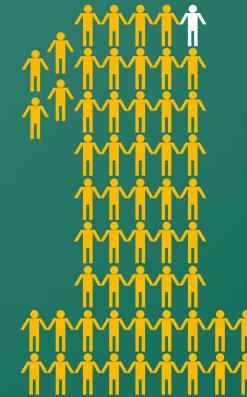




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Interview
Preparation

WELCOME



When I think back to the year I interviewed with consulting firms, getting comfortable with what to expect in the interviews made the difference for me. When the time came to meet with BCG, what I experienced felt much more like a discussion than an interview. The diversity of backgrounds, styles, and ways of thinking that I encountered made me confident that BCG was allowing me a window into the firm as much as they were getting to know me.

The BCG case interview—from the problem itself, to the way we arrive at a conclusion through thoughtful discussion—is one of the most realistic simulations of what we do every day. Practicing cases is important, and we hope that this guide will be of use as you prepare. We're looking for clear and logical thinking, creativity, openness to collaboration, personal authenticity, and the confidence to let your personality shine through. Strike this balance well, and you should immensely enjoy your interviews—and quite simply, if you enjoy your interviews, you will enjoy a career with BCG.

This is an incredibly exciting time to begin a career in consulting—the world is changing quickly, and companies are looking to BCG for advice on weathering the turbulent economy and on winning as the economy turns around. We wish you the best as you prepare, and we look forward to seeing you in the months to come.

A handwritten signature in black ink, appearing to read 'Mel Wolfgang'. The signature is stylized and fluid, with a circular flourish at the end.

Mel Wolfgang
Partner & Managing Director
BCG Boston

RECRUITING PROCESS

Recruiting Process

At BCG, we look beyond intellect. In the interview, we want to learn who you are as well as how you think. Each interview has two parts: a review of your personal background and a case discussion.

First Round

In the first interview round you will meet two of our colleagues for about 45 minutes each. They will discuss your background, ambitions, and why you want to be a consultant as well as take some time to answer specific questions you might have concerning a career at BCG. A large part of the interviews will then be dedicated to a “case study.” You will be confronted with a real-life business case. We advise you to prepare by familiarizing yourself with case frameworks and the kind of analysis you will be asked to do in the interview. You can find case examples in this booklet and on our Web site.

Second Round

When you have successfully completed your first-round interviews, you will be invited back for a second round of interviews. Normally these take place within a couple of weeks following your first-round interviews. The second-round interviews will be similar to the first round, involving case studies and interviewing with more senior members of the firm.

Our Decision-Making Process

Our recruiting process relies on many inputs and the judgment of a team. At the end of each interview day, all interviewers provide feedback on each candidate’s performance and make a recommendation on advancement to the next round of interviews or an offer of employment.

Feedback

After the first interview round, you will receive a phone call or e-mail from BCG to communicate our decision to invite you back for a decision-round interview. BCG considers feedback a very valuable learning tool and we will thoroughly communicate what you did well and what you could do better in future interviews. This feedback is useful when preparing for your second-round interviews or for your future career.

When you have completed your second-round interviews, we will notify you within a few days whether we have decided to extend you an offer. At that time we can provide feedback if desired. Just as we think it is important to give you feedback to improve your performance, we aspire to continuously improve our recruiting process, so any feedback you have for us is greatly appreciated.

INTERVIEWING WITH BCG

Our Aim

Although we aim to assess your candidacy, the interview is not an examination. Our interviews are discussions to get to know you and to introduce you to BCG. Your questions and thought processes are more important to us than the actual answers you give. We value creativity and an analytical and practical approach, rather than an intuitive response based on unproven theory or systematic use of standard management concepts. The case study represents business issues that we will seek to resolve together if you become a member of BCG. The consultants you meet are entirely free to choose the subjects they discuss with you. The business case discussed does not require extensive knowledge of specific industries or processes. Often our cases have no right or wrong answer.

Our interviews aim to be a two-way learning process. They should enable you to understand our profession, our people, and the way we work at BCG. Do not hesitate to ask questions. If you are interested in personal opinions, ask the same question of different consultants. Varying answers reflect BCG's diversity and individuality.

Review of Your Personal Background

The personal discussion is our way of getting to know you. There is no fixed format or agenda, but interviewers often focus on an experience or a period of your life. The experiences we focus on in the personal discussion fall into different categories—for example, team contribution, achievements, independence, and learning experiences. Throughout the interview we test your personal fit with BCG (for instance, presence, maturity, tact, style, ability to listen and communicate, energy, and sense of humor).

Case Discussion

During the case, the interviewer will test whether you are able to structure a problem, prioritize and perform accurate analyses, synthesize your thoughts, and be creative. Since the case can sometimes be a source of anxiety, we thought it might be useful to give you some guidance in preparing for and participating in a case interview. We hope this will help you feel more confident, and more importantly, enjoy the interview experience.

The BCG Difference

BCG looks at problems in new ways. This is a differentiator among our competition and in our reputation among CEOs. However, we also want to see how you can apply your experiences and ideas to our clients' problems. A successful case interview (as in our real work) is never formulaic. You are not filling in a bubble, and there is no "approved answer." Our goal is to jointly uncover an insight that could improve the position and performance of a client. Such an experience can be rewarding for you and discerning for us.

CASE INTERVIEW DOS

Do 1: Listen and Interact with the Interviewer

The interviewer starts by laying out the problem or question and will regularly interject comments to orient the discussion and drive to conclusions. Listen carefully to these points and ask clarifying questions. You should adapt your thoughts, hypotheses, and options according to the information communicated to you throughout the case. “Think out loud” so that the interviewer understands your direction. You may also want to write down your findings and assumptions.

Do 2: Develop Your Own Framework to Structure the Problem

After asking some initial questions, the interviewer will ask you how you would approach the case. This is the time to quickly structure the problem and highlight the major areas you want to explore. Try to capture your structure in a simple, targeted framework. The main purpose of the framework is to help you. It is fine to pause for a moment after the interviewer has asked the question while you think through your structure.

Do 3: Focus on High-Impact Issues

The interviewer may let you choose the key issues to explore further. Focus on recommendations that can potentially create the most value. Make the logic behind your recommendations explicit so that the interviewer knows why you chose those key issues.

Do 4: Explore a Variety of Options with Creative Thinking

Once you have chosen key issues to focus on—for example, how to use new products to increase revenues—you should come up with hypotheses on how to realize the goal. It’s a good idea to think beyond conventional answers and to weigh the indirect or “second-order” effects of a proposed action. What tradeoffs would investment in those new products drive?

How might competitors respond? Are there other ways to accomplish the same aims, given the company’s unique assets?

Do 5: Demonstrate Business Judgment

Given that sometimes there is limited information available, the interviewer will ask you probing questions about your comments, hypotheses, or conclusions to test your capability to use your judgment. Some good questions to ask yourself are: “Is this issue large or small relative to others facing the company?” “Is the recommendation practical—will it make a difference in the short life span of investor interest or CEO tenure?” “Knowing the risks, is this how I would spend the money if I were accountable?”

Do 6: Make Quick and Accurate Calculations

At some point, the interviewer will ask you to make some simple calculations. Rather than testing computational skill, this is meant to see if you can use numbers to quickly form opinions and guide decisions. Your calculations should be accurate and integrated into what you have discovered so far.

Do 7: Synthesize Your Thoughts and Conclude Your Analysis

At the end of the interview or your analysis, you should go back to the original question. From there, summarize your key hypotheses and the options developed and conclude with your most relevant recommendations.

CASE INTERVIEW DON'TS

Don't 1: Immediately Jump into the Analysis Without a Proper Level of Understanding

Prior to your analysis, make sure that you understand the question and its main aspects. Ask further questions if some elements are unclear to you. You don't need to repeat back all the facts that have been presented to you as this only steals time from exploratory discussion later.

Don't 2: Panic if the Answer is not Readily Apparent

You are not expected to know everything about every business situation. Do not panic if you do not seem to make progress, or if you get stuck. The objective of the entire interview is to discuss your thoughts, present your hypotheses, generate options, and develop a solution by interacting with the interviewer.

Don't 3: Defend Your Recommendations at All Cost

It might be that the recommendations you develop don't square with the facts or good business practice. In that case, the interviewer will let you know so that you can adjust your answer. Don't defend your answer at all cost, but be ready to defend your approach if you believe it is sound and supportable. The interviewer may also wish to test whether you firmly believe in what you are saying. Think critically and be flexible in following the road that looks most promising, even if this means changing course.

Don't 4: Internalize Your Thought Process

The interview is set up as a discussion. Make your logic and hypotheses explicit. A good case interview is not limited to answers and solutions.

Don't 5: Stick to an Artificial Framework

Some standard frameworks do not always apply to the business situation discussed. Make sure that you keep it simple and that the framework actually helps you go straight to the issues.

Don't 6: Circulate Cases or Use Advance Knowledge

The case presented might be familiar to you: a friend or classmate might have told you about it. We advise you to mention this to the interviewer so that another business situation may be chosen.

Last Words of Advice

Do not try to play the role of a person you think we would like to hire. Be yourself. That is who we are interested in!

“ If you flex your creative, logical, and organizational muscles, the interview can even be fun.

Kaelin, Associate in Chicago

Think of your case interviews as conversations. BCG bases most of its cases on real experiences, so the problem you will try to solve in less than an hour will be a condensed version of one your interviewer probably spent months working on. The interview is your opportunity to prod, push, engage, and analyze—the same way we handle actual case work.

Don't be afraid of your interviewer. As long as you communicate your thought processes, ask clarifying questions, and keep a macro view of the problem, your interviewer will set you up to succeed. BCG has a data driven culture, so push for numbers and facts, organize a clear argument around those facts, and present your conclusions accordingly. Just because we're data driven, it doesn't mean we eschew creativity. Feel empowered to think outside the box—as long as you are clear, the more interesting your ideas, the better.

“ Case interviews are not meant to intimidate but rather are a chance for you to see what BCG does every day.

Pallavi, Associate in Atlanta

The case interview is a chance for you to show how you approach problems. Cases don't require you to have any industry expertise—your interviewer is evaluating how you organize and convey your thoughts, not your knowledge of the industry. My case interviews covered companies as diverse as airlines and ice cream distributors, both of which I had little prior knowledge of other than being a typical consumer.

Because the interviews are often based on real BCG case experiences, they are all unique. Don't try to force the solutions using pre-formed structures just because a book told you it's a requirement to do so. Instead, ask questions when you are trying to clarify information, present your thoughts logically, be creative, and make recommendations based on what you and your interviewer have discussed.



CASE EXAMPLE I: CONSUMER ADSL

I joined BCG for the people. I know that is what everyone says but it is true—let me tell you why. Before business school, I worked for another consulting firm. I enjoyed the project-oriented nature of the work and the constant challenge of learning new things, but when I left for my MBA I decided to use the opportunity to try something new. That changed as soon as I met the people from BCG during recruiting. Not only were they some of the smartest people I had ever met, but they were also passionate—passionate about solving challenging problems and teaming with industry leaders to change the way companies and industries operate.

Both my internship and full-time experience at BCG solidified my initial belief. I have partnered directly with the C-level executives at every client I have worked with and have seen the direct results of our work in the mar-

Erin is a project leader in the Dallas office of The Boston Consulting Group. She joined BCG as a consultant in the summer of 2005 and returned full-time in 2006.



ketplace, whether it be a new retail concept store or working with the president of a Top 50 U.S. university to improve fundraising capabilities (yes, I worked on both!).

My Experience as a Recruiting Interviewer

Over the last several years, I have done approximately 50 recruiting interviews across a dozen schools with potential BCG colleagues. This may seem like a lot, but recruiting interviews are never the same. Every candidate approaches the case a bit differently based on his or her background and experience. Because there is no single, correct answer to the case, my role as an interviewer is to obtain a clear picture of the candidate's thought process, skills, and potential in order to make a judgment call on whether the candidate could become a successful BCG consultant. In our interviews, we assess both interpersonal and analytical skills.

Interpersonal skills are assessed by talking through the candidate's resume and experience. Discussing past behavior helps me get to know the interview candidate and provides an indication of the interviewee's potential as well as of his or her likely "fit" within BCG. During this part of the interview, it is important that the candidate demonstrates depth of experience by providing clear examples and stories to illustrate his or her points. I also ask myself, "Would I be comfortable having this person on my case team?"

Analytical skills are assessed in the case interview. We will take a closer look at this in the pages that follow, but in the case interview we score five categories: structure, judgment, rigor, creativity, and ability to synthesize.

The Case Interview

The following case is actually derived from two client projects a team of my colleagues worked on. Although it has been simplified and includes some pre-BCG experience, it is a case that they used in interviews. I think it serves well as an illustration of the type of case work we do at BCG.

The situation is as follows: ADSL is a technology that enables the implementation of broadband Internet services via the existing telephony infrastructure. This telephony infrastructure is owned by the incumbent telecom operator in Norway. As in most European countries, the regulator has ruled that new entrants may offer ADSL services by using the existing incumbent-owned telephony infrastructure via MDF access. This means the new entrant can hire the copper wire from the incumbent operator but has to purchase its own ADSL equipment.

The technical setup that a new entrant would need to establish an ADSL connection basically consists of three elements: MDF access (copper wire), ADSL equipment, and Internet uplink capacity (fiber access connecting the ADSL equipment to the Internet). The costs involved in establishing the technical setup are given (amounts are in €):

- ◇ The MDF access tariff is €12 per line per month, set by the regulator.
- ◇ The required investment for the ADSL equipment is €120,000 per location, with a depreciation period of five years. For simplicity reasons we assume linear depreciation with no interest costs. In total, there are 250 locations where ADSL equipment could be installed, covering all households in Norway.

- ◇ Internet uplink capacity is commercially available. Depending on the required end-user speed, costs are on average €2 per end-user per month.
- ◇ For simplicity reasons, we assume that the consumer ADSL modem is client owned.

I usually start the case interview with an open question to test the candidate's ability to apply structure to a problem while a lot of information is still unknown. The interview could start like this:

Q: "Suppose you wanted to assess if a new entrant can run a profitable business in offering consumer ADSL services, how would you approach this?"

A: "Let's see, since we are considering a new entrant, with no customers initially, the company will at first generate loss, and gradually will become more profitable as the number of customers increases. I could make some assumptions on the pace at which the customer base will grow, but to simplify at the beginning, I would start by calculating a breakeven point. I mean, if we never reach breakeven, this idea will certainly not fly."

The structure is the basis for the entire case. A good structure should enable the candidate to systematically solve the case, set up some easy calculations to verify initial hypotheses, and navigate back and forth through the case. The next step would be to ask the candidate to do some easy calculations to see if he or she can apply the structure. This way I can test if the candidate can combine the elements to a useful outcome (what we call synthesis), how comfortable the candidate is in doing some basic calculations, and if he or she applies sanity checks to the outcome (rigor).

Q: “Sounds good. How would you calculate the breakeven point?”

A: “Hmmm, we know all the costs, but we don’t know the revenue, which would be price times number of customers. So I could assume a price and then calculate the number of customers we need. Subsequently, I would need to check if the required number of customers would be a reasonable number. Do we know anything about the price?”

Q: “We know that the incumbent charges on average €20 per month.”

A: “OK, let’s assume we could also ask €20 to start with. Later we may need to reconsider this and lower the price in order to become more competitive. So let’s see if we can calculate this... ehm, wait, I see we have a lot of information on technical costs, but I don’t see anything on personnel costs. Is this correct?”

Q: “Well spotted: we also need an organization and a small marketing budget. The new entrant has done some pre-work and has calculated that an annual budget of €4.8 million would be sufficient to cover the entire country.”

A: “OK, then I can calculate the breakeven point. Per customer, the new entrant earns €20, of which it uses €14 to cover the expenses for MDF access and the Internet uplink. That means he has €6 per customer per month to cover all other costs. We write off the ADSL equipment in five years, so that’s about €2,000 per month per location. For 250 locations that’s €500,000 per month.

In addition, we have to cover the organizational costs, which is €400,000 per month. So for breakeven we need €900,000 divided by €6, which equals 150,000 customers.”

After the basic setup of the case, I would like to assess the candidate’s ability to make some basic assumptions in order to get to the next level (judgment) and play around a little bit with that to see if the candidate can really see through the drivers of the case (synthesis).

Q: “OK, so what do you think, is that a realistic number to achieve? Let me add that we have roughly 2 million households in Norway.”

A: “Well, at first sight, 150,000 out of 2 million does not seem impossible, but I would like to know more about the market. For instance, is there a lot of growth in the market? How many competitors are there?”

Q: “Yes, at the time of this situation, the incumbent operator was still the only provider of ADSL services in Norway, but others have considered entering the market, just as we are doing now. The distribution was as follows: 20 percent of the households had ADSL services, 20 percent used broadband via cable, 50 percent still used dial-up, and 10 percent had no Internet. The year before these percentages were established, ADSL did not exist.”

A: “OK... so that’s a fast-growing market. I would say we start focusing on acquiring new customers from the group that is currently using dial-up, since this is the largest group and since it is probably easier to acquire new customers than to persuade customers from our competitors to switch. Now, if we would take a situation, for instance, one year later, and if we assume that by

then the market has grown again by roughly the same amount, the ADSL market increases from 20 percent to 40 percent, which means 400,000 new households will subscribe to ADSL. We would be competing for these clients against the incumbent operator and maybe some other new entrants like you mentioned. So... let's say the incumbent operator gets at least a 50 percent share of that, since it has a strong presence in the market already. Let's assume we would be competing against one or two other competitors, that means we could get a 17 to 25 percent share of the new customers, or around 70,000 to 100,000 in total. So it seems that it won't be possible to reach breakeven from new customers only. We could also have a look at the existing customers, both ADSL and cable customers. But then I would need to know how likely it is that they would switch."

Q: "OK, that is something you may want to investigate. But what would be your up-front judgment on this?"

A: "I can imagine that customers would want to switch if they are very unsatisfied with the current service, or if the new entrant would offer a much lower price. Do we know anything about customer satisfaction?"

Q: "Most customers are very satisfied; the service is very reliable."

A: "OK, so let's look at lowering the price. For instance, a 10 percent discount... Hmm... but that would mean we also would need more customers to reach breakeven. A 10 percent discount means we drop from €20 to €18, contributing €4 per customer instead of €6 to the fixed costs. So we would need 225,000 customers in this case. Even if we could get a greater share from new customers, I still think it would be unrealistic to assume we could persuade a large number of customers to switch for a

€2 discount, particularly if they are satisfied with the current service. In addition, there's the risk that our competitors would lower their prices too. Concluding, I would say this is a risky business to step into."

When the basics of the case have been cracked, I would finally test if a candidate is able to assess the problem from different angles and if he or she can come up with alternative solutions (creativity). If the case runs smoothly and there's time left, it would be nice if we can even quantify some of these alternative solutions.

Q: "I agree, the way we have been looking at it, the business case looks very challenging indeed. But let's spend a minute to see if we can come up with some creative ideas here. Can you think of some ideas that would make this business case more attractive?"

A: "I was struck by the huge effect a slight price decrease has. So, I was thinking: could we somehow increase the price? Of course, this can be justified only by offering better service. Would it be possible to increase the speed, for instance?"

Q: "Yes, technically this would be possible. You would need to make sure that you buy enough capacity on the Internet uplink. Let's assume the speed you can offer is directly proportional to the capacity you buy and the costs associated with it."

A: "OK, so doubling the speed would increase the cost per subscriber by €2 per month, while we could probably charge a much higher tariff, maybe €30 or so. If we could diversify our offering, and if some of the customers subscribe to the premium packages, this would certainly improve the case. Furthermore, I am considering offering additional services, like telephony or even video

services if that's possible. Of course, we would need to make a separate business case for that, but since €12 out of the 20 we charge is spent on MDF access, any other service we can offer that reuses this asset would greatly improve the case. I mean, we would spread our largest cost component across multiple services."

Q: "OK, sounds like these ideas are worth investigating. Anything else you can think of?"

A: "What about starting in a limited number of regions, instead of covering the entire country from the start? Is the number of customers per location equal across the country?"

Q: "Good point! The area of each region is more or less the same, which means..."

A: "You have a huge variation in the number of households per location. If we pick the high-density areas—for instance, the Oslo area, plus some other larger cities—we can perhaps reach 50 percent of the households through, I don't know, maybe only 20 percent of the locations and thus only 20 percent of the ADSL equipment cost. That would make a difference."

Q: "You're absolutely right, and you know, looking back this is exactly what new entrants have done when entering the ADSL market: start in high-density areas, offer higher speeds at premium prices, in particular to small and medium-sized enterprises, and—at a later stage—expand the service by offering additional services."



CASE EXAMPLE II: CALL CENTER

It was 2004, and I was in Beijing working on a “strategic” architectural consulting project for the Olympics. I was working for an architect, Rem Koolhaas, on a novel project he had devised replicating the model of “management consulting firms.” Our assignment was to develop a strategic plan for the city of Beijing to solve the issues it would have to tackle as the home of the 2008 Olympics. This was a very weird thing for an architect to be doing—as there was no building design involved—but I absolutely loved it. I was no longer in the weeds of technical architecture, but rather working on solving what I felt were “important” issues. I knew this was the type of work I wanted to do.

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I started at Harvard Business School a year later and focused my job search on consulting. I spent my summer in BCG’s Washington, D.C. office and had a fantastic experience. I joined a project working for a retailer that I had frequented as a shopper all my life, during which we helped the client launch a new service that required building a series of call centers. It felt like a huge project to complete during a summer, but it was great to see how quickly it was put into practice. The new initiative hit the stores while I was back at school and it was incredible to see the impact our help had on the client. During my summer, another consultant worked on a big merger that was regularly in the papers, while another worked on a pro bono project to reform the education system for a major U.S. city.

When I returned to campus I found that several of my classmates had also had impressive experiences at other consulting firms. However, as I talked to them I was surprised to find out that no-one had enjoyed their summer internship as much as I had. The more I dug, the better I understood how different BCG’s culture truly is—BCGers genuinely enjoy working with each other and clients to solve important issues. I now count many of them as my friends and it made my decision to return after graduation very easy.

Case Example

Usually a real-life case takes anything from a couple of weeks to a couple of months to solve. Depending on the problem, a case team is proposed by BCG and tasks are divided. This is an example case for a travel agency that cannot be reached by phone. I like this case because it has a variety of issues and involves a call center (my first BCG experience!). An organization with many branches was in the middle of a reorganization in which they changed, among other things, the way they worked in

their branches:

- ◇ Increasing sales focus
- ◇ Centralizing processing of paperwork
- ◇ Diverting incoming telephone calls from the branches to a centralized call center

The Steering Committee is the group of people that makes the decisions based on input provided by the team. Day-to-day program management is done by a project leader from BCG together with one from the client. The case is then divided into several modules, each tackling its own problem. Each module has team members from the client and from BCG. This practice case focuses on the fourth module: Front Office Call Center. This module looked at diverting incoming telephone calls from the branches to a centralized call center.

After defining the new processes and setting up the centralized call center, the new way of working was implemented in the different branches, and calls were diverted gradually to the centralized call center. One of the things that happened after this new setup was that the centralized call center was receiving so many incoming calls that the company was virtually unreachable. This was just one part of a large, approximately three-month project, but this specific problem was chosen to be summarized into a 30-minute case interview. I will talk you through the case and the solution, and point out the specific skills we test during the case interview.

The Case Interview

First a short recap of the problem: we have a company, let's say a travel agency, that sets up a centralized call center to which a gradually increasing number of branches divert their calls. The diversion to the call center is rolled out to the branches over a one-year period. At the beginning of the year, the first branches start diverting their calls to the call center. Over the course of the year, the number of branches redirecting their calls gradually increases. We will refer to the customers who would be diverted to the call center as "the number of potential customers."

Shortly after setting up the call center, the travel agency is virtually unreachable because of the large number of phone calls received. Before answering any questions, it is important to check if you completely understand the problem stated. You can ask additional questions if the problem is not completely clear.

This would be a possible setup of the case team in which both BCG and the client participate.



Question 1: What could cause the overload of the call center?

The first question tests your creativity and your ability to come up with more than one idea. At the same time it tests the use of a structure, which helps you come up with more ideas. First, think of main causes, then specify these main causes in more detailed possibilities.

Possible answers to this question are

Caused by supply:

- ◇ lack of call center agents
- ◇ sickness
- ◇ poor planning
- ◇ poor organization of the call center
- ◇ unstructured call-diverting

Caused by technical difficulties:

- ◇ calls are not transferred to the centralized call center

Caused by demand:

- ◇ peak in client demand
- ◇ more calls than expected due to international events
- ◇ high season
- ◇ bad weather

Let us assume that the overload in the call center is not caused by technical problems or by peaks in demand, but solely by the fact that the number of required agents does not match the number of agents in the center.

Question 2: How would you calculate the required number of call center agents needed to fix the problem?

For this question, it is important to set up a good structure to tackle it—not a general structure, but one tailored to this specific situation. This is one of the main things we test with this question: can you set up a good structure, tailored to the problem? Furthermore, we test if you understand the problem and have some (business) judgment (for example, in this case, a call center agent is not productive eight hours per day). A possible answer could be as follows: this answer first divides the required number of agents into volume of calls, average time spent on a call, and capacity per agent. The next step is to divide these three main parts into smaller ones. For the volume of calls, the first important driver is the number of customers who will reach the call center when they call, e.g., customers from those branches that are diverting their calls to the call center. We call this the average number of calls per customer. The second driver of the volume of calls is the seasonal pattern.

The following is an example of a structure you could use to solve Question 2.



The average time spent on a call is simply the duration of the call and the time needed by the agent to wrap up the call (for example, to enter information into a computer). The capacity per agent starts, of course, with the working hours per agent, but an agent is not 100 percent productive. There are several ways to define the productivity; in this example, we split the productivity up in two parts.

The first is gross versus net working hours due to lunch and other breaks. The second is agent utilization, i.e., the percentage of time the agent is busy with a phone call. You can imagine an agent being busier during prime time and less during other hours of the day. We have now set up a clear structure to show what drives the number of agents needed, and thus a way to calculate the required number.

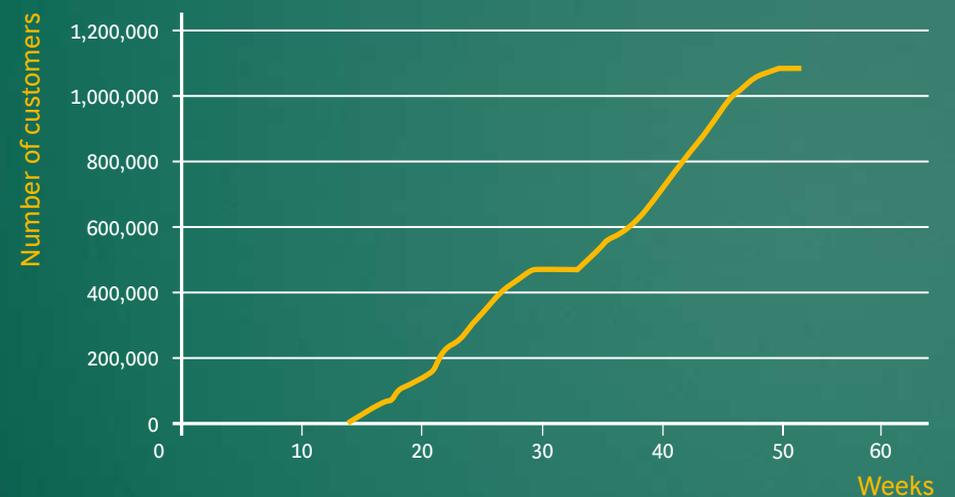
Question 3: How many agents are required in week 20?

Most case interviews have some computation in them. To solve it you will have to figure out the numbers for all parts of your “driver-tree” to compute the required number of agents. There are several ways to figure out the numbers. First, an interviewer might give you some data to start with, and you will have to pick out the numbers you can use for your calculation. Second, you can ask the interviewer for data, and third, you can make an assumption using common sense. Always state clearly when you make an assumption and how you come up with it. From this graph (see below), you can deduce the cumulative number of potential customers in week 20: approximately 140,000 customers. To calculate the required number of agents, other information in the driver-tree is needed, and you will have to figure it out. You can begin by asking the interviewer for data, but it’s

always best to make assumptions yourself and test these with the interviewer.

For example: “I assume that, on average, a client has contact with a call center agent twice a year, so the average number of calls per customer is two.” And: “I wonder if there are many more calls in week 20 versus the other weeks of the year; for now I assume the seasonal pattern to be 0 percent.” You can now calculate the call volume: $140,000 / 52 * 2 + 0\% =$ approximately 5,400 calls in week 20. To determine the average settlement time, you can ask the interviewer for information. The interviewer can tell you to make an assumption yourself, or tell you the numbers. In this case, the numbers are given: “Monitoring talk- and wrap-up time gave an average call time of 240 seconds and an average wrap-up time of 60 seconds per call. This information gives you

Cumulative number of customers who have the potential to contact the centralized call center. Note: Customers are migrated over the course of a year to call center access.



the average settlement time: $240 + 60$ seconds = 5 minutes = $1/12$ hour.” The last driver is the capacity per agent. You can assume that the number of hours an agent works is 40 per week. To determine the gross/net ratio, you could ask the interviewer, though you could also easily make an assumption based on your own experience: “I assume that of the eight hours worked in a day, approximately one-and-a-half hours are lost to lunch and other breaks. This makes the gross/net ratio approximately 80 percent ($(8-1.5)/8 = 81\%$). The last number to figure out is the agent utilization. This is a hard number to guess without knowledge of call centers, but you could still give it a try. Just be sure to explain your estimate and ask the interviewer if the assumption is more or less right. From experience, the number is approximately 50 percent.

This gives the capacity of an agent per week: $40 * 80\% * 50\% = 16$ hours per week. Now you have all the numbers to calculate the number of agents needed in week 20. Make sure you use the same units for all parts of the equation (so, all in seconds, or hours, or weeks) and make sure you take your time to do the calculations so you don't make any unnecessary mistakes. In this case, the number of agents needed in week 20 is as follows: $5,400 \text{ calls} * 1/12 \text{ hours per call} / 16 \text{ hours per week} = 28.1$, so either 28 or 29 agents are needed!

Question 4: There are no additional trained call center agents available. What other ways can you think of to help the travel agency with its telephone problem?

Earlier we stated that the number of required agents does not match the number of agents in the center. However, since there are no additional trained call center agents available, you can determine that the only way to

solve the problem is to decrease the number of agents needed. This question will test if you really grasp the problem and if you use your structure in the right way. Looking again at your structure, the answer is clear. There are three levers to decrease the number of agents needed:

1. Reduce the call volume
2. Reduce the average settlement time
3. Increase the capacity per agent

To determine specific solutions, it is again your creativity and understanding of the problem that will help you. For example, for the first lever

- ◇ stop diverting the calls from branches to call center (and divert back)
- ◇ insert a computer-based menu that answers the most popular questions

A possible solution to the second lever is to reduce the wrap-up time by monitoring it, determining the most common wrap-up actions, and shortening these actions where possible. For example, a computer application may be introduced that helps the agents with the standard wrap-up actions, such as sending a brochure.

For the third lever, a possible solution would be to align the scheduling of agents with actual demand by mobilizing more employees during peaks in client demand and fewer during lows. This solution can be achieved, for example, by asking the agents to work part-time.

This is, in short, an example of how a real-life case is made into a case interview and an explanation of how a case interview works. It is always important to make sure that you are indeed answering the right question, and are drawing the right conclusion from the information given.

One last piece of advice: just be yourself and try to have fun solving the case—the process is very similar to what you would do as a consultant and your interviewer could very well become the partner on your first project at BCG, which happened in my case. I wish you all luck in your case interview!

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