

Competitive Strategy: Week 3

Organisational Scope

Simon Board

Make or Buy?

- Should you make a product in-house, or buy from outside?
- Example: Lockheed Martin is merchant buyer
 - A division buys cheapest parts, from inside or outside.
- Example: General Motors makes many of its parts internally
 - Not put out to tender.
- Tapered Integration: Both make and buy

The Firm as a Technology I

- The firm is a cost curve.
 - Firm run by manager who chooses inputs/outputs to maximise profit.
- Firm makes two decisions
 - Cheapest mix of inputs to make any output level.
 - Optimal output level.
- Costs are U-shaped
 - Fixed costs, so costs initially fall.
 - Limited managerial talent, so costs eventually rise.

The Firm as a Technology II

- Theory is useful
 - Technology is important determinant of firm size.
 - Enables us to examine how prices affect choices.
- Ignores incentive within the firm.
 - Theory is black box.
 - Nothing to say about internal organisation of firm.
- Does not pin down boundary of firm.
 - Why is managerial talent a fixed factor?
 - Why not hire second manager?
 - What happens to cost curve if two firms merge?
- Theory consistent with one huge firm with all current firms being run as divisions.

Integration and Market Power

- Horizontal integration can be motivated by desire to exercise monopoly power.
- Firms can circumvent legal framework by internalising practices.
 - Price discrimination: differential treatment may be illegal.
 - Foreclosure: cannot refuse supply.
 - Firm can merge downstream and overcome hurdles.

Transactions Cost Analysis

“It is surely important to inquire why coordination is the work of the price mechanism in one case and of the entrepreneur in another.” Ronald Coase (1937)

- Why not let market do everything?
 - Markets are efficient and provide incentives (see FWT).
 - Markets coordinate economic activity.
- What are the limits to organisation?
 - Suppose two firms, A and B, operate separately.
 - Why not merge them? One can always keep everything the same, and replicate the unintegrated outcome.
- Key idea: writing contract is costly.
 - Expensive to cover all contingencies.
- Design organisations to minimise costs of production and trade.

Sources of Transactions Costs

- Information processing costs
 - Hard to think very far ahead (e.g. chess).
- Negotiation costs
 - Hard to negotiate about states if lack common language.
- Writing costs
 - Hard to write plans so court can enforce.
- These costs means parties write incomplete contracts.
 - Contract silent about some provisions (e.g. factory burns).

Ex-Post Costs of Contractual Incompleteness

- Suppose parties use incomplete contract
 - Renegotiated in some states.
 - Players must bargain.
- Parties may fail to agree.
 - Suppose buyer has value $v \sim U[0, 1]$ and supplier names price.
 - Supplier's profits $\Pi = p \times \Pr(v > p) = p(1 - p)$.
 - Optimal price $p^* = 1/2$. Hence 50% chance of no trade.
- Delay in agreement
 - Cost of not trading
 - Lawyers' fees.

Case Study: Texaco–Pennzoil

- Jan 1984: Pennzoil agreed to acquire 3/7 of Getty oil.
- One week later: Texaco bought all of Getty. Pennzoil sued for breach of contract.
- Nov 1985: jury awarded Pennzoil \$12 bn.
- Feb 1987: Appeals Courth lowered this to \$10 bn.
- Apr 1987: Texaco went into bankruptcy to stop a liens on assets.
- Dec 1987: Texaco and Pennzoil agreed a settlement of \$3 bn.
- These shocks reduced *combined* values of companies by \$3.4 bn.
 - See Cutler and Summers (Rand, 1988).

Ex–Ante Costs of Contractual Incompleteness

- Holdup problem
 - Firms deterred from making *relationship specific* investments.
 - Firms overinvest in cultivating outside options.
- Example: *A* and *B*, wish to trade.
 - *A* invests *I*. Value of trade $v(I)$.
 - After investment firms renegotiate and split gains 50:50.

$$\Pi_A = v(I)/2 - I$$

- *A* under–invests because it fears expropriation.
- Key: Asset specificity.
 - No underinvestment if investment is general.

Hold-Up: Examples

- Fast Food Franchises
 - A franchise costs \$50–250k.
 - Company can raise price of inputs or sell more franchises.
- Electric Utilities
 - Electric power plants are often built next to coal mines
 - But then the coal mine can increase its prices.
- GM and Fisher Body (which made closed car bodies)
 - To encourage FB to invest, GM signed 10yr exclusivity clause.
 - Price set at cost plus 18%.
 - GM's demand rose, FB's average costs fell, but price did not.
 - FB also refused to relocate their plant near GM.
 - GM eventually bought FB.

Transactions Costs and Boundary of Firm

- Integration reduces contracting costs
 - Firm as “nexus of contracts”.
 - Have standardised contracts between firm and agents, rather than between all agents.
 - Example: UofT (students, profs, dean, alumni)
- Integration change costs of incompleteness.
 - May reduce haggling costs.
 - May reduce holdup (if parent can choose all investments).
- Problems
 - Exactly how do these mechanisms work?
 - Why not have one giant firm?
 - Other solutions to holdup problem (e.g. reputation).

Firm as Ownership Unit

- What is Ownership?
 - Residual rights of control
 - Contracts are incomplete.
 - Owner controls what's not in contract.
- Agents make noncontractible investments (e.g. human capital)
- Ownership allocated to maximise the value of trade.

Allocating Ownership I

- Two stage game between supplier A and buyer B ,
 1. A and B make investments I_A and I_B , costing $\psi(I_A)$ and $\psi(I_B)$.
 2. A has valuation $v(I_B)$ and B has costs $c(I_A)$.
- Need assets of both A and B to make product.
- Efficient investments $v'(I_B) = \psi'(I_B)$ and $-c'(I_A) = \psi'(I_A)$
- A and B separate. Assume they split value of trade 50:50.
 - Investments solve $v'(I_B)/2 = \psi'(I_B)$ and $-c'(I_A)/2 = \psi'(I_A)$.
- Suppose B owns A .
 - B can force A to supply goods since owns all assets.
 - Can always threaten to fire management of A .
 - Investments solve $v'(I_B) = \psi'(I_B)$ and $0 = \psi'(I_A)$.

Allocating Ownership II

- Suppose A owns B .
 - A can force B to buy goods since owns all assets.
 - Investments solve $0 = \psi'(I_B)$ and $-c'(I_A) = \psi'(I_A)$
- Summary:
 - Separate ownership: both invest a little.
 - A owns: only A invests.
 - B owns: only B invests.
- Party more likely to own asset if investment important
 - Owning vs. renting car.
- Highly complimentary assets should be owned together
 - Mine and electric utility.

Influence Costs

- Why not have one giant firm?
 - Why is selective intervention not possible?
- After merger a decision maker has the *power* to intervene
 - But doesn't know exactly how to intervene.
- Agents try to influence the principal's decision.
 - Direct cost of influence activities (time, ingenuity).
 - Cost of wrong decisions.
 - Cost of reorganising firm to minimise influence costs.

Tennaco and Houston Oil

- In 1980, Tennaco acquired Houston Oil and Minerals.
- Houston
 - Discovered oil and minerals.
 - Aggressive, risk-taking, entrepreneurial.
- Tennaco planned to run Houston as separate firm.
 - Keep high-powered incentives.
- Problem
 - Tennaco's 100,000 employees were jealous.
 - Pressure to increase equity.
 - 1/3 of Houston's managers left firm.

The Firm as a Reputation

- Within firms many contracts are incomplete (e.g. unforeseen contingencies)
 - Creates possibility for holdup.
 - Firm can solve with by developing a reputation.
- How decide if firm keeps promises?
 - Firm develops principle to apply to unforeseen consequences.
 - The apply principle even when not really applicable so as to preserve reputation.
 - Employees promoted on basis of sticking with the principle.
 - Interpret principle as *corporate culture*.

General Motors vs. Ford

- In 1921, Alfred Sloan was appointed to head GM.
- General Motors. 11% of U.S. market.
 - Collection of car companies (Cadillac, Buick, Olds etc.).
 - No central direction.
 - No coordination on parts: high costs.
 - Firms competed heavily with each other.
 - Inventory costs not assigned to division, so huge inventories during 1920 recession.
- Ford. 45% of U.S. market.
 - Single product: Model T. Very low costs.
 - “People can have the Model T in any colour - so long as it’s black”.
 - Hierarchical Unitary structure (U-form).

General Motors vs. Ford cont.

- Sloan’s Plan
 - Design different cars for different segments.
 - Cadillac at the top, Chevrolet at the bottom.
- Problems
 - Variety: new designs, new dealerships, new factories.
 - Coordination: reduce competition between divisions, share ideas, coordinate R&D, agree on common parts.
- The Multidivisional firm
 - Central office: plan overall strategy, audit divisions. Also responsible for research, legal and financial roles.
 - Divisions: autonomy on day-to-day activities. Make and sell car targeted at allotted segment.
- In 1940, Ford had 16% market share. GM had 45%.

The Multidivisional Firm

- Based on divisions
 - Product divisions. e.g. Dupont has explosives, chemicals etc.
 - Customer divisions. e.g. GM.
 - Geographical divisions.
- How set transfer prices?
- Marginal cost
 - Buying firm makes right purchase decision.
 - But fixed costs mean supplier makes loss.
 - Selling firm makes suboptimal investment choice.
- Average cost pricing

The Multidivisional Firm cont.

- Each firm profit maximises
 - Double marginalisation
- Price equal to outside market price
 - Need outside market to exist.
 - Incentives OK, if can buy from outsiders.
 - If forced to buy inside firm, seller's quality declines.
- Investment and the partnership problem
 - Both divisions can't have right incentives.
- Why did divisions integrate in first place?
 - Often because market didn't work!

Assignment

- Read Hewlett Packard articles from The Economist (see website).
- Describe Fiorina's strategy for HP.
- Describe Hewlett's strategy for HP.
- Are there other possible strategies?
- Are there other arguments against the merger?
- What happened in the end?