Supply Chain Strategy, Performance, and Drivers; Demand Forecasting

Planning: Create a time-schedule for doing the readings and for working on the problems and project. Submit this schedule with your solutions. Also, track how well you follow your schedule, and make notes regarding obstacles and problems to being “on track”. You should do a first pass on each problem before Tuesday’s class.

Reading: SCM (3rd ed): Chapters 2, 3, 7 (Demand Forecasting); Chapter 16.1, 16.2 (Information)

Problems (due Thursday, 20 January 2011):

1. Amazon.com:
   (Note: Parts of this problem might have been done in HW #1; include them in your solution)
   A. What is Amazon.com’s supply chain?
   B. How would you characterize the competitive strategy of Amazon.com? What are the key customer needs that Amazon aims to fill? Where would you place the demand faced by Amazon on the implied demand uncertainty spectrum? Why?
   C. What level of responsiveness would be most appropriate for Amazon’s supply chain? What should this supply chain be able to do particularly well? (Visit the amazon web-site and perform “experiments” when solving this problem.)
   D. How can Amazon expand the scope of strategic fit across the entire supply chain?

2. Toyota (can be done in collaboration with your project team ; also for discussion in class on Tuesday 1/19):
   A. Answer questions posed above in 1 A-D, for Toyota
   B. How can the full set of six drivers be used to create strategic fit with Toyota’s competitive strategy?

3. Demand Forecasting for Tahoe Salt: Use Excel to work through the static forecasting for the Tahoe Salt problem (Edition 3, Chapter 7, Page 193-197). Your results should match the given solution.

4. Demand Forecasting for ABC Corporation: Chapter 7, Exercise 1

Project Phase I (project review with instructor on Tuesday, 25 January 2011):
Remember to use a structured problem-solving process in all your work.

Phase 1 Check-list:

- **Firm-up the project proposal.** This proposal should include a clear statement of the goals and objectives of the project and a (tentative) supply chain for your actual product. The project leader and the team should prepare the appropriate organizational structure (including responsibilities), task decomposition matrix, GANTT, and PERT charts for the project.
- The problems on HWs 1,2 should give you some ideas on how to get started on your project, i.e, developing the competitive strategy, supply-chain strategy, etc.
- Develop the overall supply chain strategy, and clearly state the logic used to determine this strategy.
- Design the high-level structure (drivers) for your supply chain.
- Develop a high-level plan for the software development part of your project.
- Obtain and/or estimate demand data for your product.