Business Policy & Strategy
Dr. Richard C. Insinga, April 2011

Lecture #6

Plan for Lecture #6

- Key points from Lecture #5
- Topics for tonight
  - Porter's Chapter 15 – Capacity Expansion
  - Article – Hambrick & Fredrickson's *Are You Sure You Have a Strategy?*
  - Book – Christensen et al's *Seeing What's Next*
  - Book – Moore's *Crossing the Chasm*

Key Points from Lecture #5

- Barney's *Firm Boundaries* discussed how many firms outsource at least part of their operations and uses *transaction cost economics* to explain the costs, benefits, and strategic value of this approach.
- Coase's *New Economics*, the Nobel Prize winning economist who developed the theory of transaction cost economics, challenged the directions that the field of economics has taken since the 1930's, stating that it has deviated from dealing with real world problems and taken paths that are abstract.
- Insinga & Werle's *Strategic Outsourcing* discussed a methodology for deciding whether to outsource or perform an activity in-house. It showed how transaction cost economics can lead to incorrect or even fatal outsourcing decisions if the strategic implications of such decisions are not considered beforehand.

Capacity Expansion

- Capacity expansion is one of the most significant strategic decisions faced by firms, measured both in terms of the amount of capital involved and the complexity of the decision-making problem.
- Because capacity additions can involve lead times measured in years and capacity is often long lasting, capacity decisions require the firm to commit resources based on expectorations about conditions far into the future.
- Two types of expectations are crucial:
  - Those about future demand, and
  - Those about competitors' behavior.

Capacity Expansion (cont'd)

- The strategic decision in capacity expansion is how to add capacity to further the objectives of the firm, in the hope of improving its competitive position or market share, while avoiding industry overcapacity.
- Undercapacity in an industry is rarely a problem, except temporarily, since it will attract new investment.
- However, because investments in capacity are largely irreversible, capacity overshooting (i.e., excess capacity) may well persist for long periods of time.

Elements of the Capacity Expansion Decision

- The mechanics of making a capacity expansion decision in traditional capital budgeting sense are quite straightforward.
  - Any finance textbook will supply the details on how to do a discounted cash flow, net present value analysis.
- However, this simplicity masks an extremely subtle decision-making problem.
  - To determine future cash flows, the firm must predict future demand and also the future capacity decisions of its competitors.
  - Furthermore, there is usually uncertainty about future trends in technology that must be considered.
- The simple calculations presented in finance textbooks do not cover these most important aspects regarding future industry conditions.

Elements of the Capacity Expansion Decision (cont'd)

1. Determine the firm's options for the size and type of capacity additions
2. Assess probable future demand and costs of inputs
3. Assess probable technological changes and the probability of obsolescence.
4. Predict capacity additions by each competitor based on the competitor's expectations about the industry.
5. Add these to determine industry supply and demand balance, and resulting industry prices and costs.
6. Determine expected cash flows from capacity addition.
7. Test the analysis for consistency

Causes of Overbuilding Capacity

- There seems to be a strong tendency toward overbuilding of capacity, particularly in commodity businesses.
- The risk of overbuilding is most severe in commodity businesses because:
  - Demand is generally cyclical and as such it guarantees excess capacity in downturns and leads to excessively optimistic expectations in upturns.
  - Products are not differentiated, which makes cost crucial to competition, since the buyers' choice is heavily based on price.
  - Firms' sales are closely tied to the amount of capacity they have.

Causes of Overbuilding Capacity (cont'd)

- Technological Factors
  - Adding capacity in large lumps
  - Long lead times for adding capacity
  - Changes in production technology
    - New plants based on new technology will be built, but old plants will continue operating.

Causes of Overbuilding Capacity (cont'd)

- Structural Factors
  - Significant exit barriers
    - Inefficient excess capacity will leave slowly.
  - Forcing by capacity equipment suppliers
    - Through discounts and other incentives
  - Building credibility
    - Some period of significant overcapacity is often virtually required in industries trying to sell to large buyers.
  - Age and type of capacity affects demand

Causes of Overbuilding Capacity (cont'd)

- Competitive Factors
  - Large number of firms
  - New entrants
- Information Flow Factors
  - Inflation of future expectations
  - Divergent assumptions or perceptions
  - Structural change
    - When firms need to invest in new types of capacity
  - Financial community pressures
    - Financial analysts sometimes question why a company is not adding capacity while its competitors are doing that.

Causes of Overbuilding Capacity (cont'd)

- Managerial Factors
  - Production orientation of management
  - Asymmetric aversion to risk
    - Managers lose more by being the only firm caught with insufficient capacity in a strong market than they do by having built too much capacity along with their competitors.
- Governmental Factors
  - Perverse tax incentives
  - Desire for indigenous industry
  - Pressures to increase or maintain employment

Limits to Capacity Expansion

- There are some checks against the tendency for overbuilding.
  - Financing constraints
  - Company diversification, which widens the options for investment within the firm
  - Infusion of top management with finance backgrounds to replace management with marketing or production backgrounds
  - Pollution control costs and other increased costs of new capacity
  - Great uncertainty about the future that is widely shared
  - Severe problems because of previous periods of overcapacity