Forecasting Model for Sporadic Distributor Based Market

Motivation / Background

- Wide discrepancy between forecast and actual shipment impacts business (Missing sales, high inventory costs)

Key Question / Hypothesis

- What is the best model to forecast long & short term shipments for sporadic distributor based markets?
- How can we link distributor data to improve the E2E (End to End) supply network?

[Hypothesis] Downstream dynamic affects the shipments of company

Relevant Literature

J. D. Croston, Forecasting and stock control for intermittent demands, Operational Research Quarterly, 1977

Methodology

1. The graph represents shipment of one particular SKU

Initial Results

- Correlation exists between distributor shipment and sell-out
- Further analysis required to integrate further data points

Expected Contribution

- Investigating relationship between distributor data (ex. stock level, promotion, wholesale price) and the actual shipment
- Developing the forecast model that accurately integrates data across E2E supply network
- Applying the forecast model to other regions / category / brand / products of the company

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