

STRUCTURED CASE SAMPLES 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. Reasonable answers to the 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. For example, he or she could ask:

- ¶ How would you figure out how big the market for direct selling may be in 5 years' time? Say at the moment that 20 percent of car owners buy their insurance over the phone directly from an insurance company. How could you figure out what percentage this could be in 5 years' time?
- ¶ What do you think an insurance company selling direct to car owners over the phone has to be good at?

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 that 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 that 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: BUILDING PRODUCTS

The CEO of a large building products company that produces and sells a wide range of products for different customer segments has asked us to help him examine the operations of his china products division. China products include tubs, toilets, and urinals. Specifically, he wants to know if he should approve a \$200 million expenditure for new manufacturing facilities.

- ¶ The company is one of seven producers in the U.S.; the largest producer has a 20 percent share; our client is ranked #3 at 15 percent.
 - Prices for the client's products are flat.
 - The largest two competitors appear to earn a small return; our client is break-even.
 - The largest competitor has just announced plans for a major modern plant.

Question: What issues must be considered?

CASE III: SAMPLE ANSWERS

Problem points of clarification:

- ¶ *Is the planned investment expected to lower costs? (Yes, but not substantially, with the major reason being that the new process will result in a better finish.)*
- ¶ *Does the company rely on a limited source of raw materials? (No, the materials are easy to get.)*

Minimum Answers:

- ¶ *Market Size/Growth:*
 - *What has the industry growth been? What is it projected to be over the next 10 or so years?*
 - *Is the growth linked to housing starts?*
- ¶ *Competitive Position:*
 - *How much overcapacity exists?*
 - *What are the competitors' relative cost positions (i.e., are their costs to produce the product relatively lower or higher than our client's)?*
- ¶ *Market Segmentation:*
 - *How is the market broken down (e.g., residential versus industrial versus commercial)?*
 - *Are different prices charged to different kinds of customers? Within different markets?*

Better Answers:

- ¶ *Customer-buying Factor:*
 - *Do customers demand a supplier that can also supply them with other building products?*
- ¶ *Barriers to Entry/Exit:*

- *What is the minimum size of a new plant?*
- *Generally, how expensive is entry/exit? Has there been a history of change in the industry players?*

¶ *Manufacturing:*

- *Do the plants produce other products/contribute to overhead?*
- *Are there ways in which costs can be substantially lowered?*

Outstanding Answers:

¶ *Marketing:*

- *Has the industry generally been charging prices that make sense given the costs of production and the needs and sensitivities of various customer segments?*
- *Have competitors ever announced capacity expansions before and then not implemented them?*
- *Are there opportunities to change the product line to create a better fit with customer segments and production constraints?*
- *Does the new finish that will result from the investment “pay for itself” with higher prices?*

¶ *Competitive Position:*

- *How important is the product line to each competitor?*
- *Are the products sold in combination (with each other, or with other products such as fittings)?*
- *Would exiting the business affect the sales, products, or costs of other business units?*
- *Are there advantages to plants being located in specific places due to high transportation costs?*
- *If the competitor’s new plant is built, will others drop out?*

¶ *External Environment:*

- *Is regulation important?*
- *Are there changing demographics that will affect demand?*

CASE IV: DEMAND FOR CIGARETTES IN MOSCOW

The CEO of Philip Morris is about to 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 IV: SAMPLE ANSWERS

Poor Answer:

Candidate: *What? That would be impossible to do without researching statistics.*

- Lack of curiosity or genuine interest in solving complex problems; lack of comfort with ambiguity.

Interviewer: *We're not expected to give a precise answer. Do your best at coming up with a back-of-the-envelope estimate.*

Candidate: *Well . . . I know they smoke more in Russia than in the U.S., and I heard somewhere that Philip Morris makes more money in international markets than domestically, so the market must be big . . .*

- No structure; cannot frame the problem; limiting analysis to what little information he or she already knows – reluctant to push analysis further; lack of poise.

Interviewer: *Well, maybe we can start by estimating the number of smokers in Moscow.*

Candidate: *Okay. I think the population in Moscow is about 10 million.*

Interviewer: *Yes, that's right.*

Candidate: *Let's say that half of them smoke.*

Interviewer: *Well, in fact someone else on the team knows that 75 percent of adult Muscovites smoke.*

Candidate: *Okay, 75 percent is 75,000 people. And how many cigarettes do they smoke a day?*

- Failure to listen carefully to interviewer; overlooking important facts; no facility with numbers.

Interviewer: *We have to make an assumption there.*

Candidate: *Alright, I'll guess. Let's say 1 pack a day, on average. That means 365 packs a year. 365 times 7,500 people is . . . is . . . You want me to multiply that? (Interviewer nods. Candidate starts writing, thinks, pauses, becomes agitated.) Okay, that's 1,537,500 cigarettes per year. That's the answer. That wasn't so hard.*

- No facility with numbers; careless calculations; forgot that he or she was calculating packs of cigarettes, not individual cigarettes; grew nervous under pressure; lacked creativity, etc.

Interviewer: *Well, we're going to have to wrap up. What else would you have liked to have done with the analysis?*

Candidate: *I would have liked to have had access to an encyclopedia to be able to figure out the real answer.*

- No creativity, interest in question, intellectual rigor, or synthesis.

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 . . . plus 375,000 . . . 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.*

CASE V: SMALL PACKAGE DELIVERY BUSINESS

A large trucking company (Truck Corp.) has asked for help with entering related businesses.

- ¶ Since deregulation of the trucking industry in the early 1980s, the industry has become extremely competitive, and the margins at Truck Corp. have ranged from poor to fair over the last 10 years.
- ¶ Truck Corp. believes that the small package delivery business, currently dominated by UPS and Federal Express, looks attractive.

Question: Should Truck Corp. enter the small package delivery business?

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CASE VI: SNACK FOOD DISTRIBUTION

A large snack manufacturer has asked for help in thinking through an appropriate distribution strategy in Mexico. In the United States, the snack maker distributes the snacks directly to stores itself through a wholly-owned fleet of trucks and company-employed drivers.

Question: Is this the right strategy for expanding into Mexico?

