Lecture 6: Case Study – Brokerage

Based on "Low Cost Trading …" (NYT, 6/2/99), "Merrill Enters Trading World .." (NYT, 3/599), "Online Brokerage Battle (NYT, 4/10/99); "The Lynch Pins (Forbes, 4/5/99), "Merrill Lynch Quits its Computer Bashing" (WSJ 6/10/99)

1. Overview of Industry

Products are two:

a. Investment Advice – which stocks to pick, when to buy, sell, market analysis, etc. Can be performed by anyone – brokerage competing with chat groups, newspaper analysis, SEC filings, etc.
b. Trade Execution – buy or sell at market or limit; passed onto (floor broker & then onto) market-maker(s). Currently, by rule, this function can only be performed by a broker.

Less important – some banking as well, some investment banking too for some firms.

Size of market (supply):

a. Number of participants: offline and online - dozens
b. Main participants: offline – Merrill Lynch (ME): 8 mill clients & $1.4 trillion assets; Morgan Stanley Dean Witter (MSDW), Prudential (PR), etc. and online – Etrade (ET), Datek (DT), Ameritrade (AM), Suretrade (SU), Waterhouse (TW), etc. Early combiner – CS:
c. Market shares: number of trades – CS (30%), DT, ET, TW, AM approximately 10% each in online; offline -
d. Change in market shares in last five years: CS increases number of accounts from 1.6 million to 2.8 mill in last year while ET goes from 225K to 1.5 million.
e. Division of providers: only trade execution – ET, DT, AM; small asset size per account: ET is currently $18K per account (down from $34K a year back).

Both trade execution & investment advice – ME (14,000 brokers), MS. Conventional firms have wealthiest clients (ME $300K per account).

Trade execution & limited advice – CS (mutual fund advice) up from $70K to $90K in same period;

Size of market (demand):

a. Asset Size
b. Number of accounts: online about 7 million now & forecast (Forrester Research) for 10 million in a year.
c. Change in last five years – big growth: ME saw 40% growth in last year & a half in offline accounts; 1.5 million accounts ('97) now grown to about 7 million
d. Online – 6.6 million households & 1 in every 7 trades; in wealthiest segment (assets > $750K), 1 in 10 trade online & 25% keep most assets online

Prices:

a. Only execution: online (ranges between $7 (SU) to $30 per transaction (ME, CS, DLJ, MS))
b. Both products: ranges between $30 to $80-100 (ME)
c. Variant on price – flat annual fee (for ME = $1500) that buys both products; similarly for PR; not very successful (only 2% of ME's customers use it)
d. Price history – downward
e. Big advertising battle – ET spending about $400-500 to sign up a customer

Profitability:

a. ME has fired 4000 employees between 10/98 and 4/99
b.

2. Bullet Points on Industry

a. Market made up of three kinds of firms – only execution (ex. ET), humans with advice & execution (ex. ME) and hybrid (ex. CS). Asset size highest for second category & lowest for first category.
b. Overall market size has increased for all three types
c. But has grown faster for first type & especially those that are exclusively online. Asset size per account has increased for hybrid but decreased for first category.
d. Price competition has been intense in first category.

e. Entry by second category into hybrid market.

3. Industry Analysis

Demand side: best to think of two products as in a. only (from first point above) or a. and b. (a bundle). Within each category, product homogeneous. Clearly second category preferred by all customers (aka higher quality). Question is how much higher is the quality? Relevant point here is the availability of information – e.g., SEC filings, analyst research, chat groups, etc.

Cost Side: MC constant for those that only execute trades; MC near zero for online executioners. MC constant but higher for offline trade executioners.
MC constant or possibly declining for investment advice providers; same information, once gathered can be provided at zero cost to many clients. But costs evidently higher than for trade executioners.

4. What Does the Theory Say?

Bertrand competition for homogeneous goods: Predictions are
a. With identical constant MC, price will head towards MC. If MC is zero, price will be zero as well.
b. With non-identical MC, price will head towards MC of higher cost firm.

Bertrand competition for non-homogeneous vertically differentiated goods: Recall all consumers agree on the ranking of two products; let the ranks be denoted s_1 and s_2 (and suppose $s_2 > s_1$). Consumers can differ on the intensity of the rank difference; consumer I derives utility $s_1.x_I$ from good 1 and $s_2.x_I$ from good 2. If the two prices are p_1 and p_2 respectively , then consumer I derives net utility of $s_1.x_I - p_1$ from good 1 and $s_2.x_I - p_2$ from good 2. Write $s_2 - s_1$ as s – the difference in quality. Predictions are
c. Market will divide with high x consumers buying from higher qualiy firm at a higher price. Firms will make profits in equilibrium & price will be above MC
d. Smaller the s, the lower the two prices (closer to MC) and the lower the profits. Same conclusion, the easier it is for new firms to enter the market (through shrinking of s and consequent increase in price competition).

5. Making Sense of the Bullet Points

a. Within discount brokerage, homogeneous good price competition is driving price to MC. MC possibly close to zero. Hence, the popularity of cash-bonus advertising (= lower price). (ET spends half of its revenues on advertising).
b. If there are non-identical costs within this market segment the more inefficient firms will lose money & will have to exit the industry. Some evidence of that.
c. Attempts by ET, DT etc. to create differentiation (ET offering investment advice online) are attempts to create $s > 0$.
d. CS and ME can make profits and co-exist with ET provided consumers view their products as being truly different. But are they higher quality? (cf WSJ article on 11/4/99 on Nortre Dame student's investing) Two particular issues here – information accessibility has increased with internet &
e. Entry is easier. So ME can move into CS's turf. Surely that will put pressure on CS to move into ET's turf. Hence,
f. Market will go in either of two possible directions: Segmented (large accounts with ME & small accounts with ET) & this will be especially so if consumers perceive $s > 0$, entry is difficult, and discount market cannot make inroads because they are making losses. Or Only Trade Execution (with small variations across firms in asset size & services) & this will mean prices are close to MC up and down the line. Great for consumers!