Course: Supply Chain Analytics

Instructor: Dr. Tao Lu



Group Assignment 1: Push vs Pull in West and East

VASTA has two flag-ship stores in Los Angeles (LA) and New York City (NYC) as shown in Exhibit 1. Due to the different geographic locations, these stores differ in terms of demand volumes and inventory levels. The NYC store has a higher average weekly demand and a higher average inventory; see Exhibit 2. The sales and inventory data for each product type are available in the Excel file: VASTA-HW-data.xls

Assuming all cost estimates remain the same as in the analysis we did in the class, please

- 1. Perform a similar analysis to calculate the cost savings (in percentage) from push to pull for cold-smart, cold-feature, hot-smart, hot-feature phones, and assess the net cost difference between push and pull for the flagship stores in NYC and LA.
- 2. Answer the following questions and explain the intuition behind your answers:
 - Is pull always better than push (for both regions and all phone types)?
 - In which region (NYC vs LA), will pull generate a greater saving relative to push?
- 3. For each region, how will the cost saving from push to pull be impacted if the overnight shipping rate varies from \$10 to \$25? Assume that the benchmark shipping rate under push remains as \$2.4/unit. Discuss the managerial insights drawn from your analysis.



Exhibit 1. VASTA's LA and NYC stores

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NYC vs LA: higher volume, much higher inventory!

Exhibit 2. Differences in the average demand and inventory

Deliverables

Please submit the following files to HuskyCT:

- A PowerPoint presentation with answers to the above questions.
- A recorded video with an oral presentation of your work. Please use WebEx to record your screen, audio, and video, then upload the video to HuskyCT.
- The Excel spreadsheet used to calculate your results. This Excel file will only be used to resolve uncertainty as to your answers, and it will NOT, for any part, substitute the answers in the presentation.

While there is no page limit on the PowerPoint slides, your video presentation should be at most 10 minutes long.

Rubric

	Criterion	Percentage	Details
General	Structure and design of the presentation	10%	Clarity and conciseness; data visualization; overall quality of the presentation.
Answers to questions	Question 1	40%	Please include necessary intermediate results (e.g., savings in each cost component) in the presentation.
	Question2	30%	Remember to explain the intuition behind your results, which will be considered in grading.
	Question 3	20%	Please create a chart to visualize your results. Note that you are expected to not only describe the numerical findings but also state your results in meaningful managerial terms.