



AI-Powered Demand Modeling

For a Leading Indian Cosmetics Brand

Document Type
Case Study Report

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Top Indian Cosmetics Manufacturer

DOCUMENT TYPE
Cosmetics and
Personal Care

CLIENT TYPE
National | Extensive
SKU Portfolio

LOCATION
India

Sector Focus: High-SKU consumer brand requiring precise demand signals, shorter planning cycles, and lower stock-outs.



Executive Summary

A leading cosmetics brand faced manual, error-prone forecasting with poor SKU-level visibility. Translytics deployed AI-powered demand planning models that incorporated historical cleansing, seasonal trends, promotional impacts, and real-time market signals. Forecasting accuracy improved, stock-outs dropped, and planning cycles became faster and leaner.

+20%

Forecast Accuracy

30%

Faster Planning

↓ 15%

Stock-outs

10%

Carrying Cost Cut



Challenge

The company struggled with:



Forecasting Inefficiency

- Manual processes increased error rates
- Long planning cycles delayed responses
- Poor SKU-level visibility hindered accuracy



Inventory Imbalance

- Frequent stock-outs impacted service levels
- Excess inventory raised carrying costs
- Lack of root-cause tracking

Business Impact



High firefighting in supply planning



Increased working capital lock-in



Unstable service levels across markets

Solution



Translytics Demand Modeling Engine

Advanced AI-based forecasting integrated with bias cleansing and root-cause analytics.



Bias-Corrected Forecasting

- ✓ Removed historical judgment errors
- ✓ Improved model trust and accuracy



Seasonality & Promo Signal Capture

- ✓ Incorporated external, marketing-driven demand shifts
- ✓ Reduced forecast volatility



Variant-Level Forecasting

- ✓ SKU and variant-level precision
- ✓ Simplified management of large portfolios

Impact & Results

Qualitative Improvements

- ✓ More reliable forecasting models
- ✓ Reduced firefighting for planners
- ✓ Faster demand-supply alignment
- ✓ Leaner inventory footprint

Annual Impact Projection

₹50L+

Saved Annually

20%+

Forecast Accuracy

15-20%

Fewer Stock-outs

30%

Faster Planning Cycles

Technology & AI Implementation



AI & Machine Learning Components

- Bias cleansing algorithms
- Seasonality & promotion modeling
- Variant-level SKU forecasting
- Root-cause deviation tracking



Integration & Platform Features

- ERP-linked demand data ingestion
- Real-time forecast adjustment alerts
- Central dashboard for SKU monitoring
- Auto-generated forecast accuracy reports

Future Enhancement Roadmap



Phase 2: Automated Replenishment Triggers

Connect forecasts to live inventory for instant stock actions



Phase 3: Channel-Specific Forecasting

Tailor models to e-commerce, retail, and distribution channels



Phase 4: Dynamic Promo Response Modeling

Refine demand based on real-time promotional lifts