



Promotion Optimization Institute, LLC

Four Critical Capabilities for Improving Promotional Outcomes

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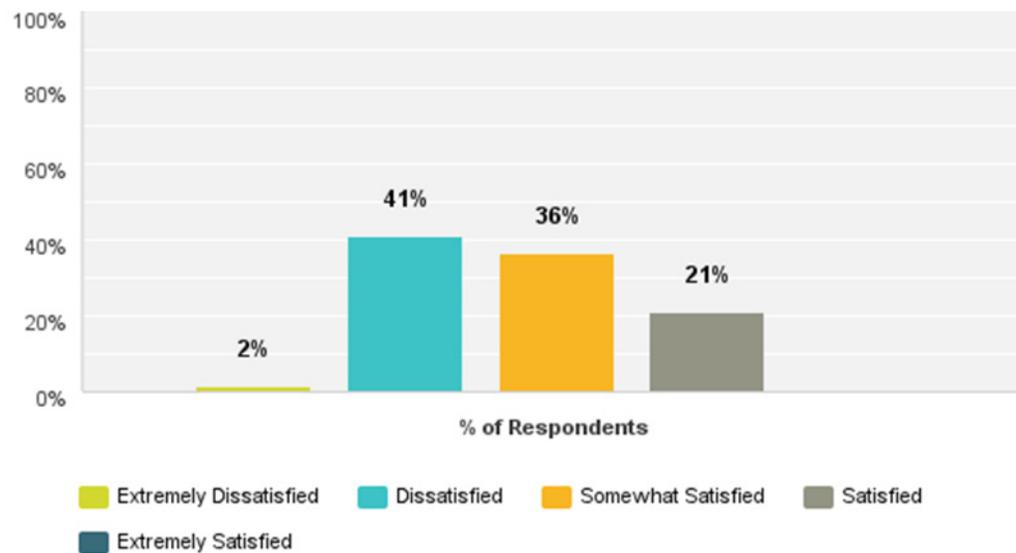
The Challenge at Hand

Only 21% of manufacturers are satisfied with their ability to manage trade promotions.

Managing trade promotions, that is, promotions that are executed through retailers, has been a significant challenge in the consumer goods industry for decades. Businesses spend more and more time and money on trade promotions, while continuing to suspect the actual ROI on that spending. With that spending level generally believed to be near 25% of revenue in developed markets, new approaches are required. There are many ways to approach the problem, ranging from recruiting and training personnel, to enabling better collaboration with retailers. However, the initial approach should be to have a serious look at the underlying analytical capabilities that underpin the promotion cycle.

At the core of this dilemma lies the fact that both manufacturers and retailers agree that promotional effectiveness is a huge challenge. Acknowledging the shortcomings of many approaches to trade promotion analytics is a good first step. The POI 2015 TPx and Retail Execution Survey, and the POI 2015 State of TPx and Retail Execution for Global Consumer Goods Report* clearly show that manufacturers are aware of the degree to which they have challenges. Specifically, only 21% of manufacturers are satisfied with their ability to manage trade promotions.

Chart 1. Responses to the statement: “You are satisfied with your ability to manage trade promotions.”



Source: The POI 2015 TPx and Retail Execution Survey

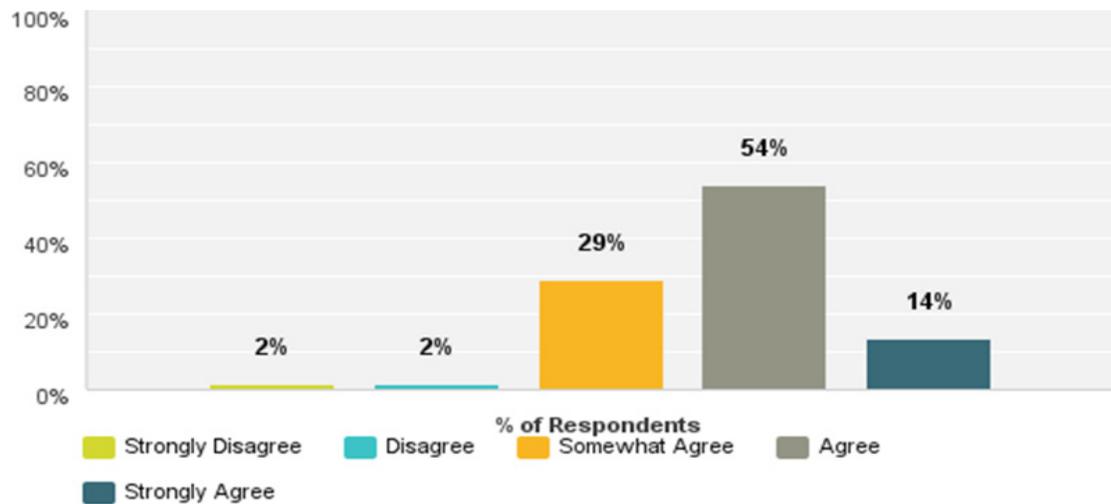
Post-survey, we at POI discussed the findings with Saama, a leading trade promotions analytics provider, and worked with them to combine insights and best practices around the four critical capabilities.

Digging deeper into the analytical underpinnings of the promotion cycle, we have found strong evidence that the inability to effectively manage promotions, and benefit from them, stems from four key factors:

1. **Complexity for a given level of resources:** The amount of resources and time required to analyze the volume of trade promotions, given current systems, is unsustainable.
2. **Fidelity:** The fidelity of financial metrics within trade promotion analytics are highly suspect, and many end users do not trust the figures reported.
3. **Data utilization:** Much of the data that might help better inform trade analytics does not end up being used for analytics due to the difficulty in collecting, normalizing, and analyzing it.
4. **Data overload:** Increasingly more data is being collected each day, but most of it is not being utilized. If anything, it tends to further cloak the problem because of the lack of resources and inability to get to the data that is most relevant.

The conclusion to be reached based on these factors is that new analytical approaches are required to jar the problem loose (the operative term being “analytical”). The 2015 POI survey specifically calls attention to several manufacturer respondents’ reticence to move away from transactional activities associated with the trade promotion cycle and add greater value through deriving and applying analytical insights. In essence, too many spend the bulk of their time on activities such as setting up promotions and clearing deductions instead of evaluating their outcomes or how to improve them.

Chart 2. Responses to the statement: (You have) “challenges moving capabilities from being transactional to more analytical.”



Source: The POI 2015 TPx and Retail Execution Survey

The results are pretty sobering. However, it is The Promotional Optimization Institute’s firm belief that these “challenges” can be effectively managed.

Four Critical Capabilities for Improving Promotional Outcomes



Before going any further, please take a brief self-assessment that the POI has created to help you see where you stack up against the industry as a whole:

Question	Never (score 0)	Sometimes (score 3)	Always (score 5)
Are your promotions continuously improving?			
Do you bring more insights to the planning process than your retailer partners?			
Do you have a methodology for segmenting your retailer partners by profitability?			
When you deliver analytical information, is it in a way that the action to be taken is clear and not subject to interpretation?			
Do your account executives rely more on empirical data than on their instincts?			
Can you systematically gather performance data about the promotion cycle that can help managers coach their customer facing personnel?			
Do you have capabilities to routinely cleanse internal and external data utilized in the trade promotion cycle?			
Are your efforts to analyze promotions facilitated by tools you provide more so than spreadsheets or other vehicles your people create on their own?			

Scoring:

- A composite score of 30 to 40 means you are on the right path and likely have a competitive advantage in many areas
- A score of 22 to 29 means you are largely average across the board. You may have some strengths but the total picture is what is most important.
- A score below 22 means you likely lag behind your competitors. There may be some variation based on your product category, for example, soft drinks are more advanced than condiments, but at the end of the day, every category competes for retail space in stack-ranking exercise like gross margin return on investment (GMROI).

Now let's shift focus back to the "four key factors" and tease out what makes them significant. You will recall that they were: complexity for the given level of resources, data fidelity, data utilization, and data overload.

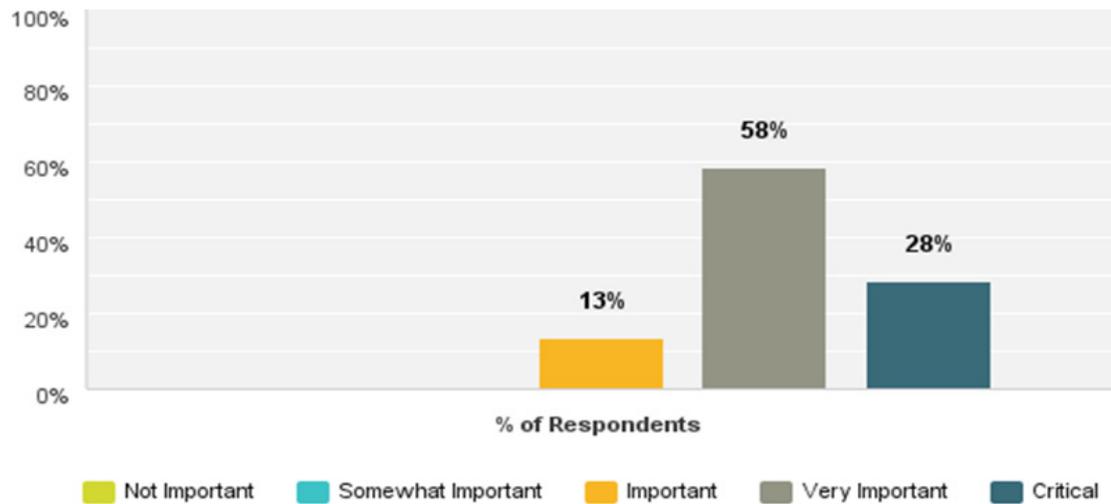
What follows are the critical capabilities to address the four key factors.

Critical Capability One: Pre-built Analytics

One of the fundamental problems with business intelligence is the fact that it is “business” intelligence. Contemporary B.I. grew out of financial reporting packages from several decades ago. It has worked pretty well for financial reporting and allowed companies to standardize on a single offering. However, this led to the tendency to put all data into a single repository and then try to report out of it. This model does not allow for the flexibility in the types of metrics and visualizations needed. What works for financial profit and loss data does not work for gross-to-net waterfall charts, customer segmentation, 2x2 matrices, and volume baseline graphs. What is required today is a combination of the best way to visualize the data, along with a best practices approach to making it happen. In other words, basic financial reporting packages just fall way short.

The 2015 POI Survey brings this sharply into focus:

Chart 3. Responses to the question: (How important is the) “ability of analytics to show an aspect of the business in an insightful way or KPI?”



Source: The POI 2015 TPx and Retail Execution Survey

The results clearly indicate an unmet need. If the insights were clearly shown, the users would be able to easily move beyond transactional and focus on value added functions. But in fact, they aren’t doing well at being more analytical because they simply are not given a platform for generating the insights. Thus, the requirement effectively deals with the resource and complexity issues (Key Factor 1) by pushing just the actionable insight to the right person without all the complexity of the data dump. It can also tame Key Factor 4 because, as additional data becomes available, it has the rules to screen out the noise and reduce the actionable insights to the right metrics that can be easily seen, understood, and acted upon.

This means already having pre-built metrics for the following:

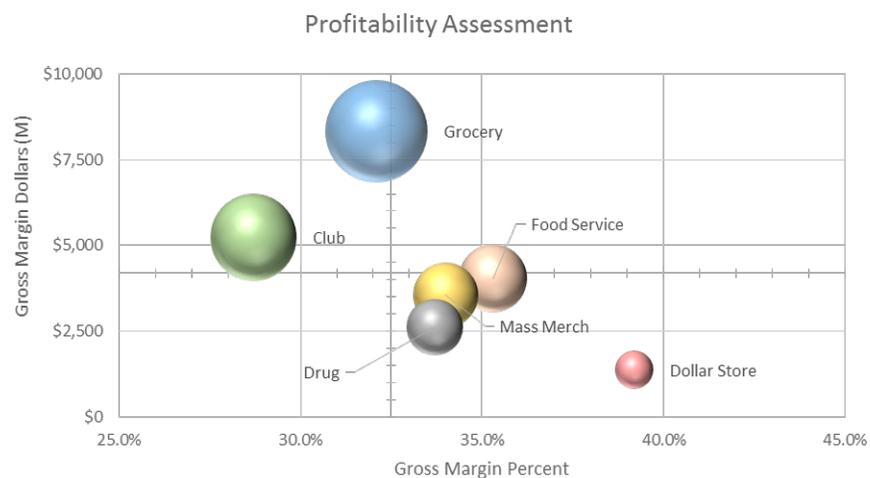
- Accrual rates, spending rate, and incremental spend rates.
- Trade spending as a percent of sales at all levels of product and geography.
- Variable rate spend type: off invoice, bill back, and scan.
- Incremental revenue and profit associated with feature, display, feature & display, and every day low price (EDLP).
- Total category plan: promotion and non-promotion.
- Gross vs. net sales.

Not only does the new requirement provide these metrics, but it also provides the ability to work with the data to accomplish the following:

- Filter by geography and product (macro to micro level) and time period (all data to weekly level) to provide drill down as needed.
- Incorporate variances to understand forecast vs. actual, shipment vs. consumption, and plan vs. objective.

Here are some salient examples provided by Saama Technologies, of how they have incorporated best practices into their data visualizations.

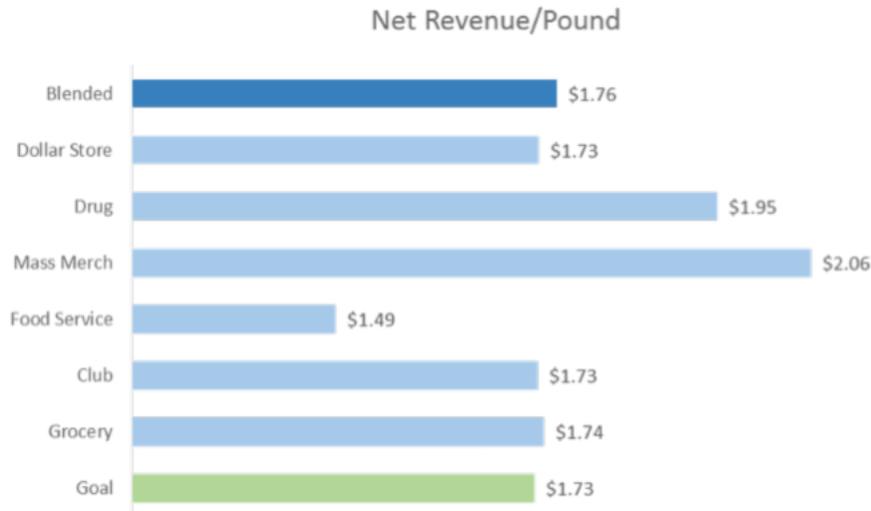
Example 1. This visualization shows profitability as both a percentage of sales as well as absolute dollars by class of trade.



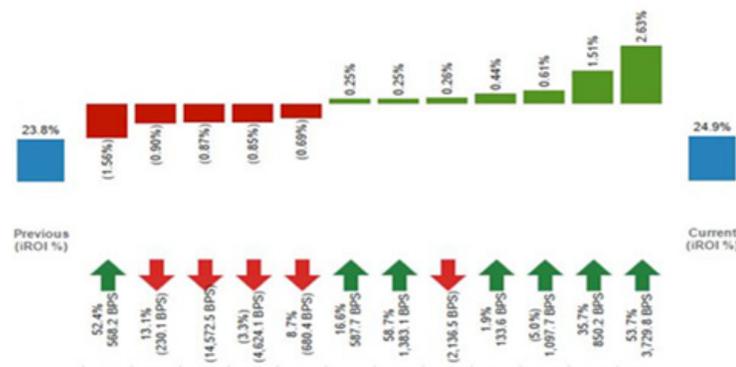
Four Critical Capabilities for Improving Promotional Outcomes



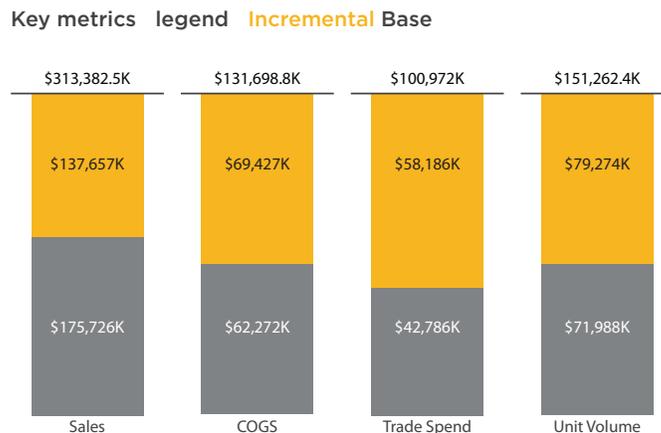
Example 2. Here we see net revenue that has been equalized per pound by class of trade and compared to a stated goal.



Example 3. This waterfall report shows ROI impact by categories/brands when compared between two time periods.



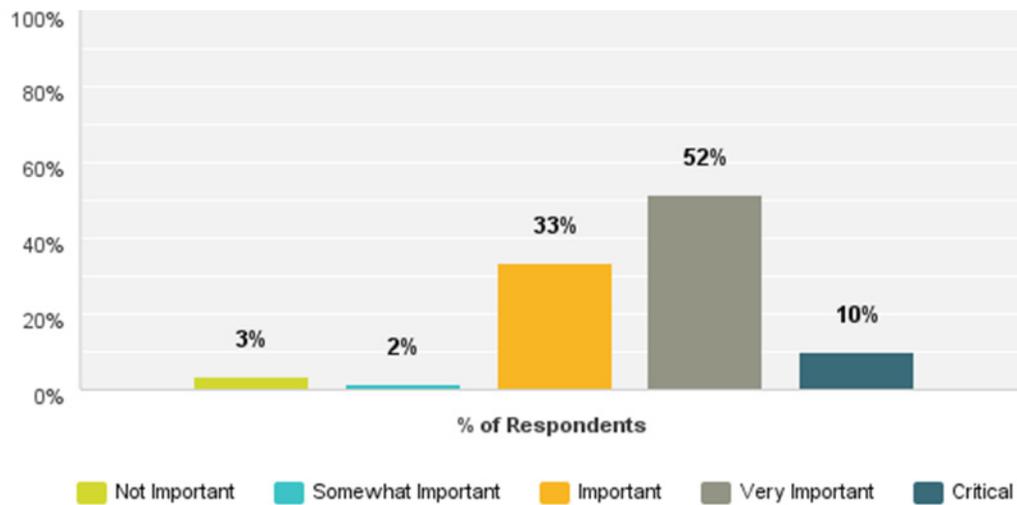
Example 4. This report will give an incremental and base value of key promotional metrics for a given promotional period.



All of these visualizations are easy to read and quite engaging. However, what the POI has seen during reviews of numerous software solutions is the data is shown in a big grid. It may have some color coding if the viewer is lucky, but it is not appealing, intuitive, or actionable.

This lack of engaging and insightful visualization capabilities is consistent with what the POI 2015 TPx and Retail Execution Survey and POI 2015 State of TPx and Retail Execution for Global Consumer Goods Report found. Specifically, that consumer goods user organizations believe that data visualization is highly desirable.

Chart 4. Responses to the question: (How important is the) “appeal of data visualization or graphical representation?”



Source: The POI 2015 TPx and Retail Execution Survey

Visualization should not only be attractive, but also be easy to understand and act upon. This is the trifecta of data visualization.

In addition, POI believes that the visualization should not only be attractive, but also be easy to understand and act upon. This is the trifecta of data visualization. With proven methods, you can incorporate the use of bubble (ROI and Margin), waterfall (revenue and profit), and Gantt charts (promotion calendars), along with others such as box plots (outliers associated with promotions, accounts, and spending) and tree maps (analysis of hierarchies along product and geography). You can also utilize dashboards specifically developed for roles and departments within the organization, including account management, sales management, trade marketing, category management, and finance.

Critical Capability Two: Utilizing Advanced Modeling and Data Science

TPO can vastly improve promotional effectiveness by rallying both manufacturer and retailer around an outcome that builds upon a set of tactics to yield a specific business result.

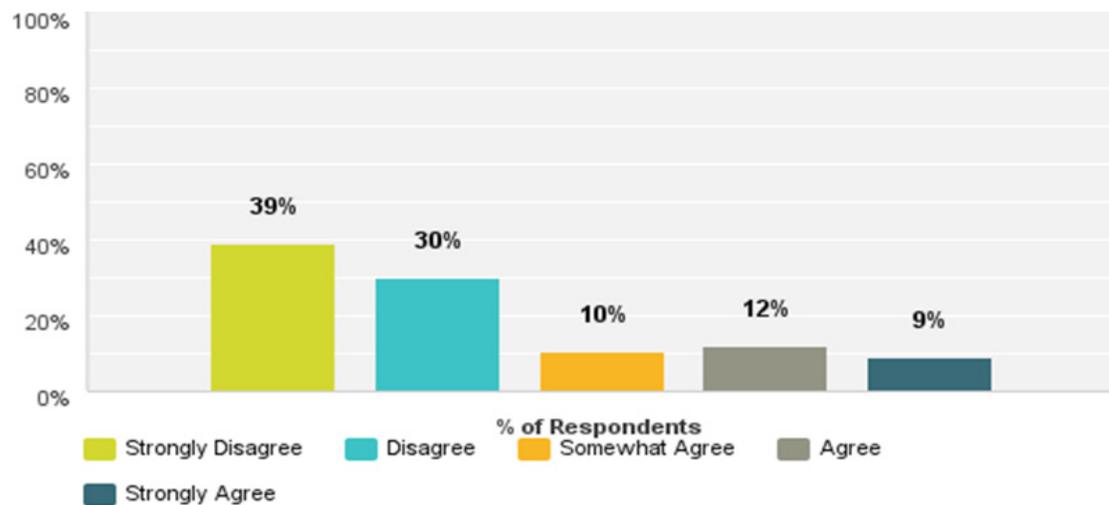
Since neither of these two terms are widely understood, here are useful definitions:

- **Advanced Modeling** — A model that may employ a simple linear equation or a complex neural network, mapped out by sophisticated software.
- **Data Science** — an interdisciplinary field about processes and systems to extract knowledge or insights from data in various forms, either structured or unstructured.

Both disciplines are critical to being able to perform trade promotion optimization (TPO) because they are key to doing predictive modeling. The essence of this requirement is that TPO can vastly improve promotional effectiveness by rallying both manufacturer and retailer around an outcome that builds upon a set of tactics to yield a specific business result as opposed to the same old promotion that is duplicated year after year. This means continuous improvement with discipline and the ability to garner the support of both trading parties over time.

However, the 2015 POI Survey clearly shows that most manufacturers do not have TPO/predictive modeling capabilities.

Chart 5. Responses to the statement: “You have trade promotion optimization (TPO), which is to say, the use of predictive models to determine promotional outcomes, in the hands of your field users today.”



Source: The POI 2015 TPx and Retail Execution Survey

The vast majority of respondents simply do not have predictive capabilities even though they are critical to effectively doing TPO.

There are three main reasons why predictive modeling is not more widespread among field users in the consumer goods trade promotion process:

1. **Expertise.** Predictive modeling is a unique set of capabilities. You have to hire the right people. They are expensive and have titles like “Data Scientist” that didn’t exist 10+ year ago.
2. **Change management.** People see predictive modeling like a black box. They don’t want to understand it or trust it, or both.
3. **Previous negative experiences.** Chances are they were told that some software solution would provide all the answers; just plug it in and voila! But it didn’t work like that. It takes both technology and expertise. It is one thing to have a violin from Stradivarius and yet another to be able to play it like Itzak Perlman or Isaac Stern.

Additionally, data never comes as clean as one would like. Therefore, it is important to have data science methodologies to deal with missing values in order for accurate insights to still be derived. Consider the following guidelines:

- Descriptive analytics requires a robust methodology for determining baseline sales while appropriately factoring in the effects of pantry loading, forward buying, and cannibalization.
- Most companies are still maturing when it comes to applying robust post-event analytics across categories and applying predictive analytics in even limited pockets, let alone across all customers.
- As it is important to empower those closest to the business need (the field force), the user experience must support business users using predictive models. A good image here is to have all the capacities of a fighter jet but be as easy to fly as a paper airplane. The field user will likely reject it otherwise.

Critical Capability Three: Merging Disparate Data

This means getting all the data together in a cleansed form, so that it can be operated upon and analyzed. As you may remember from math class, in many cases, setting up the problem correctly was the problem. Many teachers didn’t require that you solve it, just set it up. It is very much the same with regards to merging disparate data. Technologies can crunch the data and are able to do so, but it has to be clean data and has to be set up correctly. Ask yourself the following questions as an assessment as to whether you may have issues merging data:

Resource Related (What you might be faced with today)

- How many internal resources are devoted to merging the data necessary to perform post-event analysis? Business personnel? IT resources?
- How much time is necessary (from the aforementioned resources) to complete post-event analysis for executed promotions?
- What amount of time is required to address data scarcity issues, data duplication, and outliers?

Data Related (Is your data merging complete and automated?)

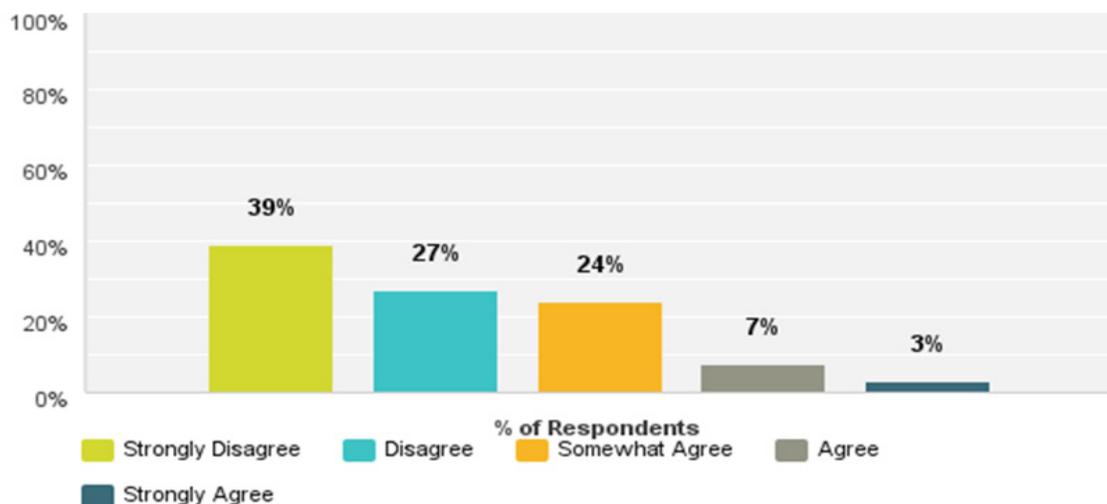
- Does flexibility exist during the data merging process to incorporate new data types; social, geo-demographic, weather? What if the data is unstructured?
- Beyond ETL, can business rules be put in place to permanently address the linkage of shipment, consumption, and TPM data in addition to cost of goods information and price lists?
- Does the application provide exception reporting that informs on the data itself?

Business User Control (efficiency/remove extraneous iteration)

- Do business users have control over the process to merge data, eliminating extraneous iterations with IT resources?
- Can business users easily amend and change exceptions and then accept updates for processing?
- Do your analytical appliances have the ability to generate varied and different files for analysis based on geographies, products, and time frames?

If you are unable to answer these questions in the affirmative, you likely have a data merging problem. However, you are definitely not alone. The 2015 POI survey showed that the vast majority of respondents have data merging or other issues that impede them from doing meaningful post-event analytics. Here are the details.

Chart 6. Responses to the statement: “Your post-event analysis process is automated so that reports are automatically populated and you can view as many promotions as you want as often as you want.”



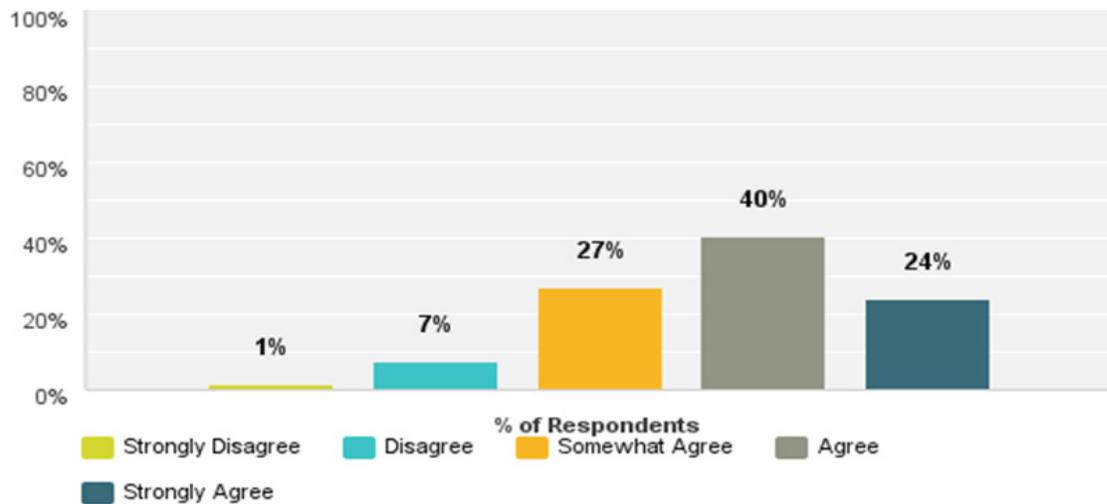
Source: The POI 2015 TPx and Retail Execution Survey

Most consumer goods companies are only able to evaluate 10% of promotions at their top 5 or so customers each quarter.

As you can see, there are real opportunities to learn about which promotions perform well and which do not. But, in POI’s experience, most consumer goods companies are only able to evaluate 10% of promotions at their top 5 or so customers each quarter. This is precisely why we believe that offering a paradigm shift in the form of data merging can deliver significant value.

Looking back to POI’s second reason why predictive modeling isn’t widely used today, namely due to change management issues, we can glean some insight from the 2015 POI Survey. There are elements of both the data merging challenge as well expertise elements. This compounding effect is that data quality issues cause people not to trust what they see in a system, even though it is correct. Thus, unwillingness to change is fueled by mistrust of what they see in a TPx system. The 2015 POI Survey responses bare this out.

Chart 7. Responses to the statement: (You have) “challenges getting users to trust what they see in the TPx solution, whether it is the calculated profit from a past promotion, a prediction of a future outcome, or something else.”



Source: The POI 2015 TPx and Retail Execution Survey

Such trust often comes with the (relatively slight) price of providing some relevant contextual information – not an avalanche of figures, just some additional data. Ask yourself:

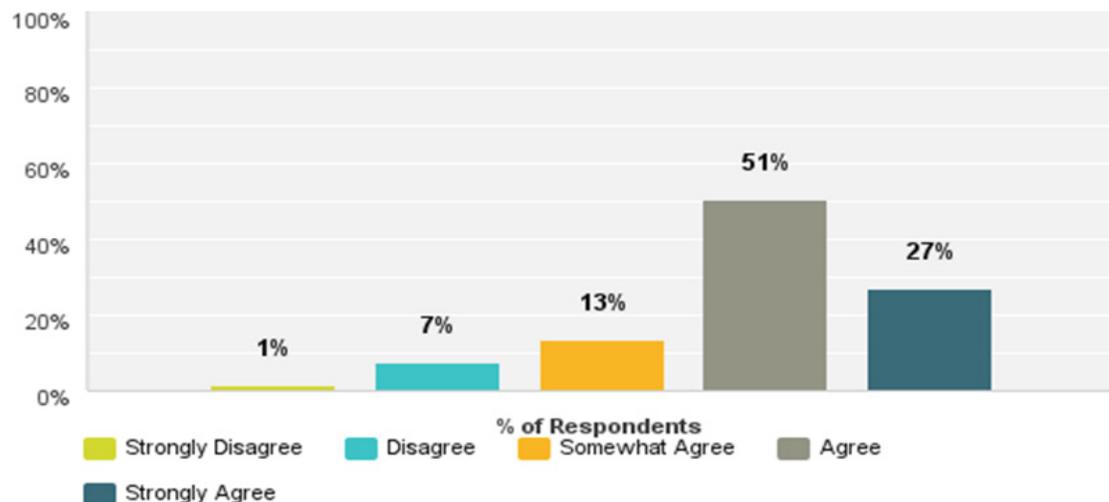
- Can your users view past promotions to see forecasted versus actual shipment plus consumption? Is indexing used?
- Are the syndicated causals related to feature, display, feature & display, and every day low price viewable at the promotion level?
- Are time frames depicted so that a user can see allowance dates (off invoice, bill back, scan), order dates, shipment dates, and promotion execution dates to validate data components?

- Is baseline volume accurately depicted in the application at the most granular level of account and product?
- Is baseline volume consistent and without the need for constant recalibration?
- Does post-event analysis include causal measures to understand the effects of account/retailer execution commitments?
- Does post-event analysis include a view into the effects on competing brands and the total category?
- Is all financial data viewable within post-event analysis and does it also include the account/retailer's key metrics?

The upshot is that providing the right contextual data around a number or a calculation actually increases credibility. The same is true for every math problem from our early days in school — showing how we got the answer was essential to getting credit. Thus, seeing historical forecasts versus actual calculations, a build chart of the impact of a feature ad with the display (versus just the ad or the display separately), or seeing the impact of a promotion on a total category, are often essential contextual elements.

Nevertheless, the research provided by the 2015 POI Survey points to not only a lack of automation in the post-event analytics ([see Chart 7](#)), but also the role that a lack of integration may play in not being able to automate. This is over and above the possibility that the underlying trade promotion management solution just isn't sufficiently robust.

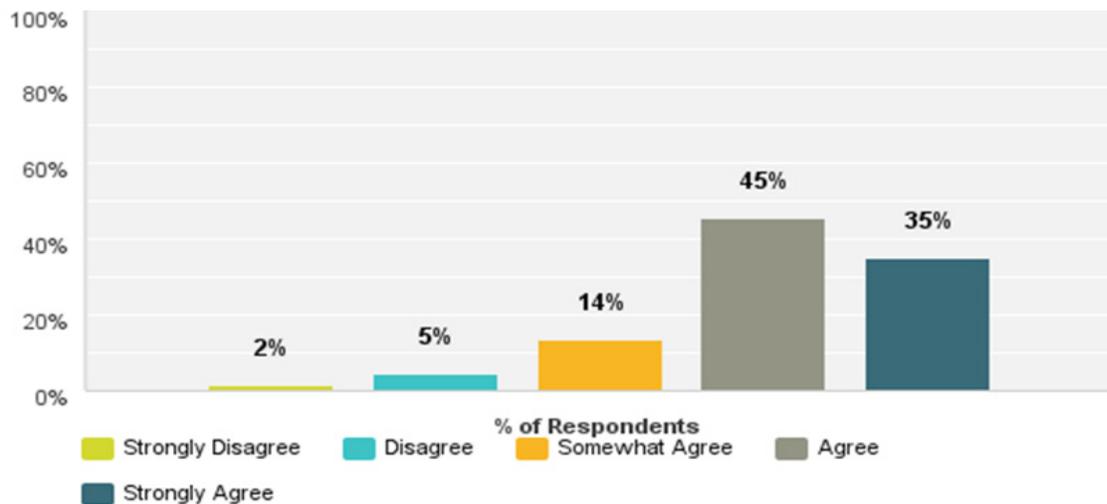
Chart 8. Responses to the statement: [You have] “challenges integrating existing TPx solutions, including legacy, to create a cohesive whole.”



Source: The POI 2015 TPx and Retail Execution Survey

78% have acknowledged that the cohesive whole they seek is required to complete the entire cycle of managing a promotion. The takeaway gained from this response is that the lack of automation in doing post-event analytics that we saw in [chart 7](#), plus the lack of integration to enable the entire process that we see in [chart 8](#), leads users to be overwhelmed throughout the process. This is evident in the responses to the following question regarding how users perceive the process.

Chart 9. Responses to the statement: “You believe that the entire process of creating a promotional plan from budgeting to planning to execution to settlement to post-event analytics takes a burdensome amount of time.”



Source: The POI 2015 TPx and Retail Execution Survey

The sentiment is clear: the post-event analysis is not automated, there are integration issues impeding the ability to get the answers, and users find the entire process to be burdensome.

Amazingly, the responses seen in [Charts 8](#) and 9 were remarkable similar even though the questions were well separated on the survey (questions number 10 and 17, respectively). The sentiment is clear: the analysis is not automated, there are integration issues impeding the ability to get the answers, and users find the entire process to be burdensome. It is highly likely that users are asked to download data out of their TPx solution to conduct some post-event analysis on their own. However, they already perceive the process as burdensome as tied to their existing TPx system. Hence they are genuinely annoyed by the final requirement of doing post-event analysis by hand because it is not automated, likely does not have meaningful context provided around the metrics it provides, and they probably don't trust what is in it to begin with.

It's a small wonder that industry sources such as Nielsen have calculated that two-thirds of promotions fail to break even. The learning just isn't there. There is no basis for continuous improvement. Absent quality information to the contrary, account executives continue to trust their instincts and existing TPx investments are relegated to being checkbooks and volume forecast input vehicles.

But there is help. Data merging and harmonization should go beyond just the data that is used for an analytical solution. You have choices in how you bring the expertise to bear with the appropriate technology. Here are our best practices on how to get appropriate help that is neither just tool, nor just services, but the right combination of both. Saama calls it The Trade Analytics Bill of Rights:

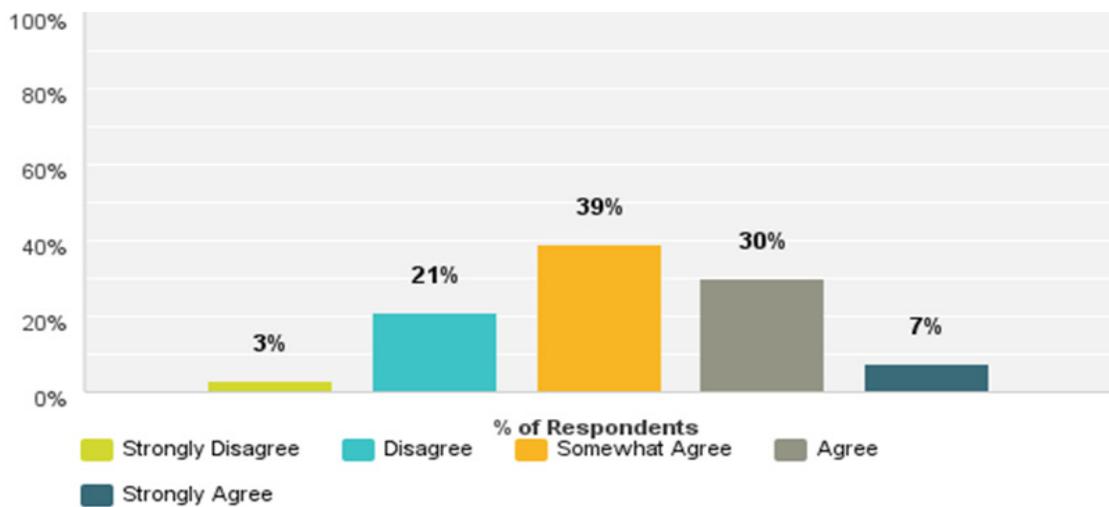
- You have the right to a total solution provider who can perform a diagnostic related to existing data, applications, and systems before any future solutions are built or implemented.
- Your rights further extend to having a solution provider offer a perspective on options or choices related to the reuse or replacement of legacy systems.
- You have a right to understand your data sources and their value in delivering a positive business outcome through a detailed data dictionary.
- You have an unalienable right to engage subject matter experts very early in the integration process to ensure the agreed upon business outcome is documented.
 - Contrarily, you risk being unable to build any additional business case for investment. These data experts from the solution provider should engage with both the business and IT resources to understand and document system architecture.
- You should always claim the right to have your solution provider be fully inculcated in your TPx business process to ensure proper business outcome documentation and subsequent application training.
 - Otherwise you risk having yet another disintegrated TPx-related process and system.
- You have the right to engage a solution provider/partner with sufficient gravitas to facilitate meetings with existing software, hardware, and application vendors to coordinate any efforts necessary to ensure solution success.

The ability to deliver on a combination of these Analytics Rights will allow you to effectively depart from typical approaches and achieve a paradigm shift in data merging.

Critical Capability Four: Expertise for Data Enrichment and Cleansing

The need for clean data to enable the generation and implementation of promotional insights cannot be understated. The same can be said for the inability to perform meaningful analysis where some data points are missing. This continues to be a struggle for reasons that we will explore later. But the POI 2015 TPx and Retail Execution Survey, and POI 2015 State of TPx and Retail Execution for Global Consumer Goods Report are quite clear on how big the overall data quality issue is.

Chart 10. Responses to the statement: (You have) “data quality issues from external sources such as POS (ePOS), syndicated data, etc.”



Source: The POI 2015 TPx and Retail Execution Survey

The need for clean data to enable the generation and implementation of promotional insights cannot be understated.

Between 37% and 76% of companies are making suboptimal or downright bad decisions because their data has quality issues that are not being addressed. POI believes the higher statistic is more accurate because data must be clean and complete if it is to be used to generate accurate ROI figures or predict promotional outcomes. It is not hyperbole to state that the topic of data cleansing and enrichment requires a paradigm shift. If the survey response of 75 CG companies is an accurate reflection of the market as a whole, companies who can overcome data quality issues will have a tremendous competitive advantage.

The result of not cleaning your data has created a serious obstacle to deepening capabilities in trade analytics. In its July 13, 2015 report, entitled “Top 10 Technologies for Consumer Goods Sales and Marketing, 2015,” Gartner explained why many CG companies, particularly smaller ones, are going backwards in optimizing promotions:

“TPO has proven harder to master than CG manufacturers expected. There has been some hype around, “just buy this application and you can optimize your trade promotions,” but it is far from being that simple. It takes two to three years of clean sell-out data to gain much predictive ability. Also, statistical models must be configured and tuned based on sub-segments, because a model that works for ice cream sales does not necessarily work for pickles or pasta. What we are seeing is that much of the decline in interest in TPO is driven by companies with less than \$1 billion in revenue, where it dropped an amazing 14 percentage points year over year. We believe these smaller companies have struggled with mastering the statistical models, cleansing the data and having the patience to wait several years to feel comfortable with this capability.”

The Gartner analysis clearly points to the role of data quality, which then can be harnessed through appropriate models to improve execution. But take heart in the fact that some of your competitors have been lured into believing that software alone will deliver the value, and the fact that many competitors have decreased their investment in these capabilities shows that pursuing them in an enlightened way will pay off in a big way for you.

Listed below are some questions to ask yourself about data cleansing as a means to better analytics in the promotional improvement process:

- Do you have “automated” processes in place to address data issues and inform the business of outliers, exceptions, data sparsity, and missing information?
- Do you have reporting mechanisms to inform users of exactly what types of data issues are being encountered?
- Once an issue is initially discovered, do you have business rules incorporated to eliminate the issue from arising in the future?
- Does your solution provider maintain a library of business rules so that, having encountered similar issues during other implementations, it can quickly make adjustments and incorporate the lessons learned?
- Are you able to perform data cleansing on both structured and unstructured data?
- Is it easy for you to set up and maintain a business rule to harmonize a new data source with existing data?
- Are your business users able to deal with exceptions and anomalies in data through changes and edits with minimal IT support or resources?

There is actually no “scoring” rubric here because we firmly believe that all of these data cleansing elements are mission critical to being able to do analysis. There is no truer statement than “garbage in garbage out” as it relates to turning data into insights.

Summary

POI believes that there is a compelling argument for the role of analytics in the trade promotion cycle. The survey data clearly shows where the “bar” is across the industry and where the challenges reside. However, to the degree that you can reduce the level of complexity for your existing people, improve the fidelity of the data, improve its utilization in making promotion related decisions, and reduce data overload, you can significantly improve promotional outcomes and arrest future increases in promotional spending.



About the Promotion Optimization institute (POI)

POI brings together manufacturers, retailers, solution providers, analysts, academics and other industry leaders with the specific objective of collaboratively improving the promotion and distribution of consumer goods. Members of POI share cross-functional best practices in both structured and informal settings.

Additionally, members benefit through our industry alliances, the Certified Collaborative Marketer (CCM)[™] program, and industry-leading summits around the globe. POI aims to instill a financial and metrics-based discipline not typically found with other trade groups. The goal of our innovative approach is collaborative promotion optimization. The focus is on the customer/shopper through sales, marketing, and merchandising strategies.

Executive advisory boards keep us apprised of industry needs and help us provide desired outcomes for members, sponsors, and academia.

For more information, visit www.poinstitute.com



About Saama Technologies

Headquartered in the heart of Silicon Valley, Saama is the leading data science services and solutions company delivering Analytics Advantage to Global 2000 clients. Our Fluid Analytics leverages our customers’ existing infrastructure as much as possible, and allows us to flexibly focus the white space between existing capabilities and the critical business questions that need to be answered. Saama has broad experience including visualization, MDM, Hadoop, cloud and other Big Data solutions, in industries such as consumer goods, life sciences, insurance, financial services, high-tech and media. Clients include Actelion, Brocade, Broadcom, Cisco, CSAA Insurance, Dignity Health, GoPro, Motorists Insurance Group, PayPal and Unilever.

For more information, visit www.saama.com/cpg

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For the full text of the POI 2015 TPx and Retail Execution Survey and the POI 2015 State of TPx and Retail Execution for Global Consumer Goods Report, please visit poinstitute.com/about/resources