



**VASTRAMAY**  
soulful threads



**TrueGradient**

# Vastramay transforms pre & in season planning with TrueGradient



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## Summary

### Customer

Vastramay

<https://vastramay.com/>

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### Industry

Fashion

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### Challenge

- Inaccurate pre-season plan
  - Stockouts in-season
  - Manual planning of bill of material
  - Sub-optimal inventory in a multi-echelon network
  - Sub-optimal Price & Markdown
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### Solution

Connected Planning: Demand Planning, Multi-echelon inventory optimization, price and markdown optimization

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### Outcome

- Improved demand forecasting accuracy by 20%
- Enhanced new product forecasting
- Optimal inventory holding
- Optimal pricing & liquidation strategies maximizing revenue and margin

Vastramay is a fast-growing ethnic brand catering to the demand for high-quality traditional clothing in India and internationally. As an ethnic wear brand, festivals and wedding season are crucial revenue drivers for Vastramay. The company aimed to enhance profits by accurately forecasting demand and planning inventory levels (multi-echelon) to minimize out-of-stock situations during the season period. By adopting TrueGradient's supply chain solution, Vastramay significantly improved its seasonal planning, optimized working capital, and minimized stock-out situations.

## About the customer

Vastramay is an emerging fashion brand. The brand's ethos revolves around blending traditional aesthetics with modern trends, aiming to cater to the diverse ethnic needs of consumers across the globe.

## Vastramay's supply chain and challenges

Vastramay's supply chain involves complexities of fulfilling demand particularly during high-demand seasons such as weddings and festivals. These peak periods account for a significant portion of Vastramay's annual revenue, and the brand needed a robust system to manage swings in demand, plan inventory levels, and streamline procurement and production.

**TrueGradient's AI-powered platform has enabled Vastramay to achieve this through advanced planning and forecasting capabilities.**

Providing **AI demand forecasts** to **prepare** for the wedding season, Diwali, and other **major festivals** allowed the brand to plan and **meet the surges in customer demand that come with these occasions**. It involved extra consideration of top sellers to ensure they are always in stock, **minimizing stockouts during critical periods**. TrueGradient incorporates Indian wedding dates into its forecasting models. This enables Vastramay to better anticipate spikes in demand linked to major wedding seasons and plan inventory accordingly.

Moreover, synchronized planning for bundles, individual styles and further **disaggregating demand to raw materials** ensured that there is no gap in procurement and production planning. This ensures there are no delays in production due to material shortages, even during peak seasons.

### Connected Planning (Synchronized Forecasts)



## Connected planning using TrueGradient

Vastramay partnered with TrueGradient to improve pre-season and in-season operational planning; key solution features are:

- **Demand forecasting**, both long term and short term for each SKU-Warehouse combination
- **Multi-echelon Inventory Optimization** between manufacturer, primary warehouse and other warehouses
- **Bills of Material prediction** to streamline procurement and production planning
- **Strategic pricing optimization** to maximize revenue and margins
- **Liquidation strategy / Markdown optimization** for excess stock

*"TrueGradient's platform has transformed our end-to-end planning process, it enhanced not only apparel forecasting but also boosted production efficiency by aligning finished product demand with dependent demand for raw materials"*

**Siddhant Bajpei**

**Business Head, Vastramay**

Vastramay implemented TrueGradient's platform during a crucial pre-season planning phase, **moving away from conventional spreadsheet planning**. This shift equipped them with autonomous, AI-powered planning tools that utilize sophisticated neural networks to revolutionize their supply chain management process.

**Demand Forecasting** enabled by AI Neural Engine (**Ensemble of Deep Learning + Machine Learning + Econometrics**) that extracts maximum predictability out of the data. The engine leverages several data elements, and **considers various demand drivers** such as promotions, festive season, holidays, events etc. to generate the most accurate forecast.

## TrueGradient's Neural AI engine is designed to drive accuracy, explainability and scalability at the most granular level

### Neural Engine

- Deep Learning
  - Multi-Layered Perceptron
  - Stacked LSTM
  - Wave-net
  - CNN LSTM
  - GRU
- Machine Learning
  - Random Forest
  - XGBoost
  - XGBLinear
  - Regularized Regressions
  - SVR
  - ExtraTrees
- Econometric
  - ARIMA
  - Prophet

### Causals

- Granular feature engineering to support nuances of internal and external factors
- Various Date Time nuances like Week of Year, Week of Quarter, Month of Year
- STL Decomposition (Seasonality and Trend)
- Out of Stock / Zero Indicators (Flag, Window Frequencies and Proportions)
- Support for Causals like Promotions, Weather, Price, etc. with Lags and Piece Wise Transformations
- Holidays, Events with Lags & Piece Wise Transformations

### Explainability

- Elasticity Computation
  - Price
  - Promotions
  - Events
  - Holidays
- Factor Contribution
  - Base forecast
  - Factor level forecast

**Inventory Optimization** model leverages a variety of data like generated forecasts, demand variability, supply side parameters (lead time, MOQ, Safety stock, Service levels) to compute **profit optimal re-order quantity** at the most granular level.

**Learn more?**

Contact us at [info@truegradient.ai](mailto:info@truegradient.ai)

<https://truegradient.ai/>