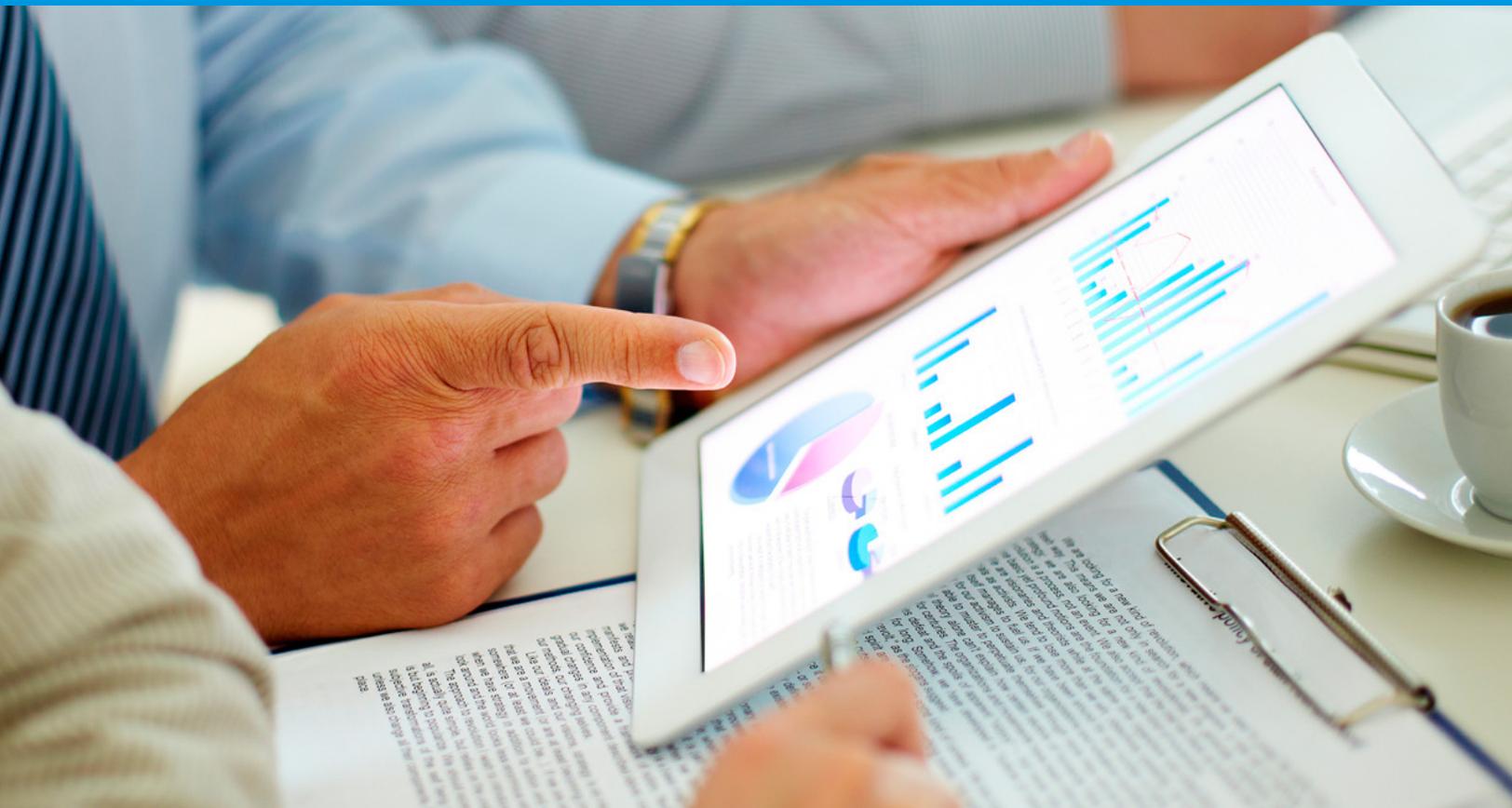




Achieving Success with Trade Promotion Optimization

Engaging the Missing Partner: Your Sales Organization

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Summary

Trade Promotion Optimization (TPO) has presented the consumer products industry with significant challenges. Existing attempts at TPO try to solve the problem with a one size fits all approach by using a singular, finite mathematical solution to provide insight into a multitude of factors affecting trade promotion. However, what is needed is a flexible approach that models the data based on business needs.

In order to make TPO usable and successful, the sales organization needs to be an active participant in defining and implementing the overall process and it must be accurate, timely and simple. Today, it is possible for sales, marketing, finance and others to obtain different views on the same data. It is helpful to think about trade promotion in three stages: post event analysis: looking at promotions; trade promotion optimization: aligning the promotion mix; and finally, market mix optimization: looking at price, placement and product, in addition to promotion. All provide value, but the last stage provides the true competitive edge that enables fulfillment of the sales vision.

The Trade Promotion Optimization Conundrum

Trade Promotion Optimization (TPO) has proven to be a significant challenge for the consumer products industry. This challenge arises from having limited access to clean and actionable data and the amount of time and resources required for this process. In the current state of the industry, we're seeing that most trade promotions aren't profitable for companies, on average less than 50%. Getting this right would have a big impact to the bottom line, considering many consumer goods companies invest 15-25% of top line revenue in trade promotions.

Effective TPO requires access to actionable data regarding past promotions, shipments in both promoted and non-promoted weeks and point-of-sale consumption data at the lowest level of geography and product. Harvesting and harmonizing this data is the first challenge that needs to be addressed and is a fundamental exercise that needs to occur. Add to this the movement to online and mobile sales channels and the complexity of this challenge increases due to the data captured.



Companies that have managed to wrangle the aforementioned data and have it in an actionable state then can embark upon the challenge of modeling. Consumer Goods companies have utilized various methodologies and models to arrive at elasticity and cross elasticity coefficients at the lowest level of product and geography, as well as the corresponding cannibalistic and halo effects. Unfortunately, the success rates in the industry have not proved noteworthy or successful where it matters most: with the sales organization.

One Size Does Not Fit All

The most common approach to solving for TPO is via software solutions or one-off analytical projects to answer a question related to price or promotion effects. With either route, most have chosen to introduce a singular and finite mathematical solution to encompass all of the following:

Exhibit A: Data Sources

Internal KNOWN	Internal UNKNOWN	External KNOWN	External UNKNOWN
New Items	Forward Buying	Seasonality	Everyday Price Changes
Display Location	Promotion Halo Effects	Holidays	Social Media
Print Media/Coupons	Pantry Loading	Health Trends	Store Open/Closings
TV/Radio Advertising		ePOS (eg. RetailLink)	Weather
Shipped Volume		Syndicated (IRI/Nielsen)	

This singular approach appears to be a logical course of action if the plan is to introduce a static format for input, and deliver output that is consistent from week-to-week and month-to-month. Adopting this course of action is efficient and initially effective given that all the data is housed and processed in one location/instance. This approach however, won't support a business as the amount of data grows and additional unknown sources of data become available in the future.



The data and the business needs are fluid and require a flexible approach. In the last few years alone, the explosion of social media has offered the consumer goods (CG) industry a tremendous opportunity to gain consumer insight. However, this same opportunity has also proven to be a corresponding data capture and analytics nightmare. With continual changes in the industry, a singular, one size fits all approach just does not work.

Find Your Custom-Fit

Methodologies exist today that do not attempt to find the data to fit the model, but instead, model the data and devise an appropriate solution based on business needs. This approach is flexible and scalable, and capable of using all of the following techniques and methods simultaneously, on both existing and new data sources (see Exhibit A):

- Decision Tree Learning
- Association Rule Learning
- Supervised and Unsupervised Learning
- Machine Learning
- Neural Networks
- Bayesian Networks
- Regression Analysis

Fluid data requires flexible analytics. Cognitive Systems (eg. IBM's Watson and Saama's Fluid Analytics Engine™) exist today, as well as solutions that are ready to be integrated with CG to address the unique challenges of TPO. TPO is solvable; the issue moving forward is partnering with a company that understands not only the data and science, but also the necessary business outcomes.



Simplify the Complicated: Make TPO Usable

TPO conjures up quite a few images and ideas when discussed within CG companies; not the least of which is the output desired and the level at which it is delivered. After benefits are discussed, along with the corresponding value to top (+3-5%) and bottom (+2-4%) lines, the dialogue likely lands on statistical methods and models such as: neural networks, regression analysis and Bayesian inference—topics often better suited to mathematicians and scientists versus marketers and sales people.

Once a CG company begins to engage in discussing TPO with likely partners, spirited conversations then reach the point where the end user is discussed. This powerful application is harnessing an immense amount of analytical capabilities and arriving at output that will lead to more effective, efficient and profitable promotions. This is perfect for use by the Sales Organization collaborating with retailers to build promotional plans.

The Problem with TPO: Everybody Gets Involved “Except” Sales

The challenge leading up to this point has been that CG companies continue to perceive TPO in the following ways:

- IT *must* be involved: Incredible difficulty related to data ingestion and harmonization
- Marketing *must* be involved: Intricate cannibalistic effects, category trends and competitive activity
- Finance *must* be involved: numerous implications related to volume, sales and spending
- Sales will use whatever is eventually purchased or implemented

So, the greatest benefit to be had is an optimized trade promotion plan, but the Sales organization has little to no voice in the vetting process. It is no surprise that in many cases, it is the Sales organization that pushes back against its usage. In this scenario, TPO is often cumbersome, complicated, inflexible, and time consuming. In addition, the resulting output from the plan is commonly misaligned with retailer strategy and tactics. If the sales organization cannot use the output regardless of what department or discipline owns the initiative, what’s the point of embarking on TPO to begin with?



Sales must be a Key Stakeholder in TPO

Confidence and trust in TPO outputs is required for success. It is impractical and implausible to think that the Sales organization will carry forward “optimized” plans that cannot ultimately be sold into a retailer. Because this assertion has been validated as fundamentally true with most CPG companies, it would be pure folly to believe that the sales organization should not be intimately involved in defining and implementing TPO usage and processes.

Guidelines are provided to the sales organization with regard to promotion frequency, duration, depth of discount and length of time associated with brands and likely promoted product groups. However, planning for necessary retailer promotions also needs to be considered. The negotiation to arrive at an optimal plan for a retailer is a game of give and take. It is typically never a single promotion that is scrutinized by the retail partner, but, the entire plan. With that in mind, in order for optimization to become part of the fabric of any CG company, it needs to be holistic in nature to consider, much more than just optimization of one promotion.

TPO Obstacles and Checklist

In addition to the issues cited above, there are other obstacles that the sales organization faces. Results that are reached within hours (or overnight), rather than minutes, is one major challenge. Trade-offs will always need to be taken into account; however, successful TPO will never come to fruition without removing some of the obstacles that currently exist today.

Without a view into the performance of individual promotions and category/retailer plans (Post Event Analysis), a sales organization is restricted by not understanding 1) if a promotion or event performed as forecasted or predicted and, 2) having little to no visibility into the promotion financial metrics that will ultimately be used to construct the constraints for TPO. If either of these challenges are not addressed, TPO becomes a black-box instead of a valuable application to drive better, quicker and more informed decisions.



The sales organization within CG has started its checklist. They require that TPO be:

- **Accurate:** forecasted/predicted results associated with revenue, volume, profit and spending make sense for the geography/retailer, category and time period
- **Timely:** the application returns results in minutes and has the ability to run multiple scenarios
- **Simple:** uses previous promotions as templates and/or has copy and paste capability along with drop-downs, check boxes and slide controls

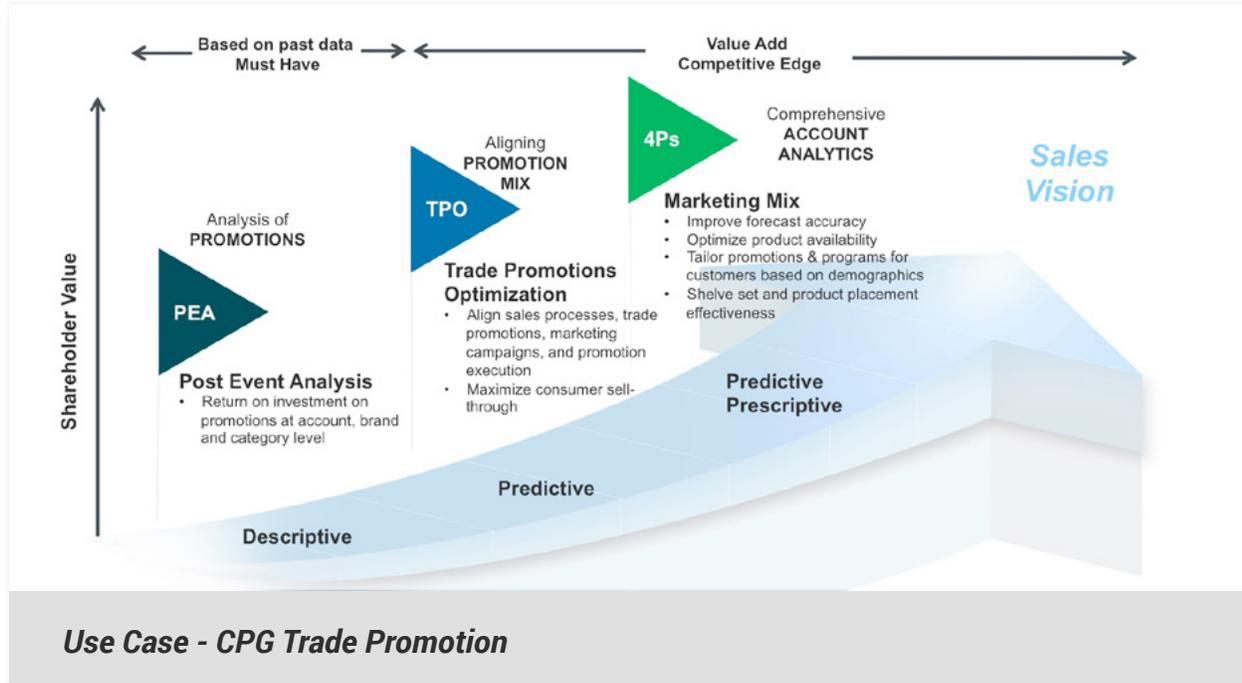
The Call to Action – Getting Started with TPO

The CG industry is in the midst of a paradigm shift that is enabling sales, finance, and marketing to all make sense of trade spending information, showing each group different slices of data based on their point of view. The ability to use predictive and prescriptive data in business decisions rests on calculations that are accurate and believable.

Post Event Analysis: Start with What Happened

The starting point, Post Event Analysis, assumes a well-functioning trade promotion view of history. This history, of one to three years in length, should depict the ROI of every event and the corresponding trade spending. It should also examine the results from the point of view of the brand manager, finance department, and optimally, the impact on the account/retail channel for analysis by the sales organization.

Accurate predictive and prescriptive data allows CG companies to set the stage for an informed conversation and dialogue with their retail partners. Ideally, the negotiation focuses on the overall objectives and not individual promotions. Ultimately, the goal is to arrive at a plan that delivers maximum sales and profitability that benefits both parties and meets the collective quotas and goals.



Trade Promotion Optimization: Aligning Promotion Mix

The next phase of planning/integration is where the value is compounded. Trade Promotion Optimization is something many software companies and consultancies espouse, but none have been able to deliver with any degree of efficacy, transparency and/or accountability. In order to be game-changing, TPO has to be able to predict anticipated ROI for a promotion or event. That prediction should be within a standard deviation of five percent in either direction. This is extremely difficult because most CG companies run tens of thousands of events in a given year. They need to determine which events delivered real value. Millions of iterations exist, related to location, product, retailer, ad, feature, display, geography, weather, and demographic data that serve as possible volume and profit drivers.

This is where data meets machine learning. New, analytical modern data platforms possess decision engines that can view a billion paths a second, determine expediency and provide suggestions about a required course of action. This is a powerful application for a sales person to possess when they negotiate with a retailer for upcoming events. All of this is supported by the associated financial metrics.



Market Mix Optimization: Product, Placement and Pricing

The final phase assumes optimization can stretch beyond the use of known and consumed data related to promotions. Given the ingestion of syndicated data such as IRI and Nielsen at the account, week and SKU level, the ability to arrive at an optimized price can be accomplished today. However, the opportunity to use the same data and additionally provide output related to the product assortment for a given retailer, is also within the realm of possibility. Based on the constraints and objectives, the math and science to solve for this challenge already exists today. For the final element, placement can be optimized when plan-o-gram data can be incorporated into the application.

Combining these predictions with specific trade promotions will result in sales gains that permanently affect one's market share. These types of systems are available in the market today and ready to be used. Businesses can't afford not to use them.



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Glenn has spent his entire career in the Consumer Goods Industry. His work in grocery merchandising at one of the largest Northeast retailers, Pathmark, led to roles in category management, trade analytics and sales administration and sales agency management at the Minute Maid Company. His focused and lengthy experience allows for a healthy understanding of industry challenges being faced today.



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A Technical Solution Paper from Saama