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Seasonal Store Assortment Planning And Optimisation

By leveraging big data and analytics, retailers are able to cluster stores and channels to maximise sales productivity. Effective clustering allows retailers to provide the right mix of products for customers based on their preferences, across locations, which in return improves sales margin and inventory utilisation. When embedded into different processes, clustering provides retailers with the opportunity to do better forecasting, assortment planning, size-optimisation, promotions planning, markdown optimisation and replenishment scheduling.

A Retail Case-Study

Seasonal Store Assortment Planning & Optimisation | A Retail Case Study

Maximising Sales Productivity For An American Clothing Retailer In China

01

Productivity / sqm

Increase Productivity / sqm by 30%

02

Increase Full Price Sell Through

Increase full price unit sales by 20%

03

Increase Overall Revenue Uplift

Improve overall revenue uplift by 15%

- Optimised mix of assortment based on customer preferences will drive a higher percentage of sales at full price.
- A higher full price sell through will result in fewer seasonal unit quantities sold at markdown in Mainline/SIS doors.

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Objective

To optimise our client's stores in China to grow store revenue per square meter.

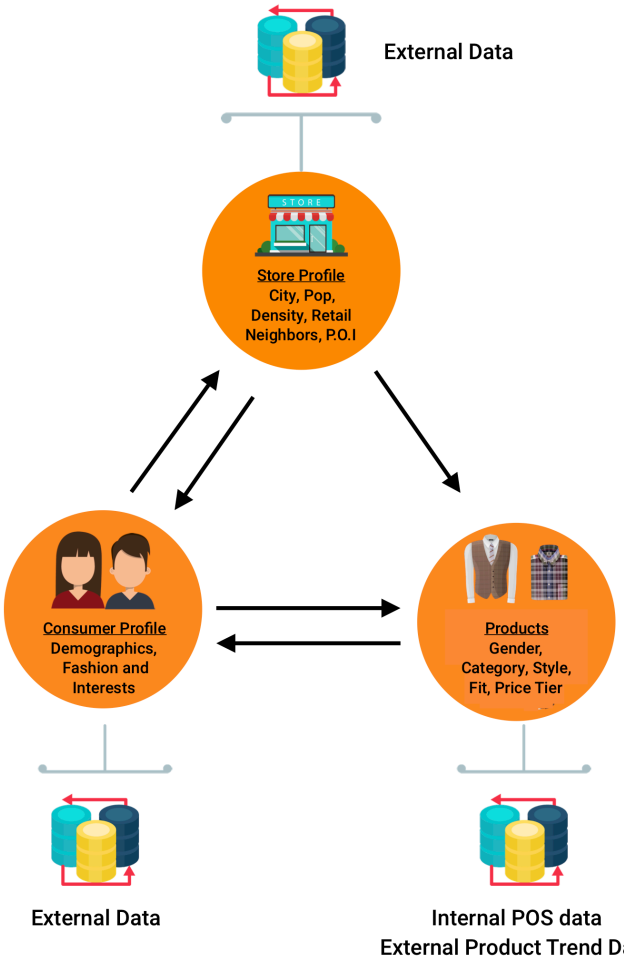
Challenges

Over 1000+ list of product options available for in-season assortment to each store.

Stores are dynamic entities driven by internal, external and surrounding factors

Growing revenue, with the right product categories for the right season

The Lynx AI Retail Optimiser

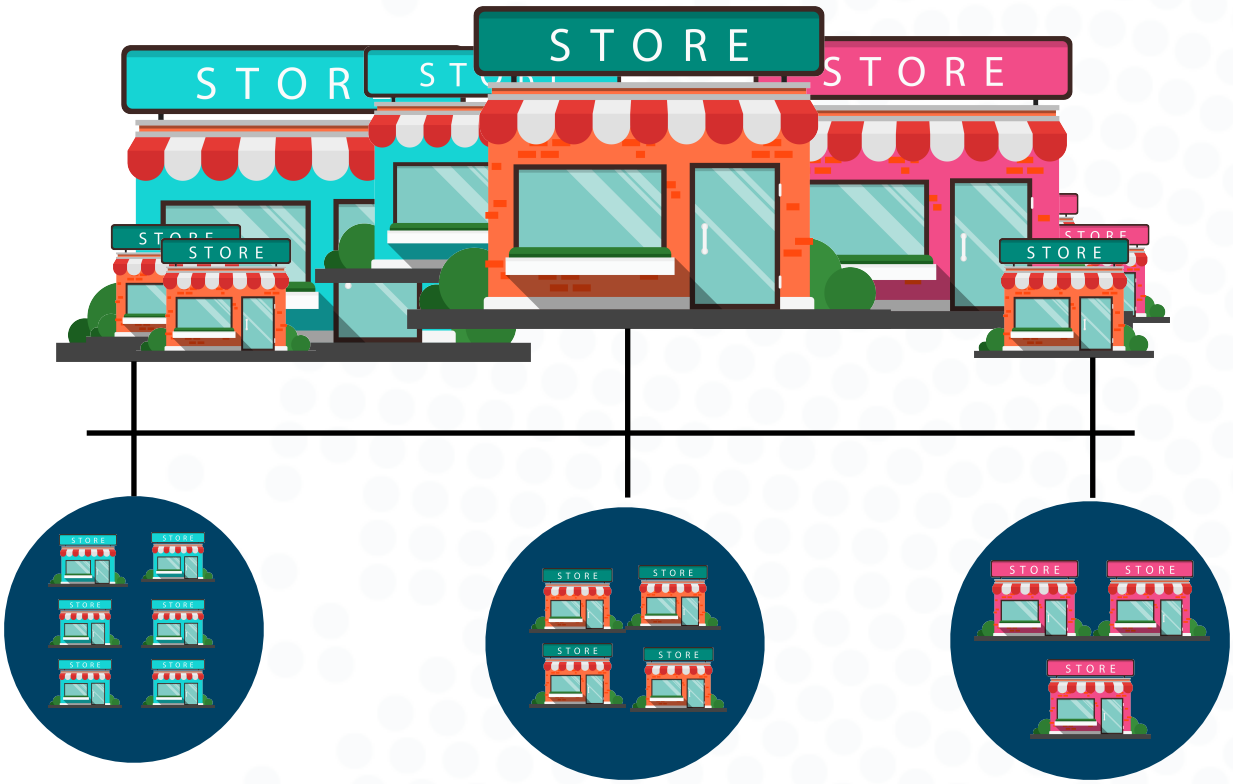


By applying a Retail analytics solution, we were able to incorporate internal and external data to drive the following outcomes:

- Enhance breadth of data by supplementing sales data with new external consumer profile and store data
- Apply machine learning algorithms to evaluate and recommend store assortment to maximise productivity (revenue/ sq.m).
- Leverage Genetic Algorithm – a powerful AI solution successfully used for engineering problems to create store level assortment and predict the impact of changing factors

Solution

By leveraging on machine learning algorithms, our solution provides clustering for more than 300 stores based on similarity of customer preferences. The optimal number of segments were selected based on a silhouette score which assesses the similarity a store is to its own cluster (cohesion) in comparison with other clusters (separation). Each segment was then given a scorecard which helped group these stores based on customer preferences such as preferred product categories, average spending power etc. The following table is an illustrative example of the store segmentation exercise:



Segment 1- Trend Adopters	Segment 2- Premium	Segment 3 - Price-Sensitive
Preferred Products Bottoms: Jeans | Fit: Skinny Fit Top: Blazers and Tees	Preferred Products Bottoms: Premium Collection Jeans | Fit: Tapered Top: Shirts & Sleeveless Tops	Preferred Products Bottom: Basic Collection Jeans | Fit Straight Top: Hoods and Sleeveless Shirts

As you can see in Segment 1, the customers were categorised as Trend Adopters, who preferred skinny fit jeans for bottoms and blazers and tees for tops. These customers were not that interested in premium collection tapered jeans, shirts and sleeveless tops but at the same time they were also not price sensitive.

Segment 2 seems more oriented towards Premium collection tapered jeans for bottoms, shirts for men's tops and sleeveless tops for women. Whereas segment 3 were categorised as price sensitive due to their preferred basic collection straight fit jeans, hoods and graphic tees. Following this, we mapped these stores which belonged to the respective segments across China which provided our client the opportunity to apply customised segment-level execution strategies pertaining to promotions planning, pricing, markdown and effective product assortment.

Segment 1- Trend Adopters

Segment 2- Premium Men

Segment 3 - Lower Spending

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Lynx Analytics

Founded in 2010 and headquartered in Singapore with an engineering team based in Hungary, we bring value to companies across the retail domain with artificial intelligence and predictive analytics solutions to improve forecasting, assortment planning, size optimisation, promotion planning, markdown optimisation and replenishment scheduling.

Our Expertise

Store Clustering

Assortment Optimisation

In-Store Inventory Simulations

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