Target Costing

2/24/00

Reason for this lecture

- Understanding cost/price issues in your product is critical to the overall success
- How to do Target Costing for a re-design
- How to do Target Costing for a new design
- Pricing -- what are the key drivers?
- Assignment
  - You will need to enumerate/quantify the price point issues
  - You will need to create a preliminary target costing scheme.

Several Parts to Target Costing

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- **Setting Price**
- Setting Profit
- **Setting Cost**

Past approach

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- Cost plus
- Use volumes to reduce costs
- Depend on TTM advantage to capture lead users
- Engineering sets function/value
- Cost targets not adhered to

Sources of cost

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- Fixed cost
  - Design
  - Technology
  - R&D
- Semi-fixed cost
  - Capital equipment -- number of machines dependent on volume
- Incremental/recurring costs
  - Each additional product increased the total incremental costs by one unit
  - Material, labor etc.

Key to pricing & target costing

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- Relative price/value perception of the customer
- What is the base price of a product
- What features does the product have that add value to the customer at a reasonable price
- The value is set by the consumer and the other competitors

Target costing process

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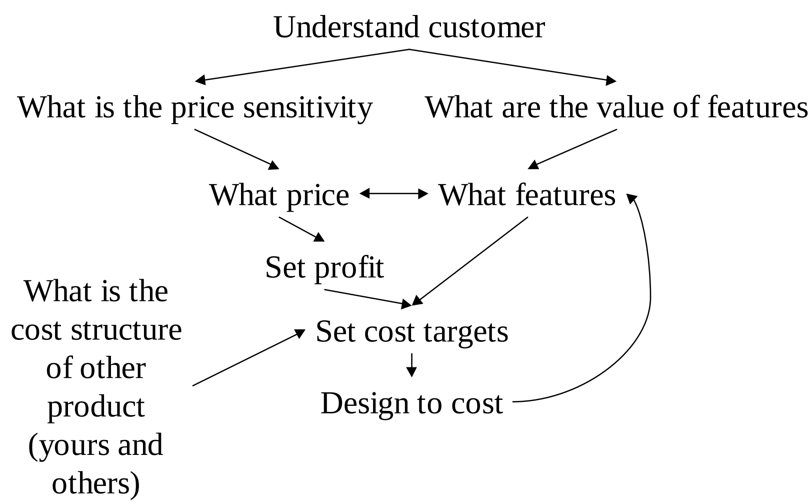

Price sensitivity effects

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- Perceived Substitutes
  - Locktite is a substitute for bolts
- Unique Value
  - Cross-Pad
- Switching Cost
  - Boeing to Airbus (maintenance)
- Difficult Comparison
  - Unique pricing schedules (brokers)
  - Generics/noname brand
- Price-quality
  - Price as a signal of quality (Rolls-Royce)

Price effects

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- Expenditure
  - income/expenditure
- End-Benefit - part of another function
  - sensitive to overall product cost/function
  - sensitive to the contribution to the total
- Shared-Cost
  - Someone else buying the product
- Fairness
- Inventory
  - ability to hold an inventory
  - short-term vs. long-term price fluctuations

Competitive comparison

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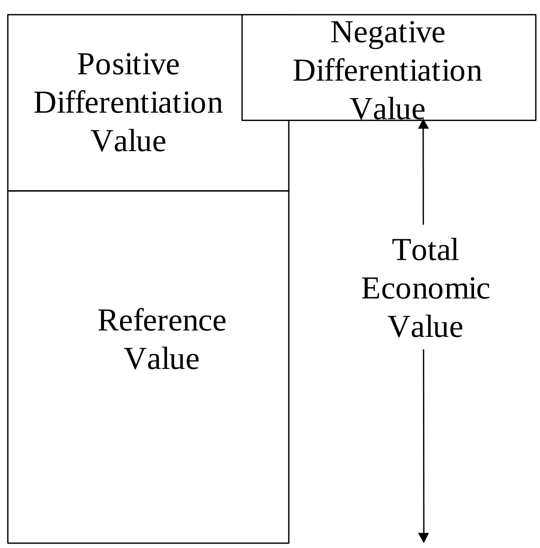

Feature sets

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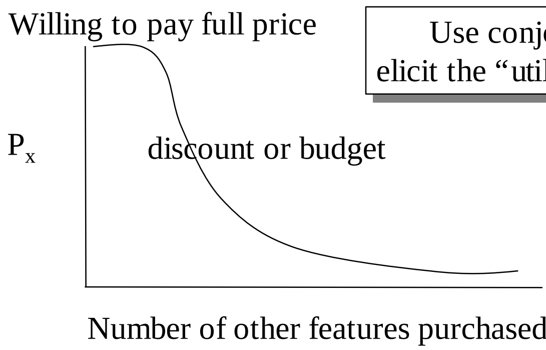
- Price is not a linear function of every feature
- P_x = price a customer is willing to pay for an additional feature



Use conjoint analysis to elicit the "utility" of each feature

Price Elasticity

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- Sensitivity of people's purchase to a change in price
- E = (% change in unit sales)/(% change in price)
- Hard to calculate or generalize
- Function of
  - Market share
  - Product Difference
  - Price/quality point
  - Product

Toyota Case

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- What is the process of Target Costing
- Normalize 1998 costs to 1999 conditions
- Select price for base product, volumes, and profit
- Identify the total, “real” cost reductions required
- Allocate the reductions between departments

What data do they need

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- Price target for base car
- Elasticity
- Cost structure for every part
- Price sensitivity for features
- Cost of every feature
- Where cost can be removed (what is reasonable)
- Fixed costs -- molds and other equipment

What enables Toyota to do this well

- Strong costing department
- Lots of historical data
- Design doesn’t change
- Competitive Data
- Flexible architecture -- can change out features
- Strong cross-functional interactions
- Part sharing for reduced cost

TC for new products

- No existing product
- Don’t clearly understand customer needs/wants

Solutions

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- Tools
  - Tear down of similar products
    - What % of cost should go to the memory/LCD/process or etc
  - Value analysis
    - What value does each feature have, how much are you willing to spend to add an additional feature
- Real Options
  - Maintain flexibility in the product architecture (i.e., allow final feature set to be flexible)
  - Important where customer needs are unknown

Real options

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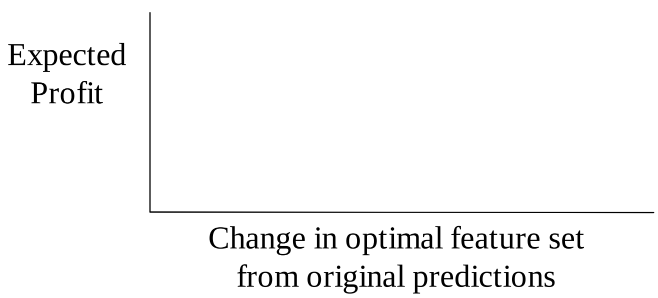
- The amount you pay to have an option to include a feature/new technology etc.
- Additional costs
  - product development resources
  - flexibility to add/remove features



Summary

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- Need a good understanding of value
- Need to understand part cost structure for yours and other costs
- Need to work with suppliers to enable long term cost reductions

Reading

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- Foster, S. 1986. "The S-curve: A new forecasting tool." Chapter 4 in Innovation: The Attacker's Advantage. New York: Summit Books.
- EMI & CT Scanner (HBS #9-383-194)
- Rogers, E. 1983. "Innovativeness and adopter categories." Chapter 7 in Diffusion of Innovations, 3rd Edition, New York: The Free Press, 241-270.