

Mexico-China Dual Sourcing Simulation

Introduction

- The Game models a \$10 billion high-tech U.S. manufacturer of wireless transmission components that is at a crossroads regarding its supply chain. The company has two assembly plants, one in China and the other in Mexico. Although manufacturing costs are lower at the Chinese facility, ocean transportation makes its order lead times 5 to 10 times longer than those from Mexico. With highly uncertain product demand, sole sourcing is unattractive: Mexico is too expensive and China too unresponsive.

Team

- You need to decide how the firm can best utilize these two sources.
- At the strategic level, this requires the allocation decision of expected cumulative product demand to each source over the planning horizon.
- At the tactical level, students need to choose an ordering policy that implements that strategic allocation at the lowest cost.
- In practice, specifying strategic allocations and ordering policies are key tasks of any sourcing strategy—be it global or domestic—because they affect costs and supplier management.

Learning Objectives

- Demonstrate intuition on sourcing strategies and policies to guide sourcing decisions
- Incorporate working capital estimation in the concept of total landed cost
- Explain the added complexity of managing a supply portfolio versus single-sourcing
- Understand the futility of guessing and overreacting to demand

Setup and Game Play Instructions

- Information and data: check moodle for the excel file:
[Mexico China Student-Planning-Tool.xls](#)
- Come up with a strategy for your team
 - The spreadsheet contains ten time series for ten SKUs under “Historical order data.”
 - The demand stream built into the simulation is statistically similar to the one provided in the spreadsheet.
 - Demand will be randomly generated from the same distribution.

Game preparation

- The simulation should be administered and played using the [Firefox](#) browser. Using other browsers can cause problems and anomalies.
- Synchronize your device clocks with an internet site such as nist.time.gov. This will minimize differences between their device clocks and the game server clock, which can adversely affect game play.
- To synchronize with an internet time server:
 - Right-click the clock in the bottom-right corner of the taskbar.
 - Select “Adjust Date/Time.”
 - Confirm that students all select the same time zone.
 - Click “Synchronize your clock” with nist.time.gov.