, and they achieved scores similar to that of the selling proposition. As shown in **Exhibit 9**, the persuasive 15- and 30-second advertisements began airing at the beginning of November 1993.

Share responded immediately—increasing over 70 percent from the pre-airing base period—*and this was the only marketing activity for Citrucel over that time period.* Based on this initial success, the brand team received funding for additional television advertising.

Exhibit 10 illustrates the outstanding results of using feedback in the first year, the second year, and beyond. Citrucel's brand share continued to increase while price was held steady.

Note that the Citrucel success can be traced back to assessing the current advertising selling proposition, testing it against a new one, then following through with the creating, testing and airing of persuasive advertising. In short, the brand moved from a traditional to a feedback-based process.

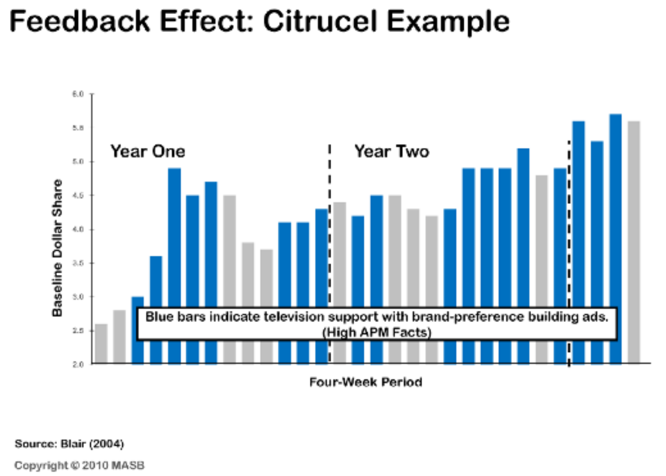


Exhibit 10 | *Citrucel's success continues in Year 1, Year 2, and beyond*

Prego "Better Practice" Example

Following the initial success (shown in Exhibit 3), the Prego brand group formed a "better practice team" to monitor advertising feedback effects and to implement learning into better practices. **Exhibit 11** shows continuously increasing market share, a result of implementing these practices in Years 1, 2, 3, and 4.

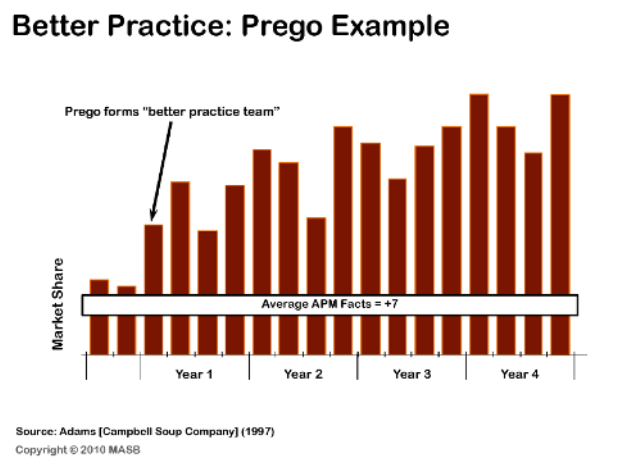


Exhibit 11 | *Prego's share increases with better practice team*

Campbell Soup Company's Dick Nelson describes the success story: "What underlies this five-year-long success story? A fundamental change in the advertising strategy and research process. Prego is the only Campbell's brand in the past five years to (test and) consistently stay with the same strong selling proposition, measure every pool out prior to airing (APM Facts), establish hurdles and stick to them, and utilize (wearout learning) to create an awareness of when to refresh creative" (Adams, 1997).

Over the five-year period, Prego saw an increase of 4.5 points in market share. Taking into account incremental profit as well as the cost of testing and producing additional ads, Prego estimated their return on advertising investment to be over 5,000 percent (**Exhibit 12**).

Payout Analysis for Prego Over Five Years

Average market share increase over baseline	4.5 points
Estimated incremental gross profit	$112,500,000
Incremental cost of testing (15 more)	$225,000
Estimated incremental cost of production	$1,875,000
Payout (ROI)	5,357%

Note: No change in media spend
Source: Adams [Campbell Soup Company] (1997)

Exhibit 12 | *ROI for Prego was over 5,000% for the five-year period*

Gradually the brand group turned over and drifted away from both the feedback-based process and the strong selling proposition (**Exhibit 13**). Over the next five years (Year 5 through Year 9), the brand's average APM Facts fell to +3, four points below what it had been in the previous period (Years 1 to 4). By the end of the nine-year period, share had declined to levels that were close to those before the brand adopted the "better practice" approach.

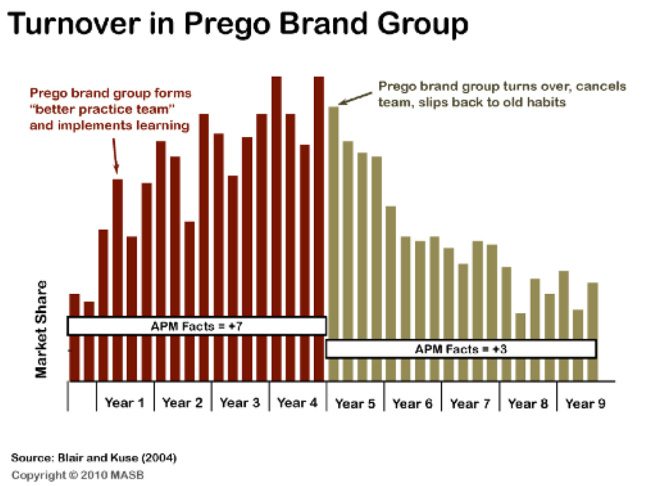


Exhibit 13 | *Market share declined when Prego brand group turned over*

Duracell "Better Practice" Example

Alkaline battery sales began to take off in the late 1980s, with Duracell and Eveready starting the race at about the same place. Duracell managed to overtake Eveready in the late 1980s and maintained the number one spot in the industry through 1996 (**Exhibit 14**). By 1996, Duracell's market share had risen to 44 percent, while Eveready held only 32 percent of the market.

They each sold millions of units more every year to meet the electronics demand . . . but why did Duracell sell more? And how did they manage the brand?

Duracell tested and used the same strong brand-differentiating selling proposition ("lasts longer") over

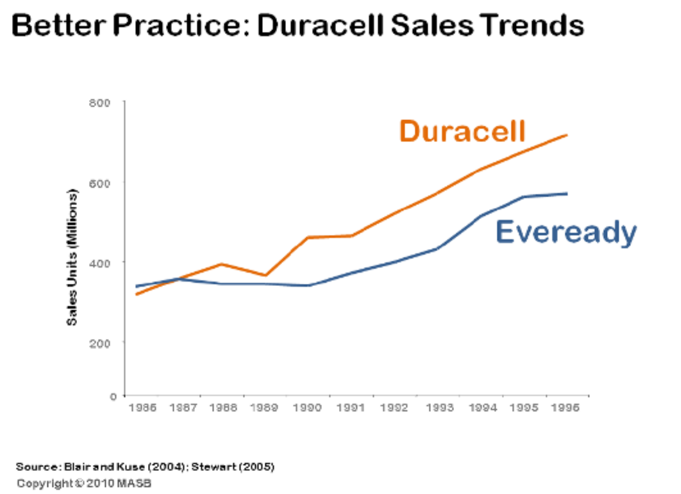
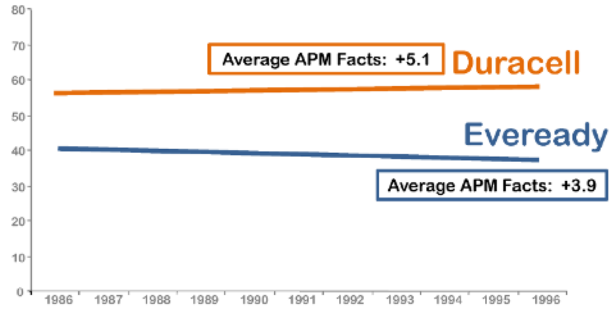


Exhibit 14 | *Duracell outpaces Eveready in unit sales* the entire eleven-year run.

Duracell increased its share of brand preference with 31 percent more effective (brand preference building) television advertising. Eveready's brand preference declined with less effective advertising.

Over the 11–year period, Duracell's APM Facts averaged +5.1 versus +3.9 for Eveready (**Exhibit 15**). Although the difference in advertising persuasiveness was just over a point, it was enough to make a significant difference in the success of the Duracell brand.



* Brand Preference Trends are based on same Brand Choice methodology as ARS Persuasion & APM Facts
Source: Blair and Kuse (2004); Stewart (2005)
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Exhibit 15 | *Duracell's TV advertising was more effective than Eveready's*

Again, as we observed in the Prego example, a turnover in the brand team ended Duracell's success. "At the end of this successful 11-year run, the Duracell brand was sold to The Gillette Company. The new members of the brand and agency team did not adopt—and may not have even known of—the measurement and research practices that had supported Duracell's success. Subsequently (sales) eroded" (Blair and Kuse, 2004).

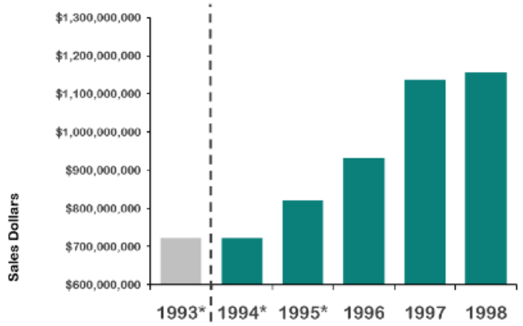
OTC Division "Better Practice" Example

In the early 1990s, the OTC division of a large pharmaceutical company formed a "Better Advertising Practice" (or BAP) Team to improve advertising effectiveness across its brands. The OTC group had experienced success with several individual brands and wanted to extend that success to the rest of its brands.

The team started by defining the process that they would use to gather and implement advertising feedback. The process started with the identification of a persuasive selling proposition (based on ARS Persuasion Measurement). Advertising wearout projections were used to plan the number of executions that would be needed as well as refreshment schedules.

An APM facts hurdle of +4.0 was set, and each subsequent ad was tested for persuasiveness before going to air. To ensure the process was working, the group monitored market response as well as competitive advertising. An "advertising persuasiveness" report went directly to the CEO, showing him the proportion of +4.0 ads going to air for each brand.

Better Practice: OTC Example
Large Pharmaceutical Company: OTC Division, 22 Brands



* Includes sales from Wal-Mart.
Source: Blair (2004)
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Exhibit 16 | *Sales soared during the OTC division's BAP years*

Between 1994 and 1998, OTC Divisional sales soared as the BAP team was formed and more and more brands began adopting this "better advertising" feedback-based process. By 1998, sales had reached over $1.1 billion, up about $400 million as compared to 1993 and 1994 (**Exhibit 16**).

As we observed in the Prego case study (Exhibit 13), turnover in personnel can be a huge detriment to maintaining a stable feedback-based process. In 1999, the company was bought by a larger one, the CEO moved up, the team and the practices were cancelled, the marketing scientists were eased out, and sales began to decline (**Exhibit 17**).

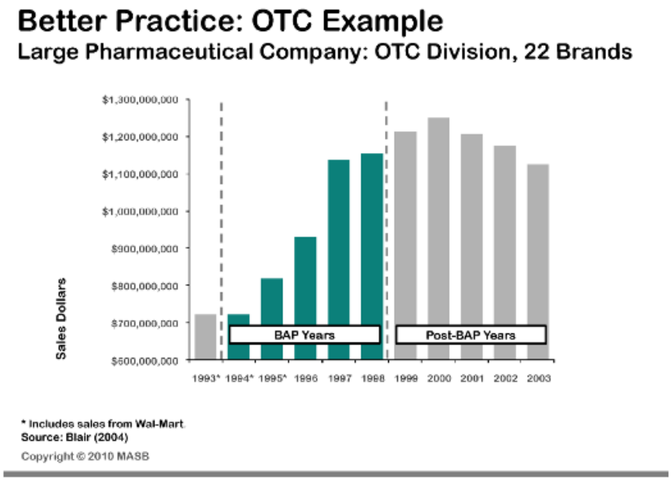

Exhibit 17 | *Post-BAP years show a decline in sales*

Factor 5: Decision Rules

Decision rules refer to the effect of advertising spending on the other parts of the brand's marketing mix (for example, reductions in trade promotions to offset ad spending, or increases in sales calls or retail price to capitalize on positive consumer response to advertising). Decision rules—including both inertia in decision making *and* the opportunity to create synergy—shape the firm's overall marketing strategy.

The metric for decision rules is improvement in a reinforcement variable (for example, the correlation between sales calls and advertising support, which should be positive if the two areas are synergistic). Analytics for decision rules include market-response models with interaction effects and marketing decision models.

The process? Development of cross-functional decision teams to ensure coordination when there is synergy as well as clutter avoidance when there is competition.

In our OTC example (Exhibits 16 and 17), this was accomplished by the establishment of airing hurdles (an ARS Persuasion/APM Facts level of 4.0 as the action standard across its 22 OTC brands):

- A score of 4 or higher for the "selling proposition" was required to allocate creative/production dollars
- Only ads scoring 4+ were allocated media dollars

The CEO received systematic reports showing scores for the ads being aired by brand to determine how well the decision rules (in this case airing hurdles) were being followed.

Multi-Firm Pharmaceutical Example

In a current study of multiple pharmaceutical firms (large companies with multiple global brands), each of the brands have their own marketing budgets.

"In theory, a multi-division firm can deploy volatile marketing tactics that do not affect portfolio volatility by strategically coordinating marketing campaigns across brands and regions."

"In that case, we would expect marketing expenditures to be predominantly negatively correlated" (Fischer, Shin, and Hanssens, 2009).

Decision Rules: Multi-Firm Pharmaceutical Example

		Expenditures in levels		
		Significant ($p<.05$)		Insignificant
	Number of products	$\rho < 0$	$\rho > 0$	$\rho = 0$
Firm 1	13	5%	37%	58%
Firm 2	9	8%	25%	67%
Firm 3	7	5%	14%	81%

Source: Fischer et al (2009)
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Exhibit 18 | *Correlation pattern of marketing expenditures*

But in practice they are not. For the three large pharmaceutical companies shown in **Exhibit 18**, the correlation for marketing spending across brands is predominantly zero. Although spending for individual brands may have been effective, there was no coordination across brands or divisions.

Factor 6: Competitive Reactions

None of a brand's actions takes place in a vacuum. If you take your competitors seriously, you will examine their competitive reaction to your marketing actions and vice versa.

Interestingly enough, in the case of advertising and promotion, the predominant form of reaction is actually no reaction at all (Steenkamp, Nijs, Hanssens and Dekimpe, 2005). Category-enhancing reactions are also quite prevalent (i.e., competitors help each other out rather than hurt each other).

When there *are* competitive reactions, the intensity of these reactions determines the ultimate level of marketing rivalry in an industry.

What do you do from a data analytic and process perspective? You measure cross elasticities (that is, in addition to measuring the effectiveness of your own marketing, you measure the impact of your competitor's marketing on yourself). The analytics are controlled experiments and competitive market-response models, both with competitive effects and reaction functions.

Assuming good measurement, an organization can develop a process and decision rules for optimal competitive behavior. It's often fairly simple: if there is no negative cross-sales effect, don't react. But if there is a cross-sales effect and it *is* negative, react (but only with marketing elements that will be effective as determined by pre-market or lead/test market experiments). Note that it is difficult to effectively react to a competitor who has persuasive advertising.

Citrucel Versus Metamucil

In the Citrucel example we examined in Exhibits 9 and 10, the brand was competing against Metamucil, which enjoyed about 25 percent of the market at the beginning of the case study (**Exhibit 19**). Metamucil continued losing share to Citrucel despite spending more media dollars, cutting retail price 15 percent, promoting more heavily (retailer displays and feature ads), and airing more ads.

Citrucel's success can be traced back to their feedback-based process, the monitoring of competitive activity, and the testing for and airing of persuasive advertising.

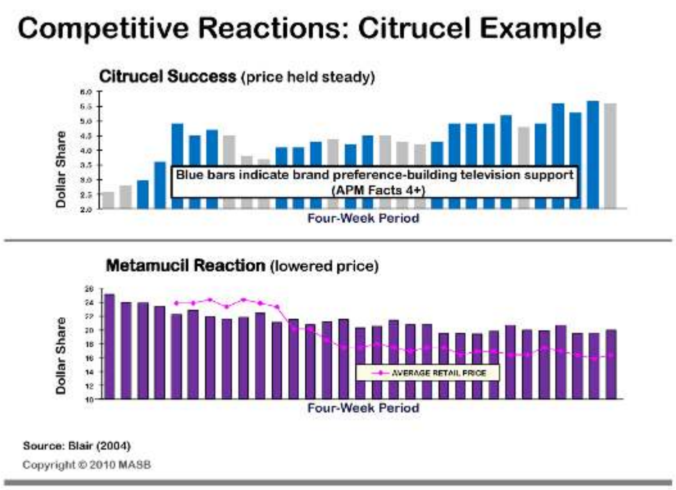

Exhibit 19 | *Metamucil loses share to Citrucel*

Prego Versus Ragu

During Prego's five-year success period (Exhibits 11 and 12), they were competing against category leader Ragu (**Exhibit 20**).

"Looking at the entire five year period, Prego's advertising managed to overcome Ragu's heavier spending, retailer support, and lower price. The estimated return-on-investment over the five year period shows the long-term payout of Prego's process change of over 5,000 percent." (Adams, 1997)

Again, the brand's enhanced performance was due to persuasive advertising and monitoring of competitive reactions.

Competitive Reactions: Prego Example

	Prego		Ragu
Total GRPs	15,034	⟵	20,400
Average displays	22	⟵	43
Average retailer ads	29	⟵	37
Average selling price	\$1.80	⟵	\$1.64
Total TV power (PPDs)*	679	⟶	448
Sales gains (units)	+22%	⟶	-19%

* Persuasive Points Delivered (calculated from APM Facts and media spending)
Source: Adams (1997)
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Exhibit 20 | *Prego versus Ragu: five-year overview*

Duracell Versus Eveready

Following up with the Duracell eleven-year case study, we see that—corresponding to brand preference trends—Duracell's market share trended upward while Eveready's declined (see Exhibits 14 and 15).

While both brands began the alkaline race at the same unit sales starting level, Duracell built the brand by continually building consumer brand preference, sales, and market share while charging a premium price. The end prize was a nearly 3-to-1 market value of the Duracell Company over Eveready (**Exhibit 21**).

Competitive Reactions: Duracell Example

	Duracell		Eveready
Sales (units)	715M	⟶	568M
Brand Preference	57%	⟶	37%
Market share	44%	⟶	35%
Price per unit	\$1.02	⟶	\$.86
Profit	\$609M	⟶	\$275M
Market value*	\$8B+	⟶	\$3B

* The companies were sold for approximately these prices at about a year after the end of the study.
Source: Stewart (2005)
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Exhibit 21 | *Duracell versus Eveready: eleven-year case study*

SUMMARY AND CONCLUSIONS

Long-term advertising impact develops as a result of six main factors. The first three—immediate effects, carry-over effects, and purchase reinforcement—are primarily a result of consumer's response to advertising and the product.

The remaining three—feedback effect, decision rules, and competitive reactions—depend on corporate behavior, specifically organizational learning and the development of better advertising and marketing practices.

Consumer Response

Numerous industry studies have demonstrated that productive advertising produces an immediate impact on sales. It has also been demonstrated that without this short-term impact, there is no long-term impact.

The size and duration of the impact are determined primarily by the persuasiveness of the ad (the message), together with effective delivery (the media), and purchase reinforcement (the product).

Advertising's short-term impact is double to triple over the longer term. Studies conducted by IRI in 1995 and 2007 demonstrated that on average, the advertising-to-sales impact over 3 years is double the impact of year 1, and the advertising-to-profit impact is triple the impact of year 1.

Given competitive markets, however, advertisers can not rely on these "residual effects" to sustain advertising impact. Because reversion to the mean in net positive results is the rule, sustained activity is necessary. In competitive markets, without sustained activity, losses are the rule.

Corporate Behavior

Change in an organization's processes and behaviors can result in over five times stronger and longer-lasting impact (Pauwels, 2004). To produce these results, the organization must use advertising consumer response metrics that are predictive of transactional and financial returns; spend on activities that create the short-term effects necessary for long-term build-up; repeat the (successful) behavior; and turn this feedback loop into better business practices (i.e., process management) for both the brand and for the company as a whole.

IMPLICATIONS FOR PRACTITIONER ACTION

This paper suggests several actions that an organization can take to increase the long-term impact of its advertising and other marketing activities:

- Select pre-market methods that are proven to be predictive of consumer behavior and market impact tied to financial results (ARS Persuasion/APM facts and BASES are used as examples in this paper)
- Spend on the activities that will create the desirable short-term lifts (and necessary for the long-term build-up)
- Continually monitor consumer response and market impact
- Learn from the feedback, document the behavior, repeat the behavior, and turn into better business practice for the brand and for the enterprise
- Stick with the better practices, even through personnel changes

REFERENCES

M. Abraham and L. Lodish. "Getting the Most Out of Advertising and Promotion," *Harvard Business Review* 68, 3, 1990.

A. Adams. "Chapter Two: Advertising Research," in David Bushko (ed.), *Dartnell's Advertising Manager's Handbook, Fourth Edition.* Chicago, IL: The Dartnell Corporation, 1997.

A. Adams and M. Blair. "Persuasive Advertising and Sales Accountability: Past Experience and Forward Validation," *Journal of Advertising Research,* 1992.

K. Ailawadi, D. Lehmann, and S. Neslin. "Market Response to a Major Policy Change in the Marketing Mix: Learning from P&G's Value Pricing Strategy," *Journal of Marketing*, January 2001.

B. Bean. "Oscar Mayer Lunchables: The In-Market Effects of Advertising." In *Transcript Proceedings of the T.Q. Advertising Success Forum.* 1995.

M. Blair. *Better Practices in Advertising: Enterprise-Level Case Study.* 2004.

M. Blair. "An Empirical Investigation of Advertising Wearin and Wearout," *Journal of Advertising Research,* 27, 6, 1987.

M. Blair and A. Kuse. "Better Practices in Advertising Can Change a *Cost of Doing Business* to *Wise Investments in the Business*," *Journal of Advertising Research,* March 2004.

M. Blair and M. Rabuck. "Advertising Wearin and Wearout: Ten Years Later. More Empirical Evidence and Successful Practice," *Journal of Advertising Research*, September/October 1998.

M. Blair and H. Schroiff. "Advertising: Today's Sale or Brand-Building for Tomorrow?," *Quirk's Marketing Research Review,* May 2000.

M. Dekimpe and D. Hanssens. "Models for the Financial Performance Effects of Marketing," in *Handbook of Marketing Decision Models*, B. Wierenga (ed.), Springer Science, 2008.

M. Dekimpe and D. Hanssens. "The Persistence of Marketing Effects on Sales," *Marketing Science,* Winter 1995.

M. Dekimpe and D. Hanssens. "Sustained Spending and Persistent Response: A New Look at Long-Term Marketing Profitability," *Journal of Marketing Research,* November 1999.

T. Doganoglu and D. Klapper. "Goodwill and Dynamic Advertising Strategies," *Quantitative Marketing & Economics*, 4, 2006.

ESOMAR & ARF. Global Research Leaders' Summits, Geneva, Switzerland (2003).

M. Fischer, H. Shin, and D. Hanssens. *Marketing Spending and the Volatility of Revenues and Cash Flows,* UCLA Working Paper, October 2009.

S. Gupta. "Impact of Sales Promotions on When, What and How Much to Buy," *Journal of Marketing Research*, November 1988.

D. Hanssens, L. Parsons, and R. Schultz. *Market Response Models: Econometric and Time Series Analysis*, 2nd Edition, Kluwer, 2001.

D. Hanssens and M. Ouyang. "Hysteresis in Market Response: When is Marketing Spending an Investment?" *Review of Marketing Science*, 419, 2002.

D. Hanssens, ed. *Empirical Generalizations of Marketing Impact*. MSI Relevant Knowledge Series, 2009.

Y. Hu, L. Lodish and A. Krieger. "An Analysis of Real World TV Advertising Tests: A 15-Year Update," *Journal of Advertising Research*, September 2007.

J. Jones. "Does Advertising Produce Sales Today or Sales Tomorrow?," *Journal of Marketing Communications* 1, 1, 1995a.

J. Jones. *When Ads Work. New Proof That Advertising Triggers Sales.* Simon & Schuster—Lexington Books, 1995b.

A. Joshi and D. Hanssens. "The Direct and Indirect Effects of Advertising Spending on Firm Value," *Journal of Marketing,* January 2010.

References (cont.)

A. Kuse. "Measurement Tools for Ads that Sell." ARF Eighth Annual Copy Research Workshop, 1991.

D. Lehmann and D. Hanssens. "Marketing Metrics," in *Wiley International Encyclopedia of Marketing*, R. Peterson and R. Kerin, eds., forthcoming, 2011.

L. Lodish. "Key Findings from the 'How Advertising Works' Study." In *Transcript Proceedings of the ARF Marketplace Advertising Research Workshop.* New York: Advertising Research Foundation, 1991.

L. Lodish, M. Abraham, S. Kalmenson, J. Livelsberger, B. Lubetkin, B. Richardson, and M. Stevens. "How T.V. Advertising Works: A Meta-Analysis of 389 Real World Split Cable T.V. Advertising Experiments," *Journal of Marketing Research*, May 1995.

MASB. *Marketing Accountability Standards: Measuring and Improving the Return from TV Advertising (An Example),* April 2008.

K. Pauwels. "How Dynamic Consumer Response, Competitor Response, Company Support, and Company Inertia Shape Long-Term Marketing Effectiveness," *Marketing Science*, Fall 2004.

K. Pauwels and D. Hanssens. "Performance Regimes and Marketing Policy Shifts," *Marketing Science*, May–June 2007.

K. Pauwels, D. Hanssens, and S. Siddarth. "The Long-Term Effects of Price Promotions on Category Incidence, Brand Choice and Purchase Quantity," *Journal of Marketing Research*, November 2002.

K. Rosenberg and M. Blair. "Observations: The Long and Short of Persuasive Advertising," *Journal of Advertising Research,* July/August 1994.

B. Shepard. *Developing and Managing Advertising With a More Positive Return on Investment: A Success Case for Starkist Tuna in a Pouch* (a publication of the ARSgroup), 2002.

D. Shirley. "The Citrucel Case Study." In *Transcript Proceedings of the T.Q. Advertising Success Forum.* 1995.

J. Steenkamp, V. Nijs, D. Hanssens, and M. Dekimpe. "Competitive Reactions and the Cross-Sales Effects of Advertising and Promotion," *Marketing Science,* Winter 2005.

D. Stewart. "Measurement-based Accountability and Standards to Optimize TV Media and Overall Branding Investments," IIR conference, January 2005.

D. Stewart and S. Koslow. "Executional Factors and Advertising Effectiveness: A Replication." *Journal of Advertising,* 1989.

G. Tellis and T. Ambler. *The Sage Handbook of Advertising*. Sage Publications, 2007.

Y. Wind and B. Sharp. "What We Know About Advertising," *Journal of Advertising Research*, Special Issue 2009.