

# **DEMYSTIFYING THE CASE INTERVIEW LEVERETT CASE WORKSHOP**

Sunday, January 31, 1999

Paul Nguyen  
Business Tutor

# AGENDA

**Introduction to Case Interviews**

**The Business Case**

**The Guess the Number Case**

**The Brainteaser Case and Other Bizarre Questions**

# THE (REALLY) BASICS: WHAT'S A CASE INTERVIEW?

It's a 30-45 minute interview in which you will be asked to think through a business problem with your interviewer

Consultants use the case interview to test

- Whether you have the mental horsepower to handle the work
- Whether they'd want you on their case team

The typical case interview has

- 5-10 minutes of resume questions and chit-chat
- 10-25 minutes of a case
- 5-10 minutes for you to ask questions and for the interviewer to wrap up

# THERE ARE THREE MAIN TYPES OF CASE QUESTIONS

One of Them is Bizarre and Rarely Used

- The Standard Business Case
  - This is the most common form of case and is supposed to simulate the kind of thinking you'd have to do as a consultant. The interviewer poses a problem (often taken from a case they've worked on) such as "our client's convenience stores have suddenly begun to lose money." You're supposed to ask questions to find out more about the case, and then finally make a recommendation as to what to do.
- The Guess the Number Case
  - The interviewer asks you to estimate a value using common-sense assumptions. The typical question is "how many pay phones are there in Manhattan?" It's a distant second in popularity to the standard case, but still used by interviewers who won't bother to write a real case.
- The Brainteaser Case
  - Bizarre and rarely seen, but can be deadly if used. Interviewer asks some sort of brainteaser and sits back silently as you scramble for an answer.

# SET ASIDE GRAND NOTIONS OF ACING THE CASE

Such Instances are Few and Far Between

Very few people (maybe 5%) actually get to the right answer. Many people never get to the stage where they actually make the recommendation, and many more choose the wrong one once they get there.

Nevertheless, all of these people get hired.

Getting onto the next round is not about acing the case (although that will likely get you there), but about being sure that you sufficiently impress the interviewer with your logic and communication during the whole case portion of the interview.

In other words, the process of looking for the answer is much more important than actually finding it.

Ride the partial credit gravy train

# KEYS TO SUCCESS (I)

## Work With Your Interviewer



Consulting is all about working in teams to solve problems. The case interview is no different.

Always try to think out loud with your interviewer so that they know where you're going.

Very often, they will point you in the right direction and keep you from messing up (i.e. be alert to cues and let the interviewer guide you to the promised land).

In general, your interviewer wants you to succeed.

The interviewer is your friend

# KEYS TO SUCCESS (II)

## Think in Frameworks

Frameworks are tools that consultants use to approach a big problem methodically.

You should try to use them where you can so that you make sure you've hit on all the right areas (we'll talk about them later).

Frameworks don't always have to be canned approaches like the 3Cs, 4Ps, and Porter's 5 Forces. They can be anything that you make up on the spot that will structure your thinking about the problem.

Also, let your interviewer know what your framework is so that s/he can follow along with you and buy into your reasoning.

Consultants Don't Understand Things That Aren't in Frameworks

## KEYS TO SUCCESS (III)

Communicate!

Most people can think very logically and piece together the puzzles of the case quite well. The key to succeeding in case interviews is often not thinking smarter thoughts, but making sure that you communicate whatever thoughts you have more clearly and in a logical manner.

You're only as smart as what you communicate to your interviewer



# **AGENDA**

**Introduction to Case Interviews**

**The Business Case**

**The Guess the Number Case**

**The Brainteaser Case and Other Bizarre Questions**

# FRAMEWORK: PROFITS = REVENUES - COST

Great for "Profits" Questions

This is a great and simple framework for attacking the "Why are are profits falling?" question. First you analyze the revenue drivers, then look at the cost drivers.

In general, start by asking whether the industry is losing money, or whether it's just your client.

On the revenue side, we know Revenue = Price x Quantity, so ask whether prices have fallen (absolute and relative to industry), and then whether quantity has fallen. If either has happened, ask why. Have tastes changed? Is there a new competitor with a substitute product? If a store that sells a lot of products is your client, you might want to segment the products and ask whether certain products are losing money.

On the cost side, we might want to figure out what the major cost components of the company are and see if one of them has gone up recently.

## **FRAMEWORK: 3Cs: COMPANY, CUSTOMERS, COMPETITORS**

Great for “New Business Opportunity” Questions

This is a useful framework to make sure that you aren't leaving out major issues or questions when analyzing a new business opportunity such as launching a new product, entering a market, or acquiring something.

Company: Why does the company want to do this? (usually for profits): Do we have the management know-how and physical capabilities to enter this market?; Do we have some sort of competitive advantage in entering this market (e.g. synergies within our existing business)?

Customers: Who would the customers be? Is there a demand for this?

Competitors: Are there competitors? How powerful are they? What would they do if we entered the market? Can we be protected from them?

# SAMPLE BUSINESS CASES (I)

Booz Allen & Hamilton:

- 1) A publisher of Law Code books (reference books that contain state and federal laws, and come out every year or so in order to remain up-to-date) have been receiving requests from customers that they publish the books on CD-ROM. The demand seems pretty strong for such a product. Should they do it?
- 2) A helicopter operating company wants to set up a helicopter shuttle that will take people from Kennedy airport in Queens, NY, directly to midtown Manhattan, and vice versa. Should they do it?

Bain & Company:

- 3) Your university food service (think Loker Commons) is losing money. What's the problem?
- 4) A cable TV station devoted to country music wants to put out a magazine. What should they think about?
- 5) A huge sporting goods chain is thinking about setting up a large store in a mid-sized town. Should they do it?

## SAMPLE BUSINESS CASES (II)

McKinsey & Company:

- 6) Your school is losing money. Why?
- 7) A client is running a family-owned travel business that offers complete travel packages to its customers. It has a very good relationship with an airline company from which it buys tickets in volume and receives a nice discount. The owner of the business is a grandfather who will eventually pass on the business to his children, but has heard about an interesting business opportunity. It has always been his dream to operate a chartered plane, and he now has a chance to buy one (through the travel business), operate it, and integrate it into the travel business. Should he do it?

Treacy & Company:

- 8) Nike is our client and has several production plants in Asia. Nike's buyers (sporting goods stores) are saying that because of the recent Asian financial crisis, Nike's costs of production must be falling, and the buyers want Nike to pass some of those savings onto them in the form of lower prices. What would you tell the Nike CEO to do?

## POSSIBLE APPROACHES TO SAMPLE CASES (I)

- 1) This is a new business opportunity, so 'the three Cs' is a good approach here. If you start with Customers, you might ask about the demand for this product. It turns out that over 50% of your customers would want to buy the books on CD. As for Competitors, no one else has done this yet, so there are no competitors to worry about. Finally, if you look at the Company, you would learn that they are solely a publishing company with no experience in making CDs. However, they could outsource the production to a company that specializes in CD production.

The 3Cs have led to to ask the right questions and gather the right data. Now it's time to insert some business thinking. One thing to worry about is product cannibalism, i.e., if they make the CD, will it create new customers, or merely cause their existing customers to switch over to the new product? It turns out that since the CD would be cheaper than the books, people who wouldn't ordinarily buy the book would buy the CD, so there would be new customers. However, 50% of the current book customers would switch to the CD.

It also turns out that they would make the same profit per CD as they made per book this past year. The numbers would therefore seem to suggest a "YES" to the CDs. The problem, however, is that they've already sunk all of these fixed costs into their book operations, and need to sell a high volume of books to recover their costs. If they lose 50% of their book customers, their book operations will collapse. The answer is NO!

## POSSIBLE APPROACHES TO SAMPLE CASES (II)

- 2) This is a new business opportunity, so go with the 3Cs. On the competitor side, it turns out that no one else is doing it. On the company side, these guys have been operating helicopters for a long time, so they certainly know what they're doing. The real challenge here is to figure out who the target customers are. Is it business travelers like Gordon Gekko? State dignitaries? If it is business travelers, you might run into the problem that while there's high demand during the week, nobody wants to use it over the weekend. What to do with the excess capacity? Maybe give helicopter tours of the city?
- 3) This is a classic profit question, so go with  $\text{Profit} = \text{Revenue} - \text{Cost}$ . This question doesn't make clear whether they've always lost money, or whether it just recently became unprofitable, so first try to clarify this. If they only recently started losing money, then find out what happened during the time when profits started declining. Did a new competitor pop up? If they've always been losing money, go into the standard revenue and cost analysis. For revenues, is there enough demand for their products (it turns out the answer is no, since the dining hall is a good substitute and provides meals in a bag). Are there certain products that are losing money, or is it a general loss? (General). Are their prices competitive? (yes, pretty much the same as any other such establishment). On the cost side, are they producing efficiently? (No. Wastefulness in production).

## POSSIBLE APPROACHES TO SAMPLE CASES (III)

- 4) A new business opportunity warrants the 3Cs approach. A standard 3Cs analysis would tell you that there are some competitors; that there is some demand, but that our client probably wouldn't capture much of the market; and that while they know a lot about country music, they don't know much about magazines. All in all, this would probably generate a net loss. The answer might seem to be "No." However, answering the question correctly actually requires us to know what the motive of the company is in undertaking this venture. Ordinarily, we assume that the goal is for the venture to be profitable, and we recommend against doing it if it doesn't look profitable. If we had asked up front what the motives were, we would have learned that they weren't sure about the profit potential of the venture, but that their motive was actually simply to use the magazine as a way to build the brand of their Cable TV network, much like ESPN has done with its ESPN magazine and ESPN online. Knowing this, the focus of the analysis should fit to whether building the brand in such a way would translate into more profits for the company as a whole (has it worked for other companies such as ESPN?, etc.



## POSSIBLE APPROACHES TO SAMPLE CASES (IV)

- 5) A classic case of a huge discounter moving into a small town—use 3Cs to discover that this Company has a great cost structure because it buys in huge volumes and gets great discounts from its suppliers. As for the Customers, there is also a large local demand for sporting goods. The key to this problem is the Competitors. The competitors are several mom & pop-type stores that have a very loyal local following, and that can provide better, more personalized service. One recommendation might be to pay extra attention to customer service and build some sort of reputation as a service-first company. This would be a good place to come up with other creative ways to beat down the mom & pops (the corporate world is a nasty place!). If you dig deeper, though, it turns out that the customer base is quite price-sensitive, and that with your significantly lower prices, you will wind up driving mom & pop out of town.

## POSSIBLE APPROACHES TO SAMPLE CASES (V)

- 6) This was a mildly strange question asked of a friend of mine from Brown. He went through a standard  $\text{Profits} = \text{Revenues} - \text{Costs}$  analysis. The general tactic would be to try to identify the major sources of revenue for the school and what its major costs are, and see if any of them experienced a change around the time profits started falling. As it turns out, the McKinsey interviewer was convinced that the problem was that the athletics department wasn't selling enough tickets. Pretty random. Remember, the actual answer may often be obscure, so you won't always be expected to find it. What you will be expected to do is to go about finding the answer in a reasonable way.
  
- 7) 3Cs. Would the customers use the chartered plane? (Yes, they wouldn't know the difference). On the Company side, would their relationship with the airline be hurt? (Yes, it will be hurt in the short term, but will probably not have serious repercussions by the time the grandfather hands over the company to his children). Does the company have any know-how in operating a chartered plane? (No, they don't really have any advantage there). What about its competitors? (Head to head against major airlines, it will be much less cost efficient. However, since they don't have to pay for the airline ticket markup, they won't be losing money). After all this analysis, it seems like it would help the company, but that it wouldn't hurt either. It turns out that what the McKinsey partner wanted was for the interviewee to take a stand and say, "Since it doesn't make a difference either way, if the guy wants to do it, then he should go ahead and do it." A friend of mine was the only person who had the guts to make a recommendation rather than saying, "The data are inconclusive," and won rave reviews for it.

## POSSIBLE APPROACHES TO SAMPLE CASES (VI)

- 8) This fits less neatly into a framework, although you can try a  $\text{Profits} = \text{Revenues} - \text{Costs}$  to figure out whether Nike's Profits really are increasing as their buyers claim. On the Revenues side, Nike has experienced almost no change due to the Asian crisis, since so many of its markets are unaffected by the crisis. So now the challenge is to see if the Asian crisis really has lowered costs. Essentially, you need to figure out what the major components of Nike's cost structure are, and see which of those would be affected by the Asian crisis. As it turns out, the labor and capital expenses of operating the Asian plants are only a tiny part of the cost of taking a shoe to market. There are still the huge marketing costs, which are unaffected, and the cost of the physical components of the sneaker, which are imported from regions outside of Asia. Therefore, Nike's costs have not really dropped all that much in the midst of the crisis, and they have little savings to pass onto their buyers.

# **AGENDA**

**Introduction to Case Interviews**

**The Business Case**

**The Guess the Number Case**

**The Brainteaser Case and Other Bizarre Questions**

## THREE BASIC FACTS TO KNOW FOR GUESS THE NUMBER

For All Other Figures, Just State Your Assumption

About 250 Million People in the US

About 100 Million Households

About 6 Billion People in the World

Your interviewer will believe whatever else you assume

# SAMPLE GUESS THE NUMBER CASES

AT Kearney:

- 1) Estimate the number of gas stations in the US. How would you really do it?

McKinsey & Company:

- 2) How much should our client pay for the Prudential Building?

## POSSIBLE APPROACHES TO NUMBER CASES

- 1) The old gas station question. So many possibilities. The key is to pick an approach and go with it. Perhaps  $(100 \text{ million households}) \times (\text{one car per household}) \times (\text{one fill-up per week per car}) / (\text{1000 cars per gas station per week}) = 100 \text{ thousand gas stations}$ . Note that your assumptions may be way off, but your interviewer doesn't know any more than you do.

The answer to how you really would do it stumped me. The answer is, you would go on the internet and find the gas stations trade association of America (every sort of business seems to have one) and they'll tell you how many there are.

- 2) First estimate the amount of rent that could be taken in each month. This requires an estimate of the total square footage, what percent of that could be rented out, and what the average rent per square foot would be (might be different for retail vs. office space, and low floors vs. high floors with corporate views). Then subtract out whatever the costs of operating the building would be. Multiply by 12 to get the yearly amount of cash that this building would generate. Now it can be valued like a consol, which would be  $(\text{Annual cash}) / (\text{Discount rate})$ .

# **AGENDA**

**Introduction to Case Interviews**

**The Business Case**

**The Guess the Number Case**

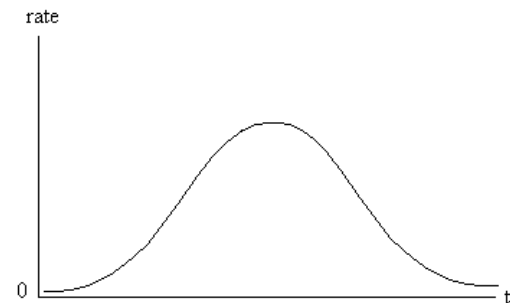
**The Brainteaser Case and Other Bizarre Questions**



## SAMPLE BRAINTEASER AND OTHER BIZARRE QUESTIONS

Booz Allen & Hamilton:

- Below is the graph of the rate at which water is flowing into a cylinder. Draw a graph of the volume of water in the cylinder.



A Boston-Based Consulting Group:

- Explain how you decided to go to Harvard.

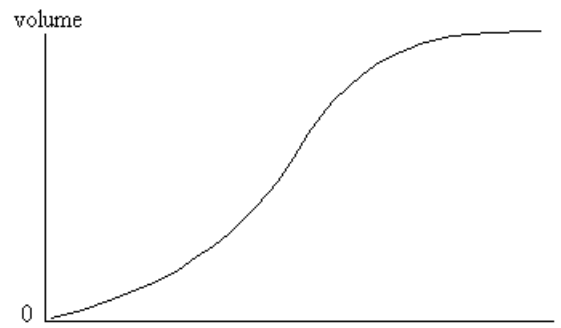
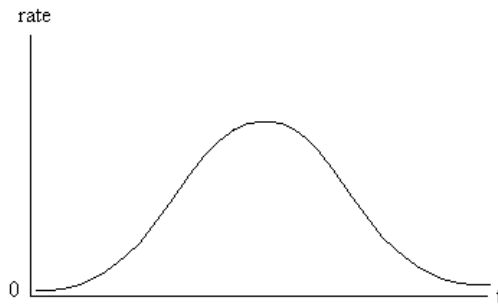
AT Kearney:

- Explain your entire thesis to me.
- I'm your manager on the case team, and we're at the client site. I leave you in a room at 9AM with some work to do, and you discover it will take 16 hours to do, but we need it done by 5PM. I pop my head into the room. "Paul, how's it going?" Answer.
- OK. Now give a different answer.

# ANSWER TO BOOZ'S "THINKING QUESTION"

Also Includes Paul's E-mail Address

Essentially, the interviewer drew the derivative of the volume function, and wanted me to draw the volume of the function itself. This yields:



Finally, if you have any questions, contact me by e-mail at [paul\\_nguyen@post.harvard.edu](mailto:paul_nguyen@post.harvard.edu). Good luck on your interviews!