MIT Supply Chain MANAGEMENT

Student: Jeffrey A. Baker, SCM 2018

Advisor: Dr. Sergio Caballero
Sponsor: Escalade Sports

Lean Approach to Increasing Forecast Accuracy

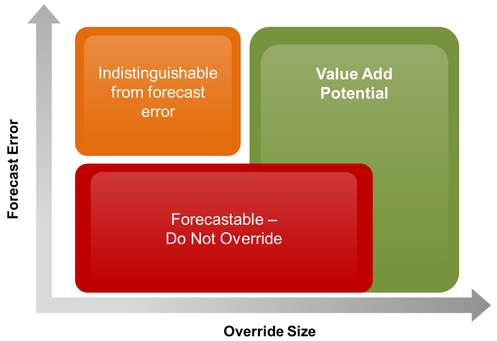
MIT GLOBAL SCALE NETWORK

January 2018 Poster Session

Motivation / Background

Poor forecast accuracy impacts supply chain profitability.

Framework for Maximizing Value Add



Key Question / Hypothesis

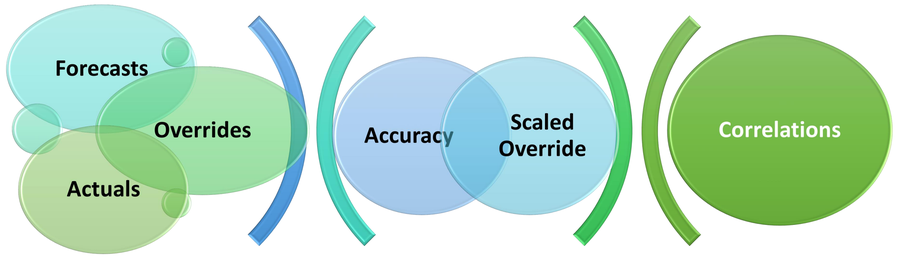
Can we create a framework to identify which overrides have the greatest potential for adding value ?

- **Large overrides distinguishable from forecast error "noise" should be increase forecast accuracy.**
- **Small overrides indistinguishable from forecast error "noise" will be non value added.**

Relevant Literature

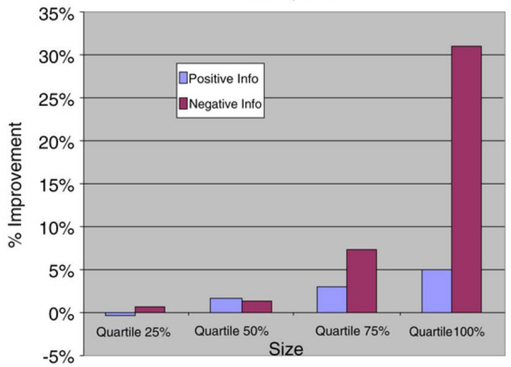
- **Effective forecasting and judgmental adjustments, Fildes et al, International Journal of Forecasting 25 (2009)**
- **Investigating the added value of integrating human judgment into statistical demand forecasting systems, Baecke et al, International Journal of Production Economics (2017)**

Methodology

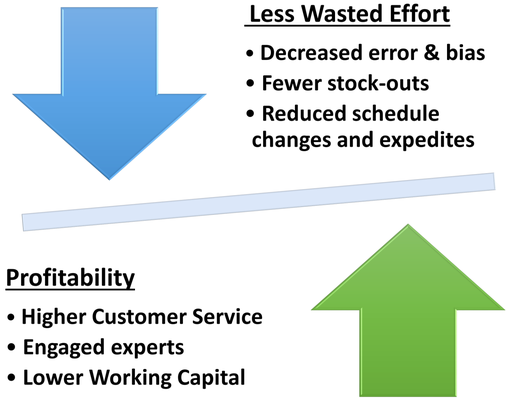


Initial Results

Results from Fildes et. al. imply a relationship between override size and forecast improvement.



Expected Contribution



Less Wasted Effort

- **Decreased error & bias**
- **Fewer stock-outs**
- **Reduced schedule changes and expedites**

Profitability

- **Higher Customer Service**
- **Engaged experts**
- **Lower Working Capital**

Jeff Baker, CSCP, CPIM, CPF