

Production Management (ME-419)
Module 2: Demand Management
Assignment 5: Forecasting Steps (Step 3 & 4)

Objectives: The goal of this assignment is to practice the main steps of forecasting and perform data analysis of the historical data (shipment/sales data) of your company (refer to forum of your group on Moodle).

Tasks: The tasks to complete and the results to obtain are as follows

Note: Consider only the product level forecast (aggregated data of products)

- a. Test whether there is seasonality in your dataset or not (use auto-correlation)
- b. Select a preliminary forecast model
- c. Compute possible initial trend components
- d. Compute possible initial seasonal components
- e. Validate the proposed initial model
- f. Comment the results of the validation process

Hint: You can use Excel file uploaded on Moodle (Week 5) to guide you through the process

Your submission:

1. File: Your slides
2. Time: The latest by **Friday, Oct 18th before 11:55 AM.**
3. **This is a group assignment**, and there will be a group presentation for this assignment. Each presentation will have 10 minutes with 8 minutes of feedback.
4. Assignment is due on the scheduled date. Submission delay will have a negative score.
5. Connect, bond, and establish regular contact with your coach.
6. Connect and bond with your group members, define a proper group strategy for handling the workload and reach an agreement on the time to meet up during the week.
7. Upload your files (and the supporting files if applicable) in *Moodle's* appropriate location.

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Hint: How to tackle a problem systematically? In a high level, consider the following three main elements in your report preparation:

1. Problem/issue: identify the key problem/issue described in the case and pay attention to its essence. There are many issues and problems to solve in any given case, but not all are equally important.

2. Solution/Analysis: identify “how” and “why” the situation happened and then address the main drivers and causes of the problem/issue. Who is(are) the stakeholder(s)? The goal is to raise awareness of the problem/issue.

3. Result(s)/Outcome(s): what would you do if you were the decision-maker? What solution would you take to tackle the underlying problem, drivers and causes of the issue. What are the risks? Stay to-the-point, precise, and realistic.

References: Cite the work of others when you use any content, use Google Scholar (") sign, and use APA or Harvard Business Review style.

Appendixes: Please address anything that is of the secondary importance but valuable to be addressed in your report/thesis.