Customer Service and Sales

I.   Introduction
    a. Retail customer service is certainly important but we'll look at B2B
    b. Timeliness, accuracy, key factors in physical distribution
    c. Two different perspectives
    d. Service Viewpoint
        i.   Product, price, and promotion all stimulate / generate demand
        ii. Place variable doesn't really create demand.
        iii. Physical distribution is the "other half" of marketing
        iv. Differentiating between "generating" and "servicing" demand
    e. Creation Viewpoint
        i.   Physical distribution helps create demand through availability, prompt deliveries
        ii. Back to competition at the augment level – just creating a product isn't enough.
        iii. Requires having a deep understanding of customer service for good performance

II.   Customer Service
    a. Quality of performance in physical distribution
    b. Want to reduce customers' cost of ownership
    c. Measures
        i.   Availability of Inventory: What percent of items a customer orders can be shipped
        ii. Total Order Cycle Time: From placing order to receiving it
    d. Cost Problem
        i.   Why not always shoot for perfect service?
        ii. Costs money! Not profitable
        iii. Even if items have 95% fill rate individually, if a customer orders 10 items it's (0.95^{10}) = 59.9% availability.
        iv. Weighted expected fill rate – Weighted average of probability of filling order by frequency of order combination
    e. Cycle Time
        i.   Hard to manage – many components
        ii. Purchasing – all at customer end
        iii. Order Processing
        iv. Distribution Center
        v.   Transportation
        vi. Receiving – back at the customer end again
        vii. Customers care about purchasing and receiving even though there's nothing suppliers can do about either.
        viii. Can, however, integrate into purchasing and receiving in an information sense (for big customers) via JIT.
    f. Poor Metrics of Performance
        i.   We promise "on-time" – that's not measurable
        ii. "90% of orders within two days" is much better
        iii. Good: Phone won't ring more than twice before someone answers
    g. Expanded concept of customer service
        i.   Distribution system flexibility
        ii. Distribution system information (advance notice of changes, et cetera)
        iii. Recovery from malfunctions
        iv. Post-sale product support
    h. Budget
        i.   Want to spend on CS up to the point where marginal revenue = marginal cost.
        ii. Same as with any other budgeting problem.

III. Sales
    a. Want to determine the optimum territorial design
    b. Want to create "even" territories for three salespeople, but not all customers are equal.

c. Know distance from salesperson's home base and potential volume to be derived from each customer by each salesperson
d. Want to roughly equalize sales opportunity within each territory.
e. Minimize Travel Time
    i. Will want more frequent contact with high potential customers.
    ii. Weight travel time by volume.
f. Equalize Sales Potential – measured directly from estimates