

BEE/CSS 371 Business of Technology
Winter 2017
Lecture 8

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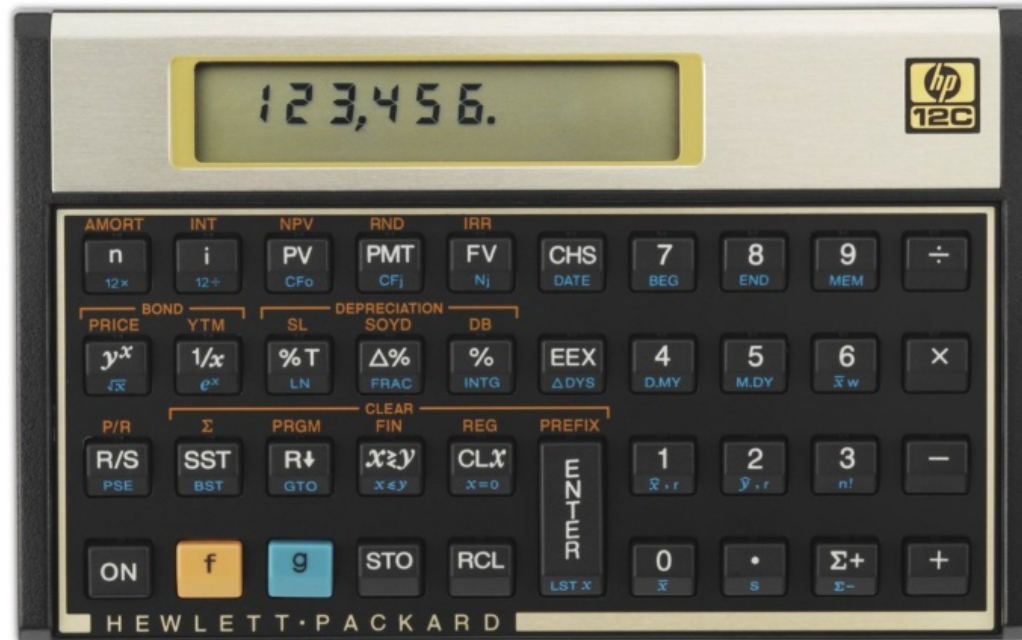
<https://faculty.washington.edu/kd1uj>

Today's agenda

1. Hamilton Labs business plan
2. Chapter 4. [Competitive strategy](#)

Reminder: HP-12C calculators

Financial calculator



Make time value of money calculations really easy.

HP-12C is still the only one to buy.

Available for as little as \$15 on eBay.

Hamilton Labs business plan

Hamilton Labs business plan

- This was a plan to do what?
- Who were the current competitors in the market?
- What was the opportunity?
- What was the plan?
- How was the cost estimated?
- What were the risks?

Opportunity

Business plan submitted April 27, 1987.

On April 2, 1987, IBM and Microsoft had just announced OS/2 and PS/2, including the Model 80, “the most powerful PC on the market.”

OS/2 promised a UNIX-level OS with VM, pipes and a true process model on a PC.

Pundits insisted this would be the dominant OS in two years.

The spreadsheet market

Lotus 1-2-3 was the top spreadsheet on the PC, written in 8086 assembly.

Excel was still only on the Mac, not clear what Microsoft intended to do with it.

Lots of other vendors:

Also-rans including Supercalc4 and Javelin.

Keystroke-compatible clones, e.g., VP-Planner.

Spreadsheets for other (mostly traditional time-sharing) operating systems.

A:C17: (C2) +C5-C15

READY

A	B	C	D	E	F	
1	INCOME SUMMARY 1988: Sloane Camera and Video					
2						
3	Q1	Q2	Q3	Q4	YTD	
4	-----					
5	Net Sales	\$10,000.00	\$13,000.00	\$16,000.00	\$19,000.00	\$58,000.00
6	-----					
7						
8	Costs and Expenses:					
9	Salary	1,500.00	1,500.00	1,500.00	1,500.00	6,000.00
10	Int	1,000.00	1,200.00	1,400.00	1,400.00	5,000.00
11	Rent	350.00	350.00	350.00	350.00	1,400.00
12	Ads	500.00	1,000.00	2,000.00	3,000.00	6,500.00
13	COG	3,000.00	4,000.00	5,000.00	7,000.00	19,000.00
14	-----					
15	Op Exp	6,350.00	8,050.00	10,250.00	13,250.00	37,900.00
16	-----					
17	Op Income	\$3,650.00	\$4,950.00	\$5,750.00	\$5,750.00	\$20,100.00

SUM1988S.WK3

	A	B	C	D
1				
2				
3		Jan		
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CHART.XLC

First Quarter Sales

City	January	February	March
Chicago	Low	Medium	High
Dallas	Medium	High	High
Boston	High	Medium	High

Microsoft Excel

Version 2.0

Copyright © 1987 Microsoft Corp.

OK

Conventional Memory: 77 of 174 KB Free

Expanded Memory: 0 of 0 KB Free

Math Co-processor: Present

For Help on dialog settings, press F1

The product plan

Super high-end spreadsheet for the 386.

Planned advantages:

1. A “do what I mean” user interface.
2. An “expert system” that could do simultaneous equations, linear programming, Monte Carlo simulation, multiple regression and binary search goal-seeking.
3. Exchange data with other apps running concurrently.
4. Better use of color, mouse, etc.

Goal: 5% market share → 35% share by 1993.

Development plan

1. Work by myself for 3 months to develop a detailed spec, architecture and sizing.
2. I could go 2 to 3 years without income.
3. Five other individuals interested but would need salary.
4. 22 KLOC in product, to be written in 17 months with a staff ramping to 6 engineers.
5. User's manual of 150 pages to be written in 9 months by a staff ramping to 3.
6. Fast marketing ramp in the last quarter before announce.

Marketing options

1. Sale of all rights to an existing marketing organization
2. Regional sales leveraging to national distribution.
3. Direct sales to heavy users, e.g., insurance, banking, utilities, government.
4. Sales through OEMs on per-copy or buy-out royalty basis.

Funding

- Would need roughly \$5.5 million dollars in the first quarter after introduction if direct sales chosen.

Would it have worked?

What were the biggest problems?

What made this a good or not-so-good match for me?

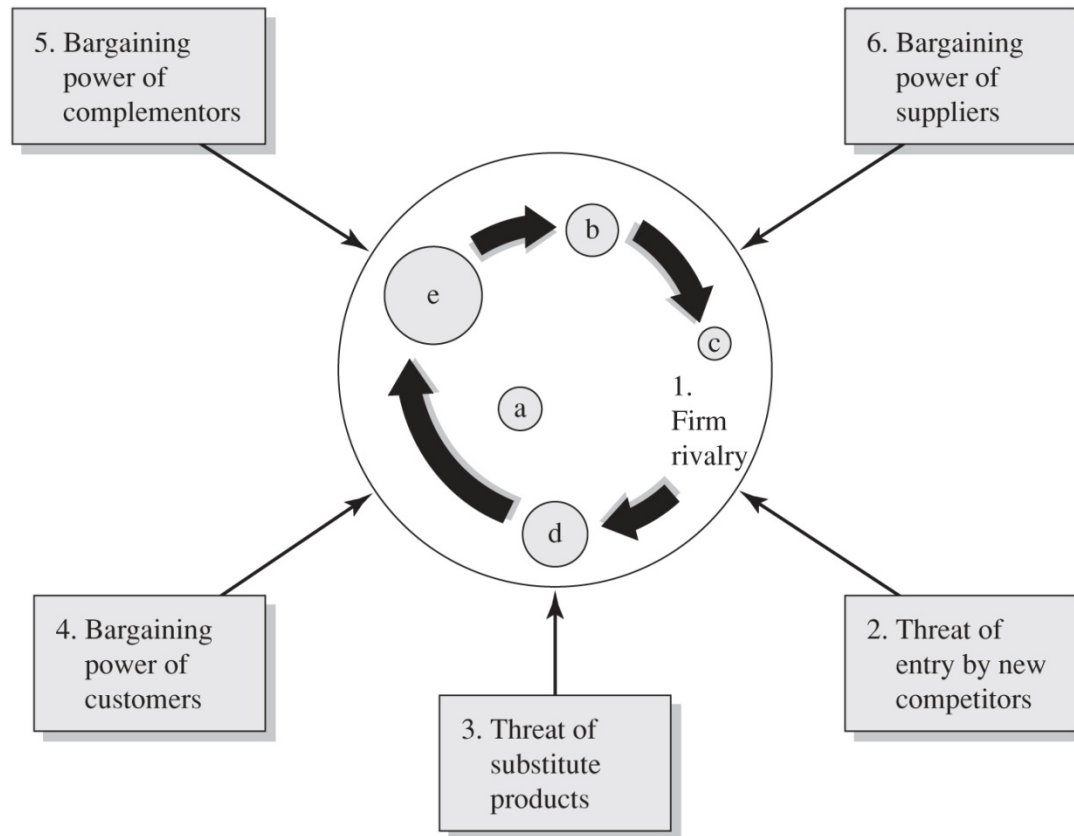
Me in 1987

1. I'd been working for 14 years at IBM and Prime Computer.
2. Hated my job.
3. Loved operating systems, UNIX, C, compilers (but no one had ever given me job working on a compiler)
4. Had been working on high-end engineering workstations costing \$70,000+, really wanted one of my own.
5. Finishing my MBA and knew I would soon have a lot more time.
6. First child on the way, wanted to be home.

Questions

- Was a spreadsheet a good match for my skills and interests?
- Did you believe the plan for the features?
- Did you believe that these features were what the spreadsheet market actually needed?
- What would happen if the OS/2 market didn't take off?
- What did happen?

Back to business



Note: Firms are represented by a circle; for example, (a) represents firm a. The size of the circle indicates the size of revenues of the firm. The six forces are numbered for clarity. The rivalry of the firms is shown as a vortex of competition illustrated by the solid arrows.

FIGURE 4.3 Six forces model.

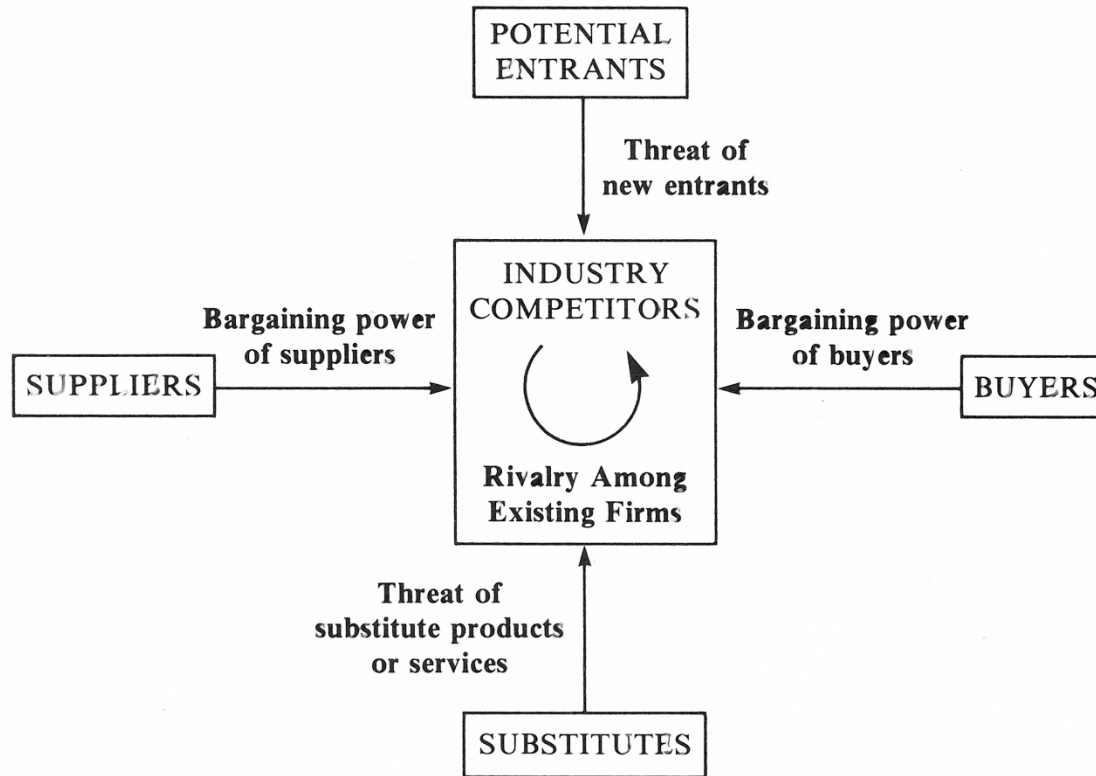


FIGURE 1-1. Forces Driving Industry Competition

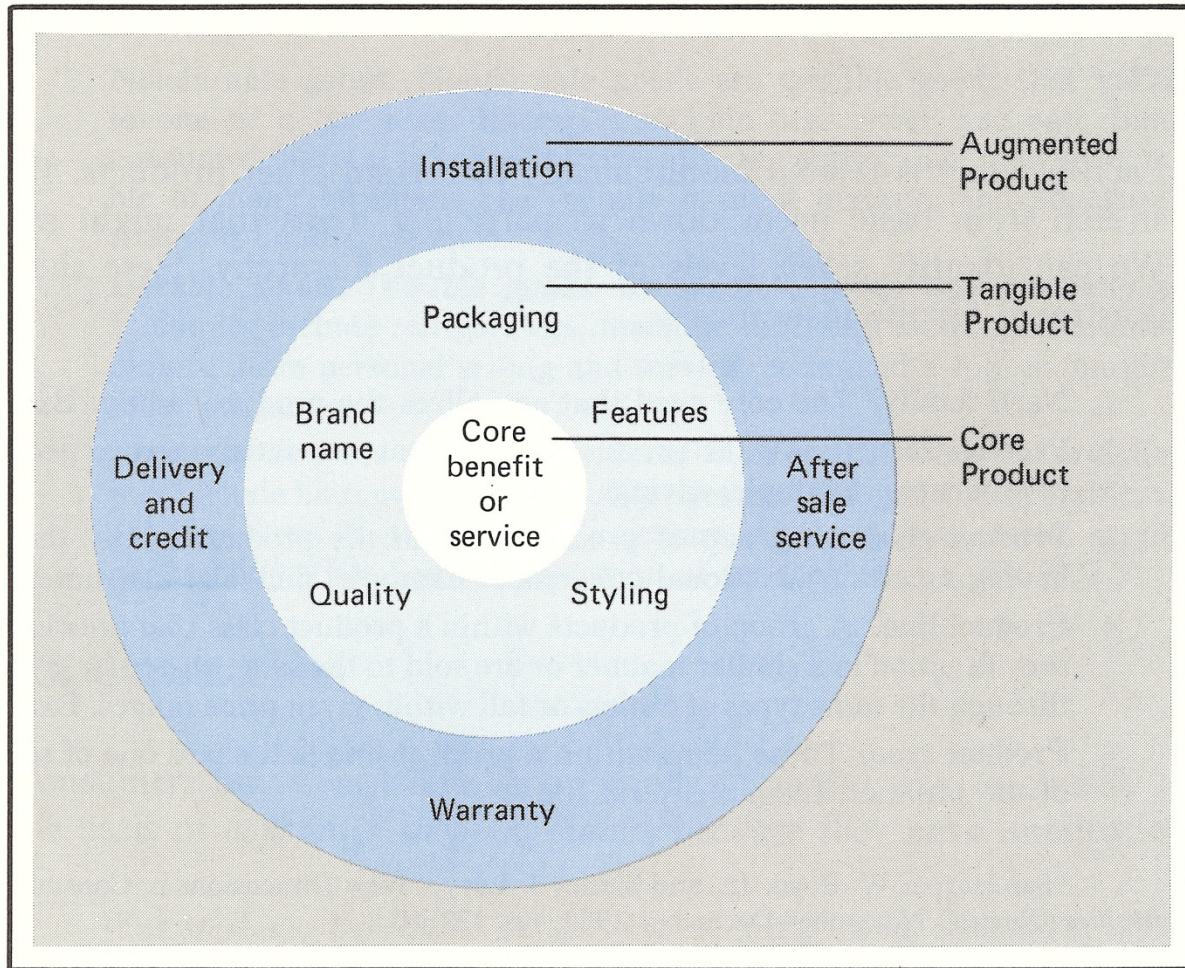
Porter's original diagram, missing only the complementors.
Source: Porter, *Competitive Strategy*, p. 4.

Six forces

1. Rivalry between ***current competitors***
2. Threat of entry by ***new competitors***
3. Threat of ***substitutes***
4. Bargaining power of ***customers***
5. Bargaining power of ***complementors***
6. Bargaining power of ***suppliers***

The product and substitutes

FIGURE 15-1
Three Levels of Product



Source: Philip Kotler, *Marketing Management, 5th edition*, p. 463.

Substitution is the process by which one product or service supplants another in performing a particular function or functions for a buyer.

Source: Porter, *Competitive Advantage*, p. 273.

Examples of substitution

1. Apple pie instead of ice cream for desert.
2. High fructose corn syrup instead of sugar.
3. A train instead of a truck to ship freight.
4. A bicycle or bus instead of a car to commute.
5. Skype instead of a plane ticket to attend a meeting in San Francisco.
6. Using less. E.g., thinner aluminum cans.
7. Used, recycled or reconditioned products.
8. Backward integration. Your buyer decides to do it himself.
9. Downstream substitution. E.g., electric cars don't need transmissions.

Complementors

Complementors are companies that sell complements to a firm's products.

A **complement** is a product that improves or perfects another product.

Examples: Video games for the Xbox, gas stations for automobiles, installation services for furnaces.

Buyers

Factors increasing the bargaining power of buyers

1. Large purchases relative to seller sales.
2. Purchases are a significant part of the buyer's costs.
3. Product is standard or a commodity.
4. Low switching costs.
5. Buyer earns low profits.
6. Credible threat of backward integration.
7. Product is unimportant to the quality of the buyer's products or services.
8. Buyer has full information.

Source: Porter, *Competitive Strategy*, pp. 24 – 26.