Why do consulting firms perform case interviews?

In a typical interview you would spend about five minutes telling the interviewer a little bit about yourself, about 20 minutes answering questions about your scholastic and extracurricular activities and leadership positions that you assumed, and the last five minutes clearing up any remaining questions or concerns you had about the firm you are interviewing with or the job that you are interviewing for. Well, a case interview is not much different except that you would spend the main body of the interview understanding and exploring a situation that may be typical in a consulting environment. And, possibly, less time on details about your favorite classes.

The case interview has numerous benefits for the interviewer and for you. A case interview can be a test of many skills. While primarily an analytical exercise, an interviewer uses a case to gauge your comfort level with problem solving, your curiosity about the problem at hand and your ability to cogently articulate your insights. You can get a better understanding for the problems that consultants try to solve for their clients, and for the type of work they do on a daily basis. If you are still exploring career options this may help you figure out if consulting is right for you.

How do companies evaluate your case interview performance?

A case interview is used to assess many of the same characteristics interviewers look for in the standard interview. Therefore, it is much more important that you clearly communicate your abilities and fit with the company you are interviewing with, than that you come up with the "correct" answer to the case. In general, the case interview will be used to evaluate you along three primary dimensions:

- Creativity and common sense,
- Analytic ability and poise
- Enthusiasm.

To get a sense of your level of creativity and common sense the interviewer will be judging your ability to:

- Conceptualize problems
- Develop innovative solutions to business situations
- Make assumptions, see patterns, generate hypotheses and draw conclusions from only partial information
Your analytic ability will be assessed based on how well you:
- Provide structure to unstructured problems
- Simplify problems into their individual component
- Apply transparent and logical thinking to each component
- Synthesize all of the pieces into a logical solution

And last, but not least, the interviewer will be trying to get a sense for your degree of poise and enthusiasm. To score well in this area it is important that you:
- Seem excited by the case, which is akin to the kinds of issues and problems consultants face
- Are not intimidated or daunted by the process or problem presented in the case
- Assimilate information quickly and effectively
- Ask insightful questions

### Case Interview Preparation

The interviewer will present some information to you and help you through the problem as you make assumptions and draw conclusions. They will be looking to see what kind of reasoning and judgment you use to get to a reasonable conclusion. During the case interview, you will want to convey a sense of confidence as well as your ability to decompose a problem into its relevant parts and synthesize the various issues into overall conclusions. You may want to prepare by:

- Reading the *Wall Street Journal, The Economist* or other business journals—focus on articles discussing specific companies or industries, consider
  - How the industry works and how suppliers, distributors and customers interact and function
  - Sources of the problem (e.g., profitability, revenue, cost, etc.)
  - Underlying economics and regulatory conditions, how is industry/company performance correlated with the market
  - Most importantly, become familiar with differences in industry structures—while it is certainly not expected for you to have specific background knowledge on an industry, it is helpful to understand what makes markets unique and how these characteristics drive its basic economics
- Familiarize yourself with introductory microeconomics
- Read first few chapters of *Competitive Strategy* by Michael Porter
- Develop a framework in which to evaluate problems
  - Basic microeconomics (profits=revenue-cost, etc.)
  - Industry measures (industry concentration is a function of number of players and market share)
- Read and analyze Harvard Business School’s or other business schools’ case studies
- Think about products and services that you use on a day-to-day basis
  - How do these products reach the market and their end-users?
  - What are your decision criteria when purchasing?
  - Are there substitutes or similar products offered by competitors, how are they differentiated?
- Practice cases with friends who has had case interviews or interviewed others
  - Focus on delivery
○ Be comfortable answering and asking questions
○ Structure responses in a logical framework

These activities will make you more comfortable discussing business issues in an interview context. Be relaxed and view the case as if it were like any other part of an interview—a two-way exchange of information. Your interviewer wants to get to know you, and you should ask questions and use the opportunity to get to know your interviewer and the company.

**Types of Case Interviews**

There are two primary types of case interviews. The first is an estimation problem. Consultants may use this type of thinking to quickly get an accurate understanding of the potential market for the client’s products or services, or to understand the position of competitors. One example of such a case is shown here.

Your client wants to undertake a major advertising effort in Chicago as a regional launch for a new concept in hair care. In order to understand how much to spend on this effort your client asks you to estimate the size of the shampoo market in Chicago.

There are several approaches that you may take to this problem. The most common approach, and the one interviewers like most, is one that involves a build-up towards the answer. With this process you can go through a number of iterations that will continue to refine the answer. The steps are, therefore, as follows:

- Your first reaction should be a recognition that total sales of shampoo in Chicago depends on how many bottles of shampoo are sold and what price is paid for them.
- In order to estimate how many bottles of shampoo are sold in Chicago you should try to understand how shampoo is used. Shampoo usage is a product of the number of people who use shampoo and the frequency with which they make new purchases. As a first estimate you would want to know how many people live in Chicago. Your interviewer may or may not have this data available for you. If the data is not available, you should just make a logical assumption, say 3 million. You would also want to know how often they buy shampoo. You should clearly talk through your thought process around this. Initially, for simplicity you should assume that there is an average bottle size that is purchased, say 6 times a year. This gives you an annual consumption of 18 million bottles of shampoo.

- At this point there should still be a few questions nagging you. You recognize that not all people will purchase shampoo with the same frequency because different people use varying amounts of shampoo over the course of a year. So you begin to try to understand why people use differing amounts of shampoo. Either they are washing their hair more/less often or they have longer/shorter hair that requires them to use more/less shampoo. It is going to be tough to find out how much shampoo each person uses and aggregate that to determine the size of the shampoo market in Chicago. So you may think of some basic groups of people whose use of shampoo may be consistent among the group but differ from group to group. (This type of analysis is typically referred to as segmentation.) Understanding the composition of households could do a very simple
segmentation. Different parts of the household are likely to consume shampoo in different amounts but it is most likely that, for example, different children across various households will consume similar amounts of shampoo. You might say that your earlier assumption of 6 bottles of shampoo per year was based on an average of 4 shampoos a week. If most children only shampoo twice a week they are likely to consume less shampoo. Furthermore you might also say that your earlier assumption around shampoo usage was based on an average hair length. If you now refine that to say that one-quarter of women (and only a very small fraction of men) have hair that is twice as long as "average" hair length then they may consume twice as much shampoo as the average person and therefore have to purchase shampoo twice as often. Finally if you assume that the average household is made up of one man, one woman, and two children (this estimate should be close enough since statistically the U.S. has been moving from 2.2 children per household to closer to 2) your earlier assumption would have put this household at 24 bottles of shampoo per year. If the children consume only one half of the shampoo they were originally thought to have consumed this total decreases by 3 bottles of shampoo times 2 children or by 6 bottles of shampoo down to a total of 18. If, furthermore, a quarter of all women use twice as much shampoo as the other three quarters a woman in each household is using one and a quarter times what had originally been assumed for her. The total consumption of the average woman in a household rises to 7.5 bottles (even though in a sample of women in 4 households you would expect to find 3 women who use 6 bottles of shampoo a year and one who uses 12 for a total of 30 and an average of 7.5) and the total household consumption rises to 19.5 bottles of shampoo per year. This refined estimate is approximately 20% lower than the initial rough estimate.

We are almost done now. The revised estimate of the number of bottles of shampoo consumed in the Chicago area is down from 18 million to 80% of that figure or approximately 14.5 million bottles. For a moment you should now try to understand the price that the consumer pays for shampoo. Based on your personal consumption you may estimate that the cost of a 20 oz. bottle of shampoo is $4. You can continue with this estimate if you believe that most bottles of shampoo do cost around $4 and that there are as many cheaper bottles of shampoo as there are more expensive brands of shampoo. (Or to use mathematical jargon the mean and the median are approximately $4 with a normal distribution.) The total size of the shampoo market in Chicago would therefore be approximately $58 million.

There are a number of other subtle but important refinements that could be made to this rough estimate of usage of shampoos in a situation where further detail was available and relevant. These could include the number of times consumers apply shampoo while washing their hair, or the differences in the number of times men and women wash their hair. You can probably think of a few more variables that will bring us closer to the answer. In essence, though, it is not the answer that is important it is the process that you go through to get to the answer. If you have thought clearly and articulated yourself consistently in moving through a case example you will no doubt come to a conclusion that is intuitively consistent and logical in its reasoning.

The second type of case is one that is more analytically focused and tries to gauge your comfort and confidence with numbers. While the issues are still related to general business sense and
common judgment the insight for the case is typically obtained from some understanding of the numbers that validate the hypotheses. An example of this type of case follows:

Your client, the CEO of a national fast food chain, is considering instituting a frequent diner program to increase per store revenue. He tells you that this program will be modeled after the airlines' frequent flyer programs. For each dollar a member spends they will receive 1 point. After they have accumulated 20 points they will be eligible to receive a free sandwich priced at $2.00. The chain store has 500 stores and 20,000 customers. Armed with this information, he asks you to help him decide if he should move forward with this type of a frequent diner program.

You realize that answering this question will require an analysis to determine whether or not this program will be profitable. As you begin the case, you correctly assess that in order for you to recommend that the frequent diner program be instituted you will need to determine that the additional revenue is greater than the additional costs. In starting the analysis you notice that there are several pieces of data that you need that have not been provided to you. At this point it is generally fair game to ask your interviewer for additional information. When asking for additional data, it is a good idea to explain your logic and why you think you need the information you are asking for.

For example: you may tell your interviewer that to calculate revenue and profit enhancement you need to know the total number of customers, the number of visits they make to the restaurant annually, and the amount they spend on each visit. You also want to know if some people come more often than others and therefore have a greater number of points. Finally, in order to answer the real question you need to determine how much additional business the restaurant would gain by offering diners this option. In asking these questions the interviewer will offer data you the following data:

<table>
<thead>
<tr>
<th>Customer Segment</th>
<th># customers per store</th>
<th>Avg # visits per year</th>
<th>Avg $ per visit</th>
<th>% that join program</th>
<th>Avg. # add'l visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy</td>
<td>8,000</td>
<td>30</td>
<td>4.00</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>Light</td>
<td>12,000</td>
<td>9</td>
<td>4.00</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

Using this information you create the following chart during the interview:

<table>
<thead>
<tr>
<th>Segment</th>
<th>Members</th>
<th>Current Visits</th>
<th>New Visits</th>
<th>Total Visits</th>
<th>Current Revenue</th>
<th>New Revenue</th>
<th>Total Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy</td>
<td>1,600</td>
<td>48,000</td>
<td>9,600</td>
<td>57,600</td>
<td>192,000</td>
<td>38,400</td>
<td>230,400</td>
</tr>
<tr>
<td>Light</td>
<td>600</td>
<td>5,400</td>
<td>1,800</td>
<td>7,200</td>
<td>21,600</td>
<td>7,200</td>
<td>28,800</td>
</tr>
<tr>
<td>Total</td>
<td>2,200</td>
<td>53,400</td>
<td>11,400</td>
<td>64,800</td>
<td>213,600</td>
<td>45,600</td>
<td>259,200</td>
</tr>
</tbody>
</table>

In the above chart you calculated the additional revenue per store that will be brought in as a result of the new program ($45,600).

The other side of the equation is the increase in costs due to program administration and the cost of fulfilling redemptions. There are a few key issues that you need to express here. First are the
actual setup costs of the program in terms of labor and equipment. The other is expense of reward redemption. The three issues to understand here are that points are driven off total volume, that while the price of a sandwich may be $2, its cost could be as little as $1, and finally that not all rewards are redeemed. It is probably safe to assume that 50% are actually redeemed.

So, in order to go forward with the frequent diner program, the net benefit should be positive. The summary of your exploration of this idea can be expressed as follows:

Net Benefit in First Year = Additional Revenue - Reward redemption expenses

Since you have already calculated the additional revenue, you now move on to calculate the redemption expenses as follows:

- (Member revenue/20 points per reward) * cost per sandwich * assumed redemption rate ($259,000/20) * $1 * 50% = $6,480
- From here you determine that the net benefit excluding set-up and transaction costs would be $39,120 and you suggest that your client pursue the frequent diner program.

While this problem is simple in concept there are a number of subtleties that are important to catch. The trap that is easy to fall into is trying to use all the data that is provided. Some data may not be provided or too much data may be available. You should always stay focused on what data will help you answer the questions at hand and request data where you do not see it. Frequently the data is available and the interviewer is waiting to give it to you.

It is not expected that you will address all of the above issues in an interview. Case interviews are focused discussions as opposed to brainstorming sessions. Try to view the case as a structured discussion or an oral paper—first, discussing the initial evidence (or facts that the interviewer gives you); second, drawing immediate conclusions from the evidence; finally, proposing possible solutions or recommendations.

It is important that you discuss cases in this manner so that your interviewer can easily follow your train of thought. Your interviewer is looking for you to arrive at logical conclusions from the information he/she gives you. Be sensitive to feedback from interviewers; often they will help steer you away from less important information or issues. Nonetheless, it is useful to address at least some of the above issues to demonstrate a broad understanding of the business.

Finally, keep in mind that most cases will not have prescriptive solutions. Using a variety of resources to prepare for case interviews will help you develop additional frameworks in which to analyze problems.

**Case Interview Exercise**

An eat-in ice cream parlor in a college-town is losing money. The owner buys ice-cream already made from a supplier and makes a variety of products such as cones, shakes and sundaes. How would you help the owner evaluate the business?
There are a few basic steps you should follow in all case interviews. First, make sure you understand all the terms being used and ask any questions that might help increase your general understanding of the problem.

The question indicates that the parlor is "losing money." Therefore, it is reasonable to assume that you should evaluate the profitability of the owner's business; you may want to suggest this approach to the interviewer to test your hypothesis.

Since, profitability is equal to revenue minus cost, the next step involves understanding the drivers of revenue and cost. Revenue is a function of demand for and pricing of the products, whereas cost refers to the fixed and variable costs of producing and distributing these products.

On the demand-side you will want to understand the products' consumers, their purchasing behavior and decision criteria. You will also want to understand what else would influence demand for the product, such as competitive products, price, convenience and substitutes.

On the supply-side, you will want to examine what will impact cost. Think about relationships with suppliers. Is your product custom-made or similar to a commodity? How does this affect pricing? Think about the parlor's operations: are there ways to make the process more efficient and reduce costs?

Of course, you may not be able to address all of these issues, but try to address the most important ones.

1. What are some of the issues you would consider about the products?
2. What are some of the things that you would want to consider about customers?
3. How could local market conditions influence the parlor’s sales?
4. What influence would pricing have?
5. What factors on the supply-side would you consider?

On the next few pages we have attempted to outline some of these questions in greater detail. By no means does this list include all of the relevant issues you may want to address. In fact, you may have thought of some items that we have not covered.

**Demand-side**

**Product**

- Are the products seasonal? How does this limit potential sales? (More ice cream is probably consumed when the weather is warm perhaps the owner could evaluate selling products which consumers enjoy in winter, such as coffee and cakes, etc.)
- Is it trendy? Do they sell products that are in demand? (e.g., the parlor may specialize in sundaes and cones, but customers may want products like "Blizzards" or Starbucks' Frappacinos to-go.)
- Are there opportunities to differentiate the product? (e.g., is the parlor’s ice cream better-tasting or less caloric? If the parlor's ice cream was less caloric, for instance, maybe it should be marketed towards weight-conscious individuals as opposed to kids and families.)
Are there substitutes? (e.g., consider demand for frozen yogurt or comparable products in
grocery stores, do these products cut into demand for the parlor’s products?)

Customers

What are the basic demographic characteristics of the parlor's typical customers? (e.g.,
since the parlor is in a college town, most of its business may come from students; does it
lose money by remaining open when students are gone during summer break?)

What are the customers purchasing patterns and decision criteria? (e.g., are the store hours
convenient to customers? If students tend to buy ice cream late in the evening and the
store closes by 5:00 p.m., this could definitely limit sales.)

Have there been changes in preferences or shifts in product mix to lower-margin products?
(e.g., Let’s say cones and shakes cost the same amount of money to make—$ 1.00, but
shakes are more priced at $3.00 and cones are priced at $2.00; if people move toward
purchasing products with smaller margins, such as cones, the parlor’s profitability will
decrease.)

Local Market Conditions

How has spending on food a way from home (food eaten out) changed over time? (If
people are spending less on food from restaurants, this may indicate a dip in demand for
ice cream from parlors as well.)

Has disposable income or employment remained steady in this community? (Ice cream is
probably a "luxury" item for most consumers. Consuming ice cream costs money and time
to go the parlor. If people are not doing well financially, they may forgo consuming ice
cream. Similarly, students may enjoy eating at the parlor, but during exam periods they
may not have enough time and may forgo it. The owner might consider offering
promotions, specials or reducing prices during exam periods.)

Pricing

Are the products optimally priced? (If the product is too expensive, people will buy
substitutes or ice cream from competitors. If the price is too low, the parlor loses potential
profits.)

Supply-side

How has the cost of ingredients or labor changed over time? (e.g., if milk has become
more expensive, but the parlor has not changed their prices, profitability will decrease.
Similarly, if wages have risen for wait staff, cashiers, etc., the cost of serving customers may
cut into the parlor’s profits.)

How can the parlor optimize distribution? (e.g., an independent person may own the
parlor. However, if the owner considered becoming part of a franchise where the costs of
running the parlor are spread over many such stores, he/she may be able to buy ice cream,
equipment, etc. at discounts. Perhaps, more importantly, he/she can use the company's
brand name--such as, Baskin Robins or TCBY--and increase sales.)

Are there scale advantages? (Scale simply refers to a concept whereby increasing
production of an item reduces the per unit cost. This relationship does not hold true for all
businesses. But you can imagine a scenario where the owner has to pay rent for the store
and pay for equipment and staff to operate it. He needs to sell enough products to cover
his fixed cost X. If he sells ten ice cream cones, his per unit cost is X/10. On the other
hand, if he sells 30 ice cream cones his per unit cost is X/30. In the second scenario, his per unit cost is much lower than in the first.)

While there are issues to consider on the supply-side, a problem like this is probably more demand-oriented. Ice cream parlors are not in a business with technological advantages or patented products. For instance, a high technology firm may have to evaluate their production costs versus a competitor's because the spread can be substantial, giving one firm a significant advantage over the other.

Ice cream parlors are not likely to have opportunities to get such cost advantages over their competitors. Ice cream can probably be purchased from a variety of suppliers. No one supplier has enough influence to raise his prices significantly without losing his business to a competitor. Therefore, ice cream might be considered a commodity item with stable prices.

It is more likely that revenue is too low for the given cost of running the parlor. The owner may want to investigate a variety of strategies to improve sales or possibly increase prices if it won't result in too much lost demand. One possible scenario could be: Interviewee gives a general overview of some of the demand-side and supply-side components, and then asks if costs are comparable to competitors. If the answer is yes, then you may want to focus on the demand-side. If the answer is no, try to determine what is giving the parlor a cost advantage or disadvantage, and how can those circumstances be better leveraged.

Remember, you are not expected to discuss all of the above items in great detail. In fact, it is likely that you will only focus on two or three such issues in the course of your interview. Your interviewer will also give you plenty of feedback to help keep the discussion more focused. Be open to their comments and keep your composure and you'll do fine!