



EXPERIENTIAL LEARNING IN OPERATIONS MANAGEMENT

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PURDUE
UNIVERSITY®



Project A: Zero Backorders Analysis

Industry: Fabricated metals

Based on the updated inventory plans – we have increased inventory due to covid related delays and some customer driven contracts, I would like to offer zero air freight guarantee on select and over time on all parts. Would like to have an analysis on our exposure if we do this for A rank, B rank, and all parts by students.

Project B: Product Weight Prediction Algorithm

Industry: Software

A major initiative at client is the development and deployment of Continuous Fulfillment Optimization (CFO), a new tool that will optimize the flow of product through a supply chain network via real-time simulations. A major component of the CFO model is to estimate freight costs to ensure this is properly factored into the cost of intra-network stock transfers (as opposed to buying direct from a vendor). While many of the necessary inputs to calculate freight are standard to the client, certain fields are often hard for our clients to obtain or contain many gaps, and we could use assistance in predicting missing data points.

Project: Predicting Product Weight

Using a client-provided data set including product/material master attributes, students should analyze the data to build a routine/model/heuristic to predict/validate the weights of various products.

Experience with R or Python would be especially useful.

Project C: Post Acquisition Sourcing Improvements

Industry: Food and Beverage

Client is in the process of consolidating several different business units purchased in the past two years and determining where to focus improvement efforts to achieve the highest ROI.

Student team will compile data provided on costs, spend, etc. across different areas of the business and use the information to make recommendations for improvements to the supply chain, such as supplier consolidation, leveraging total spend in supplier negotiations, effective use of trade credit, etc.

Deliverables will include visualizations of the data (in PowerBI or Tableau), recommendations for improvements, and financial analyses of recommendations.