McKinsey & Company: The Case Method of Interviewing

As part of our interviewing process, we ask candidates to discuss a business problem (otherwise known as a "case") with each interviewer, as this is a significant element of our recruitment process. Because many candidates are unfamiliar with this approach, this note provides some general guidance on the case method to prepare you for what to expect during an interview. It is structured in four parts:

- ¶ Why we use cases
- ¶ How you should approach the problem
- ¶ What we look for
- ¶ Sample cases and answers

WHY WE USE CASES

The case method serves two main purposes. First, it gives us the opportunity to see how you think about problems and assess your ability to solve them. This is important as there is no unique background or set of qualifications that is necessary or required for consulting. Rather, it is the ability to deal creatively with complex or ambiguous problems in unfamiliar businesses, to structure your thinking, and to reach sensible conclusions with the available facts in a short space of time that will stand you in good stead as a new associate. Second, the cases give you some insight into the type of work we do at McKinsey.

HOW YOU SHOULD APPROACH THE PROBLEM

The cases you discuss in each of your interviews will be different. However, they are generally based on actual consulting experiences that the interviewer has had and will usually involve situations that are not familiar to you. We do not expect you to have prior experience or familiarity with the business or industry involved in any given case.

Cases can be based on overall strategic issues for an industry, or may focus on very specific questions such as how to increase sales of a particular product or how to implement a particular recommendation. Typical examples of problems raised in a case include deciding how a company should react to a new competitor in its monopoly market or determining what attributes a company should look for in seeking a joint venture partner for an unproven new technology.

Another type of case – or part of a broader case – that you may encounter involves estimation. For example, you may be asked to estimate how many books were sold in the U.S. last year or how many cars will be sold on-line in 2002. These cases/questions are designed to test your ability to work through a mathematical problem logically, to make reasonable and well-founded assumptions, and to perform basic calculations comfortably and accurately. Keep in mind that we hire many consultants each year who have had few or no college-level, quantitatively-oriented courses; we are simply looking for reasonable facility with basic mathematical and estimation problems.

In answering a case, it is important that you apply a logical, well-structured approach that enables you to reach a reasoned conclusion. At a minimum you should ensure that you:

- ¶ Understand the statement of the problem and the question that you are being asked to answer ask for clarification on points that you feel are unclear.
- ¶ Think broadly don't dive deeply into the detail of one particular issue before you have explored other areas that may be important. You should keep in mind that the case does not require you to spot every conceivable issue and exhaustively evaluate the supporting and opposing arguments of each one.
- ¶ Address the issue(s) avoid focusing too much on your own area of expertise rather than the important issue (e.g., accountants might focus on the financial aspects of new product development without mentioning customers).
- ¶ Break the problem down into a logical structure up front there may be several issues to be addressed in order to reach a conclusion, in which case you should (1) provide a roadmap of how you are going to approach the overall problem before delving into the details of each issue, (2) prioritize the issues that you will discuss, and (3) proceed in an organized fashion.
- ¶ Request additional information as you build an understanding of the problem, there may be more information that you need. You should make sure, however, that (1) you selectively ask for information, rather

than requesting every possible piece of data, and (2) you explain why you feel the information is relevant to your analysis.

- Test your emerging thoughts keep coming back to check that you are addressing the question you were asked. Watch for cues from your interviewer and keep an open mind.
- ¶ Be creative in most cases, there is not one right answer or one right approach to a problem.
- ¶ Conclude synthesize your thoughts concisely and develop a recommendation (if appropriate).

If stuck, a useful fall back is to think about what really makes the difference between profit and loss (i.e., focus on the key problem areas that the company must address to make money). Although not relevant in all cases, it is certain to be an important issue in many situations. Finally, remember, one of the key skills of a consultant is the ability to communicate clearly and succinctly.

WHAT WE LOOK FOR

Although there is not a single right answer or approach to most problems, there may be wrong answers or approaches that ignore important facts.

Some common mistakes are:

- $\P~$ failing to listen carefully to the interviewer's description of the scenario and missing critical information
- ¶ proceeding in a haphazard fashion (i.e., not identifying the major issues that need to be examined or jumping from one issue to another)
- \P Asking a barrage of questions without explaining to your interviewer why you need the information
- ¶ Not using common sense and business judgment in tackling the case
- ¶ Failing to synthesize a point of view based on the information provided by the interviewer
- ¶ Shying away from the mathematical calculations involved in a case

During a case, we look for evidence of a candidate's ability on a number of dimensions – logical reasoning, creativity, quantitative skills, business acumen and commercial judgement, pragmatism, and an ability to structure problem solving. We also look for evidence of intellectual curiosity and enthusiasm for typical consulting issues. Equally important is that we get a sense that you are

comfortable with our working style of continually learning from the emerging facts and developing revised hypotheses as more information becomes available. Candidates should be receptive to new information and use it to push forward their thinking on the problem. Additionally, when asked a question, you should refer back to any relevant aspects you have already discussed during the case, rather than answer the question in isolation.

In short, as you work through the problem during your interview, you need to demonstrate the following:

- ¶ you have the ability to think through the problem in an insightful way,
- ¶ you can reach a reasoned conclusion that is supported by the evidence,
- ¶ and you can clearly synthesize the discussion.

The evidence of your performance on the case is used in conjunction with the rest of the interview process to help us reach a decision on your potential as a consultant to senior management.

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SAMPLE CASES AND ANSWERS

Below are several examples of the kinds of cases we use in interviews. (You are not likely to come across these in real interviews, but if you do, you should tell your interviewer.) The first two cases are designed to help you walk through the issues raised in each problem and get a sense of how you should be thinking about a problem; the third and fourth cases are ones that you should work through on your own before consulting the model answers; and the last two cases have been included for practice purposes. Reasonable answers to the first four cases are included in italics.

CASE I: CAR INSURANCE

Until recently, most car insurance was sold to car owners by insurance brokers. A car owner would call or visit a broker who would suggest a range of different policies sold by different insurance companies. Insurance companies would pay a commission to a broker for each policy sold.

More recently, car owners have started buying insurance directly from an insurance company over the phone. We were asked to work with a leading car insurance company that had been very successful in selling policies through brokers to help them figure out whether they should start selling their policies "direct" to customers over the phone. If you were a car owner what might be the advantages of buying insurance direct from an insurance company over the phone versus buying from an insurance broker?

For example, an insurance broker may be able to provide a service in comparing different policies from different insurance companies. However, buying direct from an insurance company over the phone may be both cheaper (since there is no commission that has to go to a broker) and may be very convenient if done efficiently over the phone.

What things would you need to consider to decide whether the insurance company should start selling car insurance over the phone?

You would have to think about:

- ¶ Potential Market Size: What is the existing market for direct selling? What is the market's growth potential? How many people will prefer to buy direct over the phone instead of visiting a broker? Will the company's existing business through brokers be in danger of declining?
- ¶ Competition and Profitability: How profitable could the players in the market be? What profit do the current direct sellers make versus what the companies

selling through brokers make? How competitive is the market; are there many players already? Are there companies already selling direct that have a "head start," such as a well known brand or many policies, which allows them to have lower costs?

- ¶ Capabilities: How good could this particular insurance company be at this business? What would they have to be good at to do well in this business? Do they have these skills? Could they get them? At what cost?
- ¶ Impact on Existing Business: Will selling direct to customers adversely affect the business sold through brokers, and does this matter? Would brokers stop selling the insurance company's policies if they knew that the company was also bypassing them and selling direct to car owners?

At this stage, an interviewer could follow up on any of the points raised in more detail, particularly marketing issues. For example, he or she could ask:

- ¶ How would we start to develop a marketing plan for the direct business?
- ¶ What key analytics might be performed to support the new direct business?

CASE II: SUPERMARKET LAYOUT

We were asked by a supermarket chain in the U.K. to design a new, more profitable type of supermarket for them. One of the key components of this work was to design the layout – to decide where all the different types of goods should be located within the store. The supermarkets within the chain already had very different layouts. For example, some stores had the fruit and vegetables section near the entrance while some had placed this section near the exit, so that customers would probably buy fruit and vegetables last.

The people within the client company thought that goods placed "first-in-flow" (i.e., the goods that were the first items customers saw and bought) sold more. They thought that moving a section from last-in-flow to first-in-flow would increase its sales. How could you verify that this was true?

You could experiment with a supermarket. Change the location of a section and measure its sales. But, this will take time to do and will probably upset customers. Have any of the stores in the chain changed their layout recently? Are there records of the sales of each section before and after? Obviously, you would have to take account of other changes that were happening at the same time as the layout change, such as price changes or changes in the amount of space given to each section.

You could take advantage of the fact that the chain already has different layouts among its stores. Could you see whether sales of goods are higher when they are first in flow than when they are elsewhere? This may get complicated, since different stores may have different selling patterns due to other reasons (e.g., competition nearby, regional preferences of consumers, amount of space given to the goods).

Let's say that you did manage to prove it. You know that whatever you put first is likely to sell more than it would in another place. What types of goods would you think about putting first? Think of as many as you can.

How about:

- ¶ Goods we think will show the greatest rise in sales if moved to the front.
- ¶ Goods with the highest profit margin (i.e., if we make a 50 percent profit margin on our meat, but only a 5 percent profit on our cereals, we would make more profit if we put the meat first in flow).
- ¶ Goods which consumers don't have to buy. For example, they probably buy roughly the same amount of milk each week, and it would be hard for us to persuade them to buy more. On the other hand, if we put cakes or alcohol first, they may buy more than they normally would.
- ¶ Goods which we had a lot of and which may go bad soon (i.e., special offers).

(Note: there are many more suggestions.)

When we surveyed customers, they said that they preferred to have fruit and vegetables last in flow so that the goods wouldn't get squashed at the bottom of their grocery carts.

However, we ended up recommending that fruit and vegetables should be put first. This wasn't because of any of the reasons that you have already outlined. Why do you think it may have a benefit?

Was it because there was an overall effect on the store? Maybe people think the store offers fresh, cheap, healthy items if people see fruit and vegetables first?

Was it for operational reasons – for example, nearer to the loading dock for faster/cheaper restocking of high turnover goods?

At this stage, the interviewer may follow up on other topics, for example:

- ¶ We found that some items in the store didn't make much money for example, the fresh fish counter. How would you decide whether this counter should be kept?
- ¶ Do you think that the layout of each store in the chain should be the same? Why or why not?

CASE III: PC MANUFACTURER

We were asked by a major PC manufacturer to help them develop an approach for selling PC's directly to consumers over the Internet. The belief was that this approach would lower their overall distribution costs as well as provide them with greater access to customer information. However, the client was currently selling almost 100% of its products through retailers such as CompUSA and BestBuy so making this shift required quite a change from their current method of distribution.

What issues would you want to understand better to help this client determine if a direct selling approach made sense?

CASE III: SAMPLE ANSWERS

Problem points of clarification:

- ¶ *Is there anything unique about the company's PCs that customers couldn't get from any other supplier?* (No, their PC's are pretty much the same as everyone else's)
- ¶ *Does the company sell anything else online today?* (No, this is the first venture into online sales)

Minimum Answers:

- ¶ Strategy:
 - *How large is the market for direct PC sales and how fast is it growing?*
 - How much better are the economics of selling direct?
- ¶ *Marketing*:
 - *How is the channel (e.g. CompUSA, BestBuy) likely to respond?*
 - What is the potential impact on the client's business if a negative response materializes?
 - Are there any approaches the client could take to mitigate/minimize the impact from negative channel reaction?
- ¶ Capabilities
 - Does the client have the ability to ship products directly to customers?

Better Answers (in addition to minimum answers):

- ¶ Strategy
 - *Is online selling becoming a threshold requirement to compete in this industry?*
 - Is there any first-mover advantage to selling online before competitors do?
- ¶ Marketing
 - Competition
 - Do direct-selling competitors already exist in the market?
 - If so, what does their business model look like?
 - How might the company position themselves distinctively against these competitors?

- Could the company structure its online presence without alienating its traditional channels?
 - Alternate branding strategy
 - Differential pricing
 - Sharing customer information
 - Unique products
 - Cooperative advertising and service agreements
- ¶ *Capabilities*
 - Does the company have an infrastructure than can be leveraged relatively easily to accept online orders and manage direct to consumer shipments?

Outstanding Answers (in addition to minimum and better answers):

- ¶ Strategy
 - Will selling online position the company distinctively in its market?
 - Will selling online allow the company to enter new businesses, sell new products, or attract new customers that it couldn't before?
 - What will happen if the company does not sell online?
- ¶ Marketing
 - Segmentation:
 - To what extent does/will the client's target customer segments use the online channel?
 - To what extent will selling direct provide access to new customer segments?
 - *Customer information:*
 - Will selling online really provide the company with much greater amounts of customer information?
 - What information does the client want to collect and will it truly create value?
 - Are there ways of collecting customer information without having to go direct?
 - *Is the brand strong enough to attract customers to an online site or will the company have to spend a significant amount to raise awareness?*

- Will having an online presence allow a direct dialog with customers that would help the company better understand customer needs and estimate customer demand?
- ¶ *Capabilities*
 - Does the company have the manufacturing, logistics, and order entry capabilities to sell and deliver products online?
 - Can the company manage the complexity of configuring products to order, managing distributed inventory, managing contract manufacturers, and handling its own product returns?
 - Does the company have the skills and technologies they would need to store, analyze, and act on the customer information they collect?
 - *Are there credible options for filling any gaps?*

Assuming the analysis suggested that the company should begin selling online, what are some of the other issues you would likely have to contend with?

- Should each business unit have its own online presence or should the online group be set up as a stand-alone business unit?
- Which segment of the market should be targeted first (e.g., consumer, commercial, other)
- Should products be configured to order or sold pre-assembled?
- *How should products be delivered pick up at local retailer, shipped UPS/FedEx*
- *How should product service be provided?*
- How should returns and warranty claims be handled?

(Note: there are many more possible issues)

CASE IV: TRAVEL MEMBERSHIP CLUB

We're talking with the CEO of a leading U.S. travel agency. She has just expressed her interest in building a new subscription-based travel club and is considering it as her next big corporate initiative. Initial thinking is that the club would charge \$49.95 per year per membership and would provide its members with a myriad of discounts on airlines, hotels, and car rentals. However, we know from our experience with the Board that to gain their approval this business has to be at least a \$25,000,000 per year revenue opportunity. Before we go too far pursuing this as a potential business, we need to get a rough idea if it is likely to meet the Board's revenue hurdle.

Question: At \$49.95/year, is it reasonable to expect this to become a \$25,000,000 per year business?

Case IV: SAMPLE ANSWERS

Good Answer:

Candidate: That's an interesting question. Let's see... how would I approach that if I were really there? Well, first of all, we should make sure we understand what the Board means when they say a "\$25 million revenue opportunity". This seems a little arbitrary since it doesn't take into account profit margins, or growth rates, return on investment, or net present value. That being said, for the sake of a quick, back of the envelope estimate, let's just assume that the \$25 million is a reasonable hurdle for now if that's OK.

• Demonstrates genuine interest in the problem and intellectual curiosity; frames the question well by stepping back to examine the question more broadly, clarifies question and identifies several layers of issues; clearly defined starting point to analysis; well-poised and articulate.

Interviewer: Sounds good.

Candidate: Since this is a back-of-the-envelope estimate, we will have to make some assumptions. First, let's round \$49.95 up to \$50.00 to make the math easier. At \$50.00 per membership, it would take 1,000,000 members to make \$50 million per year so it would take 500,000 members to make \$25 million per year in revenue. At first cut, this sounds reasonable.

Interviewer: *OK*, *but how reasonable is it to attract 500,000 people?*

Candidate: Well, I think there's about 250 million people in the U.S. which means... let's see... if we had 2.5 million members, that'd be 1% of the population, so 250,000 people would be .1% of the population and we have double that so it sounds as though we'd have to sell this product to about .2% of the population. That's quite a bit less than 1% of the population so it sure seems to be reasonable.

• Demonstrates facility with numbers (note that this candidate chose to make the math easier by using factors of 10 as the multiplier, which is perfectly acceptable); comfortable with ambiguity; able to make reasonable assumptions.

Interviewer: *Good.* What other factors might influence the size of the population that this product might be relevant to?

Candidate: Well, let's see. A lot of the 250 million people in the U.S. are probably too old or too young for this to be a relevant product. If the average family had 4 people in it that means we'd have about... 250/4 which equals a little over 60...million families...

Interviewer: Actually, someone on the team knows there are 90 million households in the U.S. with an average of about 3 people per home. The travel club is also such that it would probably be sold on a "per household" basis rather than an individual basis.

Candidate: Oh, OK. Well, if there were 100 million households, the 500,000 memberships would still account for only .5% of the families so even adjusting for households too old to travel it seems we'd still be at no more than 1% of the U.S. households which doesn't seem too unreasonable. I guess it depends on how competitive this market is and how appealing the product is. Even there, if it has some value, and there aren't dozen's of competitors already, this sounds pretty reasonable. I sure haven't seen any large players doing this. Do we know how competitive this market is?

• Showed poise under pressure; uses experience to make estimates; pushes the analysis to the logical next step.

Interviewer: There are a few small companies doing this and a couple of large ones. The largest one is Travelers Advantage and it's got just under 20% of the total membership travel club spending. They've managed to amass 7 million customers according to their 10K.

Candidate: Well, knowing that helps a lot. First, if they have 7 million customers, 500,000 for us doesn't sound so bad, especially if our client is serious about entering this business and they have a strong brand name already in the travel industry. Overall, it seems pretty reasonable to expect this to be at least a \$25 million opportunity.

• Good logic; compares answer against known industry examples to test reasonableness

Interviewer: That's great. We're running out of time. Anything else you would like to have done with the analysis?

Candidate: I would have wanted to know what Travelers Advantage was charging for their product and what they were offering that allowed them to attract 7 million customers. I'd then want to see how the offering our client was considering compared. I'd also liked to get a sense of how much demand is expected to grow over the next few years. This would be a function of population growth, average age of the population, growth in alternatives to airline travel, to name a few. I'd also want to know how well selling this product fits with the client's current operations. Could this be sold quite easily to existing customers through existing sales channels or would it require a radically different approach. Of course, margins and returns are also important so I'd want to understand what these looked like to truly understand how attractive an opportunity this might be. In the mean time, though, we should tell the CEO that it looks as though meeting the \$25 million hurdle should be possible and that she should begin assessing the broader strategic, operational, and economic issues to better understand the attractiveness of her travel club idea. • Shows genuine interest and creativity; pushes analysis to the next level; sums up analysis with concise recommendation to CEO.

Interviewer: Thank you.

CASE V: DEMAND FOR CIGARETTES IN MOSCOW

The CEO of Philip Morris is about the enter a meeting with the company's Board of Directors. We are riding up to the 30th floor in the elevator with him. As we get in, the CEO turns to us, realizing that he has forgotten to include a key analysis in his upcoming presentation to the Board – one that could help him convince the Board to approve the building of a cigarette factory in Russia to serve the Moscow market. He needs an estimate of the demand for cigarettes in Moscow. We don't have any data with us, and we have five minutes before we reach the 30th floor.

Question: What would you estimate the demand for cigarettes in Moscow to be?

CASE V: SAMPLE ANSWERS

Good Answer:

Candidate: That's an interesting question. Let's see, how would I approach that if I were really there? Well, first of all, we should define what we mean by the size of demand. We could be measuring the number of cigarettes Muscovites smoke, the number of cigarettes we think we can sell (assuming there are other brands in the market competing with us), the money we can make selling cigarettes, or maybe the outlook into the future, so the growth of cigarette consumption over the next few years. I guess the best answer would include all of that. But let's start with the number of cigarettes Muscovites smoke.

• Demonstrates genuine interest in the problem and intellectual curiosity; frames the question well by stepping back to examine the question more broadly, assess what is meant by 'demand' and identify several layers of issues; clearly defined starting point to analysis; well-poised and articulate.

Interviewer: Sounds good.

Candidate: Since this is a back-of-the-envelope estimate, we will have to make some assumptions. First, let's assume the population of Moscow is 10 million, of which I guess about 75 percent are of smoking age. Of those 7,500,000 let's say 50 percent smoke.

Interviewer: Actually, somebody else on the team knows that 75 percent of adults smoke in Russia.

Candidate: Okay. 75 percent of 7,500,000 is . . . 50 percent would be 3,750,000 plus half of that again is $1,500,000 \dots$ plus $375,000 \dots$ is 1,875,000 plus 3,750,000 is . . . (quickly jots notes on paper) . . . 5,625,000. But to make things simpler, I'll round down to 5,500,000 if it's okay with you.

• Demonstrates facility with numbers (note that this candidate chose to make the math easier by using 50 percent as the multiplier, which is perfectly acceptable); comfortable with ambiguity; able to make reasonable assumptions.

Interviewer: Sure.

Candidate: So, now we need to know how much they smoke. Let's say 1 pack a day on average, or about 400 packs a year, times 5,500,000 people is 2,200,000,000 packs. If we assume there are 20 cigarettes in a pack, that would be 4,400,000,000 cigarettes consumed per year.

Interviewer: Are you sure that's right?

Candidate: 2,200,000,000 packs times 20 cigarettes in each pack is . . . oh, of course, 44,000,000,000 cigarettes. Sorry about that. Next, if I were the CEO, I'd like to know how much of that consumption I can expect to capture. Do we know what our share of the different world markets is?

• Recovered well; showed poise under pressure; pushes the analysis to the logical next step.

Interviewer: *In the U.S., we have a 50 percent share, in France, we have a 25 percent share, in China, we have a 30 percent share, and in Hungary and Poland, we have a 75 percent share.*

Candidate: Well, not knowing the market dynamics that lead to these different situations around the world, I would say that the Russian market is probably pretty close to Poland and Hungary. But let's be conservative, and say that we feel confident that we can achieve 60 percent share, which would be 22,000,000,000 plus 4,400,000,000 is 26,400,000,000 cigarettes a year or 1,320,000,000 packs per year.

• Good logic; comfortable with ambiguity; facility with numbers (again, the candidate chose to break down the multiplication).

Interviewer: That's great. We're running out of time. Anything else you would have liked to have done with the analysis?

Candidate: I would have liked to have gotten a sense of how much demand will grow over the next few years, which would be a function of population growth, growth of smokers as a percent of the population, and the amount each smoker consumes. I also would have liked to compare our estimate of demand for cigarettes in Moscow with demand in a comparably-sized city like NY, just to make sure that it makes sense intuitively. For example, I would definitely expect the size of demand in NY to be smaller. But for now, I guess all we can tell the CEO is that he needs a factory which will produce somewhere in the range of 1.3 billion packs of cigarettes a year.

• Shows genuine interest and creativity; pushes analysis to the next level; sums up analysis with concise recommendation to CEO.

Interviewer: Thank you.