DEMAND FORECASTING OPTIMIZATION FOR FOOTWEAR

Motivation / Background
Top 3 words used by executives of fashion companies to describe the industry in 2017:
- Uncertain
- Challenging
- Optimistic

Challenges
- Consumer Shifts
- Fashion System Shifts
- Macroeconomics Shifts

Optimized Forecast Using Machine Learning

Benefits
- Accurate Forecast
- Healthy Inventory
- Improved Financials

Methodology

Planning
- Problem Motivation
- Literature Review
- Requirements

Data Management
- Gathering & Validation
- Pattern Identification
- KPIs Development

Framework Development
- Method Selection
- Model Building
- Performance & Hypothesis Testing

Key Question / Hypothesis
How footwear companies can optimize their demand planning strategy toward having an agile and adaptive supply chain that is capable of dealing with:
1. Macroeconomics challenges such as global economy shifts and volatility
2. Microeconomics challenges reflected in consumer’s preferences and fashion system shifts

Relevant Literature

Expected Contribution
- Identify significant predictor variables influencing demand for seasonal products in the footwear industry
- Build a forecasting model utilizing available data and leveraging advanced analytics and machine learning to improve prediction accuracy
- Recommend solutions that contribute to the development of an optimal demand planning framework in line with the company’s strategic goals