

### Tiger Analytics

# Retail Pricing Analytics

Tiger Analytics' Capability

Date: 24-JAN-2025

Author: Tiger Analytics

# Agenda

- 01 Tiger Analytics Overview
- O2 Pricing Analytics POV
- 03 Our Solution Approach
- 04 Appendix



# 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



A minority-owned-enterprise certified by USPAACC



5,000+

Data & Al 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** 



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



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



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



A minority-ownedenterprise 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





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



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















- Global Advanced Tier Services Partner
- Global ProServe MSA
- Machine Learning Competency
- CPG Competency
- SDP EMR specialization
- SDP Redshift specialization
- SDP Glue specialization
- SDP Quicksight Specialization
- SDP Lambda Specialization



#### **Global Manufacturer**

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



- 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 laaC using Terraform
- MLCore
- Tiger Data Observability Solution



#### **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**

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



**Related Offering Examples** 

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

# Al and Data Science



- Machine Learning
- Predictive Analytics
- Statistical Modeling
- Optimization Methods
- Streaming Analytics

- Generative Al
- 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, footfall, 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** 

Al/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

**Data Ingestion** 

framework

**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

Convo (Context-Need-Vision-Outcome) Discovery & Design Framework Test & Learn Platform

Omnichannel Attribution Solution

Data Quality framework

Supply Chain Analytics Solution

**TPO Platform** 

Data Assessment framework

Framework

Value Articulation

**Analytical Techniques** 

# Pricing and Promotion Capabilities

## Tiger has Helped Support our Clients across the Entire Spectrum of Pricepromo Decision Making

#### **1. Strategic Pricing Decisions**



Strategic choices based on an understanding of specific customer segments and the role pricing plays in driving profitability and customer loyalty

Price Pack architecture

Base price - promo - personalized offers mix

Price signaling

Localized pricing

Channel pricing

#### 2. Tactical Pricing Decisions



Understanding data signals and customer behavioral response to identify price opportunities on an ongoing basis

Promotional calendar optimization

**Seasonal Pricing** 

Personalized offers

**Bundling offers** 

Seasonal pricing

#### 3. Reactive Pricing



Taking price action in response to changes in market dynamics, competitive actions, macroeconomics, inventory balancing

Responding to supply / demand disruptions

Competitive tracking and pricing response

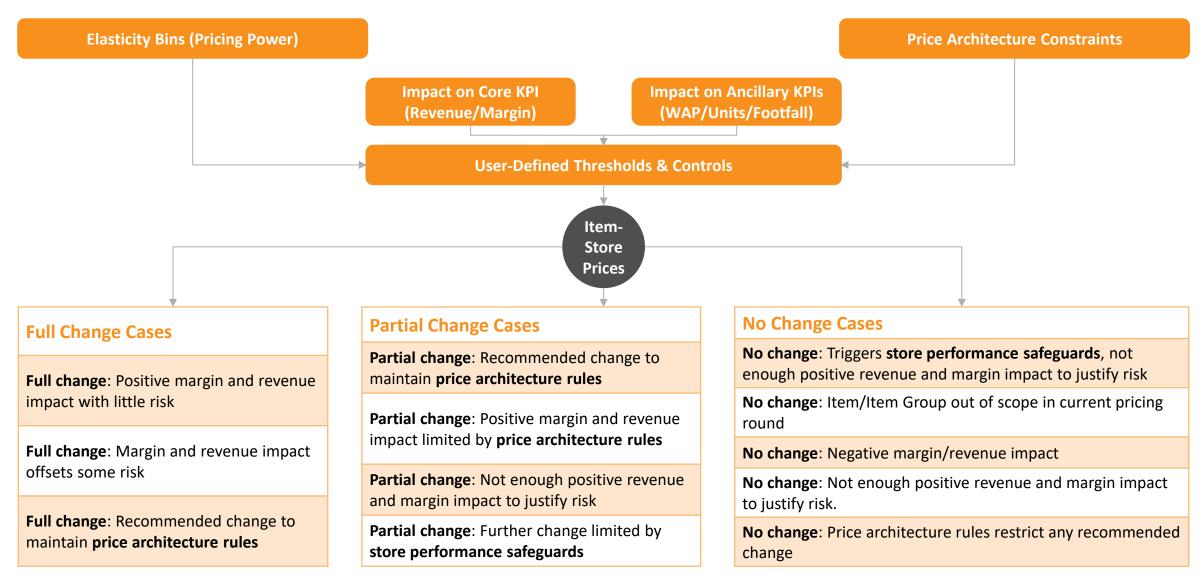
Dynamic markdown pricing

# End to End capability to Enable Point Pricing Interventions Using Scalable Pricing and Promotion Modular Accelerators

**Cost-Based Pricing** Every Day Low Price (EDLP) **Private Brand Pricing High-Low Pricing** Personalized Pricing **Competition Based Pricing Customer Loyalty Based Pricing Location based Pricing Reusable Pricing Models / Solutions Decision Support Pricing Tools Insights Workbench Pricing Simulator** Price Elasticity Models @ different store / product / customer grains **Price Testing Pricing Optimizer** Customer Dynamic Markdown Cross Elasticity / Segmentation / LTV **Optimization Models Demand Transfer** Price event impact analysis **Promo Simulator** Market pricing insights **Promo and Pricing** Market Basket **Store Groupings Event Modeling Analysis** Markdown Optimizer Consumer perception analysis **Foundational Data** Promotion 3rd Party Data Transaction Product Location Inventory Customer Competitor Workforce (Nielsen, IRI) Calendar

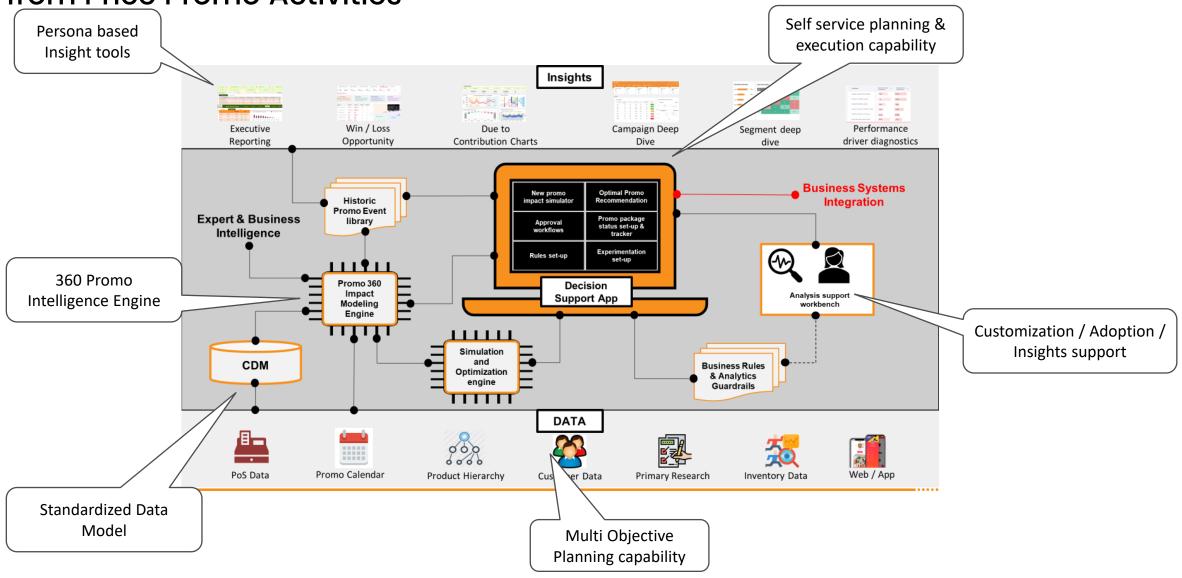
12

# White-box Models & Business Explainable Recommendations is Core to our Accelerators



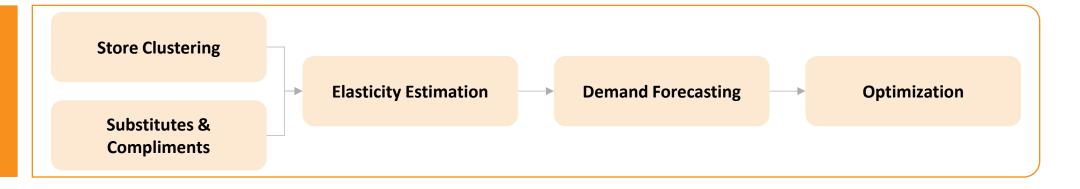
# 03 Solution Details

Comprehensive End to End Capabilities to Enable Business Value Creation from Price Promo Activities



## ML Engine: Robust Set of Algorithms for Noisy, Low Signal Data

Modelling Framework



#### **Modelling Components**

#### **Store Clustering**

Grouping of stores with similar characteristics for "joint learning" of price-sales relationship

#### **Substitutes & Compliments**

Identifying top complements & substitutes to learn the complex interactions between them

#### **Elasticity Estimation**

Learning elasticities for items sold at a store from sales history

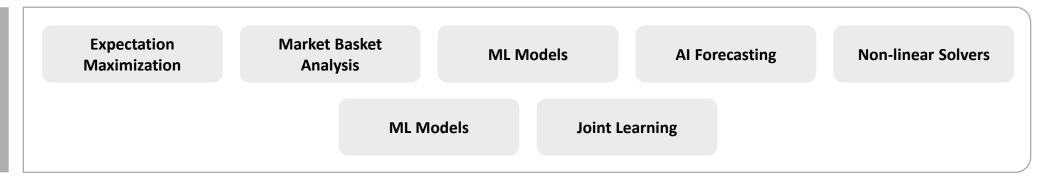
#### **Demand Forecasting**

Forecasting by decomposing non-price component of demand

#### **Optimization**

Maximizing store revenue through item price changes subject to constraints

Modelling Techniques



Case Studies

## 1. Retail Markdown Price Optimization for a Large Department Store Company

Our client is a top department store in North America with 1,000+ stores and 100,000 unique merchandising items.



#### **Objectives**

- Over the past decade, our client experienced a gradual reduction in gross-margins
- Develop a precise markdown strategy that provides optimal depth and timing of markdown by store
- Reduce the frequency and number of markdowns to mitigate the cost impact on store labor



#### Solution

- Estimated demand for diverse product types sold through multiple channels at daily and weekly levels
- Price recommendations after accounting for multiple complex business rules
- Solution provided information on markdowns -- How much?
   When? At which stores?
- Solution was integrated with the client's data warehouse and planning system





The solution delivered an increase in gross margin of approximately 16% profit and a 30% increase in sell-through rate on first markdown

### 2. Pricing Analytics for a Large Automotive Parts Distributor

Our client is the largest distributor of truck and trailer parts in the independent heavy-duty after market channel. 45 States. 250 Locations. 400 Brands.



- Pricing for 200,000+ SKUs serving a diverse customer base coming from Shipping, Agriculture, Construction etc.
- Provide a pricing band
   – Floor, Optimal and Ceiling for the salesperson to work with
- Fully automated process that can be run on a daily basis



#### **Challenges**

- Widely varying prices, largely influenced by salesperson behaviour
- 16 different pricing regions. Separate price points in each of these regions for the 200,000+ SKUs
- Legacy prices were largely ad-hoc by and hence could not be used as a starting point





Context specific pricing for each SKU. Production ready system for automated generation of prices. This increased the annual margin by 6.5% and revenue by \$41 M



# Thank You

www.tigeranalytics.com





