

# Trade Promotion Optimization

Tiger Analytics' Capability

# Agenda

- 01 | Tiger Analytics Overview
- 02 | Trade Promotion Optimization Overview
- 03 | Solution Deep Dive
- 04 | Our Success Stories



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01

## Tiger Analytics Overview

# Who Are We?

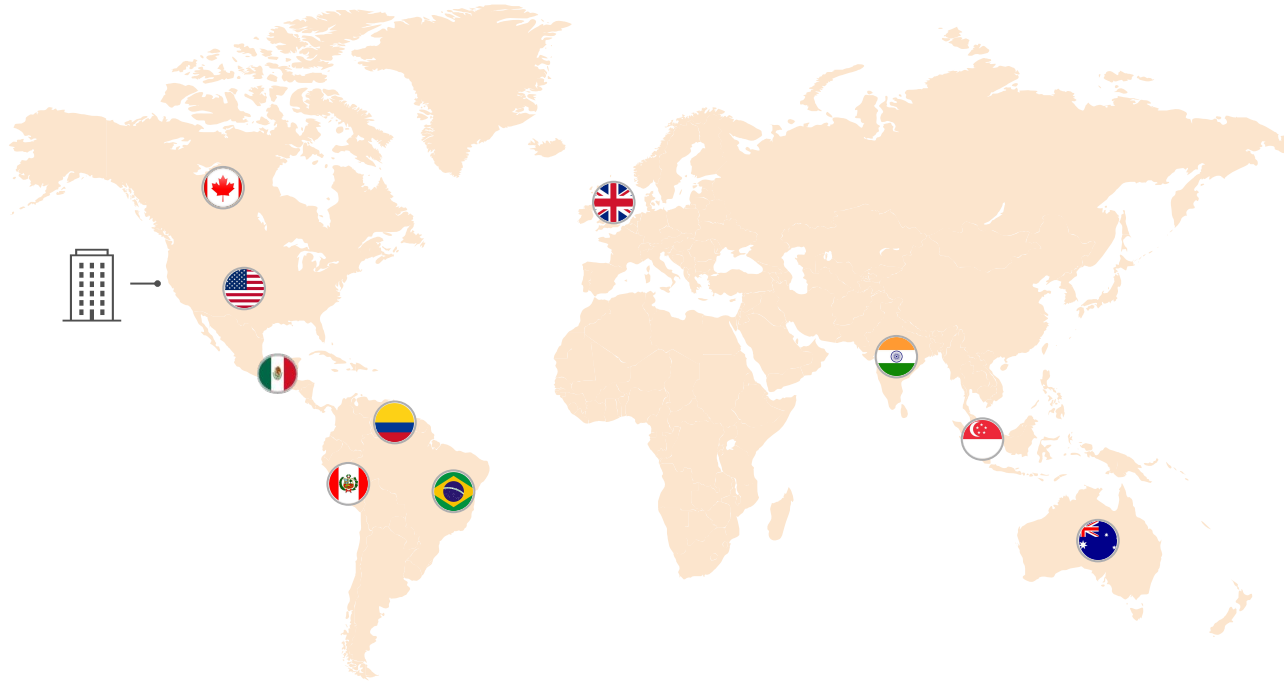
We're passionate about solving some of the high-impact **business problems** out there using AI and analytics.

## Our Focus.

Providing certainty for a better tomorrow.



# Fastest Growing Services Provider of Data, Technology and Analytics Solutions



## Global Delivery

**HQ:** Santa Clara, CA, USA

**Locations:** USA, UK, Singapore, Australia, Canada, Mexico, LATAM and India

**USPAACC CERTIFIED**  
Asian American/Minority  
Owned Business

2023-24

A minority-owned-enterprise  
certified by USPAACC



**5,000+**

Data & AI  
professionals



**75+**

Fortune 1,000 Clients  
across Industries



**80%**

Revenue is repeat business  
from existing clients



**~10%**

Attrition rate &  
highly engaged team

# Key Recognitions

**FORRESTER®**

Wave Leader in  
Customer Analytics  
Service Providers **2023**

**ISG** Provider Lens™

Global Leader in  
Specialty Analytics  
Services for Retail **2024**

**Everest Group®**

Leader and Star Performer -  
Analytics and AI Services  
PEAK Matrix® **2024**

**FT** FINANCIAL  
TIMES

America's fastest growing  
companies  
**2024, 2023, 2022, 2021**

**USPAACC CERTIFIED**  
Asian American/Minority  
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A  
minority-owned-enterpri  
se certified by **USPAACC**



India's Great Place to  
Work **2024, 2023, 2022**



America's fastest growing  
companies  
**2024, 2023, 2022, 2021**



Best Workplaces for  
Women in India  
**2023**

**ISG** Provider Lens™

Global Leader in Specialty  
Analytics Services for  
Supply Chain **2024**



Brandon Hall Award -  
Learning and Development  
**2024**

**CIM** | RESEARCH

Leader in AIM Research PeMa Quadrant for  
~ Data Engineering Service Providers 2024, 2023  
~ Data Science Providers 2024, 2023  
~ MLOps Service Providers 2024  
~ GenAI Service Providers 2023



# AWS Partnership & Relevant Engagements



- Global Advanced Tier Services Partner
- Global ProServe MSA
- Machine Learning, GenAI and Data & Analytics Competency
- CPG Competency Launch Partner
- SDP EMR, Redshift, Glue, Quicksight and Lambda specialization



- 170+ AWS Certifications
- AWS Certified Associate, Professional & Specialty Level
- 35+ Strategic engagements globally



## Innovations

- Content Ingestion Solution
- AWS Data Fabric
- Data Quality & Profiling Framework
- DataHub – Metadata platform
- Automating IaaS using Terraform
- MLCore
- Tiger Data Observability Solution



### Global Manufacturer

Assisted in creating an end-to-end Data Platform in order to implement a solution for predicting maintenance of assets.



### Healthcare Provider

Built robust Data and Analytics (D&A) platform that can act as an Enterprise Data Hub to host structured, semi structured and unstructured data and support various analytics and reporting.



### Retailer

Developed a scientific approach to measure and analyze the impact of various marketing activities on Sales, to support Marketing spend decisions for the financial year.

# Our Capabilities

## Related Offering Examples

### Data/ML Engineering

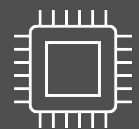


- Data Pipelines
- Agile Data Ops
- Platform Engineering
- Future State Architecture
- Cloud Data Lake
- Modern Data Platforms
- Cloud Data Migration
- Lean Data Governance



**Tiger's Data Fabric** helps cut-down the time it takes for setting up new Data Pipelines in Cloud from days & weeks to few Minutes

### AI and Data Science



- Machine Learning
- Predictive Analytics
- Statistical Modeling
- Optimization Methods
- Streaming Analytics
- Generative AI
- Computer Vision
- Natural Language Processing
- Reinforcement Learning
- Deep Learning

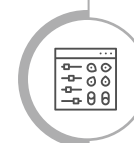


Our **CV Framework** leveraging state of the art algorithms helped a Fortune 50 company with in-store shelf intelligence, stock-outs, foot-fall, SKU rotation

### ML Engineering and Consumption









- ML Operationalization
- Scaling AI/ML solutions
- AI/ML Application Engineering
- APIfication
- Business Insights
- Analytics Story Telling
- Visual Analytics
- Value Realization



**ML Core**, a low code ML Platform with ready to use data models, features, ML models, dashboards streamlined production operations for a PE firm



# Supplemented with a Wide Array of Reusable Tools, Methodologies and Frameworks

Consulting	Design Accelerators	AI/Data Science/Insights	MLE & MLOps	Industry Solutions	Data Engineering
					
Metrics Repository	Simulator 360	Tiger ML Functional toolkits	MLCORE Platform	Marketing Mix Modelling	Data Enrichment Catalog
Prominent Use Cases	Design Templates	Code Templates	MLOPs best practices	Emerging Trends Solution	Data Fabric
Business Hypothesis	Design Artboards	Codified NLP libraries & pre-trained modules	Monitoring and Governance framework	Demand Forecasting Solution	Observability Framework
Analytical Questions	Design Tool Standardization Process	Codified CV libraries & pre-trained modules		Test & Learn Platform	Data Ingestion framework
Value Articulation Framework		CoNVO (Context-Need-Vision-Outcome) Discovery & Design Framework		Omnichannel Attribution Solution	Data Quality framework
Analytical Techniques				Supply Chain Analytics Solution	Data Assessment framework
				TPO Platform	

# Trade Promotion Optimization Overview



# Key Challenges faced by Organizations in Trade Promotion Optimization

## Analyzing Structural Demand

Inherent demand analysis of products due to holidays, weather or seasonal changes

## Understanding Drivers of Promo Effectiveness

Measure the impact of support (display or inserts) on incrementality of promotions

## Promotion ROI Analysis

Analyzing promotion spends and corresponding increase in revenue and margin



## Robust Baseline Calculation

Establish baseline sales to study accurate lift generated from promotions through modelling

## True Lift Calculation

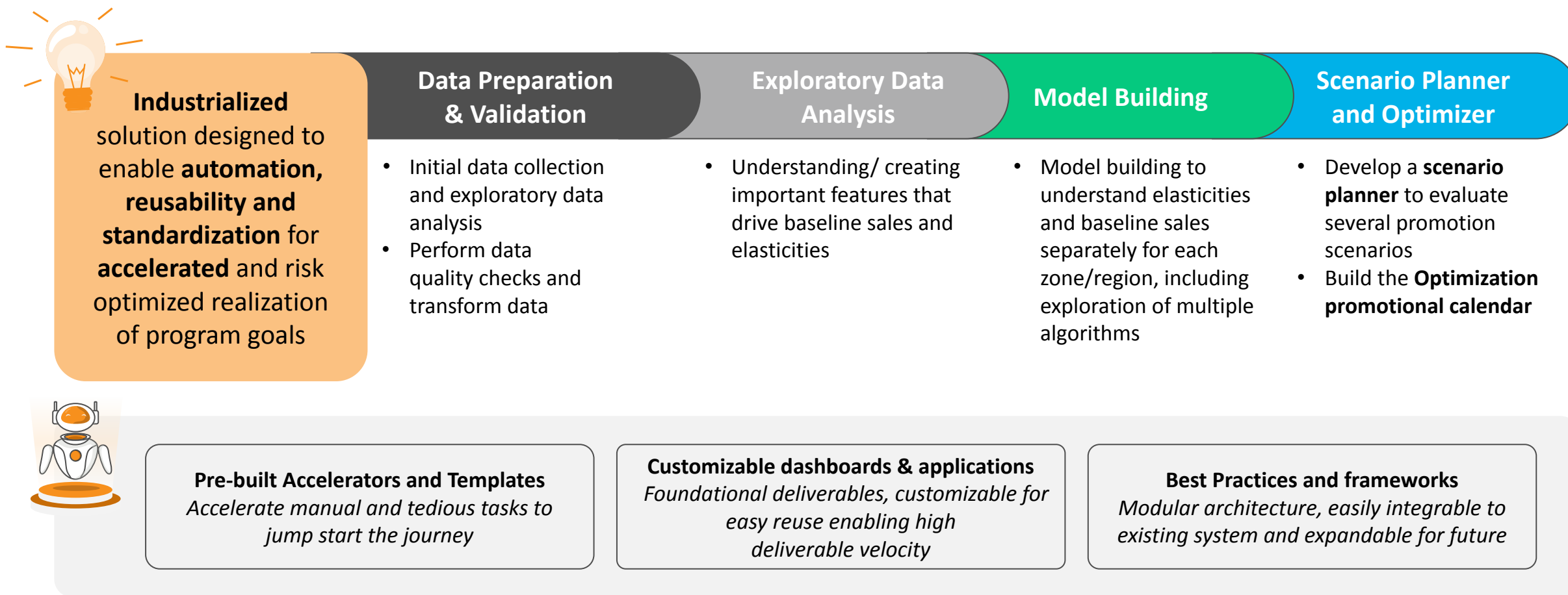
Establishing true lift by including Halo and Cannibalization effects in lift calculations

## Annual Optimizer

Calculating spend to optimize ROI for each product across category

# Tiger Analytics TPO Solution: What It can Do

TA's Trade Promotion Optimization solution helps organization **calculate baseline sales, estimate true lift, identify within-box and cross box cannibalization & optimize trade spend for increased sales/margins/ROI**. It comprises of a combination of **advanced analytics assets, domain expertise & data science skills**.



# Key Highlights of our Solution

## Estimating True Lift

After identifying baseline and considering within-box and outside box cannibalization

## Optimization module

specifically tuned to generate optimized trade calendar using underlying ML models, accounting for all the relevant constraints

## Next-Gen AI/ML Algorithms

ML techniques (e.g. Lasso régression, Bayésien régression model)

## Intuitive User Interface

Makes it easy for business stakeholders to use

## Comprehensive Data Sources

Product information, promotion information, External data sources

## Scalable Solution

Scales to additional retailers in same market, additional PPGs, new customer markets/regions

## White Box Approach

Tiger IP customized and available to clients

## Cost effective

Model based costing will help Customer save huge costs when implementing solutions across markets

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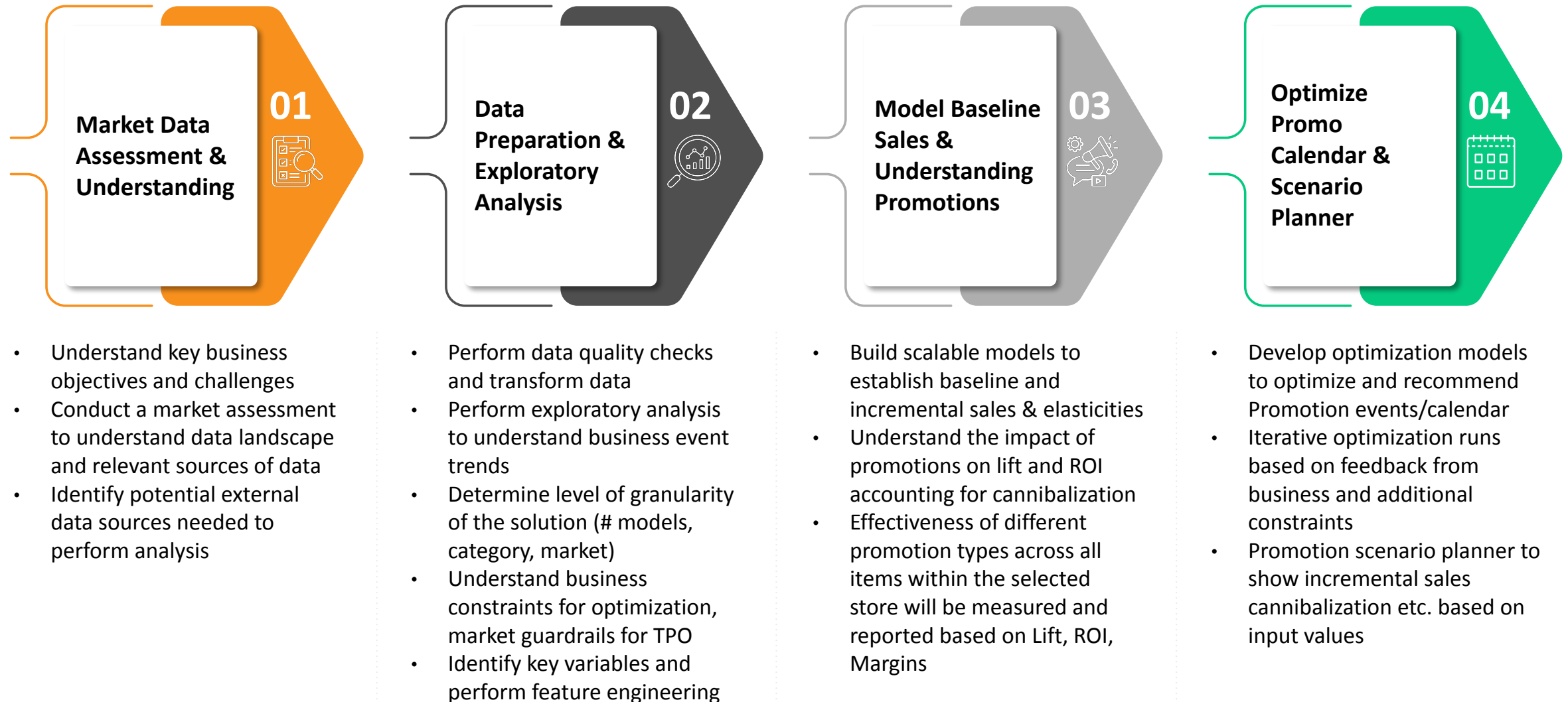
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# Solution Deep Dive



# Solution Overview





# 1. Data Requirement for Trade Promo Optimization

## Required Data

### PoS Data, Trade Spend, Promo Activity Data (own brand)

#### Granularity:

- By Retailers: Coles, Woolworths, Walmart, Target etc.
- By Product: Brand, PPG, SKU
- By Period: Monthly, Weekly

#### Tactics and Activation:

- Promo Support: Display, Catalogue, Inserts, Ads
- Promo Type: Multi-Buy

### Category Level Consolidated Market Data

- By Retailers, Entire Market
- By UPC, Brand, Competition
- %ACV for PPG/SKU by Time Period

### Finance Data

- Cost of Goods / Other fixed spending / margin improvement Spends by Retailer, Activity, UPC to calculate MAC (Margin After Cost) and NSV(Net Sales Value) impact



### Problems that we can solve

- ✓ Identify drivers of demand (Trade promotion, seasonality, pricing, other factors)
- ✓ Trade Promotions Calendar Optimization

### Business Value Delivery

- ✓ Uncover additional value with NSV and MAC improvement
- ✓ Create optimized plan for trade spend and promo activity to deliver maximum ROI



### Assumptions

- Data available is clean and doesn't require much transformation
- Data is harmonized and does not require extra effort for alignment
- Promotions data is captured properly and is available for at least past 3 years

## 2. Approach to Perform Data Assessment across Customer Markets

### Data Health Framework



Is Data available at the optimal granularity for aggregation?



Is Data sufficient to enable the analytics and Modeling pipelines

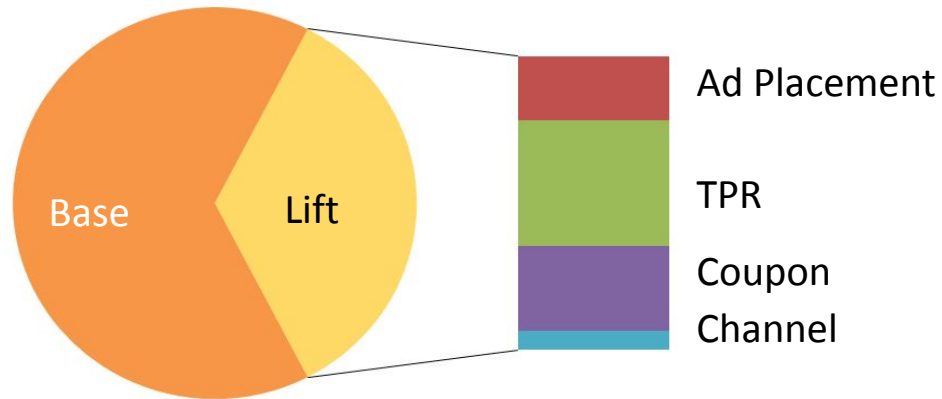


Mitigation techniques to empower data pipeline

	Data Sources	TPO	Price Elasticity	Brand Elasticities	Price Pool	Challenges & Considerations	Work Around
DATA AGGREGATION	Syndicated + POS Data	Weekly	Weekly	Weekly	Weekly	Identify Data Gaps Hierarchy difference	Lookalike Modeling Retailer Segmentation Assumptions and Dimensionality reductions
	Trade promotion	Retailer x PPG	Retailer X PPG	Retailer x PPG	Retailer X PPG		
	Product Hierarchy	Retailer x PPG X Brand X Category	Retailer X PPG X Brand X Category	Retailer x PPG X Brand X Category	Retailer X PPG X Brand X Category		
	Competition Landscape	PPG x Brand	PPG x Brand	PPG x Brand	PPG x Brand		
	Calendar and Annual Plan	Weekly	Weekly	Weekly	Weekly		

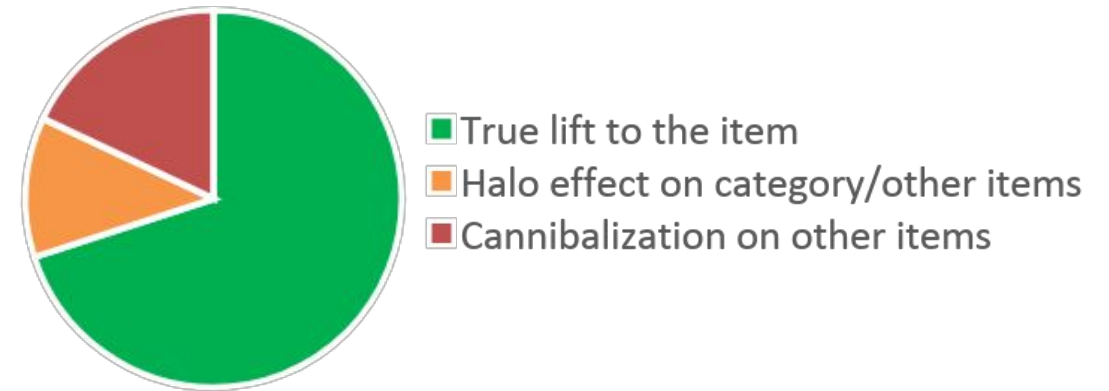
### 3. Illustrative Modeling Approach

#### Baselining and Lift Estimation Modeling Framework



- Build model for predicting Unit Sales as a function of Promotion (TPR, Coupon, Ad placement, Channel.)
- Estimate Base sales if not for promotion
- $\text{Lift} = \text{Actual Sales} - \text{Estimated Base Sales}$
- Margin Lift will be calculated as a derived variable out of sales lift

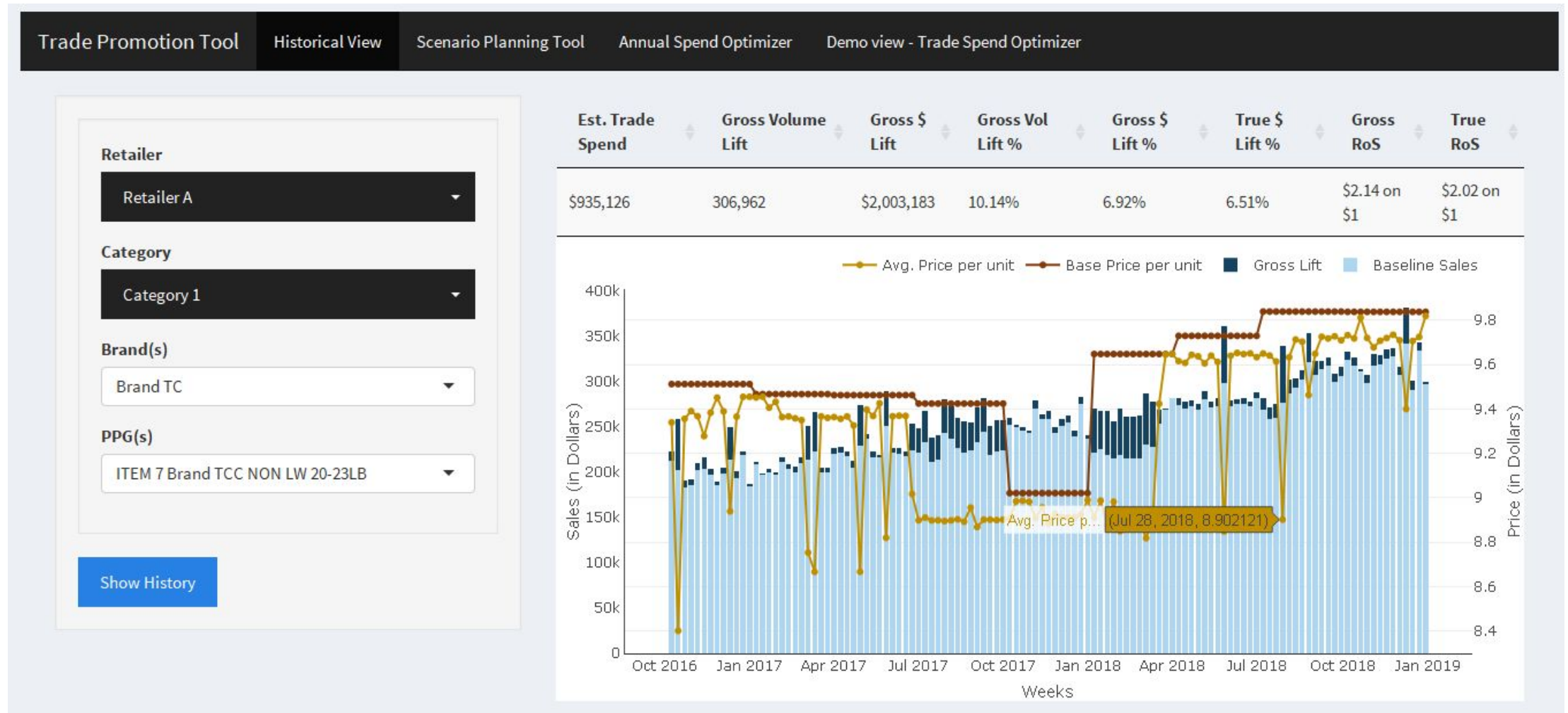
#### Estimation of cross-effects



- Identify impact on other Product Groups by the promoted Product Group (estimate cross-effects - Halo effect, Positive Cannibalization, Negative Cannibalization)

## 4. Dashboard: Historical Promotions Analysis




Accelerator screenshot, showcasing historical analysis of promotions by selecting particular retailer/category/brand/PPG from the dropdown



# Our Success Stories



# We have done it successfully for many of our clients

Client 	TA Solution 	Value Delivered 
<b>Large F&amp;B Company</b>	<ul style="list-style-type: none"><li>• Built models to baseline sales and estimate lift due to Price and Non price related promo activities</li><li>• Estimated within-box and cross-box cannibalization effects to establish true incremental lift</li><li>• Optimizing the trade spends across products for increased sales, margin or ROI</li></ul>	<ul style="list-style-type: none"><li>• Estimated 10% increase in sales on a business value of \$10 B and 6% improvement on ROI on trade spends of \$1 B</li></ul>
<b>Global Confectionery Company</b>	<ul style="list-style-type: none"><li>• Data is gathered from Nielsen sales data, product hierarchy, and information on trade promotions and display strategies</li><li>• Identifies major sales drivers like base price, discount patterns, frequency, seasonality, pantry loading, competitor effects, and cannibalization</li></ul>	<ul style="list-style-type: none"><li>• Established a scalable and robust methodology for performing trade impact analysis that is currently being deployed across the globe (completed 5 markets so far, representing \$250 Million+ of confectionery category sales, with a planned global rollout)</li></ul>

# Thank You

[www.tigeranalytics.com](http://www.tigeranalytics.com)

