CASE STUDY

ALGONOMY

A multi-billion dollar multi-format retailer in the Middle East

SEGMENT | Lifestyle and Fashion, Grocery

PRODUCT | Merchandise Analytics

CHALLENGE | Increasing margin erosion and loss of potential sales due to faster stockouts

RESULTS
- **Improved sales** forecast accuracy to **95%**
- **12% increase** in inventory sell-thru
- **30% reduction** in excess inventory
- **$20 Mn potential sales** loss averted in a year
- **Additional $6 Mn** worth of stocks transferred between stores

The client is one of the leading retailers in the Middle East spread across 17 countries, operating in lifestyle and fashion retail businesses, with over 500+ stores serving over 750,000+ customers on a daily basis. The client was facing huge challenges in its merchandise planning and operations due its multi-format, multi-brand, and cross-industry retail profile.

- One of the key challenges faced by the client was accommodating factors such as weather, promotions, events, inventory, etc. in sales forecasting, resulting in reduced OTB (open-to-buy)

- Decisions on identifying the right products and determining optimal markdown was done based on limited understanding, leading to margin erosion

- Stockouts in some stores and overstocking in others was a common occurrence due to missing single view of inventory across stores, leading to potential loss of sales

The client was looking to iron out the challenges with an AI-driven solution that could give accurate, reliable, and timely insights to improve the merchandising planning process and decision-making.

Algorithmic Merchandising Platform

ML-based sales forecasting

Augmenting baseline forecasting with ensemble ML-based algorithms capturing external factors

Markdown optimization engine

Product lifecycle based markdown recommendation and pricing

Inter-store transfer recommendation

Predictive insights on stock and smart recommendations based on demand
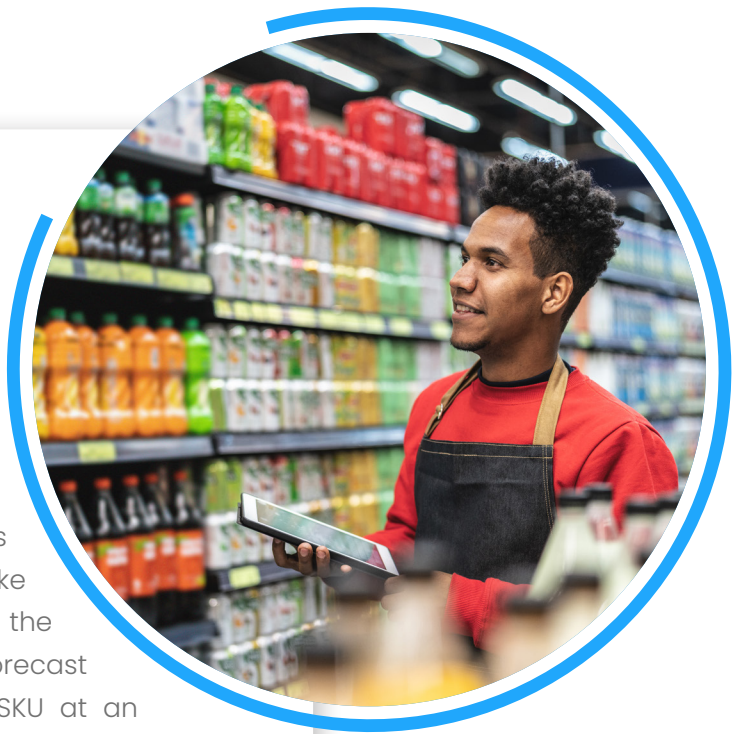
Transformation to Algorithmic merchandising

Algonomy's Merchandise Analytics platform fit in perfectly as it provided deep insights for smart decisioning related to sales, inventory, price, and promotions. Algonomy enhanced sales forecasting with its ensemble based ML-algorithm that captures new variables such as product lifecycle stages and external factors like promotions, price changes, weather, etc. With the algorithmic approach, the client was able to forecast sales accurately across store, product, and SKU at an accuracy rate of over 95%.

Algonomy implemented its ML-based markdown optimization engine that identifies the right candidates for markdown based on product lifecycle and predicts the right level of markdown for SKUs. For new products, product hierarchy and attribute methodology were used to predict the right level of markdown. With an improved markdown planning, the client witnessed an improvement of sell-through by 10%.

Algonomy's inter-store transfer solution enabled predictive insights on stock levels and recommendation on inter-store transfers based on demand and current stock levels. Based on the recommendations, the client was able to transfer an additional $6 Mn+ worth of stocks to relevant stores and reduce loss of sales by over $20 Mn.

With Algonomy's Algorithmic Merchandising Platform, the client has been able to create virtuous cycles across merchandising planning and operations, resulting in improved profit margins, cash flow, and reduced loss of sales.

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