



Business-friendly Solutions



Redefining Trade Marketing
& Distribution Solutions with
Smart Trade



The Consumer Packaged Goods industry is undergoing a significant change that supports the case for implementation of comprehensive analytical solutions that enable trade marketers make the most of their budgets allowing them to extract maximum ROI through better performance visibility and actionable insights.

Manufacturers are under pressure to achieve sustainable growth and demonstrate greater agility amid a volatile market and economic environment. Value-driven shoppers are picky with fragmented tastes and spoilt by multiple paths to purchase. The retail landscape is also witnessing a revolution with greater concentration in developed markets, entry of smaller, niche manufacturers and blurring lines between different retail formats such as grocery and restaurant.

Given the changing marketplace, CPG companies need to make quick and better-informed decisions to stay highly responsive and relevant to the consumer. Trade spend still remains the largest expenditure after COGS and now accounts for over 25% of gross sales across the industry. The advent of e-commerce and social media has led to a distributed trade spend budget but with limited improvements in ROI measurement. With a multitude of route-to-market approaches, these companies see a variety of data – generated internally, from partners and external market research– which is largely non-integrated and consumed in silos.

Despite a strong business case, the adoption of TM&D analytics across the CPG industry is still very nascent. Companies and trader marketers still make key

business decisions based on pure intuition and experience, rather than being data-driven and evidence-based. Sporadic evidence has shown that analytics spearheaded with data driven scientific algorithms provide companies leaps in performance and insights through optimized ROI realization.

Increasing competition and changing consumer preferences is impacting growth of consumer goods companies – compelling them to look for newer ways of approaching their TM&D tactics. But to understand this better, let's start by taking a closer look at challenges that manufacturers currently face:

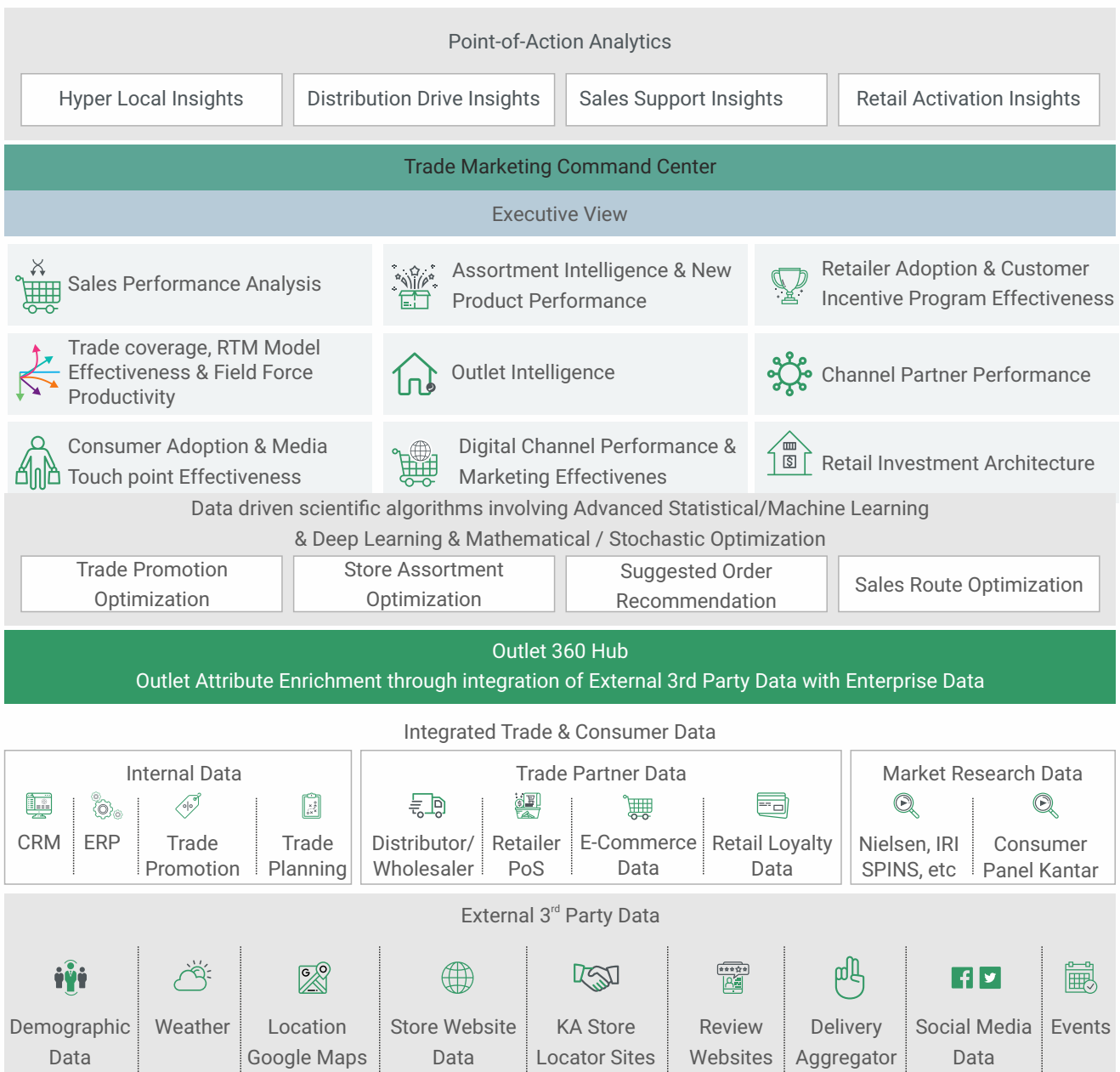
- Inability to plan promotion based on analytics
- Ineffective organization and partner integration
- Lack of appropriate key performance indicator
- Lack of territory prioritization
- Inability to improve field force performance and efficiency
- Inability to measure retailer adoption and Customer Incentive program effectiveness
- Misallocation of trade funds and resources
- Lack of incorporation with real-time data (including news, weather, and traffic)
- Inefficient margin conversion tactics
- Targeting the wrong groups for leads
- Inefficient trade management practices

ITC Infotech's Smart Trade Solution

Smart Trade is ITC Infotech's end-to-end solution for trade marketing and distribution with extensive Sales Insights.

Smart Trade has been conceptualized to inject intelligence across every part of the TM&D value chain to enable "superior last mile execution" for sustainable competitive advantage. Smart Trade is a fully integrated solution focusing on connecting the dots until sell out, consumption vs shipment analysis feeding into demand planning and inventory norm setting.

- A one stop shop to serve the TM&D analytical need in its entirety, it provides a rich repository of pre-built business & technological assets enable descriptive, diagnostic, predictive & prescriptive capabilities rendered through a single "core" platform.
- Recognizing that TM&D is fundamentally a local affair, the solution offers the capability to quickly customize a "central" template to suit to the operating characteristics of a local market but has advanced and emerging market templates built-in.
- To support complex cross functional analysis through guided analysis paths, the solution has seamless integration capability with supply chain and finance analytics solutions.





Trade Marketing Command Centre:

Incorporates Enterprise Performance Management Model, providing actionable intelligence to the entire sales organization under “one roof”

- Enables Line-of-Sight Reporting to ensure Informed Decision Making for all stakeholders
- Includes pre-built solution specific customizable Advanced Statistical / Machine Learning & Deep Learning algorithmic accelerators enabling the entire CPG- descriptive, predictive and prescriptive journey
- Includes Diagnostic Analytics use cases across all relevant TM&D functional areas for improved Root-cause Discovery & Course Corrections

Point-Of-Action Analytics:

Helps Field Reps to have a more meaningful data-driven conversation with Retailers through demonstration of “Quantified” Business Opportunity

Hyper Local Demand Insights: Enables better outlet-level demand visibility e.g. Sold-out concert venue 100 meters from the store, increased expat population in the neighbourhood demanding

international gourmet products, etc.

Distribution Drive Insights: Facilitates enlisting of must-have range & newly launched products through demonstration of incremental volume & consumer base

Sales Support Insights: Enables arrest of an OOS problem through SOQ recommendations & ensures Recommended Price Compliance through peer benchmarking

Retail Activation Insights: Enables the Rep to drive Retail Compliance & Performance against the backdrop of incentive-based trade promotion program

Pre-Call Prep Dashboards: Territory and Outlet dashboards that provide a performance snapshot view that help the Reps with Visit preparation

Outlet 360 Hub:

Leverages Customer, Business, Demographic and Social Data to improve Trade Planning and Resource allocation and empower Field Force Reps with “Point-Of-Action” insights

Smart Trade Advanced Analytical Solutions & Algorithms

Suggested Order Generation using Advanced Statistical & ML Algorithms

- Designed an algorithm that generates optimal **outlet level suggested order** on a weekly basis with SKU recommendation for order enhancement using **cross-selling** and up selling by looking at the historical sales behavior of customers and their neighbours (**geo-spatial**)
- Order Enhancement Algorithm makes use of the **Collaborative Filtering** technique to identify Product and Outlet similarities
- Overall Model **Accuracy** is pegged at **85%** bringing in a **4%** increase in revenue

Algorithm : Neighborhood identification algorithm / Bagged Lasso & GAM Regression / Clustering using K-Means/K-Medoids

Affinity Analysis/ Weighted Collaborative filtering

Advanced Analytics driven Trade Promo Optimization Strategy

- Trade Promotion Optimization solution using historical trade promotions and volume sales across categories / subcategories to optimally allocate trade budget and device new trade promo strategies

Algorithm : Multiple Linear/Non Linear Regression Models / Hierarchical regression Model/Multi-level Model,

Mixed Effect Models/ Promo – clustering using K- Means/K-Medoids / LPP, QPP, Stochastic Optimization

Marketing Campaign Effectiveness using Media Mix Model

- Establishing mathematical form of sales and marketing levers using historical sales and marketing campaigns to estimate baseline and incremental sales due to marketing activities. Subsequently marketing budget optimization strategy

Algorithm : Multiple linear/Non Linear Models / Multi-level Regression, Hierarchical Bayesian / Regression, Mixed effect Models / Convex Optimization using Lagrange Multiplier

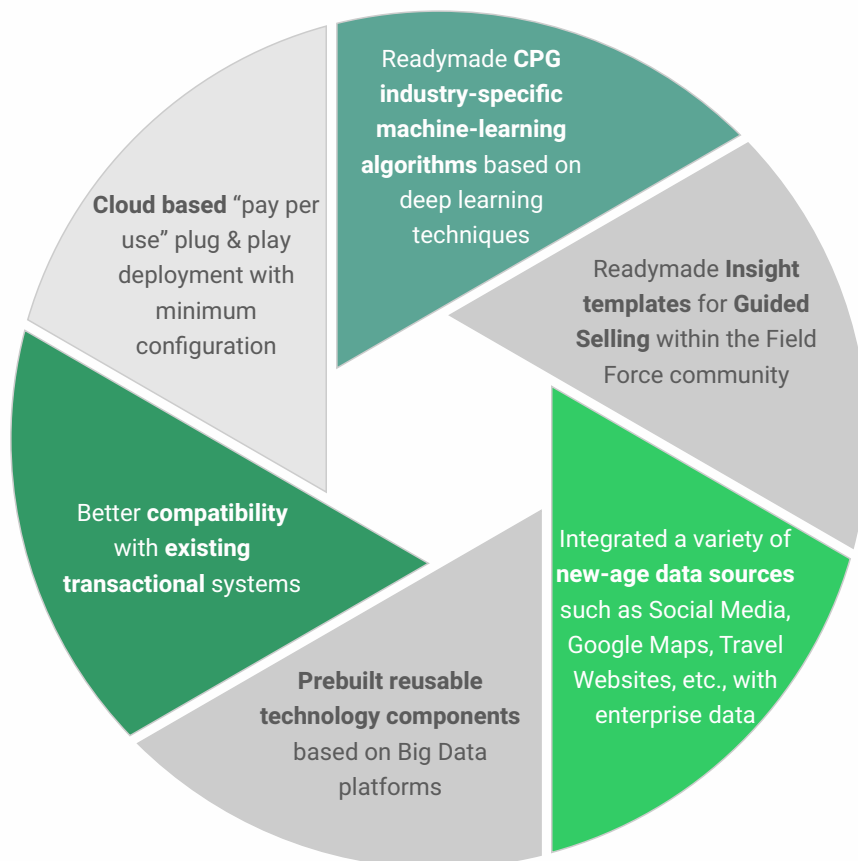
Demand Forecasting Solutions

- Establishing Demand equation and subsequently forecast the future demand at required level of granularity and forecast horizons

Algorithm : Regression models with time-series errors / Time series models : - AR(p), MA(q), ARIMA (p,d,q) / Artificial Neural Networks / Gradient Boosting Machines / Bayesian Forecasting

Value Creation with Smart Trade

Smart Trade by ITC InfoTech is a comprehensive analytical solution built on Microsoft Azure powered with multiple descriptive reports, deep diagnostic capabilities and prescriptive analytics backed with robust algorithms- helping business users of CPG companies with intelligence that enables faster fact-based decision making.



Our CPG Trade Success Stories

Trade Performance Information (Trade analytics Platform)

- Enabled **Line of Sight** monitoring of business performance for roles across **Head of Trade to FF Reps**
- TM&D Subject areas covered: **Sales & Delivery, Distribution, Trade Programs, Trade Coverage, FF Productivity & Brand Activation**, etc.
- **"Point of Action"** Analytics enabled for front-end Reps to drive commercial discussion which Retailers
- Self-Service Capabilities delivered to allow in-depth adhoc analysis
- Solution built on **Azure Data Platform & Visualizations** rendered via **PowerBI**

Integrated Intelligent Trade Planning Transformation

- Fully integrated planning capability which brings together - **strategic planning, operational planning** and execution planning to ensure goal flow-down and purpose based resource allocation
- Planning Models implemented include **Trade Coverage** Planning, **Media Capability** Planning,

Total Customer Investment Planning - Budgeting (**Margin & Credit** Planning), **Store Assortment** Planning, **Sales** Planning, **Customer Incentive** Planning & **Field Force Incentive** Planning

Trade Command Center (Integrates 3rd party Data with Retail Intelligence)

- **Voice** Enabled Trade Marketing Command Center with a visual **map**-based interactive interface to view and analyze critical business KPIs on a near **real time** basis
- Single **integrated** repository of TM&D data including internal system generated data, 3rd party Nielsen & Kantar, Distributor & Wholesaler data as well as Retail POS data

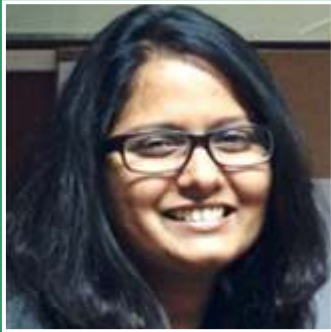
- Enables both **Strategic & Operational** Monitoring
- Visualizations rendered via **Tableau**

Ace Data Platform (Integrates Ecommerce & Google Analytics Data with Trade)

- **Flexible** data model to handle **Structured & Unstructured data** from heterogeneous source of SAP, Sales, Oracle, SQL server, Magento, Google analytics, Social Media
- Created **Fluid architecture**: Data ingestion-ADF, Denodo & REST: Data transformation- Spark, Scala,

Semantic layer- ASS, DW, ML, Neo4J; Power BI. **Chat Bot** pilot integration

Author Profile



Bisakha Hrushikesh Praharaj

Principal Consultant – Industry Analytics (CPG), ITC Infotech

Bisakha leads Smart Trade solutions and services at ITC Infotech that helps CPG companies realize better Returns on Trade Investments (RoTI) through improved Trade performance evaluation and enhanced Field Force productivity. Smart Trade is a comprehensive Trade Analytics and Optimization framework that enables the entire operating continuum of TM&D – Planning, Targeting, Execution and Evaluation with diagnostic and predictive insights.

With over 10 years of extensive Consulting experience in the niche CPG Analytics space, Bisakha has led Global Trade Transformation projects across Top 100 CPG companies.

- Led Transformation of the Trade Execution & Evaluation Process (the 2nd & 3rd step in the Plan - Act - Check Cycle of Trade Performance Management) from Roadmap & Conceptualization to Delivery to Adoption to BAU Support for continued success for a GBP 47bn Global CPG.
- Enabled Design & Adoption of TM&D analytics for a US 8bn Indian CPG company across areas of Sales Target Allocations, Recommended Orders, Trade Promotion Optimization & New Product Launch Analytics
- Led an Insights-as-a-Service Project for the Modern Trade Business of a US 8bn Indian CPG that specializes in Tobacco, , snack foods, ready-to-eat meals, fruit juices, dairy products, confectionary & personal care products

A bona fide traveler, Bisakha has been to 20+ countries and counting. Back home, she loves to tend to her balcony garden and cook using freshly harvested produce from her tiny farm in the outskirts of Bangalore

Bisakha has worked extensively with CPG companies across US, UK, Europe and India. She brings deep CPG Domain Expertise across areas of Store Assortment Optimisation, Retail Execution, Trade Investment Optimisation, Category Management, Salesforce Effectiveness, and Trade Coverage & Prioritization.

About ITC Infotech

ITC Infotech is a specialized global technology solutions provider, led by Business and Technology Consulting. ITC Infotech's Digitaligence@work infuses technology with domain, data, design, and differentiated delivery to significantly enhance experience and efficiency, enabling our clients to differentiate and disrupt their business.

ITC Infotech is a fully-owned subsidiary of ITC Ltd, one of India's foremost private sector companies and a diversified conglomerate.