## Homework #1 Shiraz University

- 1. NDI faced a challenge when rapid growth and aging technology threatened to stand in the way of company goals. Instead of enabling operational improvements, NDI's existing systems were impeding progress. Existing technology was causing missed deliveries and creating a high number of back orders. Inventory control was poor and the planning was inaccurate. Customer satisfaction was at risk and internal morale was slipping.
  - With some customers expecting shipment in as much as nine months and others expecting shipment in as little as nine days or even less, more sophisticated and accurate planning has been critical.
  - As an IT consultant prepare a solution in terms of EC softwares for NDI company to solve its problems. Discuss about the results of your solution on the company.
- 2. Custom Furniture Ltd. (CF) (a fictitious name) is a large office furniture manufacturing company that specializes in custom-made luxury office furniture (such as executive desks and boardroom tables and chairs). Located in a large metropolitan area (population about 12 million), the company is known for its quality products, has been growing slowly, and controls a fairly large but fixed market share. CF salespeople, equipped with a catalog of their basic products and pictures of some specially designed furniture, visit their regular customers periodically and call on potential customers to set up appointments to show the catalogs.

If a customer is interested in customized furniture, a sketch of the furniture is made jointly with the customer, measurements are taken, and an estimated price is given on the spot (using a formula in the salesperson's portable PC). The order information is then faxed, or manually delivered, to the main office daily. The design department prepares the blueprints of the furniture, finance/accounting prepares an accurate price, and a contract is sent to the customer by mail or a delivery service. (Legal requirements do not allow faxing.) The customer can negotiate the deal and can request modifications. After the contract is finalized, production begins and the final product is sent to the customer.

## The company experiences the following problems.

- a. Completed furniture is frequently returned for changes. ("This is not what we had in mind; you misinterpreted our sketch.") Although some modifications can be made at the customer's site, other items must physically be sent back to the company.
- b. Deliveries are made by a small contractor who charges low fees with the understanding that a delivery time might be 1 to 3 days. Using a larger delivery company would cost 47 percent more with a guaranteed same-day delivery cycle.
- c. The salespeople claim they are too busy to actively seek many new customers. Because they are paid mostly fixed salaries, adding more salespeople might be too expensive.
- d. Customers frequently complain about the long time span between order placement and when the furniture is received.

## Homework #1 Shiraz University

- e. Although the company sells only a few dozen products that are made from a selection of 250 basic components, literally millions of configurations of the final products are possible. In general, customers are more innovative and demanding, so it is more difficult to translate customers' wishes into blueprints and final products.
- f. A new company, CF2.com (factitious name), appeared out of nowhere a few weeks ago, offering competing products at a 30 percent discount and a 50 percent reduction in cycle time. CF2.com has not received an order yet, but CF remembers what happened to Toys R Us and Barnes and Noble—companies that initially ignored online competition.

**Your mission**. Your group was hired as a consultant by CF. What would you advise CF Management to do?

- 1. Prepare a diagram of the existing supply chain of CF in this case.
- 2. Using your knowledge of strategic IT systems, SCM, e-commerce, and so on, prepare a plan for CF that will deal with each of the aforementioned six points. That is, what IT-based or EC-based solutions can be used? Because cost could be a major factor, suggest two alternatives for each point (standard and deluxe).
- 3. Draw the proposed supply chain.