

Student: Kevin Chu, SCM 2019

# Retail Pharmacy Inventory and Demand Management

BACK TO KIOSK MENU

MIT GLOBAL SCALE NETWORK

January 2019 Poster Session

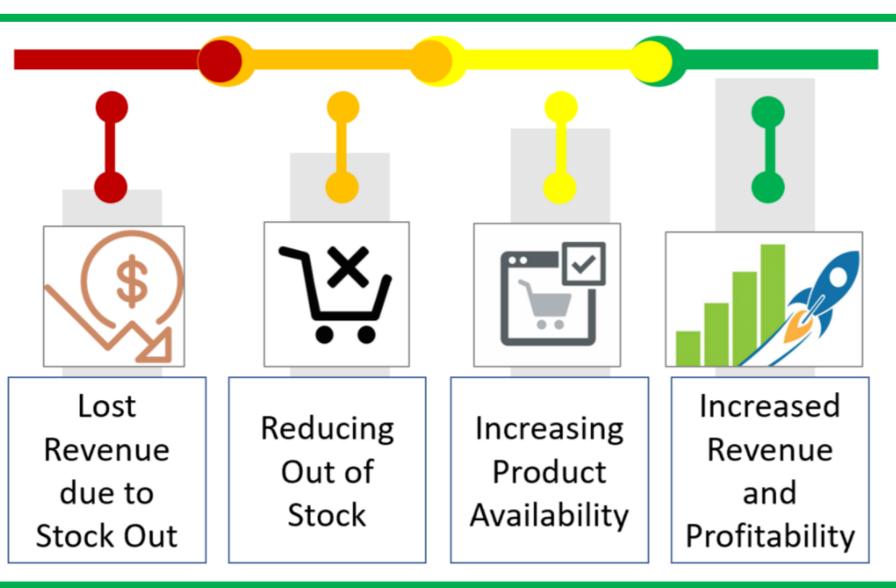
# Motivation / Background

Advisor: Dr. Christopher Mejia Argueta

Sponsor: Retail Pharmacy Chain (DR)

Student: Juan Manuel Martínez, SCM 2019

Sponsor has 13.4% of SKUs and 6.2% of sales at risk of stockout.



Manage suppliers pushed discounts to optimize profitability

## **Key Question / Hypothesis**

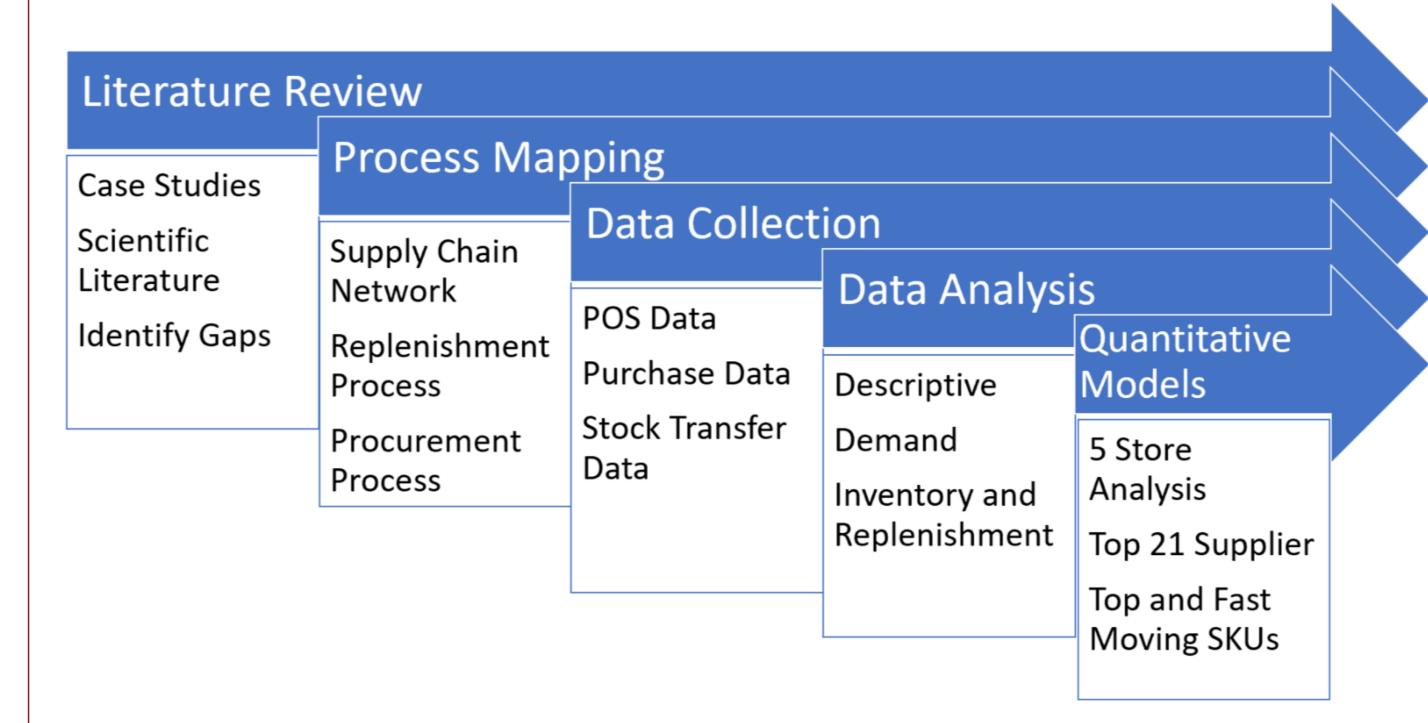
- How do we:
  - Optimize replenishment policies?
  - Quantify inventory record inaccuracies?

#### **Relevant Literature**

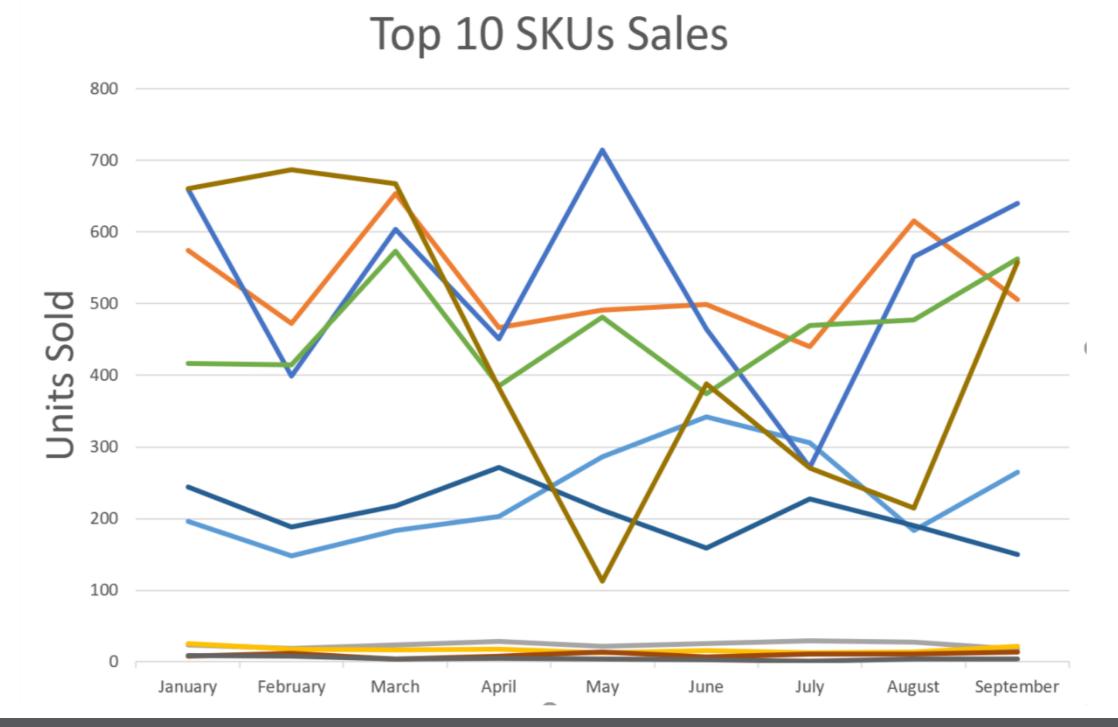
- •Saedi S., Kundakcioglu, O. E., & Henry A. C. (2016). Mitigating the impact of drug shortages for a healthcare facility: An inventory management approach.
- Steeneck D., Eng-Larsson F., & Jauffred F. (2016). Estimating Demand for Substitutable Products when Inventory Records are Unreliable.
  Reymann P. J. (1995). Pharmaceutical Inventory Forecasting at the Wright-Patterson Medical Center



### Methodology



#### **Initial Results**



#### **Expected Contribution**

Identify

Inventory record inaccuracies and coping methods.

**Propose** 

- Optimize inventory management to reduce Stock-out likelihood
- Inventory policies to optimize inventory levels.

Juan Manuel Martínez



Kevin Ch

