



# Mind-Set Metrics: Consumer Attitudes and the Bottom Line

*Shuba Srinivasan*

KEYWORDS

*Consumer Attitude Metrics,  
Sales Conversion,  
Hierarchical Linear Model,  
Cross-effects Model,  
Dynamic Programming Model*

THE AUTHOR

*Shuba Srinivasan,*  
Professor of Marketing and Dean's  
Research Fellow,  
School of Management,  
Boston University, USA.  
[ssrini@bu.edu](mailto:ssrini@bu.edu)

**Mind share, heart share and sales** /// Consumers' perceptions, attitudes and intentions are often used by advertising and branding experts and by consumer behavior researchers to evaluate their marketing campaigns. Typically they do not examine the ultimate effect on sales or the impact of competitive actions. Quantitative modelers, alternately, tend to bypass the "black box" of a customer's mind or heart and concentrate on effects of marketing mix decisions on sales or profits. New evidence shows that it is actually very helpful to integrate both types of information. Including mind-set metrics like cognitions, affects and intentions helps to explain the effect of marketing. And including them in marketing response models can guide and improve marketing decisions.

In a large dataset including 62 brands across four consumer goods product categories and an observation period of seven years, we tested the value of including customer mind-set metrics in sales response using Vector Autoregressive Modeling. We found that along the path to purchase, the customer attitudinal metrics of *advertising awareness, inclusion in the consideration set and brand liking* translate into sales performance through the "indirect" or "mindset" route to purchase. Whereas some marketing effects occur without changes in mind-set (e.g. when a customer reacts to a message without changing his attitude because it was already very favorable before), others follow a change in liking or awareness (see Figure 1). In this case the effect is indirect, and observing these changes generates valuable insights.

»  
 Mind-set metrics have longer  
 wear-in times than most of the  
 marketing mix activities  
 and can therefore serve as  
 leading indicators.  
 «

---

**Changes in mind-set affect sales** /// In our VARX model that accounted for long-term effects of own and competitive marketing mix actions, the mind-set metrics had a strong effect. Liking had the highest impact on sales, indicated by a cumulative sales elasticity of 0.590, followed by consideration (0.374), and awareness (0.289). The influence of mind-set metrics was substantial as one-third of the total explained sales variance could be attributed to them. Moreover, competitive and own mind-set variables made a similar contribution to sales performance: awareness, consideration and liking of the own brand together accounted for 8.4 % of the variation while mind-set metrics of competitive brands accounted for an additional 7.9 % of the variation in past sales.

**Mind-set metrics are leading indicators** /// Knowing that mind-set explains sales is fine, but can it help to plan marketing action more precisely? As managers need time to implement changes, the respective lag before different measures reach their peak impact on sales is relevant. The analysis of these lags reveals that mind-set metrics have longer wear-in times than most of the marketing mix activities and can therefore serve as leading indicators. They allow time for managerial action before market performance itself is affected. If the customer mind-set metrics reveal a negative trend in consumer reactions, marketing can fine-tune their messaging or pull the plug on an advertising campaign before a significant decline in sales occurs. For example, if there is a drop in consideration (with a 2.2-month wear-in time), managers can take remedial action with a change to price or promotions that have a shorter wear-in time (of 1.6 months or less) to prevent any adverse brand performance impact. Such empirical knowledge may be critical to the development of effective marketing control systems that are capable of improving long-term brand performance.

**The varying impact of mind-set metrics** /// The described effects are not identical for all types of products or in all marketing settings. An improved econometric response model enables managers to quantify the conditions under which the influence of specific mind-set metrics is strong or weak and the extent of marketing's role in it. We used the following four criteria to help determine and understand the connection between marketing actions, attitudinal metrics and sales outcomes, using the same set of data.

First, we investigated *potential* as a recognized driver of marketing success. It is based on the principle of diminishing returns: The longer the remaining distance to the maximum, the higher the impact of an action will be. For instance, if awareness affects new product trial, then, all else equal, marketing spending aimed at awareness building will have more impact potential if the initial awareness level is 20 % as opposed to 70 %.

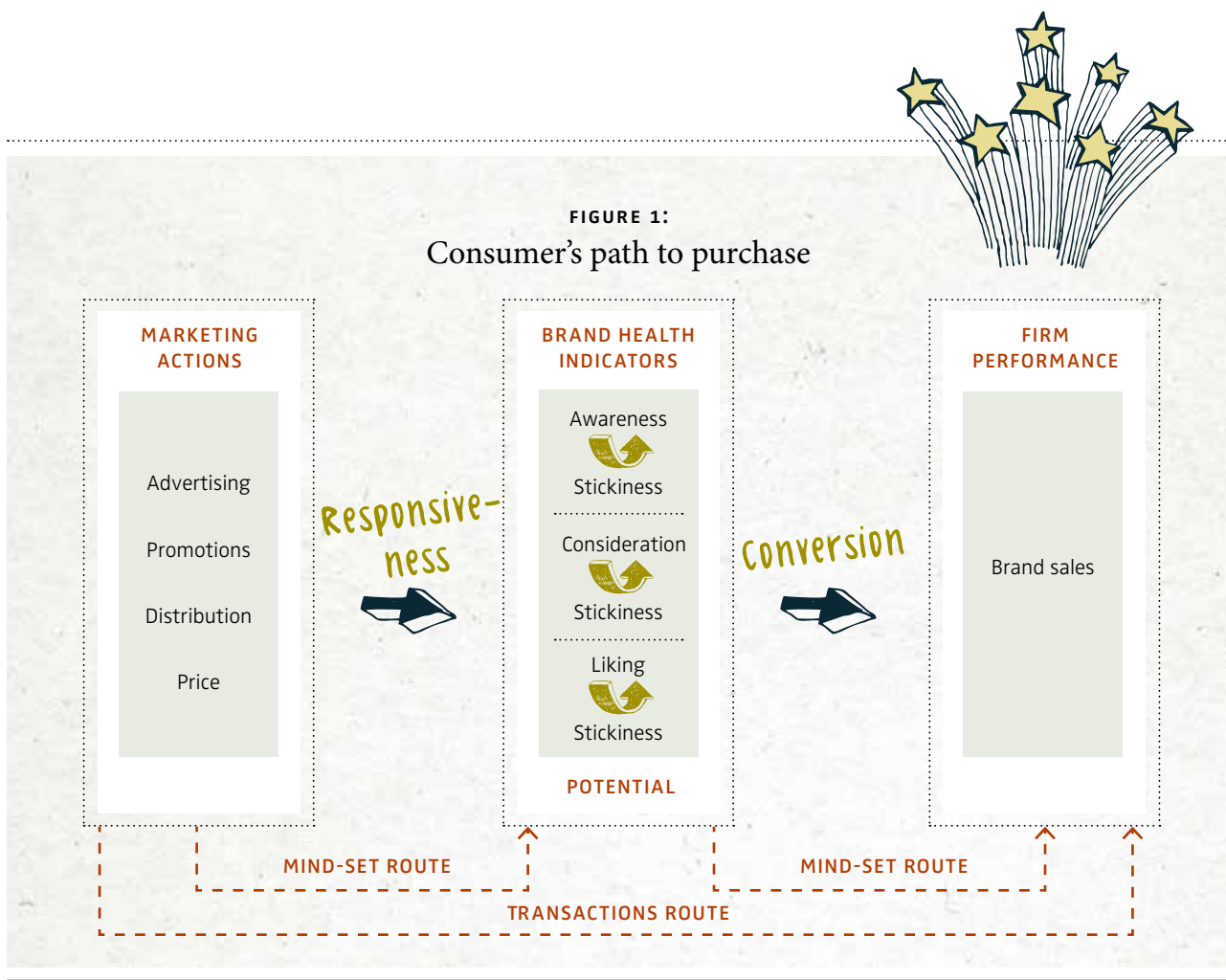
Second, we used *stickiness* as another relevant characteristic of attitudinal measures. It refers to the longer-term stability of the metrics. For example, if consumer memory for the brands in a category is long lasting, it will take little or no reminder advertising for a brand to sustain a recently gained increase in brand awareness. Similarly, if consumers in a category exhibit strong habits and routinely choose among the same subset of four brands, then the consideration metric for any of these four brands may be sticky. Overall, if a marketing effort increases a brand's score on a sticky attitudinal metric, then all else equal, that effort is more likely to have higher returns.

*Responsiveness* is the third relevant characteristic we used and it refers to the short-term response of a marketing stimulus. For example, advertising is known to be better at inducing trial purchases than repeat purchases, so an awareness metric may be more responsive to it than a preference metric.

Our last criterion is sales *conversion*. It indicates to what extent changes in an attitudinal metric actually convert into sales performance. For example, a 10 % increase in advertising awareness may increase sales by only 3 %, whereas a 10 % increase in brand liking may increase sales by 6 %. Including sales is important to prove the ultimate performance of marketing initiatives to financial executives and to have evidence of marketing's impact on cash flows.

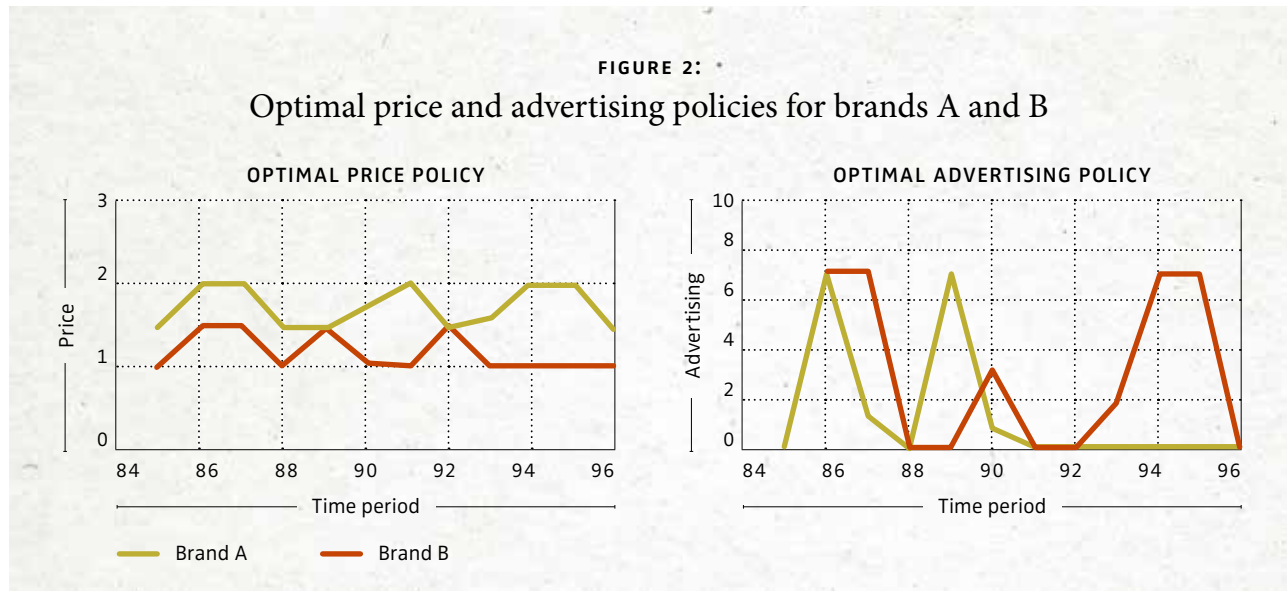
Figure 1 shows how these four criteria work within the framework of the mind-set route in a consumer's path to purchase, and these are the results:





### General insights on attitudes and their sales conversion

- > The cross-effects model showed that sales conversion is rather stable across time. In all categories, variation in brands had a much stronger impact than time. This result highlights the benefit of strong consumer attitudes favoring a brand and resulting in sales conversion.
- > Brand-specific attitude responsiveness to marketing action was also found to be much more dependent on brand than time. It was rather stable over time but varied substantially for different brands within the same category.
- > Affect had a sales conversion rate more than three times higher than cognition. However, liking was less sticky than the cognitive attitude metric of awareness. Further, different marketing actions like advertising, promotion or pricing initiatives had a different impact on the individual metrics depending on product category. Different effects were particularly noteworthy between high- and low-involvement categories. In high-involvement categories, such as shampoo, attitudinal changes in consideration made the consumer's brand experience diagnostic and accessible, resulting in higher sales conversion. Purchases of low-involvement products, however, were not preceded by significant attitude change, particularly as it pertained to the cognitive attitudinal metrics of awareness and consideration.
- > The remaining potential was higher for cognitive than for affective metrics. Brands had a higher opportunity to make progress in consideration or awareness than in liking. When consumer satisfaction ("liking") already ran high across brands, indicating high product quality, the marketing challenges for individual brands had more to do with their progress in the cognitive metrics.



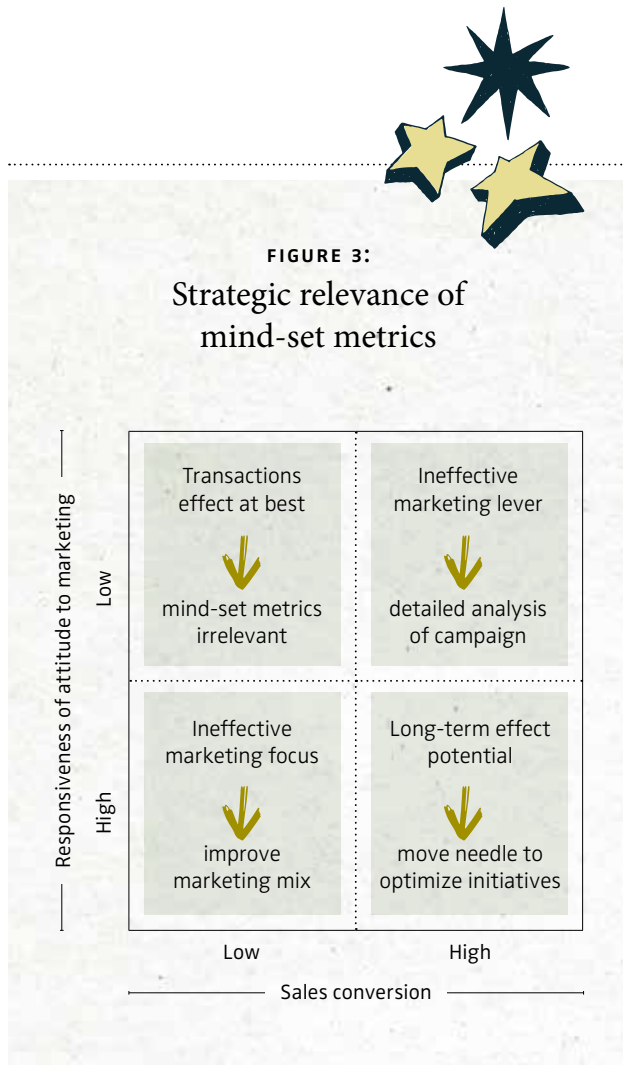
**Budget allocations based on mind-set metrics** /// The brand specificity of results showed that individual brands face unique circumstances that should govern their marketing decisions. Using our framework, we diagnosed the brands at the beginning of a 12-month holdout period and offer recommendations for changes in the marketing mix. Our results showed that brands that followed a different course from the model-based recommendations on marketing mix decisions performed worse in terms of actual sales outcomes compared to brands that followed a course consistent with model-based recommendations. The metrics actually helped predict the impact of different marketing mix decisions on sales.

We also conducted a more formal analysis of optimal marketing mix spending using dynamic programming. To illustrate how to make marketing mix decisions by taking into account a mind-set metric, we picked two different shampoo brands A and B with similar sales levels but varying levels of awareness and assumed the same 10 % growth targets for both brands in terms of sales and awareness over the last 12 months. The outcomes describe the optimal marketing mix path over this period to achieve the targeted sales and awareness levels. The cost of increasing revenue performance is through increased advertising or lowering price and differs for each brand despite the similar sales starting position and target (see Figure 2).

We further used our model to simulate the expected impact on sales of optimal price and spending levels of the individual marketing actions over time. In the example of the two shampoo brands the expected sales rose substantially by 40 % over the same period when optimal pricing and advertising levels were implemented.

**Managerial implications and conclusions** /// The joint modeling of mind-set metrics, marketing mix actions and financial outcomes have proven to be relevant and helpful to CMOs and CFOs alike. Such information enables marketing managers to understand the effect of marketing actions while offering financial accountability of marketing to CFOs. Managers can develop actionable guidelines for improved marketing decision-making for different brands and their varying impact on mind-set metrics of potential, responsiveness, stickiness and conversion into actual sales. Figure 3 provides an overview of four corner cases for formulating marketing mix strategies.

First, if a brand has low sales conversion from consumer attitudinal metrics and low responsiveness to marketing, we label that scenario a *transactions effect at best*. In our analysis, only a few brands fell into that category and followed a mere transactional path to purchase. For most brands, marketing mix strategies resulted in sales conversion through the “mind-set effect,” and at least one attitudinal metric/marketing mix combination was relevant for sales.



In our second case, a brand has low conversion to sales from consumer attitudinal metrics but high responsiveness to marketing. We label that scenario an *ineffective marketing focus*. For example, brands that invest substantially in consideration set – enhancing advertising may fail to see a substantial sales lift. In this case, advertising represents an ineffective marketing focus that may please managers focused on awareness and consideration metrics but not managers focused on increasing the top line.

Third, if the attitudinal metric has high sales conversion but does not respond well to increased marketing spending, that would result in an *ineffective marketing lever* scenario. For instance, for one of our shampoos consideration and liking had high sales conversion, but the figures themselves did not respond well to advertising spending. Managers can use such insights to motivate a detailed analysis of the reasons, which may include the wrong message, the wrong execution, the wrong communication channel or the wrong timing.

Finally, if the attitude metric has high sales conversion and there is high responsiveness to marketing, we label that as a situation with *long-term potential*. For example, one cereal brand had high sales conversion from awareness and consideration, which both had a high responsiveness to all marketing actions. This offers an opportunity to allocate marketing resources to move the needle on the consumer attitudinal metric of awareness and consideration and eventually leads to a long-term sales lift.

Relevant attitudinal metrics can be collected from both classic attitude surveys and online proxies of consumer attitude and can be applied to assess online marketing initiatives as well. They can explain sales across brands and categories and within both B2B and B2C contexts and help bridge the gap between marketing and finance.

1.

## FURTHER READING

*Srinivasan, S.; Vanhuele, M.; Pauwels, K (2010)*  
“Mind-Set Metrics in Market Response Models:  
An Integrative Approach,” *Journal of Marketing Research*  
(JMR), Vol. 47 (4), pp. 672 – 84.

*Hanssens, D.; Pauwels, K.; Srinivasan, S.;  
Vanhuele, M.; Yildirim G. (2015):*  
“Consumer Mindset Metrics for Guiding Marketing  
Mix Decisions,” *Marketing Science*, forthcoming

*Lautman, Martin R.; Pauwels, Koen (2013):*  
“Identifying Metrics That Matter:  
What Are the Real Key Performance Indicators (KPIs)  
That Drive Consumer Behavior?”  
*GfK Marketing Intelligence Review*,  
Vol. 5 (November), pp. 46 – 53.