Developing Enterprise Response Functions

There are two options: qualitative and quantitative. The first is not actionable; it proves the concept. The second is actionable; changes to the current plan can be made, going forward

QUALITATIVE: For a proof of concept model, the simplest approach would be to get the firm's regional plans. The assumption is that each geographic region has to submit an annual plan that includes a sales forecast along with a sales & marketing budget. Most of these plans also include best case (e.g., +10%) and worst case (e.g., -10%) scenarios. These three scenarios are easily converted into aggregate enterprise response functions by fitting curves through these points. This provides the data required for a proof of concept model and is based on the firm's current assumptions.

A second possibility is conduct an internal trade-off session where brand team members must choose between different tactics under artificially low budgets.

Objective is to focus on how an optimized demand-driven plan leads to better insights than the current process.

QUANTITIVE: To be actionable, the enterprise response functions need to model the sales response functions for each tactic for different account segments (e.g., national big box retailers, regional chains, etc.). The best approach is to collect activity data and sales results and use statistical analysis to quantify the impact of each activity. Essentially, we are looking for proportional increases (decreases) in sales whenever a specific promotion is increased (decreased).

This requires collecting weekly/ monthly sales data, as well as weekly/ monthly promotional activity data at the most granular level possible. Both IRI and AC Nielsen sell data at on in-store sales for several consumer categories. Ideally, we would have sales data source at the customer level. In some cases, this data would need to be supplemented with direct data feeds from some large retailers.

Some of the large retailers no longer provide their data to these two companies, but they usually provide it directly to manufacturers. So it is possible to build a database of sales and activities at the store level. This allows creating enterprise response functions by type of store and then aggregate the results to almost any level required. It is **VERY** important to understand the focus here is on consumer demand - as opposed to wholesaler/ retailer inventory replenishment; these response functions pass through any B2B activities to the stores affected by the wholesaler/ retailer inventory replenishment the B2B firm normally sees.

If this customer level detail is not available, we to understand the data that is available and

develop a measurement plan; a plan that would revert in the case of B2B firms, to the inventory replenishment data it traditionally fulfills. The approach would probably involve carving the US (or other regions) into self-contained geographies where we can attribute any changes in sales in that region to the sales and marketing activities in that region. The rate limiting factor will be the level at which they track data to wholesalers.

In either case, it is required to reconcile the level of measurement with the level of optimization (where level could be region, retailer, store, etc.). If it is possible to measure at a more granular level than the optimization requires, then the results are simply aggregated. However, if the measurement is at a level that is less granular than the optimization, then allocation rules are required to assign the response to entities within the ones that were measured.

On the activity side, the granularity is often a function of the marketing channel/audience. For example, emails would be linked to individual customers and/or ZIPs, digital advertising (display and on-line search) to consumers would be collected at the ZIP level, and TV / Radio would be collected by Designated Marketing Area (DMA). B2B activities would be collected at the HQ (parent) or store (child) levels as available. We would account for the different levels at which promotions are run and simultaneously account for their impacts in the statistical models. In those cases where a sequence of promotions happens before the sales is made, we can use our understanding of these sequences along with pathways analytics to model these sequences.

Note that this data is only required for a representative sample of customers and/or geographies. A company does not need to invest in acquiring and integrating this data for every customer.

When sales and activity data are not available, then we still have the option of developing a robust set of impact statements through in-market A/B tests (i.e., pilots).