Haas School of Business

University of California, Berkeley

CASE INTERVIEW STUDY GUIDE

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Haas Consulting Club

Chetkovich Career Center

INTRODUCTION

If you're an MBA and you want a job, the chances are pretty good that at some point, you will have to do a business case. Cases are a traditional part of consulting interviews, and are increasingly used as screening tools by other types of employers too. Students applying for banking, marketing, strategy and other positions are now encountering cases. Clearly, a working knowledge of how to solve a case can give you a competitive advantage in the hunt for that dream job or meaningful summer internship.

The key to success with cases is preparation and practice. This guide is intended to familiarize you with typical case interview formats so that you'll know what to expect when you actually interview. But nothing can take the place of practice. The more practice cases you do, the sharper you will be for the real thing. It's just that simple.

WHAT IS A CASE INTERVIEW?

In a case interview, you are generally given a business problem to analyze and solve in a few minutes. In the most common type of case interview, you will be given a business situation and asked a fairly broad question:

> Example: *You client is the CEO of a large photographic film manufacturer who is concerned about the threat to her business posed by digital cameras. How would you assess this threat and make strategic recommendations?*

The interviewer expects you to develop a structure for analyzing the issue (a "framework") and set of questions that lead to a solution or set of recommendations. It is important that you come up with an answer in a case interview (to show that you are focussed on solutions.) However, the interview is looking for more than just the right answer. The case is intended to test a range of skills, including problem solving, tolerance for ambiguity, communication skills and grace under pressure.

What Do Recruiters Look For?

ANALYTICAL ABILITIES
- Logical reasoning
- Ability to synthesize
- Basic numerical agility
- Intuitive business sense

TOLERANCE FOR AMIBIGUITY
- Broad thinking
- Structure
- Prioritization
- Implication of decisions

COMMUNICATION SKILLS
- Well thought out questions
- Explanation of conclusions
- Good listening skills
- Ability to handle pressure

TYPES OF CASES

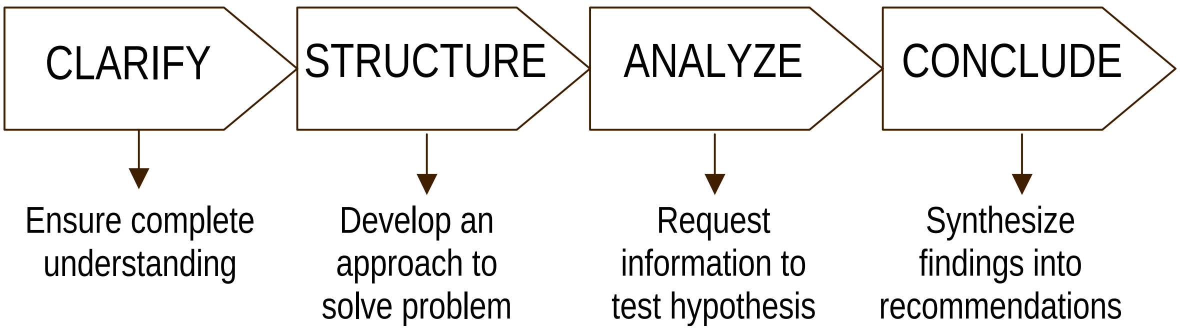
Cases can take many forms, but most fall into one of three main categories:

- **Business Cases** like the example above, deal with real or simulated business problems and are the most common type of case.
- **Estimation Cases** (sometimes called "market sizing" cases) involve making a reasoned estimation of some figure (ex. "*How many gas stations are there in the US*"?) In these cases, your answer matters much less than the process you use to get it. Interviewers are looking for a logical approach that is clearly explained and leads to a reasonable answer. They are also looking to see how comfortable you are making assumptions and doing basic math.

- **Brain Teasers** are off the wall questions designed to test your creativity, logic and poise under pressure (ex. "*Why are manhole covers round?*") Like estimation cases, there is generally no right answer. Rather, the interviewer wants to see you use structure and think "out of the box." These are rare, but if you get one, stay calm and try to have fun. With a brain teaser, staying cool in the face of uncertainty is a big part of the challenge.

How to Approach a Case

Most successful case interviews follow a basic four-part structure – clarify, structure, analyze and conclude.



Clarify: When you are given the case, listen closely, take notes, and make sure you understand what you are being asked for. Does the interviewer want a set of recommendations, a simple yes/no answer, a number or a process description? *Make sure you answer the question you are asked!* If something is unclear, ask a clarifying question. And before you move forward, paraphrase the question back to the interviewer to confirm the problem statement (ex. "*So the client has decided to enter this market and wants to know how best to do it?*")

Structure: Now, tell the interviewer you would like to take a moment to develop an approach to the problem. Your interviewer expects you to do this and you should not worry about taking a silent minute or two to think before you begin speaking. Use this time to choose an appropriate framework for analyzing the case and to develop a set of questions based on your framework (frameworks are discussed in the next section.)

Analyze: Once you have a framework, walk your interviewer through it, pointing out key questions you will ask and stating any initial hypotheses or assumptions. After you do this, your interviewer may give you additional information. Otherwise, begin asking your questions and working through your framework.

Start broad and try to work through a range of issues methodically. When you have worked through an issue, briefly state your findings and move on to the next point. Don't focus on a single point and forget the big picture. As you work, note any key findings so you remember to mention them in your wrap-up.

Use new information you gather to form new hypotheses and ask additional questions. Listen carefully to everything the interviewer says. Interviewers will often give you hints and attempt to help you if you appear to be getting off-track. While it is important to use your framework, don't allow it to constrain you. If the facts of the case take you in unexpected directions, be willing to explore new issues. If you get to a point where you feel stuck, feel free to ask for a moment to gather your thoughts. Sometimes it helps to summarize what you have found so far back to the interviewer.

Finally, it is very important that you describe your thought process as your work. This can seem uncomfortable and artificial, but remember that describing your thought process is the only way the interviewer can know what (and if) you are thinking.

Conclude: Sometimes it can be hard to know when to conclude a case. Some cases have natural endpoints and some interviewers will tell you when to wrap-up. But with others, you will need to look for signs from the interviewer, pay attention to the time and choose a point when you have enough findings to make useful recommendations.

When you conclude, summarize your key findings and synthesize them into one or more overall recommendations. Depending on the case, you may also want to discuss any trade-offs or implications of your recommendation or explain why you ruled out other possible solutions. The purpose here is not to use up time – it is to show that you have a big picture view of the case and your analysis. And above all, relate your conclusion back to the original problem statement and make sure your have answered the question that was asked.

Case DOs & DONTs

Do:

- Listen to the case and take notes if needed.Answer the specific question.
- Set up a framework.
- Ask questions.
- Be conversational, stay calm.
- Describe your thought process and assumptions as you go.
- Use graphs, diagrams, matrixes and other visual aids.
- Listen for hints.
- Be aware of time
- Reach a conclusion.

Don't:

- Try to solve the case before setting up a framework.
- Pepper the interviewer with random questions.
- Try to reach a quick solution without using a process.
- Freak out.

FRAMEWORKS

Frameworks are a valuable tool in structuring your response to case questions and there are a number of standard frameworks (the 3Cs, 4Ps, etc.) commonly in use. The best way to use these standard frameworks are as tools to guide you in structuring your answer. Interviewers want to make sure you consider the full range of possible causes of a problem before honing in on a solution and will mark you down if you focus on a single factor while ignoring others (ex. focussing on costs while ignoring revenue, competition, etc.) Frameworks can help you remember all of the key issues around particular types of problems and help you find the right questions to ask.

Use frameworks thoughtfully. Don't begin an interview by saying "This is a marketing case so I am going to use the 4Ps" – you will sound boring and uncreative. Rather, use the parts of frameworks that make sense for your case. Don't be afraid to mix parts from different frameworks or to use different frameworks for different parts of a case.

Revenue/Costs: This is an excellent general framework that is useful for analyzing profitability problems, market entry decisions and a wide range of other case types.

Revenue/Cost Model

- **Profit**
  - **Revenue**
    - **Price**
      - Price discrimination
      - Changes in pricing structure
      - Viability of pricing over time
      - Discounts or couponing
      - Competitor's pricing
    - **Quantity**
      - Customer segmentation
        - — New/existing
        - — Loyal/switchers
      - Channel restrictions or temporary disturbances
      - Changing consumer demands
  - **Cost**
    - **Fixed**
      - Capital equipment
      - Land
      - Buildings
    - **Variable**
      - Labor
      - Materials
      - Energy

A.T. Kearney Presentation, 1998

The 3Cs (Company, Customers, Competition). Like Revenue/Costs, the 3C's is a useful general framework that can be applied over a wide range of strategic and marketing cases.

Company	▪ Cost structure, breakeven, capacity utilization? Costs compared to competitors? ▪ Financial resources? ▪ Company and product fit? Core competencies?
Customers	▪ Who are they? How are they different (segmented)? ▪ What is the level of competitive intensity in the industry? What channels do they use? ▪ How are products differentiated?
Competition	▪ Who are they? How are they different? ▪ What are competitive market shares? Is the industry fragmented? ▪ What is the level of competitive intensity in the industry? What channels do they use? ▪ How are products differentiated?

The 4Ps (Product, Price, Promotion, Place). The 4Ps is a classic marketing framework that is useful for analyzing sales performance problems and planning new product introductions. The 4Ps is also a good second framework for use midway through a case. For example, if you begin with a revenue/cost framework and discover through questioning that sales are declining, you might then use a 4Ps framework to figure out why sales are dropping.

4Ps Model

Product	*Place (Distribution)*	*Promotion*	*Price*
• Differentiation • Customer Segmentation • Competing and Substitute Products • Packaging • Why does the consumer purchase this product?	• Distribution to consumers • Distribution to retailers • Sales/retail incentives • Direct sales • New methods (Warehouses stores, Mail order, Internet)	• Advertising/P.R. • Image/Reputation • Retail placement — aisle-end displays • New media?	• Retail pricing • Wholesale pricing • Competitor pricing • Price discrimination • Value pricing • Premium pricing

Porter's 5-Forces (Buyers, Suppliers, Barriers, Substitution, Competition).
Michael Porter's 5-forces is model is broad-brush effort to describe all the forces that shape an industry. It is a complicated framework that is well suited to market entry/exit cases. Use the 5-forces model cautiously – it is complicated and it can be time consuming to work through the entire model. But as a thought tool for pinpointing issues, this framework is excellent.

5-Forces Model

Barriers to Entry
- Economies of scale
- Capital costs
- Cost advantage of existing competitors
- Barriers to exit
- Patents

Supplier Power
- Number and size of suppliers
- Switching costs/product differentiation
- Availability of substitutes
- Possibility of forward integration

Competition
- Number and size of competitors
- Industry growth rate
- Product differentiation factors
- Industry margins/pricing

Buyer Power
- Significance of the purchase relative to cost structure
- Switching costs
- Purchase volume
- Threat of backward integration

Substitution
- Relative price/value of the substitute compared to industry's product
- Cost of switching to substitute
- Buyers' propensity to switch

A.T. Kearney Presentation, 1998

Estimation Cases: Frameworks are less useful with estimation case. With these cases, the best strategy is to try to identify related factors that you can estimate more easily. For example:

Useful Case Statistics
(all are rough approximations!)

- 250 million - US Population
- 200 million adults (18 & over)
- 100 million households
- $40,000 - median US household income
- 75 years - US life expectancy

How many gas stations are there in the United States?

- 100 million households
- How many cars/household? Make an assumption – one car per household or 100 million cars.
- On average, how many cars per gas station?
- Assume people visit gas stations once per week.
- Assume the "average gas station" sees about 150 cars a day or 1000 per week.
- Why does this make sense? State another assumption - on average, stations that see fewer cars fail while stations that see more get competitors.
- 100 million cars/1000 car per gas station = 100,000 gas stations.
- Check for logic. That's 2000 gas stations per state. Seems OK. You're done!

Success in estimation cases depends on your ability to break down the estimate into manageable pieces and your willingness to make assumptions and estimates. Do not be afraid to make educated guesses (such as the one car per household guess above) because you often must do this to solve the case. But if challenged, be prepared to explain how you came up with a number. Finally, always try to use round numbers when you make estimates. At some point in an estimation case, you are probably going to have to do some math. You will have a much easier time if you have used round numbers in your model.

Finally: <u>You must practice</u>! Choosing frameworks, asking the right questions and making logical assumptions are all things that improve dramatically with practice. Even doing three or four cases before your interview will help, but if your are serious about doing well on cases or if you are looking for a top consulting job, <u>you will need to do considerably more to succeed</u>.

In the section that follows, practice cases are provided for you to begin. Do these aloud with a partner or group. When you work through these, the Haas Consulting Club web site and the Career Center have many more. Good luck, and…

Practice!

MILITARY AIRCRAFT INDUSTRY

A military aircraft client is worried that their stock price is falling. How would you go about investigating the cause of the decline and help them improve their share price.

Suggested Approach:

Recognize that share price is based on expectations of future profits. This insight will lead directly to a profitability (revenue/cost) framework. You should mention both the revenue side and the cost side as potential reasons why profits (and share price) might be falling. Good questions to hone in on a particular area are: Have prices been falling? Has the client been selling fewer planes? Have component costs risen? Have there been significant capital expenditures or maintenance expenditures? There are many similar questions one could ask.

An excellent response would have the further insight that the military aircraft industry has been contracting due to cutbacks in military spending. This environment would limit prospects for improving revenue and focus discussion on costs.

There are a variety of ways to cut costs: cutting fixed costs by closing plants, automating more of the operation, using more common parts among plane models, managing inventory better, training operators to be more efficient. The main point here is to think broadly. Remember that costs are not only a function of the materials and equipment, but also of the work practices, available technology, and skill of the workers.

In this particular case, the recommendation to the client was to try to merge with a weaker player to realize some economies of scale. When told that there were five players in the market, it was easy to see that not all would survive a market contraction. The client acquired a smaller player and six months after the acquisition, the share price started rising again.

FAST FOOD RESTAURANT

A fast food chain was experiencing rapid growth. They had acquired several new locations and reapplied their business model in those new stores. They were disappointed that some of the stores seemed to do well, while others were barely breaking even. How would you go about investigating this problem?

Information to be divulged gradually:
The firm's older stores were in predominantly lower income neighborhoods. The under-performing stores were actually selling more product per customer, but were attracting far fewer customers.

Suggested Approach:
First try to understand the specific nature of the problem at the poor performing stores. Specifically, compared with other stores are revenues lower or costs higher?

- Revenue
  - Fewer customers
  - Lower sales per customer (i.e. less or cheaper food purchased)
- Costs
  - Labor
  - Real estate and facilities
  - Food inputs and other variable costs

Then focus on why the new stores are attracting fewer customers.

- Price
  - Are prices too high? Too low?
- Customers
  - How are they segmented?
  - Are the different stores serving different segments?
  - What are the demands of the different segments?
- Location
  - Where are the old/new stores located? Part of town? In malls, drive-thrus or freestanding shops?
- Product
  - Do the stores all serve the same food?
  - Are different products selling better in the new/old stores?
- Competition
  - Is the firm facing the same competitors in both locations?

The firm's old stores were in predominantly low-income areas where the firm faced few competitors. The new stores were primarily in upscale malls where the firm faced more competition and suffered from its image as a low-priced brand.

MEN'S RAZOR BLADES

How many men's Gillette Sensor blades are sold in the US in one year?

Suggested Approach:

250 mm people in the US

125 mm are men (50 % of all people men)

100 mm men of shaving age (assume men are evenly distributed in 5 quintiles of 15 years and don't shave under 15)

75 mm use disposable razors (assume 25% use electrical based on % of my friends who use them)

15 mm men use Sensors (assume 20% market share because 1out of 5 rows of razors in the supermarket are for Sensors)

750 mm Sensor blades sold per year (assume one razor per week and use 50 weeks to simplify the math)

AIRLINES AND THE CHANNEL TUNNEL

A few years ago, the Channel Tunnel opened connecting Britain and France by train. The airlines covering the London to Paris route then faced a competitive threat from a train service covering the same route. How should the airlines have reacted to this threat, specifically the threat to business passengers who had been their most lucrative market? How would you see the competitive situation sorting itself out – specifically, would trains or planes win or will there continue to be a market for both?

Suggested Approach:

A good answer will cover the following points:

- Service differentiation
  - Time taken overall from point to point
  - Comfort at any stage from point to point
  - Frequency of planes/trains
  - Convenience (ease of reaching stations/airports, boarding, etc.)
  - Ease of working on board
- Customer segmentation; for example:
  - Regular commuters
  - Transit passengers from other routes
- Price
  - Price sensitivity of business travelers
  - Price advantage/premium of one form over the other
- Cost structure of both industries
  - Both industries have high fixed costs
  - Implication of a price/fare war
- Capacity/operations
  - Change in capacity
  - Relative capacity
  - Ease of changing capacity (i.e. different size planes)

A strong answer might also include one or more of the following:

- Changes in the regulatory structure in Europe and effects the rail and airline industries
- How individual airlines might react based on fare structure, route system, financial situation or size.
- How the relative mix of leisure and business passengers (and the ease with which that mix can be changed) might effect competition.
- Game theory and/or macroeconomic discussion
- Effects of passenger loyalty
- Effect of possible future events (air or train accident, changes in fuel prices)
- Changes in business purchasing habits

A major computer manufacturer wanted to know if taking their business online was a good idea. What are three issues they should consider?

Suggested Approach:
A marketing framework (3 C's) might do well here.

Customer: A hot topic in high tech is disintermediation (cutting out the middle man). With the exception of Dell (who already has an online business) most computer manufacturers sell through retail outlets. The impact of developing an alternate channel, one that competes directly with retailers is not a simple matter, as the debut of Compaq's online channel demonstrated. For some customers, the retailer adds a lot of value (advice on purchases, repairs, etc.). For expert users, buying online makes some sense. Either way, a manufacturer might end up taking away business the retailer depends on to survive. What is the impact of badwill from retailers who have more direct contact with potential customers that you do? Even without an understanding of high tech, channel strategy is discussed in Marketing, so you should get this issue with clarifying questions.

Company: Inventory management is another high tech topic. Again, Dell sets the standard in this industry. Most computer manufacturers have a make to stock inventory plan. Dell has a just in time plan, all the way up its supply chain. It would be very challenging for the standard computer manufacturer to move over to just in time production (organizational, technological, and worker skill issues). The reason this issue is important is related to profit margins. Online buyers tend to expect price breaks since they are doing a lot of the sales work, but costs may actually go up for the manufacturer, particularly if they end up managing their own inventory. Given the pressure on pricing, costs such as inventory costs, packaging costs, and component costs must be controlled as tightly as possible.

Competition: Industry structure is key here. Use a few considerations suggested by Porter: How easy is it to get into this business? Is it likely there will be additional entrants? How much will online purchases substitute for retail sales? Will online transactions make it easier for buyers to extract concessions (e.g. in pricing)? Will my volume grow sufficiently to give me more leverage in purchasing components?

FINANCIAL INSTITUTION IT STRATEGY

The CEO of a UK client has called you. The CEO's company is comprised of four business units: Commercial Bank, Insurance, Mortgage brokerage, and Real Estate brokerage. These units currently run independently of each other (in other words, they don't talk at all to each other).

The company currently has 10 million distinct customers and 15 million distinct accounts. So, if you had an account at the bank and at the insurance company, you would be one customer, but count for two accounts. The ratio is currently 1.5 to 1, and the CEO would like to get it to1.8 by the end of the year. He has heard a lot about internets/intranets lately (he saw a figure recently that said about 10% of UK people are online), so was wondering if you could tell him whether he could use the internet/intranet to achieve his goal of 1.8:1, and if so, how?

Suggested Approach:
In order to get the ratio up, the firm can cross-sell more or get rid of customers with only one account (not a good idea). A reasonable assumption is that 1 million of the firm's customers on the net (10% of 10 million). In order to raise the ratio to 1.8, they would need 3,000,000 more total accounts, or on average, for every internet customer the firm would need to add on 3 new accounts on average. Pretty unlikely.

Follow Up Question
The CIO has just asked the CEO for permission to pursue an internet/intranet strategy. Based on the answer in Part 1, what do you say to the CEO about the CIO's request?

Suggested Approach:
The first question asked if the ratio could be raised to 1.8:1. The CIO may have entirely different objectives that may still help the company. For example, the ratio could stay at 1.5:1, but the customer base might rise to 20 million customers with 30 million accounts, using the internet. Ratio's are indicators of company health, not absolute measurements.

A English shirt maker is considering creating an internet-based global direct sales channel. Should it?

Information to be divulged gradually:

- The firm produces very expensive, high quality hand tailored shirts in traditional styles.
- The firm currently operates its own shops in the UK and northeastern US. It launched a series of shops in Japan two years ago.
- Growth has been moderate at the UK, strong in the US stores, and the Japanese stores have consistently outperformed expectations.
- Our client is small and new projects (like the Japan start-up) require full focus. It is assumed that the Internet/direct sales project would limit the firms ability to take on other expansion projects.
- In the US and UK, customers tend to be successful older men (55+.) Surveys suggest few own computers.
- Customer data from Japan is not yet available.
- The firm made £10 million profit on sales of £30 million last year.
- Direct costs of setting up the internet site and related shipping centers are low.

Suggested Approach:

This is basically a marketing case, but it is too complicated for a straight "4Ps" approach.

Key questions are:

Why are they considering using the Internet now?
What are the characteristics of the firm's product?
What are the firm's current channels?
Who are the firm's customers?
How likely are they to use this channel?
What constraints does the firm face?
What are its other opportunities?

The central issue is the fact that the firm markets a specific product to a specific segment. Computer use in this segment is quite low, suggesting that an Internet strategy is not an ideal way to reach these customers.

Further, the firm appears to have other high growth opportunities in Asian and U.S. markets. Limited resources mean that the firm must focus on the best opportunities.

Further, while setting up the site may be inexpensive, publicizing it may be more costly.

ACME PASTA COMPANY

Your client is a US pasta manufacturer. Profitability is declining, and the customer wants us to know why and to provide him with recommendations to improve the business.

Suggested approach

Using a Profit = Revenues – Costs framework, either revenues must be decreasing or costs must be increasing. The interviewer divulges that revenues for the overall dry pasta industry have been declining every year, including those of our client. Acme is the third largest company in this market. It sells 95% through supermarkets, and 5% directly.

Since revenues are declining for the entire market, perhaps we should explore the cost side. Fixed costs account for 20% of total costs, and they are growing. One of Acme's seven plants has a new technology, whose costs are much more variable: the new technology costs anywhere from 12-22 cents per pound (cpp), while the old technology costs 15-16 cpp.

The reason why the new technology was implemented was to increase production scale. The more the new plant produces, the lower the cpp.

E-Commerce in the IT INDUSTRY

The CEO of a major IT company (makes hardware, software and sells computer services) calls and tells you he is interested in an e-commerce strategy. He's heard a lot about it, thinks his customers might be interested, that his competitors are picking up on it. He thinks the company needs a strategy to deal with this new development. Your job is to structure a response: how would you go about structuring the project and what steps would you take to assist your client.

Suggested Approach:

1. Work on a definition of e-commerce. What does the CEO want? What should he want? This would involve market and industry research, consultation of experts, etc.

2. Perform a classic 3 C's analysis -- What are the competitors doing and why? Are my customers demanding this and what is it exactly they are asking for? Is my company capable of delivering on the market/customer requirements?

3. Develop a Business Case: What are some alternative ways (generally) of approaching e-commerce and what are the associated costs and benefits (quantified and qualified)? What are the decision criteria that would lead the company to make a decision to pursue e-commerce? What is the bottom line impact -- incremental revenues from service less costs of new services plus foregone / reduced costs from "efficiency" gains (if any) minus any associated lost revenues (if any)?

BURGERS IN INDIA

Burger King wants to know whether it should open a chain of restaurants in India. What factors would you consider in making this decision?

<u>Suggested Approach:</u>

The purpose of this case is not necessarily to reach a "yes" or no answer, but to ask the interviewer thoughtful background questions that would help to develop an approach to studying the question. The best tactic is not to produce incredibly clever solutions but to show that you can identify relevant factors, gain a good understanding of the situation, and outline a solid approach that will yield answers.

A well structured approach will include questions on the following points:

- Company strategy and capabilities
  - Corporate strategy and international experience
  - Profitability of different products
  - Ability to source internationally
  - Differentiation of product mix by country

- Environmental/regulatory
  - Stability of government
  - Regulatory environment
  - Ability to repatriate funds
  - Requirements to establish local partnerships
  - Enforceability of agreements and contracts

- Customers
  - Local diet
  - Religious prohibitions on eating certain types of meat (e.g. beef)
  - Preference for fast-food vs. sit-down meal
  - Market segmentation and sizing
  - Potential revenue growth

- Competitors
  - Penetration levels of any direct fast-food type competitors
  - Fast-food's share of total cash spent on food

- Cost
  - Real estate development and building costs
  - Maintenance costs
  - Labor costs

RETAIL EXPANSION

A fashion and home products retailer wants to expand its store network. It currently has five different store concepts: kitchen / cookware / tabletop; home furnishings and decorations; home storage products; gardening supply and plants; and linens for bed and bath. The first three concepts are both retail and catalog sales. The gardening and linen lines are sold through catalog only. Our client wants to expand its retail stores through its home furnishings and decorations line. Should it?

Information to be divulged gradually

- The company has 305 stores, of which half are home furnishings, and only 30 are home storage.
- The high-end market for home furnishings is growing at about 6% per year.
- Superstores are the most successful in this market.
- Crate and Barrel is considered the company's most serious competitor.
- The company has recently increased its profitability through major improvements in operational efficiency.
- All stores are separately branded, but there is some overlap in product offerings.
- The home storage products store is not as profitable as the other concepts, but it is considered a good way to develop the younger market.
- The company is concerned about overstoring - having too many similar stores (both the company and its competitors) in too concentrated a location.
- Today, the company's stores are concentrated on either coast. Several geographies have been identified where a lot of home buying is occurring, for instance New Jersey.

Suggested approach:

Use a variant of the three C's, incorporating a cost / benefit analysis:

Company:

- What is the corporate strategy: profitability or penetration?
- Does the company have expertise in a geographic region?
- Where are our stores currently? Are there regional markets that are not penetrated at all? Why?
- How profitable are existing stores?
- What is same store growth versus new store growth? Is the company seeking to expand only because same store growth is falling?
- Will a store expansion bring additional efficiencies in purchasing?
- Can the company afford such an expansion? Does it have access to capital?

Customers:

- Is the market growing? If so, which segments?
- What is customer perception of our brand?
- What is the competitive intensity in the industry? Are margins low as competitors fight over customers?
- How are products and stores differentiated? With so many store concepts, is this company saturating consumers?
- Who are the customers? Are there demographic indicators that might signal whether to expand in a given area?

Competitors:

- Who are our competitors?
- How are they doing? What are their financial situations?
- Are they growing/building? Where?
- How are we differentiated from them?
- How are they likely to respond to a store expansion?
- Are they more efficient for any reason? Do they have better access to capital or suppliers?

Cost/Benefit:

- What are the capital costs of each store, and then how long are they depreciated for?
- What are the yearly operating costs for each store?
- How much revenue does each store bring in per year?
- How many stores are planned for the expansion?
- Given the 3 C analysis above, will revenues and costs be higher or lower than expected?

MERRILL LYNCH AND E-COMMERCE

Your client is the CEO of Merrill Lynch. He wants to explore offering online services to his customers. He knows that competitors already provide e-commerce services to their customers. What issues should he consider in making this decision? If he decides to implement on-line services, how might this affect the structure of his organization?

Suggested approach

Use the three C's framework:

Company: How does this fit in to the company's overall strategy? What are its resources? Does the company have internal e-commerce expertise?

Competition: What have other companies done? What was successful? Are their operations profitable? Why?

Customers: What types of customers does Merrill Lynch want? Are they different or the same as the current customer profile? What types of services does the target segment need? Does Merrill Lynch need to differentiate itself? What prices can we charge?

If the company decides to develop e-commerce services, it will have to address how these services will be developed and managed internally. Depending on the services the company is providing, it may want to set up a separate division (e.g., Schwab's e-commerce launch) or it may want to integrate e-commerce efforts within existing divisions. Additionally, the company will need to consider which services it wants to roll out first. If those fall within one existing division, it might make sense to focus all e-commerce efforts within that division. Finally, the company needs to consider the effect on current services. For example, if offline trading decreases significantly, how will this affect broker compensation and retention?

NEW ECOMMERCE APPLICATION

Internet applications like Mapquest and Mapblast (dynamic display of maps and driving directions based on data entry) have proven tremendously popular. At the same time, voice recognition and response systems have become more sophisticated, and phone charges have gone down. Explain the economics of creating a system that a user could call, enter their current location via voice, and then get directions to another location. Also estimate as the potential size of the company. What would it have to charge? Who would it sell to? How would it market its product, and how could it price? Finally explain why this hasn't been done already.

Suggested Approach:
This is a very free form sizing problem. Start with a set of assumptions:

- People on the go would use this application, primarily those in airports or in cars traveling somewhere. Everyone else would have access to a map or the Internet
- Most calls will be made by cellular or car phone, given the mobile nature of the product

Then estimate potential annual company revenues

- 200 million adults in the US
- Estimate that 25% have cellular or car phones, so you have 50M potential customers
- Estimate the company gets 5% of the market, so you have 2.5M
- Estimate that customers use the product on average 10 times per year, which is 25M calls
- At a price per call of $1.00, the company has revenues of 25M

After the sizing, explore the rest of the questions, using the three Cs framework:
Company

- What would the company have to charge for this product?
- What *could* the company charge?
- How could it price? Explore bulk call pricing to businesses and individual pricing. Explore high versus low pricing (ex. $5 versus $1 per call)
- What kind of cost structure does the company have? Is it mostly fixed cost (yes) or variable? How does this affect pricing decisions?
- What are the substitutes for this product?

Customers

- How would customers be segmented? What are the classes of customer (business, individual, young, old)?
- How could the product be marketed?

Competition

- Is there competition for this product? Are there substitutes?

There are a few reasons why this product doesn't exist now:

- Market size is too small – just not enough revenue to justify entry
- Lots of substitutes: new internet phones, navigation systems now entering into rental cars – soon into individual cars, maps, information or other assistance
- No easy way to store the information provided on the phone

APPLIANCE MANUFACTURER

A high-end appliance manufacturer had increasing sales throughout the first 3 years, stalls at 4th year, declines in 5th year. What's going on?

Information to be divulged gradually:

- Our line is strongest in dishwashers and trash compactors and weaker in cooking appliances
- We sell primarily in warehouse and specialty shops
- Pricing (below is a sample of pricing for stoves from our line and our two largest competitors, listed from premium product to bargain):

	Our Line	Competitor A	Competitor B
Best	$1000	1000	1000
	750	900	900
	500	850	750
Bargain		750	500

Suggested Approach:

First ask: Industry trends? Product design? Brand recognition? Incentives for sales force?

Everything seems to be similar compared to the competitors (price, quality, brand recognition, location of stores, service, warranty, product features), yet the competitor's sales were increasing.

The only difference: our client was the only selling in warehouses and specialty shops.

That was apparently the solution. It turns out that:

- In warehouses our client's product line is too 'gappy' – too few price point in the most competitive part of the market (ex. the $750-$1000 range for stoves.) Our competitors have smaller price steps and we are losing sales in these gaps to them.

- In specialty stores: people remodeling their house, start buying their stuff with cooking appliances and our clients cooking appliances weren't very attractive. Once customers start to buy from one brand, she/he will stick to that brand.

Solution:

a) close the product line gaps
b) manufacture more attractive and better cooking appliances.

AN OIL REFINING AND PROCESSING COMPANY AND ITS SUPPLIERS

Your client is the COO of an oil refining and processing company. The company has secured long-term contracts with spare-parts suppliers (50 of them), that the company estimates could save it $30M per year. Today, company employees order supplies directly, and the company is highly de-centralized. It has 2500 employees scattered in plants across the US. Its headquarters are in Houston. The new suppliers have been announced, but there is concern about employee non-compliance. To address this issue, the COO is considering implementing an e-commerce procurement system, but is concerned that e-commerce is expensive and relatively new. Should he approve the investment?

Information divulged gradually:

- Today, there are 13,000 suppliers being used across the US. 80% of purchases are over the phone – directly to the supplier. Approval only occurs at the invoice stage. The company purchased $1.1B last year, though most purchases are low-value items.
- The 50 preferred suppliers can supply all required supplies.
- The purchasing organization is small, and all of its personnel are located at headquarters.
- The company has just implemented a common computing environment. This includes PeopleSoft software for purchasing.
- Many of the company's employees do not use computers on a regular basis.

Suggested Approach:

Issues to address:

- What is the strategic importance of purchase? (e.g., is it an operational improvement?)
- What is the competition doing with their suppliers?
- What is the current relationship between the company and their suppliers?
- How often will the selected supplier list change?
- Is additional integration with suppliers (e.g. access to inventory systems) desired?

Cost/Benefit analysis should be the primary analysis done

Costs: The major costs involve buying the system, tailoring it to the company's needs, maintaining the system, and training people to use it. One other potential cost is the risk of losing suppliers because of the lack of personal contact provided by the current system.

Benefits: The main benefits the purchasing system would provide are uniform processing of purchases, error reduction in orders, and better supply management. Additionally, because the company would be working with 50 selected suppliers, it would reduce its transaction costs, and it should enjoy quantity discounts and improvements in service quality, for example reduction in lead-time for purchases.

It turns out that the consulting firm did a cost/benefit analysis and recommended against purchase of the system, mainly because there was no way to make everyone use the system, and today most purchases are verbal. The costs were not in the purchase itself, but in the process that ensued.

SAFEWAY POINT-OF-SALE DATA

Safeway collects valuable data in its point-of-sale systems. The company can also connect individual customer data to product sales through its member cards. You are a manager at Safeway. What could be done with this data to improve the company's performance?

Suggested Approach:
The point-of-sale data can help Safeway improve revenues and decrease costs.

First, look at the revenue side. The point-of-sale data enables Safeway to better target and customize its marketing efforts. For example, the company can use 1:1 marketing techniques: promote complementary products to those a customer buys often, or promote products when it is time for the customer to re-purchase (good for cyclical or replenishment goods).

On the cost side, the company can improve its supply chain management. It can improve its vendor / supplier power, since it knows with more certainty what will sell when. Additionally, Safeway can be smarter about what products it stocks in what stores, in what amounts, and when. This strategy would lower costs of unsold inventory.

CEREAL MANUFACTURER

A cereal manufacturer was having trouble supplying demand for all of its new lines of cereal in the US and was unwilling to cut existing brands. The company owned several plants, the most modern being in the US (one location) and Canada (one location). The company determined that expansion of a plant was the way to go, but needs to determine which plant should be expanded. How would you address this question?

Suggested Approach:
This case was mainly about operations. At a minimum, the respondent should recognize the key drivers of the decision. These might include: labor costs in the relevant locations, availability of building space or land to expand the facilities and the cost of land or facilities. Some other considerations might relate to other variable costs such as transportation costs to and from the plants or costs of materials that may depend on the choice of local suppliers.

Some additional considerations that ended up being very important to this case were trade/import regulations, tax and accounting implications for foreign manufacture of domestic products. Organizational design was also a consideration (US marketing departments would need a way to coordinate with foreign plants).

The point of this case is to see how broadly and structured you can think. The consultant eventually recommended expansion of the Canadian plant to supply US business. The drivers of the recommendation were availability of owned land and facilities to expand and reduced import barriers (via NAFTA).

You have just been named to the Board of Directors of a small Midwestern college. What do you do?

Information to be divulged gradually:

- The school is a small vocational college. Students are not the best and most talented, but the school prides itself on molding marginal students into strong and productive community members.
- The board is has the authority to hire and fire the President. A new President has just been hired.
- Performance is believed to be fine, but the school has no metric for measuring it.

Suggested Approach:

This is an unusual question with no clear right or wrong answer. It is a test of the candidate's ability to deal with situations that don't fit neatly into the conventional frameworks. However, standard frameworks can offer a starting point for unconventional cases. The following is a possible framework, loosely based on the "five force" model:

Role & Responsibilities: What is the board's composition? What are our responsibilities? What powers do we have? What are my personal responsibilities and powers within the board?

"Buyers" (i.e. students): Who are they? Why did they choose this school? What will they do when they graduate? How are we serving them?

"Suppliers" (i.e. the school and its staff, faculty, alums, donors, etc…): How is the school viewed? What is our mission? How do we fund ourselves? Are our stakeholders pleased with our performance?

Competition and Performance: What are our current challenges? Are we facing funding problems? Are our students performing well? How do we compare with other schools, locally and nationally? How do we measure performance? Have these indicators moved recently?

Key Issues: The school should have a method for measuring performance and the hiring of a new President. Creates the opportunity to introduce a compensation plan tied to performance metrics. The interviewer guided the discussion to possible metrics and how best to tie them to compensation. The goal of this case was not to find the "answer." Rather, the interviewer wanted to see how the candidate handled off the wall questions and structured thinking around a nebulous issue.

NATIONAL PROVIDER OF PHONE HEADSETS AND ACCESSORIES

A national provider of phone headsets and accessories has been experiencing strong growth in sales and profitability over the past few years. The firm does not manufacture hardware. CEO has asked you to look for cost savings opportunities in their logistics operations.

<u>Suggested Approach:</u>

Questions to interviewer:

- What do logistics operations consist of?
- How are costs distributed across logistics operations?
- To what extent are logistics operations in-house or outsourced?

Discover that 90% of cost is associated with warehousing, 5% with transport, 5% repair. Warehousing is managed in-house. Focus on warehousing.

Questions to interviewer:

- How many facilities and what are the locations?
- Capacity utilization of each facility?

Discover utilization is at 70% on average across facilities, indicating possible warehouse consolidation opportunities. But discover resistance from client, due to desire to maintain extra space for future growth. Raise issue of how an integrated, collaborative supply chain could enable them to hold less inventory and put more of the inventory management burden on their suppliers. While client thinks this sounds good in theory is reluctant to take steps to achieve fully integrated supply chain because does not trust suppliers to deliver on time etc.

Raise issue of outsourcing versus in-house warehousing operations. the rationale for outsourcing operations if cheaper to outsource and if the activity is not strategically important to the organization. Recommend outsourcing and pursuing an RFP process to identify best candidate for warehousing operations.

Stock Exchange A is considering buying Stock Exchange B. How should they decide whether to go ahead or not?

Suggested Approach:

Start out by thinking in terms of a very simple framework: *Costs and benefits*.

First, I suggested that we explore the costs, and quickly realized that this was not the interesting part of the case. The direct cost would be the price they would have to pay for Stock Exchange B, and an indirect cost could be that they would experience coordination problems between the two. Since the interviewer did not seem very interested in discussing any of these cost-aspects further, we quickly moved to the benefits.

In this part, I realized the items would not be as obvious as the cost part, and started the discussion by saying that I would like to brainstorm about possible benefits. I asked myself the question: What is important to a stock exchange? What are some important assets?

The first thing I came up with was *systems.* I suggested that both people and technology were key to the performance of a stock exchange, and that this therefore was an important aspect. This suggestion turned out to be one of two key answers in this case, since one of the reasons Stock Exchange A considered buying Stock Exchange B was the superior technology it had developed. The people part of the answer was not particularly important.

A second thing suggestion that I came up with was that maybe Stock Exchange B had other companies listed than Stock Exchange A currently had. The reason I thought of this, was that I assumed there was some sort of "*critical mass*" in the Stock Exchange business, and that if you didn't have a certain number of companies within a specific industry listed, you wouldn't get any of them. This turned out to be the other key aspect of the case: Stock Exchange B did indeed have a critical mass of customers in industries in which Stock Exchange A had not established themselves. Importantly, these industries were industries with high growth in newly deregulated industries such as utilities.

(Towards the end of the discussion my interviewer told me that when they had worked on this case, they had had many and long discussions around whether the critical mass aspect was important at all, and if so, how important it was.)

The main challenge for me in this case was that I had to try to think of a stock exchange as a company, not as a "market", which was a new perspective.

EXPIRING DRUG PATENTS

Your client is a pharmaceutical company in a country where patent protection on a drug lasts for 10-15 years depending on the patent. The company has one major patent on a drug. The patent is set to expire in 18 months. The company suspects that once the patent expires, their revenues on the drug will decrease. Will revenues on the drug decrease? If so, by how much? What are the factors that will determine the level at which revenues will decrease? What strategic options does the company have in order to keep revenues from falling drastically?

Suggested Approach:

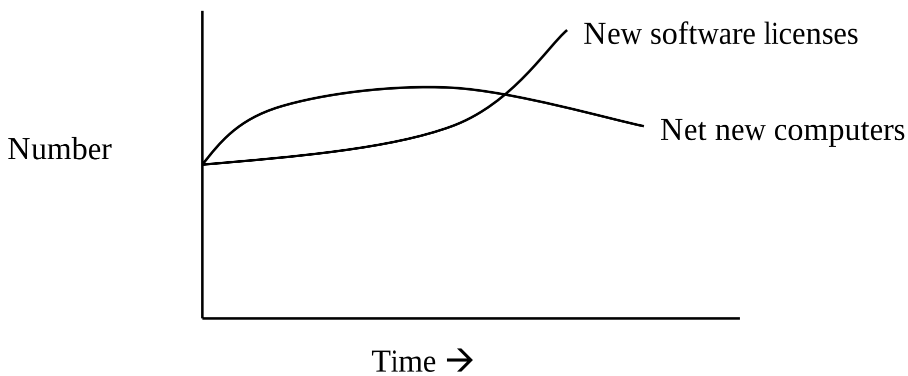
To determine whether drug revenues will decrease, the company should consider what can be done with the drug after it goes off patent. First, could the company sell the drug as a generic product? What are the potential revenues from generic sales? What is the likelihood that another company would release a competing generic? Second, can the drug be used for other indications, perhaps ones that might qualify for patent protection? What are the potential revenues from these new applications?

On a larger scale, the company should evaluate its ability to bring sell other drugs to offset potential revenue loss from this drug. The basic options are launch a new internal drug or buy a drug from another company and sell it. If the company has a drug in development that is nearing release, it can attempt to get approval for the drug. Alternatively, the company can buy a drug under development from another company and complete the development; or it can secure distribution rights to a drug that has already been developed.

Your client major software manufacturer. It has 80-90% market share in business productivity applications. The company sells licenses to its software in the form of new licenses ($300) and upgrade licenses ($150). The company has just found out that the number of new software licenses is exceeding the number of "net new computers". Customers buying new computers are either buying additional computers *or* they are replacing computers being retired ("retired computers"). So, net new computers are:

Net new computers = Total new computers – Number of retired computers

Customers can transfer existing software licenses from retired computers to new ones. Therefore, the software company expected that the number of new software licenses would roughly equal the number of new computers. However, research has presented this data:



The client wants to understand the cause of this trend, and what, if anything, it should do.

Suggested Approach:

Begin by exploring the company's software licensing policy. The software is licensed to corporate customers based on group fees, but each computer has an individual software license.

Now examine the customer purchasing behavior. When do customers purchase new licenses? When they are buying new computers? When they are buying a new release of the software? It turns out that IT managers often buy new computers complete with software, because the costs of transferring a license from a retired computer is too high. IT managers estimated the transfer cost between $150-200, which included finding the specific license number and associated paperwork. Additionally, when a new software upgrade is released, some customers cannot find their original license information, so they must purchase a new license.

LAW FIRM ECONOMICS

Consider a law firm. They hire in associates right out of law school at $100,000 a year. Is this a good deal?

Suggested Approach:
This is a good case for a basic profit = revenue - costs analysis.

First, step through marginal revenue associated with adding a new lawyer. Start simple -does the firm have work for the new lawyers to do? Assuming the answer is “yes,” then assume an hourly rate for the new associate’s work, the number of hours billed per day and the number of days worked per year to get an estimated revenue figure for the year.

Now look at additional costs. In addition to salary, you should estimate taxes, overhead, training and benefits and any other expenses you can think of. Don’t forget recruiting costs (amortize these over the average time a new associate will stay with the firm.)

Once you have this basic framework, it can be expanded with other details (time permitting.) Other possible factors include the quality of lawyers you get for $100K (is this above or below market?), the need to give raises in subsequent years, the option of hiring experienced lawyers or cheaper legal assistants instead, etc….

BRAIN TEASER

You have two cubes with 6 sides each (total 12 sides). You want to be able to show all the days of the month with these two cubes (i.e. from 01, 02, 03...to 31). What digits would you put on each cube?

Suggested Approach:
0,1,2,3, 4 and 5 go on the one 0,1,2,6,7 and 8 go on the other. You will notice, that 9 is missing...oh the suspense...the six can be flipped over to act as a nine as well.

BRAIN TEASER

You have a large cube made up of small cubes. Each side of the large cube is 10 small cubes wide. How many small cubes make up the outside of the large cube?

Suggested Approach:
Each side of the large cube has 100 small cubes. Remove two opposing sides of the large cube, and you are left with four identical 9 x 8 sides. This gives you 288 small cubes. Now add the small cubes from the two removed sides. 288 + 200 = 488 small cubes.

CIGAR BAR

I was sitting in one of Chicago's new specialty "Cigar Bars" around the end of August with a friend. It was a Saturday night and while enjoying one of the bar's finest stogies and sipping a cognac, I asked my friend how much he thought the bar was worth.

How would you go about determining the value of this bar?

Additional Information:
We arrived at the bar around 8:30pm. There appeared to be 30 customers already there. By 11pm the place had at least 70 customers. I would estimate the maximum capacity to be close to 100.

The bar sells two things: liquor and cigars. The average cost of a cigar is $8 and the average cost of a drink is $7

There was one bartender, a waiter and a waitress. All three were there the entire evening. The bar is located on one of Chicago's trendier streets with a lot of foot traffic.

The bar is open Tuesday through Sunday from 5pm until 2am.

Suggested Approach:
Recognize that this is a straightforward valuation. Just as in Capstone you should estimate the free cash flows from the business and discount them back using an appropriate weighted average cost of capital (WACC). A good opening statement: "To determine a value for this business you must estimate the free cash flows for the business over its useful life."

First estimate revenues: One way to project revenues is to estimate the number of customers per day or week and multiply that by the average expenditure of each customer. It is up to you to come up with respectable estimates. Try to keep your estimates simple – 1 drink and 1 cigar. Keep in mind that Friday's and Saturday's are typically busier than other days and that seasonality might have an impact: - people tend to be out more during the summer than in the winter in Chicago.

Then estimate costs: You know there are two components to costs – fixed and variable. Under fixed costs you might consider rent, general maintenance, management, insurance, liquor license, and possibly employees. The only real variable cost is the cost of goods sold. Try to simplify your estimates of COGS by taking a percentage of total revenue or a percentage of cigar revenue and a percentage of liquor revenue separately.

Valuation: Subtract the costs from the revenues and adjust for taxes. You now have the annual cash flows generated from the bar. How long do you anticipate this bar being around? Cigar bars are a trend. In any case pick some number for the expected life (3 – 5) years. The discount rate should be a rate representative of WACC's of similar businesses with the same risk, perhaps 20%.

$$\text{Value} = CF_1/1.2 + CF_2/(1.2)^2 + \ldots + CF_n/(1.2)^n$$

MORE CASES

These cases were given during Fall 2000 recruiting. We have organized them by firm. They will give you a flavor for what's to come…

A.T. Kearney

A manufacturer of APSs (Auxiliary Power Supply – essentially a electricity generator) for aircraft manufacturers is experiencing huge inventories and large stocks of WIP, all of which is costing them a lot of money. What could the problem be? The product and the industry are really unimportant.

Answer: Demand is steady and known in advance. Internal processes are fine. The problem is supply. Each APS consists of several thousand individual parts, delivered by hundreds of suppliers. Since supply of some parts is unpredictable, the company stocks up when it has the chance.

How would you attack solving this problem?

Answer: After a discussion on how to classify the parts, a two-by-two matrix should emerge with the two most important characteristics: Acquisition cost of item (capital that is being tied up) + Availability of item. The four fields (high/low for each characteristic) can then be analyzed individually using Porter.

Bain

Your client is CEO of the Wall Street Journal. What are the key metrics he/she would want to know on a daily basis?

Answer: Break out the fixed costs and variable costs of a newspaper and identify all possible revenue streams (circulation, ads, other ways to leverage strong brand name (i.e., conferences, etc)).

Your client is a private equity company. One if its client, a technology hardware manufacturer is losing money. They call you in to investigate what is going on. They are price takers, there is no new technology in the industry, no new competitors, no supply chain issues.

Answer: classic micro case. You have to determine that you continue to produce as long as adding to contribution so that you spread fixed costs over more volume. That is why it is critical to have very high utilization in manufacturing.

McKinsey

Your client manufactures diabetes monitoring kits. It is losing market share and profitability. Why?

Answer: You need to segment the market and find out that there are two main markets - adult onset diabetes and diabetes that you have from birth. They differ in severity and treatment. New competitors are attacking the more profitable market (due to need for more stringent monitoring). What can you do about it? Talk about build vs. acquire in a technology setting. You need to pay a premium b/c time to market is critical and by not being early to market, you will never be able to break in once standards have been formed.

Brain teaser. Do not use a pen and paper. My product costs me $20, and I sell it for $32. I plan to offer a 25% discount. How much do I have to sell in order not to have my profits fall?

Answer: Look at the profit margin. It fell from $12 to $4. Therefore, I must sell three times as much.

Your client is the CEO of Target. One of your stores in Georgia struck a deal with E-Trade. E-Trade has acquired Telebank and offers on-line brokerage and traditional banking services. They have opened a branch of E-Trade within the Target. The CEO wants to know what the total market opportunity is? Should Target expand the relationship with E-Trade? Should they develop this service offering on their own?

Arthur D. Little

Your client is a steel manufacturer operating one plant. It wants to increase its market share by 50%. However, its existing plant is producing at 100% capacity. There are 2 options: either build a new plant or expand the existing one. What should they do?

Answer: The point here is to ask the right questions. It turns out it would incur the same investment cost by building or expanding. However, consider operational costs: transportation makes up 25% of them. Thus, they might benefit from locating somewhere else, since distribution costs are so high. The potential new site would be 250 miles away, and 75% of existing customers are within these 250 miles. Therefore they need to make a call depending on where the new customers are likely to be, but opening the new site seems like a good idea.

Your client has an opportunity to purchase a company that makes plasticizers, a chemical that is used for making plastics. Lately, a highly visible non-profit organization has asked that plasticizers be banned as they might be toxic. However, the EPA has repeatedly said that it was a safe product. Your client asks you to look at future demand for plasticizers in the US.

Answer: The first thing to do is to understand which segments use the most plastic, and translate that into demand for plasticizers. The second is to analyze the “non-market” issues, ie the potential public fear of products containing plasticizers and the alternatives for producing plastics. For each segment, analyze the consumer behavior (ie the fear will be greater toys than for cars), the segment’s price sensitivity and openness to alternatives.

Acknowledgments

Andersen Consulting Fall 1999 Case Interview Presentation
To the Haas School

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To the Haas School

Towers Perrin Case Study Interview Guide - 1998

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By David Katz '99

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By Charlene Son '00

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By Nicolas Franchet '01

Sample Cases Provided By Haas MBA Students