
APPENDIX: Kellogg Consulting Club Practice Cases

While most cases require multiple analytical techniques, the category indicates where the candidate will likely spend most of the time.

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CASE 1: DRUG LAUNCH
Category: Market Entry Analysis

Question (posed by the interviewer):

Our client is the U.S. pharmaceutical division of a multi-national corporation. In about six months the division will receive FDA approval to launch an anti-depressant drug. Despite this apparent good news from the FDA, the U.S. division is not elated. It has concerns over the market potential for this drug and its ability to reach the key prescribers in this therapeutic category. How would you help them decide whether to 1) launch alone, 2) co-market with a partner, or 3) sell, license or swap the drug to a third party.

Information to be given if asked:*Market Conditions*

- The concerns over market potential center on whether the drug can gain adequate competitive advantage in a market segment having two dominant, patent-protected competitors and nearly 100 generic competitors. Additionally, a competitor recently introduced a higher technology antidepressant, which appears to offer therapeutic advantages.

Firm Conditions

- Gaining the professional endorsement of psychiatrists is crucial to success in this therapeutic category since they write approximately half of the prescriptions for antidepressants. However, the division has no experience marketing drugs to this physician group. Consequently, it would have to hire a sales force and/or enter into a co-marketing agreement to gain access to psychiatrists through someone else's force. The client would be able to leverage its existing sales force to reach the other half of the prescribers (Internal Medicine specialist and Family and General Practitioners).

Interview Dialogue:

Commentator: Note here what is being asked, "How would you help them decide." What is not being asked is "Which is the correct option to choose?" The Interviewer is looking more for how this problem is approached than for the "correct" answer.

Also note that it is totally appropriate to take some time to organize your thoughts before launching into the case discussion.

Candidate: In helping the client decide which option they should choose, I will want to guide them to the option that will create the most value. To understand main value drivers (i.e., profitability drivers), I will first explore the market attractiveness and our competitive position within that market in order to determine revenue potential. After that, I will explore the major cost issues.

Starting with the revenue, I'll want to understand first what the overall market revenue opportunities are for this type of drug in addition to our product specifically. Now the client expressed concern over the market potential for this drug. How big is the market and what is its potential growth rate?

Commentator: Here the Candidate has done several things. Firstly, the Candidate has stated the overall objective, value creation. Next, the Candidate stated the method of walking through this problem, looking at revenue by using a market economics and competitive position framework, then looking at costs.

The Candidate provided a roadmap. Now the interviewer understands the approach and expected direction of questioning. This helps the interviewer understand the student's thought process - how he or she thinks through business problems.

Interviewer: The overall antidepressant drug market is relatively attractive at \$1.1 billion per year and is growing well in excess of the population growth rate.

Candidate: You mentioned that concerns over "market potential center on whether the drug can gain adequate competitive advantage in a market segment having two dominant, patent-protected competitors and nearly 100 generic competitors." You also mentioned that a higher technology drug had entered the market. Is the antidepressant market segmented by technology?

Interviewer: Yes.

Candidate: And the two patent-protected competitors along with the 100 generic competitors are within our technology segment?

Interviewer: Correct.

Candidate: So, the overall antidepressant market is attractive at \$1.1 billion, but within that market, there are segments based on different types of technology that may or may not be attractive.

Interviewer: That's correct.

Candidate: What is the technology associated with our clients product?

Interviewer: Tricyclic antidepressants.

Candidate: How fast is this technology segment growing?

Interviewer: As a matter of fact, substitution by the new technology may cause a decline in sales over the next 5 years. Additionally, the existing competitive environment is very intense and will only increase if the market shrinks.

Candidate: So, the overall segment is not very attractive.

Interviewer: Correct.

Candidate: What percent of the volume do the two main competitors have?

Interviewer: In our own technology segment, the leader has approximately 10% and the number two player has about 4%. The rest of the 100 competitors each have less than a 2% market share. By comparison, the new technology has captured a 20% market share of the total antidepressant market.

Candidate: How much will our client's product be able to differentiate itself within our technology segment?

Interviewer: Not much, in a market research study we commissioned, the product was seen as very similar to the number two product in our technology segment, slightly inferior to the number one product,

	and slightly better than the generic products. The new technology was viewed as far better due to a lower level of sedation.
Candidate:	<p>So summarizing the market environment, although the anti-depressant market is attractive, the segment that we would be participating in is relatively unattractive and runs the risk of becoming smaller and more competitive over time. Additionally, within this unattractive segment, we have limited ability to differentiate ourselves relative to our competitors, and thus, will not be able to charge a premium price.</p> <p>I would think that this unattractive market and relatively undifferentiated position within that market would translate to a lower market share. I would estimate that our share might be lower than either of the branded products given our new presence in the market, say maybe a 2-4% share and this, like the rest of the segment, would probably decline over the next couple of years.</p>
Interviewer:	That sounds about right.
Commentator:	<p><i>In understanding the revenue potential, the Candidate did several key things.</i></p> <ul style="list-style-type: none"> ▪ <i>Disaggregated the antidepressant market</i> ▪ <i>Established the overall attractiveness of the relevant market segment</i> ▪ <i>Established the client's relative attractiveness to competitors within that segment</i> ▪ <i>This enabled the Candidate to come to the correct conclusion that an undifferentiated position within a relatively unattractive market will limit the revenue potential.</i> <p>▪ <i>Also, note that the Candidate is doing most of the talking. Use the interviewer to clarify questions or provide information, but the Candidate must lead the discussion.</i></p>
Candidate:	Knowing that our revenue potential is relatively low, puts more pressure on minimizing the costs if we were to market the drug. I want to see what area within the cost structure impacts profitability the most. What percent of net sales is COGS?
Interviewer:	About 20%
Candidate:	And what is the bulk of the remaining line items?
Interviewer:	Most of it is selling expense. There are some overhead/admin and advertising and promotional expenses, but most of it is selling expenses.
Candidate:	So, selling expense is the largest portion of the cost structure, which means that whichever option we choose, launching alone vs. with a partner, will certainly impact the selling expense (in addition to the number of prescribers reached, thus revenue potential).
Commentator:	<i>You can pick up a good "tip" here, spend time on things having high impact and feel free to test and see how important they are. Tests might include how large something is as a % of sales, how important it is to the customer, or how much of an impact it has on manufacturing economies, etc.</i>
Candidate:	In understanding the effect of the co-market agreement on number of prescribers reached, I think it would be helpful if I could get an idea of who makes the purchasing decision.
Interviewer:	Well, there are four main parties involved. There are the manufacturers (such as our client), the Doctors (who prescribe the drug), the Druggists (who fill the prescription) and the Patient (who

	initiates the transaction). Selling is concentrated on the Doctors, since they are the group that determines if medication is needed and, if so, what type.
Candidate:	Is the growth in managed care going to influence the dynamics of this?
Interviewer:	Yes, but for the purposes of our work, let's not address that.
Candidate:	So, for the purposes of our work, the Doctors make the purchasing decisions, this includes two groups of physicians, the Psychiatric group and the Internal Medicine/General Practitioner group.
Interviewer:	Correct.
Candidate:	You noted that we don't currently have connections to psychiatrists. This group prescribes half of the antidepressants. Can we launch the drug by only marketing to IMs and general practitioners and ignoring psychiatrists?
Interviewer:	No, they are at the top of the pyramid of influence and thus must endorse the drug before their colleagues in the IMP/GP will endorse it.
Candidate:	So if we are to market this product, we cannot do without the psychiatric group. It then becomes a matter of what is the most efficient and effective way to reach them, through a newly hired sales force vs. a co-marketing agreement.
Interviewer:	Correct.
Candidate:	What are the advantages and disadvantages of marketing the drug ourselves?
Interviewer:	In terms of having our own sales force, the main benefit would be that we would be concentrating on our product only and this may help sales. On the downside however, the cost of this focus is all attributed completely to our product, and having a dedicated sales force representing only one product would be expensive.
Candidate:	Do you have any other psychotherapeutic drugs in development or plans to expand this part of your portfolio through licensing?
Interviewer:	Nothing is planned for the next three years.
Candidate:	So by entering a co-marketing agreement, the costs of the sales force is spread across several products, and, if the co-marketer did not have a competing product, then our product would get the appropriate selling attention warranted. Also, since this sales force has existing relationships with the psychiatrists and doesn't need to take time to further establish these relationships, sales of our product might peak sooner.
	So all in all, I would think that if we were to market this product, it would be a less costly and higher value option to enter into a co-marketing agreement rather than go it alone.
Commentator:	<i>Here, as with most case interviews, the Candidate has the opportunity to go "deep" into an issue. The Candidate has chose to do this here with one type of cost, the sales force. The Interviewer is looking to see if the Candidate can identify some of the key "value" drivers of the function being explored. In the case of the sales force, the Candidate correctly identified the key value drivers as being:</i>

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- *The ability to spread the cost of a sales call across multiple products*
 - *The ability to choose a co-marketer that needs this product in their existing product line*
 - *The ability to leverage an existing psychiatric sales force infrastructure to reach peak sales sooner.*
 - *Remember, there are many value drivers, here, we have touched on a few, but don't be concerned about identifying the "right" ones, just try to identify what type of issues effect the situation the most.*

Interviewer: OK, and what about the third option, to sell, license or swap the drug to a third party?

Candidate: Again, the client would want to chose the option that was more value creating. There could be several reasons for going with third option:

- We might sell our drug because the sum of the promotional or overhead costs may make it unprofitable for us to market whereas a company having a similar product line might be able to carry this product at a very small incremental cost.
- We might license it for the same reasons we would sell it.
- We might swap it if we could find a company needing this type of drug while having a drug that might fit more with our existing infrastructure.

In any case, for the options being considered, I would want to forecast cash flows and discount them back to see what option is more value creating before making a final recommendation.

Interviewer: OK, thank you for your input on how to approach this problem.

Commentator: You'll note here, that the Candidate doesn't actually make a final recommendation. This is fine. The Candidate has demonstrated how he would approach the problem, and in doing so, has hit on many of the key issues you would find in a real client case situation.

Recapping the steps the Candidate took into evaluating the client's options:

- On the revenue side:
 - Segmented the market to the appropriate technology level
 - Determined that the segment was unattractive
 - Determined that the client's product was not significantly differentiated
- Concluded that for these reasons, the revenue potential was limited
- On the cost side:
 - Determined that selling expense was a key component to profitability
 - Determined that the Psychiatric group needed to be included in the selling efforts
 - Determined that it would be less expensive to co-market vs. go it alone
 - Determined that there are other considerations to evaluate when comparing co-marketing vs. selling, licensing, or swapping the product.

Interviewer: Provide summary comments and wrap-up

CASE 2: PROZAC CASE

Firm: A. T. Kearney (2nd round – summer internship – 2001)

Category: Industry Analysis

Question (posed by the interviewer):

Fluoxetine hydrochloride – commonly known as Prozac – is the world's most widely prescribed antidepressant, with sales that totaled \$2.8 billion in 1998. Produced by Eli Lilly & Company, Prozac has already been in the market for several years, presenting very impressive growth rates (only between 1997 and 1998, the product accounted for 20% of the company's growth). Prozac is a prescription-only, very high margin product, one that represents approximately 40% of Eli Lilly's earnings.

However, in the last years, Prozac has been facing stagnant and even declining sales in some periods. Eli Lilly's management team is not quite sure why this has happened to one of their most important brands. It is now your job to try to figure out why Prozac's sales are flat/declining.

In order to help you do that, the extremely busy Eli Lilly CEO, Sidney Taurel, will meet you in a VIP lounge at Indianapolis International Airport, between his arrival and his next connection. He will only have 15 minutes, in which time you will be allowed to ask no more than 5 questions. Right after that, you'll have to call your manager at A. T. Kearney's Chicago office and give him your assessment of the situation and a set of potential solutions, so the team can start to work in order to meet the very tight deadline imposed by the client.

What might be causing Prozac's stagnant sales and which are the possible solutions?

Note from Author: I was only allowed to ask 5 questions. That was a new situation for me, as far as case interviews were concerned, so I had to both manage the stress and think carefully on my strategy to get the most out of each question. In a situation like that, there's not one single framework that would help you ace the case. I decided to write this case on a dialog format, based on the notes I took during the interview. I also took the initiative to add some more information, in order to make the write up more complete.

Interview Dialogue

Myself (paraphrasing the interviewer): Prozac is an antidepressant that is only sold under prescription. It has been the first drug in this market and has rapidly grown due to its effectiveness in the treatment of depression. Is that correct?

Interviewer: Yes, it's correct...

Myself (smiling): Did that count as one of my five questions? Ops! I've just missed my second one...

Interviewer (smiling): Don't worry, go ahead...

Myself: So, if this was the case, I would imagine that some competitors tried to follow Prozac and develop similar formulas over the years in order to gain a stake of this profitable market. The product's impressive record of success may have attracted not only generics but also brand name competitors.

Interviewer: Yes, the company saw the entrance of new products in the antidepressant market...

Myself: So, I will make this one my first question: do any of the competitors exhibit any distinctive feature and/or characteristic (such as higher effectiveness, fewer side effects or lower prices) that would pose a major threat to Prozac? If yes, it would be great if you could describe those specific features and/or characteristics. *Question count = 1.*

Interviewer: Sure. But before that, let me give you a brief perspective on how the market for antidepressants have developed... Before Prozac was launched, the most commonly used type of antidepressant was called "tricyclics". Those drugs were carefully controlled and largely prescribed by psychiatrists only, due to their serious and sometimes fatal side effects. The innovation Prozac brought to the category was a reduction on the side effects, which prevents users from committing suicide by ingesting large doses of medication. As a result, the number of patients treated for depression grew five to seven times from what it used to be. Now, you're right: Prozac has been a favorite target for both generics and other brand name drugs (such as Zoloft, from Pfizer, and Paxil, from GlaxoSmithKline). Generics basically compete on price (30-40% lower). Moreover, Prozac has been particularly suffering attacks from other patent-protected antidepressants in the same category, the Selective Serotonin Reuptake Inhibitors (SSRI). Those products, among other indications, have been specifically prescribed for General Anxiety Disorders (GAD).

Myself: As you described, it seems to me this is a very mature category and I wouldn't expect much of the growth opportunity coming from category expansion...

Interviewer: Right. If you were in another product category, it could be the case. However, manifestation of psychotic disorders are so apparent that we can assume there are very few untreated patients.

Myself: Right... If other products within the same category are growing, while Prozac's sales have been stagnant or declining, the company must have experienced a decline in market share. Was that loss observed more notably in one particular segment of the market as opposed to the others? *Question count = 2.*

Interviewer: Yes. Prozac's market share is decelerating pretty significantly in the psychiatrists' offices. So far, prescriptions by primary care practitioners are holding up better, but they tend to follow specialists' lead.

Myself: I see... Apart of the generics, do prices vary significantly among branded drugs? *Question count = 3.*

Interviewer: No. All of them are at about the same price range. Price only varies significantly between brand name products and generics. As I mentioned before, generics tend to be 30%-40% cheaper in average.

Myself: And when does the Prozac patent expire? *Question count = 4.*

Interviewer: The basic patent expires in 2001, and subsidiary patents in 2003... I believe should remind you that you only have one question left.

Myself: Yes, thank you. Is there any other information, an important external factor, for example, that I should be aware of before developing my final recommendations? *Question count = 5.*

Interviewer: Yes, and I'm really glad you asked me that. In recent years, Prozac has deserved more attention from the general media than we probably would like to. It all started at about 10 years ago. Around 8:30 a.m. on September 14th, 1989, Joseph Wesbecker walked into the Standard Gravure printing plant in Louisville carrying an AK-47 assault rifle and hundreds of rounds of ammunition. Within 30 minutes, he killed eight people and wounded 12 others before pulling a pistol from his belt and shooting himself in the head. He had worked for the company for many years, but had found it so stressful that he had been off sick for a year. He was under treatment from a psychiatrist, and shortly before the fatal incident he had been prescribed Prozac. Without Prozac, the killings would have been just another horrifying instance of the senseless mass killings that seem to plague modern life. With

Prozac, they became a famous cause. By 1990, 54 civil and criminal suits concerning Prozac had been filed against Eli Lilly, including one by the survivors of Wesbecker's killing spree and the families of the dead. The victims claimed that a reaction to Prozac, not Wesbecker's inherent mental illness, had caused the act and that Eli Lilly had consistently misrepresented Prozac's safety to the Food and Drug Administration and the medical community. Until today, Prozac has been frontally attacked on the general media, which has generated disbelief from the general public.

Myself: Ummm... pretty interesting story. Well, I know your time is scarce, so I would like to summarize my general assessment of the situation and briefly share with you a set of potential recommendations that I will be forwarding to our project team in Chicago. Is that okay with you?

Interviewer: Yes, please, go ahead...

Myself: Prozac has been extremely successful since its launch, rapidly achieving market leadership and still producing high margins. Despite all the difficulties and the tough competitive environment, Prozac is still a very important product on Eli Lilly's portfolio, accounting for a significant portion of the company's earnings. Various factors contribute to the current decrease in sales: a more fragmented and aggressive market, new improved products, and public misjudgment. The development of a new drug could be costly and takes several years before it's ready to go to market. Moreover, the patent expires in a few years.

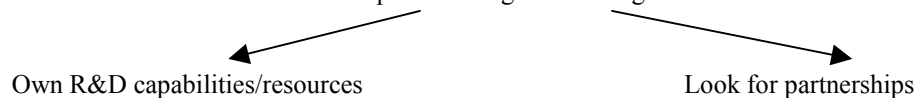
Interviewer: Good...

Myself: My very first impression is that Prozac fits very well the concept of a "cash-cow": large market share and high margin, but stagnant/declining sales. But for the development of a first set of hypotheses, I would also consider other less probable possibilities. In order to save us some time, I'll list some of the possibilities I currently have in mind, and then we can go through each one of them as time permits. Would that be fine?

Interviewer: Yes, that sounds perfect to me...

Myself: Right... Here they are (*I took a clean white sheet and started to write in bullet points*):

- Do nothing
- Extend Prozac's life cycle
- Product development
 - Product modifications (expand user base through OTC status)
 - Develop a new antidepressant
 - Develop a new drug in other segment



Myself: As a "cash-cow", Eli Lilly should consider "milk" this product, extracting earnings as long as the product survives in the market. The first alternative to that would be to extend Prozac's life cycle as long as possible. That could be achieved, for example, by prolonging Prozac's patent protection.

Interviewer: But how could that be achieved?

Myself: Honestly, I'm not very familiar with the mechanisms through which a patent can be extended. Having said that, I would imagine there might be a legal mechanism to do that... And this issue brings us to one of my other points. There have to be a way to prolong Prozac's life cycle and/or expand its user base. Lobbying might be a valid

option. Also, we could consider product modifications that would allow Prozac to be used for applications different of the ones it is currently prescribed.

Interviewer: Right. I think that can be possible...

Myself: ... and if developing a new version of Prozac is possible, imagine if this modified drug could be sold as an over-the-counter medicine! That would bring a huge market expansion potential for Eli Lilly.

Interviewer: Wow! That would be huge!

Myself: In the product development field, I would also explore two addition possibilities. First of all, I would assess Eli Lilly's current R&D capabilities and resources, and evaluate whether the company is able to: 1) develop the modified version of Prozac we have just mentioned, and 2) develop a new drug, either in the antidepressant market or in any other promising segment. Alternatively, I would recommend Eli Lilly to do some industry research in order to identify potential partnerships. Do you want to get into the details of any of those (*pointing to my bulleted list*)?

Interviewer: No, actually not. Unfortunately I do have to catch my plane and I do believe we have a pretty good start for this project. Send my congratulations for you're A.T Kearney project team, you did a very good job.

CASE 3: SHAMROCK CHEMICAL

Category: Profitability

Advanced difficulty. The candidate will most likely need to be pushed in the right direction at times. Use a leading interview style. The case is designed to see if they can draw the appropriate insights and not structure a solution to a very broad problem.

Question (posed by the interviewer):

The agri-chemical industry has been consolidating for some time, down from 20 to 10 worldwide manufacturers in just 5 years. The market has been declining as genetically modified seed technology and superior farming methods have decreased the need for agri-chemicals.

Shamrock Chemical is a company based in Missouri with several factories across the United States that produce both packaged (dry) and bulk (large quantities of liquid) chemicals used in agriculture production.

Shamrock Chemical has long been the beneficiary of its proprietary AIs (Active Ingredients) that have enabled it to charge prices well in excess of its costs. Shamrock has continually invested a large percentage of its sales in its research and development program. Nonetheless, many of its most profitable AIs are about to come off patent and the VP in charge of sales is concerned that Shamrock's EBIT will soon take a nosedive. He wants to know your thoughts on how Shamrock could maintain its profitability over the next few years.

Information to be given if asked:

- Agri-chemicals consist of herbicides, insecticides, and fungicides, which are chemicals, designed to kill weeds, insects, and fungus that destroy or damage crops.
- The average gross margin on Shamrock's products is approximately 60%. There is no correlation between type of chemicals and margins.
- The incremental margin on products is even higher than gross margins. Generic competitors are in the market. In fact, other branded competitors of Shamrock have seen share decreases by as much as 20% and price decreases by as much as 30% following patent expiration.
- There appear to be no more break through AIs in development by any of the manufacturers in the industry.
- Shamrock is the result of a several mergers in the past 10 years and is very lean, having reduced nearly all its overcapacity in production. In addition, it calls on the same channel members with a sales force no larger than any of the legacy companies. Lastly, most of Shamrock's fixed assets are fully depreciated.

Solution:

Basic Model to push the candidate towards:

- Push the candidate towards a profitability model. But, like the facts above, de-emphasize the cost side. If the candidate continues down that rabbit hole, simply inform him/her that the sales force portion of the organization that he is consulting for is positive it can get no smaller and the efficiencies of factories and other overhead are beyond the scope.

A good basic hypothesis at this point

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- In order to maintain Shamrock's EBIT, it must maintain its revenues, a combination of volume and price), amidst future generic pressure.

So how do you achieve that?

- **Distributors:** The candidate may have lots of ideas on how to maintain earnings. For example, he/she may explore the idea of advertising, adding services with the product, or aggressively attacking generics through capacity or price competition. These are all logical starting points, but you should first drive them to understand the channel structure of the industry and the two "solutions" that derive from that structure.

Show Exhibit 1

- Exhibit 1 should prompt some questions/discussion.
- Shamrock sells to distributors and distributors sell to dealers. However, Shamrock has salespeople that call on both parts of the channel.
- The exhibit clearly shows that a few distributors account for a large portion of Shamrock sales. This could look like one of two quick wins for the candidate – forward integration or align with the most profitable and influential distributors and insulate against generic competition.
- A good response to forward integration is to ask the candidate why we can do a better job at distribution than the distributors. Don't spend much time on this but mention that distributor margins are low (1-3%) and see if the candidate realizes that it is unlikely that Shamrock could do better.
- A good response to this is to ask them how they keep out generics with the distributors (by them answering or you filling in the blanks it sets them up for success later.) The answer should be around limiting the amount of generics a distributor purchases on your key chemicals as they come off patent. In that way, you limit the amount of generic penetration and minimize the effect of your EBIT (it would probably be unrealistic to believe you could completely stop the flow).
 - **Move to dealers:** Follow this up by asking the candidate how much distributors influence the dealer/retailers. By looking at exhibit 1, they should see that distributors only own 28% of dealer/retailers. The independent dealers are in fact not influenced much by distributors.
- This information should prompt the candidate to ask about dealer structure or how it compares to the distributor break out on exhibit 1.

Show Exhibit 2

- Exhibit 2 basically has the same insights as the distributor portion of exhibit 1. A small number of distributors account for a disproportionate amount of Shamrock's sales. In fact, margins are also small at the dealer/retailer. This pressure, combined with a declining market, is causing increased consolidation at the dealer level.
- Aligning with winning dealer/retailers is a key insight here and was alluded to earlier in the distributor discussion. At this point, we have hit the 80/20 mark. Beyond this, first look for ideas on how to align with winning dealers and prevent generic erosion of market share. Here are a few:
- Pay them for performance and maintaining share of products as they come off patent.
- Certain dealers are high service dealers, can generally charge a higher price, and are attracting more and more end-users (farmers).

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- Pay dealers more for higher service and increasing your share of the business.
 - Increase sales force time spent with high service, winning dealers.
 - Collect CRM data to evaluate the profitability of each dealer.
- **End-User:** Treat this as a creative section. Another area to explore is how Shamrock interacts with the end-user. There is the possibility to generate increased brand loyalty with farmers and pull the products through the channel. Areas that the candidate could explore:
 - Providing some services to the grower / maybe tying them to products.
 - Increasing the percentage of sales directly to the grower. The largest growers may not want the channel and be willing to split the transaction cost savings.
 - Partnering with down stream users of crops to preference Shamrock treated crops.
 - Find unmet needs of the grower and fulfill them.

Solution:

- Finish the interview by allowing the candidate to summarize and outline how Shamrock should proceed to preserve its profitability:
- Shamrock must align with winning dealers to preserve its profitability. It must reward these dealers for supporting our products and growing our business. Going forward, Shamrock should also determine the viability of selling directly to farmers and providing them with services that strengthen our products' experience and provide differentiation from generics.

Exhibit 1

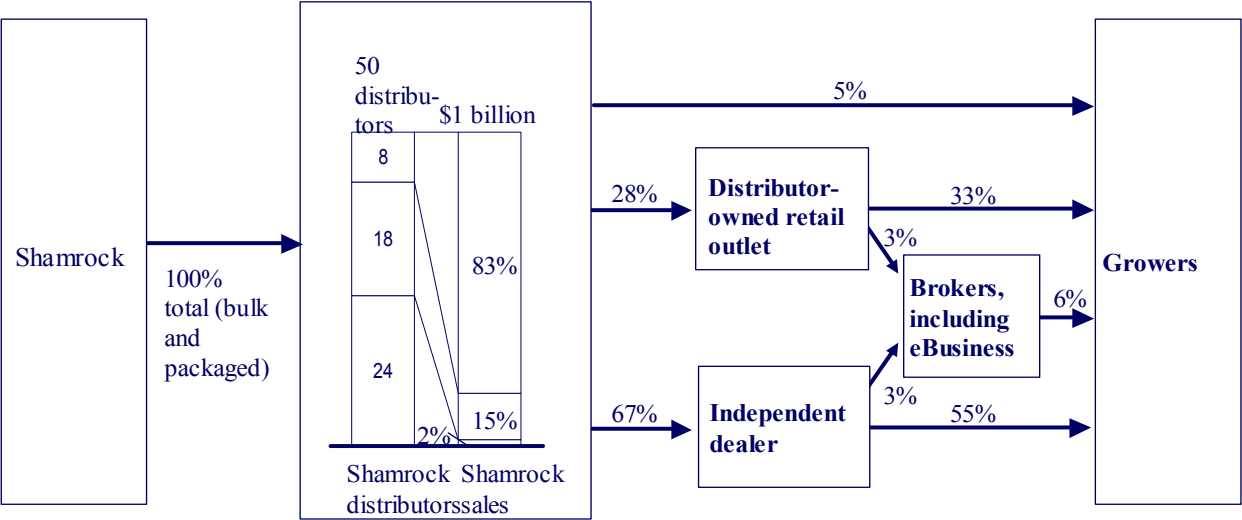
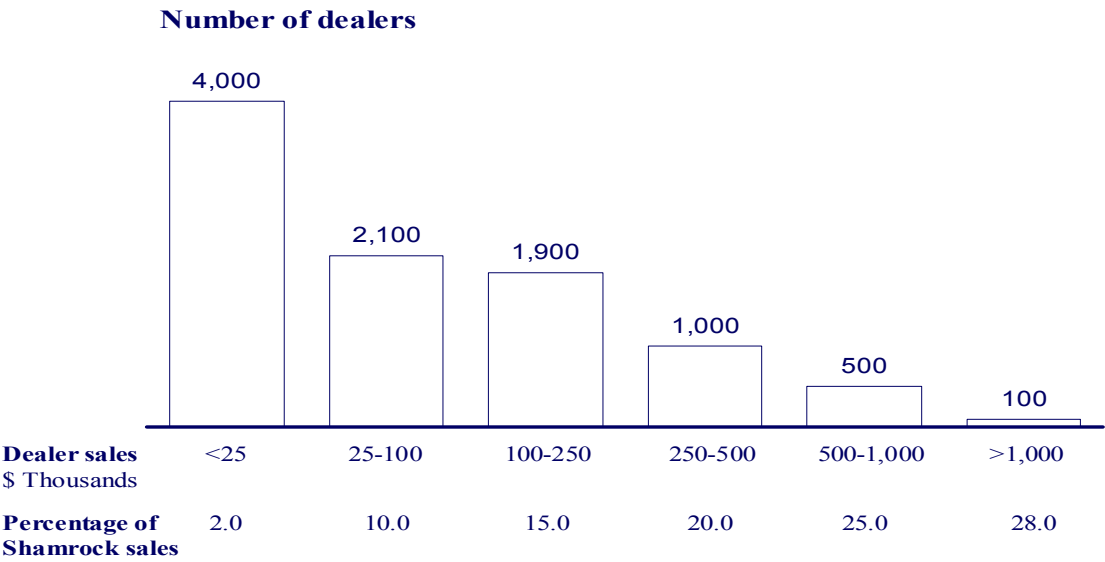


Exhibit 2



CASE 4: CHILLED BEVERAGES

Category: Profitability

Question (posed by interviewer):

You are consulting for the manager of a division of a large consumer products company. Her division produces fruit juices in three forms, all marketed under the same name: chilled (found in the milk section of the supermarket, usually), juice boxes, and frozen concentrate. This division has sales of \$600 million per year. The entire company has sales of over \$20 billion. The chilled segment represents \$120 million in sales per year. While juice boxes and frozen concentrate are profitable, chilled juices are only breaking even in good quarters and losing money in bad quarters. She has received a proposal from upper management to sell the chilled juices business. What would you advise that she do?

Information to be given if asked:

Market/Competitors

- Chilled beverages are a \$5 billion dollar industry nationwide.
- The two largest players that have 40% and 25% of the market, respectively.
- Your client's market share, 12%, makes her third in the industry.
- The best available information indicates that the two market leaders are profitable.
- The two market leaders are able to fund more advertising and more promotion, trade and couponing that your client.

Product

- The market leaders produce pure orange juice and blends that are based on citrus juices.
- Your product uses more elaborate blends of juices, usually with a base of pear or peach juice (95% of the inputs) and flavored with cranberries, bananas, mangoes, etc. (the other 5% of the inputs). Pear and peach juice are about the same price as orange juice, but the other flavorings cost about twice as much.

Consumers

- The market for chilled juices is essentially mothers with school age children. This is a highly price sensitive market that loves coupons, promotions, etc.
- Brand name is important in this market, as in juice boxes and frozen concentrate, as mothers tend to prefer highly reliable products for their children. However, the brand premium must be in line with other branded products. Therefore, all branded juices tend to sell in the same price range.

Operations

- One plant in California produces all of the products; chilled, juice boxes and frozen. It would be difficult to find another use for the plant without a major conversion.

Solution:

There are three choices:

- 1) Sell the chilled juice business. This would, however, affect the juice and frozen concentrate businesses, as there are both advertising and manufacturing synergies.
- 2) Sell all of the juice business. This may be more feasible, as the buyer could capture the synergies, but would not be too likely to turn the business around. The selling price is likely to be low.
- 3) Keep the chilled juice business and rework the ingredients and costs. This turns out to be the most feasible option, as evidenced by the success of the competitors.

CASE 5: DISTILLED SPIRITS

Category: Profitability

Question (posed by interviewer):

You are consulting for a major United States producer of distilled spirits. Their primary products are a line of mid-priced vodkas and two brands of mid-range rum. Over the past few years, the business has become less and less profitable. What are the possible causes?

Information to be given if asked:

Product

- The split of product sold has consistently been 60% vodka / 40% rum over the past few years.
- The selling prices of the two lines are essentially the same.
- Overall sales are growing at about 3 to 5% per year, the same as the industry average for these product lines.

Cost

- Production Costs have remained constant
- Advertising Costs have remained constant on average
- Distribution Costs have increased significantly

Distribution

- The products are sold throughout the country.
- In 27 “open” states, alcohol is sold in privately managed supermarkets and liquor stores. In “open” states, shelf space is extremely expensive and trade promotions are critical. Such stores are also becoming less and less willing to hold inventory, which is increasing distribution costs by requiring more frequent deliveries.
- In the other 23 “closed” states, liquor is only sold through state regulated liquor stores. Distribution costs in these states is much lower, as there are far fewer outlets to service and central warehouses for the state-run stores. Also, Advertising of alcohol is much more tightly regulated, and therefore, advertising spending is lower.

Solution:

A greater and greater share of the volume is being sold in the “open” states, with sales in these states increasing at about 10% per year. Sales in the regulated states are actually decreasing. Because the regulated states are less expensive to serve, and therefore, more profitable, the fact that they represent a shrinking portion of the total has caused total profits to decline.

CASE 6: COMMODITY MANUFACTURER

Firm: McKinsey (2nd round)

Category: Microeconomics/Profitability

Question (posed by the interviewer):

Your client is a commodity manufacturer (pork bellies for instance). They have the largest market share and the lowest cost producer. The CEO wants to increase profits in the next 3 months. What would you tell the CEO about how to increase profits in 3 months?

Information to be given if asked:

- $\text{Profits} = \text{Revenues} - \text{Cost}$. This means that profits can be increased by increasing revenues and/or decreasing cost.

Costs

- We have already established that the client is the lowest cost producer, hence the costs cannot be lowered any further.

Revenues

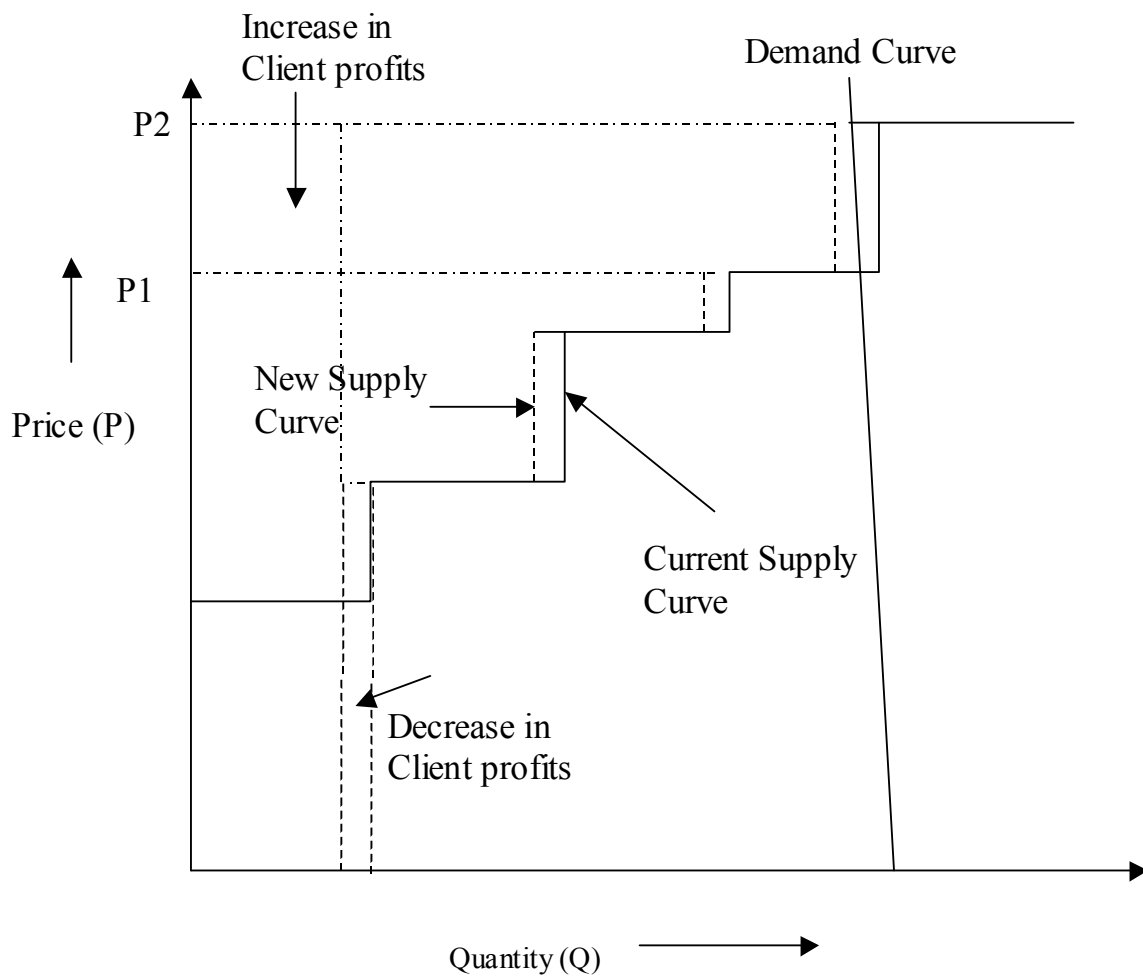
- Focus on increasing revenues. Revenues consist of Price x Quantity.
- The firm is running at maximum capacity utilization. Hence quantity cannot be increased.
- The only solution is to *increase Price*.

NOTE: The interviewee should draw the supply curve (shown on the next page).

Solution:

Commodity Demand Supply Analysis

- The demand is highly inelastic. The two ways to increase price are to increase demand or to decrease supply. Due to the commodity nature of the product, it is unlikely that the demand can be increased sufficiently in the short run (3 months). Hence focus on supply.
- The client should decrease its capacity utilization, which will cause the industry demand curve to shift towards the left. This will increase the market clearing price from P1 to P2.
- The interviewee should point out the 2 boxes showing increase (due to increased price) and decrease (due to decreased supply) in client profits. The increase in profits outweighs the decrease here.



CASE 7: SNACK FOOD COMPANYCategory: Profitability

Question (posed by interviewer):

A large salted snack food company has steadily been losing market share over that past two years, from a high of 20% to the current level of 18%. Profits as a percent of sales, however, have been growing. What could be causing this?

Information to be given if asked:*Market*

- The size of the total salted snack food market has grown from \$15 billion to \$17 billion during these two years; (the interviewee's conclusion should be that the client's total dollar sales have actually grown, but not kept pace with the market.)
- The largest competitors are two multinational consumer products companies that feature complete lines of snack foods. Together, these two companies have 55% of the market.

Product

- The product line of the client has not changed over this period.

Costs

- The costs for the client have changed over this period: (% of selling price)

	Current	Two years ago
Raw Ingredients:	28%	26%
Conversion costs:	24%	24%
Distribution:	8%	9%
Marketing:	16%	18%
Sales force:	7%	9%
Pre-tax profit:	17%	14%

- The sales force was cut to reduce costs, though the same number of outlets are still covered by this sales force.
- The changes in the marketing budget come from reduced trade promotions.

Sales Force/Distribution

- The products are mostly sold through large grocery store chains and convenience stores.
- The sales force generally visits each customer at least once per quarter.
- Promotions usually occur at the end of each quarter. Grocery stores and convenience stores require some type of promotion to grant valuable end of aisle displays or advertising space.
- Competitors' sales forces are regarded as the best in the industry.

Solution:

The data show that the greatest change is in the sales force numbers. It turns out that the company went on a cost-cutting spree over the past two years. The sales force was drastically cut and the commission scheme was reworked. The marketing expenditure was also decreased. Most of the reduction came from trade promotions. The product is sold through the same channels as previously: large grocery chains and convenience stores. These channels are traditionally driven by periodic trade promotions. The reduction in trade promotions brought about a loss of shelf space, which has directly led to the decrease in market share. Also, the product line has not changed in the past two years in a product category where new products and line extensions are routine. In addition, the market has been growing, indicating a missed opportunity for new products in the market. Lastly, the increase in profitability has resulted from the lower costs, but may not be sustainable.

CASE 8: CONGLOMERATE ROIC INCREASEFirm: McKinsey (2nd round)Category: Finance/Operations

Question (posed by the interviewer):

Your client is a 5B dollar conglomerate with 50 plants nationwide. They were formed by acquisition of various small firms over the last 10 years and there are still some integration issues. The CEO would like to increase the ROIC of the firm from 10% to 20% in 3 years. Is it possible and how would you achieve this?

Information to be given if asked:*ROIC Definition*

- ROIC is Return on Invested Capital. This can be achieved by growing the profits of the firm and/or by decreasing the invested capital.
- There are firms in the industry that have 20-30% ROIC. Hence the client's target looks achievable.

Customers

- Client has 30% customers in Europe, 10% in Asia, 50% in North America and 10% in ROW.
- The client has 2 types of products – Standard (almost a commodity) and Engineered (designed specifically for the client).
- The standard products are getting commoditized, hence have significant price pressure.
- The engineered products have good margins in the 1st year and then the margins decrease in subsequent 3-4 years.
- The client has 30,000 SKUs in their product portfolio.
- The industries that the client serves are as follows:

Industry	% of Revenues	Standard product	Engineered product
Automotive	55%	65%	35%
Electronics	25%	45%	55%
Construction	10%	75%	25%
Others	10%	70%	30%

NOTE: The interviewee should recognize the following by now based on the *Customer Information*

- Client % revenues from Electronics industry are quite low and that industry has the highest % of Engineered products. The client should focus more closely on that industry.
- Engineered products offer much higher margins.
- 30,000 SKU seem like a lot, and should address that in the case as well. There will be interdependencies among these products.

Competitive Landscape

- This is a highly fragmented industry with 20,000 competitors.

Investment/Cost

- There are integration issues among the small companies under the client umbrella. The issues pertain to decentralized sourcing, sales staff and back office operations. These should be centralized to decrease cost (economies of scale) and improve coordination.
- The product portfolio needs to be optimized. Evaluate profitability of each product along with its interdependency, i.e. its importance in a product portfolio supplied to important clients. Evaluate profitability of each client as well. Suggest using databases for this analysis.
- Divest assets pertaining to certain non-profitable low volume standard products to decrease capital investment. If these components are still needed for a client portfolio investigate outsourcing their production and having exclusive contracts to maintain quality.
- Evaluate the capacity utilization and supply chain for the 50 plants. Decrease investment if possible.

Solution:

- The client can increase the ROIC from 10% to 20% by the following initiatives:
 - Optimize product mix while keeping product interdependencies in mind
 - Sell more engineered products by growing business in electronics industry
 - Decrease cost by improving the internal integration

CASE 9: AGRICULTURAL EQUIPMENT MANUFACTURING

Category: Profitability

Question (posed by interviewer):

Your client is a large agricultural equipment manufacturer. Their primary product line, farming tractors, is losing money. What questions would you ask of your client to help them solve their profitability problem?

Information to be given if asked:

Market

- Your client has 40% of the market, competitor #1: 30%, competitor #2: 15%, with the remaining 15% belonging to many small manufacturers.
- Five years ago, your client had 60% of the market, competitor #1, 15%, and competitor #2, 10%. Obviously, your client has lost significant market share to its two competitors over the last few years.
- All three competitors sell to the same customers.

Product

- Your client's product is priced higher than competitors and has historically been the most expensive.
- Essentially the tractors have the same basic features. Of course, tractors are not commodity items and a few differences do exist.
- Your client has a strong reputation/image of quality in the market and the market has always been willing to pay a premium for that reputation because it meant they would last longer and need less maintenance. This can be critical for some farmers because they cannot afford to have a piece of equipment break down at a critical time.
- Client has been involved in product improvement efforts-- tightened tolerances and improved the durability of component parts.
 - They have needed to buy more expensive parts to execute this.

Margins

- Sales quantity and revenues are down.
- However, price and costs are up. Fixed costs are constant while material costs have increased. The client has no answer as to why material prices have gone up so staggeringly.
- The operation is primarily an assembly operation and finished part prices have gone up.
- Client does not think that raw material prices or labor costs for your suppliers have increased.

Solution:

It turns out that prices have been raised to cover the costs of these improvements, but customers do not value these improvements unless they are essentially free --so sales are down. The client needs to incorporate a cost/benefit analysis procedure into its product improvement process. Don't forget though, that you must consider the long-term effects of these decisions.

CASE 10: PAINT MANUFACTURER PROFITABILITY**Firm:** McKinsey (1st round)**Category:** Profitability

Question (posed by the interviewer):

Your client is the CEO of a paint manufacturing company. One McKinsey team has previously worked on optimizing their cost structure. The CEO wants to further improve their profitability. How would you analyze the situation?

Information to be given if asked:

Industry Structure

- The industry growth rate is same as GDP growth.
- Client has 30% market share.
- 2nd competitor has 35% market share. There are number of small regional and local paint manufacturers as well which serve the rest of the market.

Customers

- The customers are of 2 types: PROFESSIONALS (CONTRACTORS) and PRIVATE CONSUMERS.
- The customers are not very loyal (recognize this as an issue to be addressed later if time permits).
- They have multiple brands and have good basic quality paint.

Firm's Economics

- The total revenues are 1B.
- There are 3 sales channels as follows:
 - Company owned stores: 600M in sales. Focuses on contractors (professionals).
 - Consumer division: 300M in sales. Sold through mass merchandises.
 - Independent dealers: 100M in sales. Sold to local mom & pop stores. The client maintains a separate set of warehouses to serve this channel.
- Make the candidate calculate the Profitability numbers as below:

<u>Channel</u>	<u>Revenues</u>	<u>Return on Sales</u>	<u>Profitability</u>
1. Company owned stores	600M	5%	30M
2. Consumer division	300M	3%	9M
3. Independent dealers	100M	1%	1M

- The target for the firm is \$80M.

Competition

- The competitors also have 3 distribution channels. There is no data on competitor's profitability.

Solution:

- The candidate should recognize that company store channel, which focuses on contractors (professionals) have the highest ROS (return on sales). The company needs to focus on this segment.
- The independent dealer channel has the lowest ROS. The company needs to re-evaluate their strategy/presence in that channel.
- The client needs to focus on their sales force and strengthen their relationship with the contractors. Since loyalty is an issue, introduce switching costs. Some techniques are order automation by establishing web presence, which will allow the contractors to quickly and easily re-order.
- Re-evaluate the sales force compensation and their commission structure.

CASE 11: SUPER REGIONAL BANK

Category: Profitability

Question (posed by interviewer):

You have a have recently been assigned to a project with one of the nation's super regional banks. The bank is one of the top 10 largest retail banks in the country. Like most banks in its class it has branches in 8 geographically contiguous states.

Your client has recently concluded that the old "local branch" way of business is no longer viable. Typically, this bank has canvassed its territory with small freestanding branches; however, the new age of electronic banking and commerce is changing all of that.

They are considering replacing many branches with Calling Centers. Calling Centers offer both live and phone automated services that may be accessed by phone. The new Centers would offer virtually all of the services currently offered through local branches plus some additional things.

The question to you is: how would you go about setting up the engagement to determine the viability of this new concept? Specifically, what kinds of things would you investigate? And what hypothesis would you form?

Solution:

Summary: It probably is best setup as a cost benefit analysis. The number of new customers times the expected revenue from them plus the additional revenue generated by potential new services plus the cost savings must outweigh the forgone revenue generated by the customers you end up driving away.

This is a very open broad-brushed case. There certainly is no right answer; however this type of case occurs frequently. The following is a guideline of some things you should probably consider:

Market analysis: What kinds of customers would be attracted to this no service? What kinds of customers would be turned off? (Hypothesis: younger people would be heavier users and more attracted than older) Of the people attracted to this new service, how profitable are they? How profitable are the people who are turned off by this service? (Hypothesis: older people have more money and thus are more profitable)

Revenue: What types of new services could be added to increase revenues? Automatic bill payment, Fund transfer, etc.

Cost Savings: How much would it cost to establish a Calling Center and what are the risks involved? Do we have the expertise in-house to do this? How many branches could we close? Can we cut down on traffic to existing branches - thus requiring fewer tellers?

CASE 12: LOCAL BANKING DEMAND

Category: Profitability

Question (posed by interviewer):

How would you determine whether a location in New York City holds enough banking demand to warrant opening a branch?

Suggested framework:

Because this is a demand-oriented question, one should consider a marketing framework, such as the 4 P's.

Solution:

The demographics of the area surrounding the prospective branch should be examined. Population, business concentration, income levels, etc. should be compared with those of historically successful branches.

Competitor reactions could easily make this venture unprofitable, so it is essential to anticipate them. These will depend on the importance of the area to competitors (in terms of profit, share, etc.)

The client will have to match competitors' incentives to customers and should estimate the cost of doing so.

The client must examine if the new branch would complement their existing competence and strategy (retail or commercial, high growth or high profitability, etc.) and what purpose it would serve. If the need focuses on deposits and withdrawals only, maybe a cash machine would suffice.

CASE 13: CEMENT MANUFACTURER CAPACITY ADDITION

Category: Profitability

Question (posed by interviewer):

You are consulting for the number-one producer of cement in Portugal. This company currently has 45% of the market, and feel it could have more, but is running at 100% capacity of their one plant, located near Lisbon, in Southern Portugal. The CEO has asked you to help him decide if they should build another plant or expand the current plant.

Information to be given if asked:

Cost

- The cost structure for cement production is as follows:

Raw materials	28%
Labor and allocated fixed costs	16%
Distribution	26%
Sales and overhead	18%
Pre-tax profit	12%
- Raw materials are purchased from a government-owned company, and prices are set by a yearly contract with the government.
- The plant is unionized, and extra shifts are not possible.
- The fixed cost of plant additions is roughly the same as the cost of a new plant of the same capacity.

Logistics

- The trucks are owned by the company, and transport all products directly to the customers throughout the country.
- Customers pay for trucking by the mile.

Prices

- The company's selling prices are set by prevailing market prices in Portugal.

Location

- Land is available to expand the current factory; there is also a suitable site near Porto, about 200 miles to the north.
- Approximately 80% of the customers are within 100 miles of the current plant.

Solution:

As distribution is the second-largest cost item, it makes sense to minimize distribution costs in choosing the site of the next facility. From the data, it is safe to assume customers that are further away are less inclined to buy due to the increased trucking costs. Therefore, location of the plant in the north may increase sales in the north by reducing delivery costs to these customers.

CASE 14: BEVERAGE COMPANY

Category: Profitability

Question (posed by interviewer):

RC Cola and Coca Cola both compete in the same industry. Their cost structures are vastly different, however. Using Coca Cola as a benchmark, estimate the likely cost structure for RC Cola. In other words, for which costs would RC Cola be higher, for which would they be lower, and why?

Possible solution:

This is a twist on the standard price/cost case that also questions the interviewee's understanding of the cost items. A possible analysis, line item by line item:

Cost

- RC Cola would be higher due to their lesser power in negotiating price breaks from suppliers.

Distribution

- RC is not distributed in as many outlets as Coca Cola. Therefore, the average truck driver will be driving more miles and spending more time to deliver a truckload of RC than the Coca Cola driver, who will have several stops within an immediate area.
- Also, the typical order size for RC Cola would be smaller, meaning that more stops would have to be made. In the case of Coca Cola, it is conceivable that one truckload may be delivered to just one customer.

Sales

- Could be lower for RC, as there are fewer, but more loyal customers.

Marketing

- Lower for RC Cola, as they are not a frequent advertiser like Coca Cola.

Administration / Overhead

- Lower for RC Cola, as they are more of a "one-product" company than is Coca Cola.

CASE 15: CANDY COMPANY

Category: Profitability

Question (posed by interviewer):

Your company is a rather successful producer of candy. It originally started as a single product line. The production process consists of two basic activities: manufacturing and packaging. The firm has also expanded its sales through product line extensions. Management is concerned that sales are growing but profits are not increasing at the same rate. What can your company do?

Information to be given if asked:

- Raw materials are commodities with cyclical prices which have fallen in recent years but are expected to swing up again. Labor and fixed capital has increased per unit over-proportionally compared with ten years ago.
- The company's controlling system still focuses on the manufacturing part of production and the cost explosion occurs in packaging (candy is candy, the product line extension is primarily an issue of different packaging.)
- Controlling schedules manufacturing which is rather efficient already but not packaging, thus causing slack in labor and fixed capital (small batch sizes, high setup times.)
- Revenue killers: concentration of retailers, trade brands, retailers demand large introductory discounts for new products, high failure rate of new products.

Solutions:

- Reduce product line if customers (retailers) are willing to accept the reduced product line.
- Reduce low margin trade brand production.
- Emphasize pull marketing, reduce introduction rate for new products.
- Introduce controlling/scheduling measures for packaging.

CASE 16: DIRECT MAIL RETAILER

Category: Pricing

Question (posed by interviewer):

You are consulting for a direct mail retailer that sells ladies clothing. Your client's catalog printing and postage costs have just increased to thirty-two cents per catalog. How can your client decide if the new price is acceptable?

Information to be given if asked:

- The average response rate for catalogs mailed is 2%.
- In addition, 25% of customers who order product can be expected to reorder within six months.
- In other words, each 100 catalogs mailed results in 2.5 orders placed.
- The average order size is \$80.
- The fully allocated profit margin (excluding mailing costs) on catalog orders is 15%.

Solution:

For each 100 catalogs mailed, printing and postage costs are \$32. (100×32 cents).

Each 100 catalogs will result in 2 orders, plus $2 \times 25\%$, or .5 additional reorders, for a total of 2.5 orders placed per 100 catalogs mailed.

2.5 orders will result in 2.5×80 , or \$200 in sales. At a profit margin of fifteen percent, these sales will return a total profit of \$30.

The \$30 profit is not sufficient to cover the printing and mailing costs of \$32. Therefore, the client should reject the printing arrangement at 32 cents per copy.

CASE 17: SELECTIVE BINDING CASE

Category: Profitability/Sizing

Question (posed by interviewer):

Your client is a major fashion magazine that has been offered by its printer a proprietary new process called selective binding which enables publishers to customize the pages included in readers' magazines based on demographic data known about the reader. For example, an ad in Better Homes & Gardens for lawn chemical services could be placed only in those issues going to subscribers who live in houses and not to those living in condominiums or apartments. In this way, advertisers can focus their communications on the demographic segment they are targeting. Would you advise your client to take advantage of this new process and offer selective binding to its advertisers?

Information to be given if asked:

Readers

- The magazine's database can make demographic breakdowns between subscribers who make under \$50,000 and those who make over \$50,000.
- There are 1 million readers, 80% of who are subscribers.
- Twenty-five percent of subscribers make under \$50,000, 75% make over \$50,000. The same mix applies to the newsstand buyers according to readership audits.

Advertisers

- Most advertisers are selling high-end fashion products, so 75% of them are targeting the high-income group.

Costs

- The service is being offered to your client free for 3 years since the printer wants to promote the service's use by getting a major magazine to start using it.
- The client charges \$50 per thousand per full-page ad (selective binding can only be offered on full-page ads). Therefore revenue associated with a single inserted page (front and back) in an issue is \$100 per thousand.

Competition

- The client's closest direct competitor has 500,000 readers, 100% of whom are subscribers. Effectively, all of their readers make over \$50,000. They charge \$70 per thousand for their full one-page ads.

Solution:

The Magazine would want to consider offering the service to its advertisers if it would be able to enhance its earnings by being able to charge its advertisers a premium for being able to more exactly and efficiently target the demographic segment they want to reach. Of course the increased revenue from the any premium must be able to offset any revenue lost as advertisers stopped targeting.

Cost/Benefit Analysis

Since the printing cost to the client of selective binding is zero, the client simply needs to evaluate cost on the basis of revenue per thousand gained or lost as their advertiser base uses the service to better target their ads to their desired segment. Presumably, instead of 100% of advertisers paying the full \$50/thousand per page, the 25% of advertisers targeting the lower income segment will choose to advertise only to the 25% of subscribers targeting the high income segment will choose to advertise only to the 25% of subscribers falling into that segment and the 75% of the advertisers targeting the high income segment will advertise only to the high income subscribers (75% of subscribers). Assume that all advertisers continue to advertise in 100% of the newsstand copies. The revenue effect of this change can be calculated by looking at the impact the change would have on average ad rate per thousand on subscription readership:

New ad revenue per page = Old ad revenue per page X [(% low income subscribers X % low income target advertisers) + (96 high income subscribers X % high Income advertisers)]

Thus, new ad revenue per page = \$50 X [(25% X 25%) + (75% X 75%)] at old rate \$31.25 < \$50

Now the question is, can ad rates per thousand on the selective binding portion of ads sold be increased sufficiently to increase average revenue per thousand over what it is today? To answer this question, your client's ad rates must be looked at from the perspective of their advertisers. If you consider the advertisers targeting the high-income group, their alternative to advertising in your client's magazine is to put their ad dollars toward the 100% high-income readership competitor. The cost per thousand high-income readers with the competitor magazine is:

(Page rate X total readership)/ (portion of readers who are high income) = (\$70 X 500,000)/500,000 = \$70

Thus \$70 is the maximum price per thousand the client can charge its advertisers for selectively bound ads before the advertisers would switch to their competitor. Note that currently, the client is a cheaper buy for these high-income advertisers even though they are paying to reach readers they do not want:

(\$50 X 1 million)/750,000 = \$66.67

If the client charged \$70/thousand for selectively bound ads, average revenue per thousand to the client would be:

\$70 X [(25% X 25%) + (75% X 75%)] = \$43.75

Solution

- Since \$43.75 is less than the \$50 that advertisers are currently paying, the magazine should not offer advertisers the selective binding service.

Of course, there are other issues which interviewees might want to mention such as the possibility of price discriminating between high and low income advertisers, the potential for and cost of expanding the advertising base using selective binding as a selling tool, etc. However, it is important by the end of the interview to have reached a recommendation regarding the initial question posed by the interviewer. To mention these other possibilities and areas for further investigation is certainly worthwhile, but it is also important not to get too far off track or to complicate the issue so much that a final recommendation is never reached.

CASE 18: IBERIA GASOLINE

Firm: DiamondCluster International

Category: Pricing, microeconomics

Question (posed by the interviewer):

For the past thirty years the national government has set the retail price of gasoline for cars. Under a new market reform program the government has decided to allow the gasoline distribution companies to determine the retail price of gasoline for cars. The CEO of Iberia Gasoline has hired us to advise her on an appropriate strategy for pricing in the country. What would be your recommended price on the first day of deregulation and your ongoing pricing strategy?

Information to be given if asked:

Current Situation and Process

- The Ministry of Transportation previously changed the price weekly to assure that the distribution companies make €1.10 per liter in gross profit.
- Gasoline is refined to three levels Supra, High and Regular that refers to the level of octane and the degree to which the fuel is unleaded. All firms sell in proportion of 40%, 30% and 30% at the prices of €1.75, 1.60 and 1.50 per liter respectively, with the same gross profit (€1.10).
- In a deregulated environment firms have the capacity to change prices hourly at any service station based on the pricing strategy.

Consumers and Growth

- Consumers are price *inelastic* across a broad range of prices, but do go to service stations based on price, convenience and ancillary services.
- Currently gasoline sales have been growing 5% per annum as more people live in suburbs and commute by car to work.

Competitive Analysis

- Currently there are three companies that have 95% market share. Iberia Gasoline has 45% market share, whilst the remaining two firms have 25%.
- Iberia's market share is consistent throughout the country with no one firm dominating one region or city.
- Each firm solely distributes gasoline; no firm is involved in oil exploration, extraction or refining. Consequently all firms pay essentially the same amount for refined gasoline which they then brand, distribute and sell.

Government Regulations

- Currently the Ministry of Transportation will not allow gasoline retailers to vertically integrate into other areas of gasoline distribution.

Extra Credit

- In addition, to gasoline retail gasoline sales the firms also engage in retail activities by co-locating mini-markets in the gas stations that sell items such as soda, cigarettes, snack food, etc. Industry research shows that this area has been the fastest area of growth (10% pa) for the firms and nets (25%). However, Iberia Gasoline has been growing at 15% and nets 30% due in part to its superior selection and perception that it is a price leader.

Data for Iberia Oil Case

NOTE: The consultant should provide a calculator

Impact on Gas Sales			Today			
Price	150	155	160	165	170	175
Volume	104	102	100	98	95	75
Revenue	15600	15810	16000	16170	16150	13125
Total Cost (150)	15600	15300	15000	14700	14250	11250
Net Profit	0	510	1000	1470	1900	1875
Impact on Retail Franchise						
Number of Cars	14	12	10	8	6	4
Retail Sales per Car	1000	1000	1000	1000	1000	1000
Gross Revenue	14000	12000	10000	8000	6000	4000
Net Margins	30%	30%	30%	30%	30%	30%
Net Profits	4200	3600	3000	2400	1800	1200
Total Profit	4200	4110	4000	3870	3700	3075

Solutions:

There are two key areas to consider.

- Firstly, recognize that retail gross margins on gasoline range between 5.8% and 6.8%, with net margins apt to be under 2%, well below what most companies want to earn therefore so price increases are in order. As a market leader, Iberia should clearly signal that they want to raise prices. The firm should actively change prices to maximize yield on their service stations as competitors change their prices. At this point the interviewer should provide different volumes-price scenarios for interviewee to calculate profit-maximizing price (give the above Table to the interviewee).
- Secondly, the gross profits are the same across products. Iberia should explore if all segments are equally price sensitive. Finally (for extra credit), firms are making most of their money in the convenience stores so driving car volume through the station is key.
- Finally, the interviewee should be tested in three categories: demonstrate understanding of revenue curve on incremental price over competitors on each litter and diminishing volumes, the impact of retailing on overall profit growth, and ideally the interrelations between gasoline sales, retailing and overall profits.

Summary (*Paraphrase based on elevator test*)

Margins on gasoline erode shareholder capital and should therefore be raised to provide adequate returns. Competitors face the same costs and will follow suite. If we're wrong we can always lower prices and lose little. If we don't take a price leadership then we may permanently lose the chance to do so later. The upside of this strategy is high, whilst the downside risk is low.

CASE 19: PIPELINE COMPANY

Category: Industry Analysis

Question (posed by interviewer):

You are hired by a large pipeline company to evaluate the current and future potential of the pipeline industry. The pipeline industry sprang up as transportation costs for mineral extraction companies began to escalate. There is currently 20,000 miles of pipeline throughout the U.S. What information would you want to know about the pipeline industry that could help you plot a strategy for a pipeline company?

Information to be given if asked:

Industry Structure

- Pipeline can be characterized as either common carrier pipelines (~70% of all pipeline miles) which are regulated by the government and proprietary pipelines (~30% of all pipeline miles) which are wholly located on the private property of a firm (e.g. a pipeline from a port station to a near-shore refinery).
- There are many suppliers of common carrier pipelines.
- The second group (proprietary) is not regulated by the government.

Products

- The pipelines carry liquid and gaseous materials -- crude oil, natural gas, methane gas, liquid nitrogen, refined oil products (gasoline), and chemicals.

Cost

- There are exceptionally high fixed costs involved in a pipeline.
- The variable costs are primarily the electricity to power pumping stations along the pipeline. There are different cost structures depending on the type of product being moved. Pumping crude oil along the pipeline can cost as much as \$2M/month in electricity for a station. Gaseous products require considerably less energy to move.

Market Conditions

- U.S. proven reserves are diminishing and foreign imports are increasing. It is expected that for the next 5-10 years demand will be steady.

Solution (classic Porter analysis could be used -- This is rarely the case!!!)

- *Threat of Entry* is low because ...
 - there are high fixed costs (high initial investment)
 - pipeline services are essentially a commodity product (commodity markets are slow growth and unattractive)
- *Industry Rivalry* is strong because ...
 - there are many competitors and switching costs are low
 - industry growth is expected to be slow (i.e. market share is important)
 - many competitors use pipeline for in-house uses and only carry other products if capacity is underutilized
 - there are very high exit barriers (i.e. there is a strategic relationship between refining and piping)
- *Substitute Products* are many...
 - by proliferation of tanker cars and tractor trailer rigs for liquid and gaseous materials
- *Power of Suppliers* is not a significant factor.
- *Power of Buyers* is not a significant factor because many pipelines are regulated and there are many buyers
- Other considerations:
 - Product Mix: The margins on gaseous products is higher than heavy unrefined products.

-
- Government Regulation: Margins are greatly affected by common carrier status. Any future environmental regulations will cut even deeper into margins.
 - Pipeline as a storage medium: For many firms the product in a pipeline can be a significant portion of its inventory and the volume in line must be considered in production. The classic question: Is it better to make product and sell it now at low prices or wait for prices to increase (e.g. crude oil prices)? A large pipeline could be a temporary storage facility.
 - Operations: Maximizing profit means understanding the parameters of pumping -- costs of pumping at less than full capacity; layout of pipeline and pumping stations; products which can share the same pipeline; construction of parallel pipelines.
- Market Differences: The market for crude oil is very different than the market for specialty chemicals or natural gas. The pipeline manager must aware of these rapidly changing commodity markets to maximize his profit.

CASE 20: PERMANENT LIGHT BULBS

Category: Industry Analysis

Question (posed by interviewer):

A small R&D lab in the Swiss Alps has developed a super-durable filament for light bulbs; with this filament, the light bulb will never burn out. The lab is ready to license this product to a light bulb manufacturer. What will be the effect on the light bulb industry?

Information to be given if asked:

Market

- The light bulb industry is dominated by two multinational producers. The two companies sell their products side by side for essentially the same price in similar outlets internationally.
- There are a several small local players in various regions of the world who produce local brands and some private store brand light bulbs.
- There have been no technological innovations in light bulbs for many years.

Possible solutions:

One outcome is that one of the two major players purchases the technology. If the technology is patented and exclusively licensed, this player may enjoy an advantage for a limited time. If the producer makes enough bulbs at a low enough cost, all customers will eventually switch over to the permanent light bulb, thereby drying up the industry, putting the competitor out of business and greatly reducing their own business.

Another solution is that all of the players obtain some version of this technology. If that were to happen, the price for this product would decline to the normal industry profit level, and customers would shift to the permanent light bulb. Over time, all bulbs would be permanent and the industry volume would greatly decrease, making the industry more competitive and wiping out industry profits.

CASE 21: ALUMINUM CAN MANUFACTURER

Category: Industry Analysis

Question (posed by interviewer):

An aluminum can manufacturer has discovered a way to improve its manufacturing process. As a result, its manufacturing cost has been reduced from \$0.89 to \$0.79 cents. How can the manufacturer best exploit this cost advantage?

Information to be given if asked:

Market

- The client is the leader in its market with a 40% share and supplies directly to major beverage manufacturers.
- The number two player in the market has about 30% of the market and many small competitors share the rest.

Substitutes

- Aluminum cans have a lower priced substitute, steel cans, which have inferior printing and stamping characteristics.
- Steel cans are used by customers who do not want to pay the premium for aluminum cans.

Suggested frameworks:

Remember basic economics. The firm can either use a penetration strategy or price skimming strategy. Consider the impact of either strategy on the company and its competitors. Also, don't forget to think about any substitutes for aluminum cans.

Solution:

Clearly, the client should either drop price or reap additional profits.

If the client drops prices, other competitors will have to follow since this is a commodity market and not following would mean a quick demise. The lowering of prices might increase the client's market share marginally, but some smaller competitors will have to start exiting the industry and larger competitors will have to start investing to discover the client's cost advantage.

At the same time, steel can users will start switching to aluminum cans, thus hurting manufacturers in that market. The resulting growth in the aluminum can market will attract steel can manufacturers to enter it. Since some steel can manufacturers have deep pockets and a strong backing, these new entrants could pose a future threat to our client.

In conclusion, it is best to retain prices and generate extra profits for now. The cost advantage may help another day during a price war.

CASE 22: SCIENTIFIC INDUSTRY

Category: Industry Analysis

Question (posed by interviewer):

A manufacturer of scientific instruments is experiencing declining sales in its major product line. Why?

Information to be given if asked:

Products

- The instrument, call it Y, is able to perform elemental mapping; that is, it is able to determine the specific composition of material placed in the chamber for observation. Y is an accessory for larger and much more expensive instrument that functions almost exactly like a microscope, which we'll call X.
- Our client's product is regarded as one of the best in the market.
-
- Aside from Y, the client recently began manufacturing X. Additionally, it produces an unrelated product.
- Product X can be used by itself, but Product Y is essentially dependent on Product X for its operation. As a result, except for replacement sales, Y is rarely sold individually. In fact, Product X's sales force will frequently recommend that a buyer purchase a certain Y while buying an X. Two years ago, over 30% of our client's sales were generated by another manufacturer of X.
- The client's product X competes directly with other manufacturers of X, and particularly the manufacturer that was selling our Y. The client introduced X 1 ½ years ago.

Sales

- Currently, 5% of sales come from recommendations from other manufactures.
- The markets for X and Y are flat,

Customers/Demographics

- There are two basic user groups: industry, primarily semiconductor manufacturers, and academia (in research labs).
- What we've noticed lately is that the specific users in each of these groups, who also happen to be the primary buyers, have become relatively less sophisticated; that is, they are hired just to run the instruments and know less about their technical qualities.
- These buyers have become even more dependent on the sales forces.
- What has happened is that our client alienated itself from other manufacturers of X at a time when a strong relationship was becoming even more important than it used to be. The buyers are relying more and more on the X sales force, which are typically called well in advance of the Y sales force.

Solution:

This is the second part of the main reason for our clients declining sales: in addition to ruining their relationships with manufacturers of X by producing their own, they happened to do so at a time when relationships became even more important.

CASE 23: INFORMATION SERVICES COMPANY

Category: Industry Analysis

Question (posed by interviewer):

You are hired by a library information services company that provides a computerized article search product on CD-ROM. The product allows users in a library to locate articles by keyword search. The company currently has a weak market share of only 10% of all installed units. The company wants to understand (1) why they have so small a market share, (2) what could be done to improve the situation, and (3) where it should focus its resources.

Information to be given if asked:*Market*

- There is a single major competitor which has 50% market share. The client and two other competitors each have 10%; and the remainder is divided among many competitors.
- The following table outlines many of the details of the market segmentation and client product data.

Type of Library	Number of Libraries	Client Market Share	Major Competitor Market Share	Competitive Features
Academic	5000	20%	60%	Search Quality, Content Content, Ease of Use Content, Ease of Use Price, Ease of Use
• Research	500	80%	10%	
• Other	4500	13%	66%	
Public	10000	10%	40%	Content, Ease of Use
Secondary Schools	20000	~0%	10%	Price, Ease of Use

- Competition within the industry focuses on four dimensions: (1) Search Quality, (2) Content, (3) Ease of Use, and (4) Price. The table above indicates the relative preference for these features for each market segment. There is a trade-off between ease of use and search quality. A better search requires a more skilled approach to keyword usage and often makes the search more difficult. The client's product is considered to have the highest quality search among the competitors.

Product

- The client sells a CD-ROM based product which is used on a dedicated PC in a library. The product has different versions that are upgraded each year. Each version is marketed to a specific library segment. Libraries are interested in matching the article search to hardboard volumes available within the library. The client's product is considered to have the highest quality of article search.

Pricing

- The client sells its product at a 25% discount to the major competitor and has the lowest prices in the industry.
- The pricing and profit schedule for each version are shown below.

Library	Client Price	Client Profit per Unit	Major Competitor Price
Academic	\$2000	>\$500	\$2667
Public	\$1500	\$500	\$2000
Secondary School	\$1000	\$100	\$1333

Production

- The product is created by programmers who seek to match the product to library volumes. Since the principal input is labor, the type of CD-ROM created can be altered relatively easily.

Solution:

- The client's product does not match the needs of the large segments of the market (i.e. the client's high quality of search only appeals to a small segment of the total market) ==> weak market share
- The client should reallocate its resources to create products in the larger market segments -- products that emphasize content and ease of use over search quality.

The most profitable segment can be identified by using current client prices which should allow the company to gain market share (due to the 25% discount to the major competitor) and calculating the maximum market profit. Academic = $5000 \times 500 = \$2.5M$; Public = $10000 \times 500 = \$5.0M$; Secondary = $20000 \times 100 = \$2.0M$. Therefore, if we realign our product to emphasize ease of use and content, the potential profit is $4500 \times 500 + 10000 \times 500 = 7.25M$ (minimum since profit in academic segment is $> \$500$ per unit).

CASE 24: MEAT PACKING INDUSTRY

Category: Industry Analysis

Question (posed by interviewer):

Your client is a US firm which owns a meat packing plant in Spain. Over the last few periods profits have steadily declined, despite growing sales. You have been hired to figure out why.

Information to be given if asked:

Porter's five forces are useful.

Suppliers

- Independent farmers with little power against your client. Therefore, the costs of your raw material cannot be the issue.

Market

- The market is fairly regional; hence transportation costs and competition have not changed dramatically.
- No introduction of a substitute product.

Costs

- Production costs have remained stable.

Solution:

Since there are stable costs, and strong sales, the only other alternative is the price of your product. Investigate this avenue, and you will discover the buyer link. Your margins are being squeezed due to the increasing concentration and buying power of your customers.

CASE 25: VIDEO GAMES

Category: Industry Analysis

Question (posed by interviewer):

The CEO of a large diversified entertainment corporation has asked a McKinsey team to examine the operations of a subsidiary of his corporation that manufactures video games. Specifically, he needs to know if he should approve a \$200 million capital request for tripling the division's capacity.

You are a member of the McKinsey team assigned to this project. Assume you and I are at the first team meeting. What are the critical issues we should plan to examine to determine if the industry is an attractive one for continued investment and why?

Information to be given if asked:

Market share

- Division is third largest manufacturer of hardware in the industry with 10 percent market share. Top two producers have 40 and 35 percent market share. Remainder is divided by small producers.
- Current estimate of industry hardware sales is 5,000,000 units annually. Industry growth has been strong though over last few months, sales growth has slowed.
- Top two competitors also develop, manufacture and sell software/games though division sells only licensed, software.
- Industry growth of software continues to increase.

Product

- The industry leaders have established hardware standards.
- Product features constantly developed (e.g., new remote joy stick), to appeal to market segments.

Sales

- Division sales have increased rapidly over last year from a relatively small base. Current estimate is annual sales of 500,000 units.
- Division sells to broad range of consumers.
- Division remains less than 20 percent of parent company sales.
- Division's current sales price for the basic unit is \$45 per unit.

Costs

- Division estimates current cost is \$30 fully loaded. Requested expansion should reduce the cost by 5 to 7 percent and triple production of the hardware units.
- Top two computers are estimated to have a 10 to 15 percent cost advantage currently.
- Main costs are assembly components and labor.
- Division currently exceeds corporate return requirements; however, margins have recently been falling.

Customers

- Division estimates much of initial target market (young families) has now purchased the video game hardware.
- No large new user segments have been identified.

Distribution

- Primarily outlets of distribution are top end electronics stores.

Note to the Interviewer

The primary issue of the case is to determine if the industry is attractive and, especially, if our client's position in that industry is sustainable. The candidate should identify issues which are necessary for assessing both the industry and our client's position, but should not be expected to solve the problem.

If the candidate begins to discuss too deeply a specific issue, before having covered the key issues overall: bring them back to discuss the Industry more broadly by asking "what other issues must be examined?"

If the candidate is discussing issues which seem irrelevant to the attractiveness of the industry, ask, "how will that analysis help to assess the attractiveness of the industry or our client's position"? Then, ask the candidate to identify other issues which must be examined.

MINIMUM REQUIREMENTS

The following issues would need to be covered for the candidate to have done an acceptable job:

1. What is future market potential? Candidate needs to question the continuation of overall industry growth. She/he might ask about the saturation of markets, competitive products (home computers), and declining "per capita" usage.
2. What is the competitive outlook? Should at least recognize the need to examine competitive dynamics. Issue areas might included: concentration of market shares; control of retail channels; and R&D capabilities (rate of new product introductions, etc.).
3. What will be the price/volume relationship in the future? Issues of prices need to be considered.

BETTER/OUTSTANDING ANSWERS

No bounds on creativity, but better answers would address:

Market Potential

- Recognize that there is a relationship between market penetration and growth in new users which, when combined, yields an industry volume estimate.
- Address the shifting mix of product purchases, in this case from hardware (player unit) to software (video cassettes).
- Seek to look at buyer behavior in key buyer segments, i.e., "fad" potential of product.

Software

- Recognize technology standards are set by industry leaders. In this situation, the division as a secondary player will have to follow these standards.
- Recognize that different distribution needs may exist for different products (In this case, hardware versus software).
- Discuss the effect capacity additions can have on overall industry price/volume relationships and on

industry price levels.

Company's Ability to Compete

- Should ask what the capacity expansion is designed to do.
- Explore the cost position of the client division relative to that of other competitors.
- Seek to understand reason for poor profit performance of division

CASE 26: MERGER CANDIDATE IN CHEMICAL INDUSTRY

Category: Industry Analysis

Question (posed by interviewer):

A major chemical producer has retained McKinsey to evaluate another major participant in the industry. Both companies are bulk commodity chemical producers. We have been asked to begin our work by analyzing the future prospects of the target company's major product line, a bulk chemical used in the production of plastics.

Essential facts include:

- Production of this chemical has slowly declined over the last five years
- Prices have declined rapidly

There are 7 to 8 major producers; the largest producer has a 30 percent share; number two has 20 percent; out target company has 15 percent; the rest is divided among other competitors

The two largest competitors earn a small return; target company is probably at break-even; rest are operating at break-even or loss

The largest competitor has just announced construction plans for a major new plant.

- How would you structure an analysis of the target company's future prospects in this product line?

MINIMUM REQUIREMENTS

The candidate should, at a minimum, address the following issues:

1. What markets use this chemical, and what has been the nature of growth in these markets? (End-use markets are largely automotive-related.)
2. How much overall capacity exists now? (Far too much.)
3. What has been relative capacity utilization of competitors in the industry? (60 to 70 percent for last 3 years).
4. What are relative cost positions of competitors? (related to size/efficiency age of plant; target company has reasonably "good" position.)

BETTER ANSWERS

Better answers will move beyond the previous answers to consider:

1. How rational is pricing? (Prone to self-destructive cuts to gain temporary share points.)
2. Are there niche or value-added uses for chemical? (Not really.)
3. Does the chemical have a major by-product or is it a by-product? (Not of significance.)
4. How often have companies entered/exited, and how expensive is entry/exit? (Entry expensive; exit cheap for most because older plants are fully depreciated.)
5. How important is this product line to each of the competitors? (Most producers are diversified.)

OUTSTANDING ANSWERS

The best answers could address:

1. Reasons for announced capacity expansion. (It is a bluff to try and get smaller competitors to shut down.)
2. Is regulation important? (Yes: all competitors have installed pollution control equipment.)
3. What is nature of operational improvements that target company could make? (lots.)
4. How is product sold and distributed? (Economies of scale in marketing and transport are critical.) Is there synergy between our client and target? (not really.)

CASE 27: MACHINE-LOADING CASE

Category: Macroeconomic

Question (posed by interviewer):

A client produces a range of synthetic materials in varying widths and lengths. Each material is used for packaging but differs in physical properties in terms of costs, weight, flexibility, and general performance. Each material can be coated with any one of four or five types of chemical coating which make the materials more or less impervious to heat, light, water, vapor, etc.

All of the machines on which these materials are made are housed in one enormous factory location. Each machine is capable of running any one of the various materials and/or coating combinations. The client does not wish to invest in additional equipment at this time.

The client has asked us what combination of products he should run to increase his plant's profitability. How would you go about determining the optimal mix of potential products on these machines?

Information to be given if asked:

Market

- The industry is highly fragmented. A variety of small manufacturers supply similar products to provide a range of customers. Our client estimates he has less than 1 percent of the total market. No competitor has more than 3 percent of the total market

Cost/Price

- Each product has a different cost to manufacture dependent on materials used and the manufacturing process.
- Each product has a different price dependent on both the client's cost to manufacture as well as the market for the product.
- Our client uses primarily commodity products in the manufacturing process. All can be obtained from a number of sources.

Process

- Our client's machinery can produce hundreds of different products. Some are unique to meet specific customer requirements while others are used by a wide variety of customer.

Customers

- Our client's customers are primarily consumers or industrial product manufacturers who use the synthetic materials in packaging their own products.

NOTE TO THE INTERVIEWER

The primary issue of the case is to determine that the profit of the plant will be maximized when the most profitable product mix is produced and sold. The candidate should cover differences for each product in the fixed and variable manufacturing and selling cost and prices, as those must be determined to understand each product's profitability. The interviewee should also address the market demand for each product (to ensure what is produced can be sold at an acceptable price).

If the candidate is discussing issues which are not relevant to the profitability of each product line or to maximizing the profitability of the plant, repeat the question and ask how the issue being discussed will lead to a solution for the client.

MINIMUM REQUIREMENTS

Candidate should, at a minimum, address the following issues:

1. Are there market limitations to the potential production of any one material?
2. Is there competition for these products?
3. Are there differences in costs in the manufacturing of these materials? For example, do some coatings cost more than others? Do some materials have inherent cost differences?
4. Is there flexibility in pricing of these products?

Additional and observations should include:

1. Are there differences in setup time and cost for various materials or coatings?
2. Do these materials move at different speeds through the machines?
3. Are the machines truly interchangeable or are some better suited to one product or another?
4. Is there unlimited market demand for these products?
5. Are there technological displacement or replacement products on the horizon?

OUTSTANDING ANSWERS

The best candidates will formulate a profit maximization algorithm. The best algorithm is to maximize the profit contribution per machine hour.

1. Profit contribution is (unit volume) times (unit price minus variable cost).
2. Machine-hour capacity is a surrogate for fixed costs per unit of volume. Fixed costs take into account depreciation and standby costs as well as those costs that are independent of the variable costs per pound or ton produced.

An outstanding answer must include recognition of the asset costs and capital implied by that, as well as the income or profit contribution. Also, the potential substantial differences in volume produced per machine-hour and/or the price obtainable in the market demand and competitive actions.

CASE 28: TELECOMMUNICATIONS DIVERSIFICATION

Category: Industry Analysis

Question (posed by interviewer):

A Baby Bell company is interested in diversifying into other areas besides telecommunications. They are considering entering the market for electronic home security systems. Would you recommend that they do so?

Information to be given if asked:

Company Background

- The company is a holding company. They have previously made unsuccessful forays into software and into real estate.

Market

- The home security business is highly fragmented. The top five players in the industry generate less than 4% of the total industry revenues.
- This implies that the industry largely consists of small, regional companies.
- 10% of all residences currently own an electronic security system.
- It turns out that the “expensive home” segment of this market is saturated. Growth has been slow in recent years.
- Price sensitivity is unknown in “moderate-priced home” segment.

Costs

<u>Item</u>	<u>Retail Price</u>	<u>Cost / Margin</u>
Equipment and Installation	\$500 - \$1,500	0-10% margin
Monthly Service	\$20 / month	\$5 / month

Suggested frameworks:

Use an industry attractiveness framework, such as Porter’s Five Forces, to determine whether this is a business you want to be in, or at least to determine what kind of returns you can expect to achieve. Then, use the value chain to look at where value is added in the home security business. Finally, once you feel you understand the market, determine if the core competencies of the Baby Bell are likely to match the demands of the home security markets.

Solution:

The conclusion is that this business is a reasonably good fit for the company, but that more market research needs to be done to assess the growth and profit potential of each segment of the market.

CASE 29: PACKAGING MATERIAL MANUFACTURER

Category: Industry Analysis

Question (posed by interviewer):

Your client is the largest North American producer of a certain kind of bubble-pack packaging material. Currently, the company has 80% of the market, and has asked your firm to assess the strategic outlook for this company. How would you begin to assess the future for this client, and what type of recommendations could you make?

Information to be given if asked:

Costs

- The product costs can be broken down as follows:
 - 20% for polyethylene, a plastic chemical
 - 35% conversion costs, including allocated fixed costs, labor and energy costs 10% distribution and storage
 - 15% marketing and overhead.
- Profit margins are 20%. Polyethylene is a commodity chemical.

Technology

- The factory is thirty years old, and the technology used is the same as when the factory opened.

Market/Competitors

- The client had 100% of the market until two years ago. Since that time, a localized upstart company has appeared in the Philadelphia / New Jersey market and has captured nearly all of that market. This factory has purchased technology from a German company. Your client does not have much information about this competitor, but it appears that their factory is extremely efficient. They have also been undercutting your client on price.

Solution:

The competitor has used their new technology to produce a lower price product. As evidenced in the Philadelphia / New Jersey market, nearly all customers prefer this product to your client's. Therefore, the future is extremely bleak for your client, and they should be advised to respond to the competitive threat, perhaps by updating their own technology.

CASE 30: CORN FEED COMPANY

Category: Cost Analysis

Question (posed by interviewer):

A corn feed company has eight manufacturing plants located in the Midwest. These plants service the entire United States. Their plant in Ohio is in need of refurbishing. The company has four possible options:

- I. Refurbish the existing plant
2. Build a larger plant at the current location
3. Build a similar size plant at a new location
4. Build a larger plant at a new location

Which is the best option for this plant?

Information to be given if asked:

Market

- There are four main competitors; our plant is the second largest. All four competitors have similar manufacturing processes and similar cost structure.

Capacity

- Capacity utilization at the current Ohio plant is 65%, which is industry standard.

Customers

- The current customers buy from all four manufacturers in order to guarantee supply.
- Currently demand is being met and there are no alternative uses for corn feed.

Transportation Costs

- The transportation cost for the corn stock (raw material) is much higher than the cost of transporting the actual feed.
- The corn is grown in the Ohio area and the feed is sold to the East Coast.

Product

- The raw material is perishable where as the corn feed can be stored for any length of time and easier to transport.

Solution

There are two issues to this decision. The plant size and the plant location should be considered separately.

1. Size of Plant- corn feed is a commodity product. Pricing on the product is dependent on current corn prices as opposed to the manufacturing process. The purposed largest plant will not have economies of scales not currently present at the existing plant. Without increased economies of scale, there is no reason to increase the size of the plant.

2. Location of Plant- transportation cost and perishability are the main issues with location. Cost analysis of the transportation cost of feed versus raw materials should be completed. This analysis should include the % of spoilage for longer transportation of corn stock.

- The current plant is located close to the cornfields and this is the best location for the plant from the cost/benefit analysis. A larger plant should not be built.

CASE 31: BUENOS AIRES ENT

Category: Market expansion/profit improvement

Question (posed by the interviewer):

Medical center in downtown Buenos Aires specialized in Ear, Nose and Throat, working at 90% capacity, in a very competitive environment. They have contracts with all the HMOs & insurance companies and they see almost no private patients. They are barely making profits, and they want to:

- increase profits
- increase market share

What should they do?

Information to be given if asked:

External Factors

- Stable economical & political situation (1999), no inflation.
- The institute has a good reputation in the community and a market share of 10% (one of the biggest in this market).
- Big competition, by a few institutes (especially one a few blocks from us with the same market share) and numerous ENT doctors in their offices with distribution all over the city (geographical advantage, they are closer to the patients).
- The customers are the population with insurance, they don't pay anything for their visits and they come to us because of our reputation.
- The most difficult thing for physicians in this market is to get the precious contracts with the insurance companies, which we have all.
- No merger possibilities with the other institute, since the owners dislike each other.

Financial

- They could get money to do some improvements like new offices or surgical rooms in the current space, but not to buy a new building (also the owners are very conservative).

Costs

- We cannot reduce costs much without risking their reputation. In fact we suspect they are already eroding it because of recent cutbacks.
- They have a reduced group of staff specialists, some of whom are the owners, who are paid on a fee per service basis and only see selected patients.
- Then there is a larger group of residents with low salaries who do the bulk work (they accept low salaries and long working hours for the benefit of learning from the well-recognized specialists).
- The administrative and nursing staff receives standard pay.
- They expend in surgical and office supplies at market prices.

Revenues

- Revenues are slightly higher than costs.
- Their prices are low (i.e. \$15 for a medical visit). They see about 5,000 external patients per month.
- NOTE: One of the clues to this case is here, in the product mix because their main income is from surgeries. They make \$1,000 on each surgery with a cost of \$500, while they barely make any profit from the office visits. Usually people trying to solve this case just focus in the office visits and they forget about surgical or other practices.

Capacity

-
- There is some idle operating room capacity and they could easily build bigger facilities with low investment. They are offering our facilities to external doctors and a few of them come to do their surgeries here for a fee. It is very difficult to attract other specialists because they usually are forced by their HMO to perform surgeries in other places, or they prefer a clinic in their neighborhood, etc.

Solution:

- Franchise the name of the institution providing the contracts to groups of young specialists with practice in far-off neighborhoods (especially to former residents from the institute).
- The value proposition to these young MDs is 2 fold:
 - Opportunity to expand the scope of their practice
 - The ENT center would take care of physician billing and other back-office operations.
- Value proposition to the ENT center:
 - The independent physicians would perform all their surgeries in the client facilities. This will improve the capacity utilization of the ENT center. The physicians would receive standard fee they would get anywhere else for their surgeries. Later the client can expand the operating room facilities if needed.

CASE 32: CONSULTING FIRM (1)

Category: Market Expansion

Question (posed by interviewer):

You are the managing director of a large international consulting firm. Traditional strengths of your firm have been solving strategy and organizational issues. Recently, you have noticed an increasing number of your firm's proposals are being rejected because of a lack of information technology expertise in your firm. So far, your firm's growth has been strong enough that proposals lost have not hurt annual earnings. Nonetheless, you are becoming increasingly concerned about the need to develop the firm's capabilities in information technology.

Q1: Assuming your concern is valid, what reasons will you provide to other partners about the need to acquire information technology skills?

Q2: Assuming you are able to convince other partners of the importance of IT expertise, what steps would you take to rapidly build IT capacity in this area?

Q3: What are the major risks in executing an IT capacity-expansion?

Answer. Consulting Firm (I)

A1: Good answers focus on the value of IT to clients: discussion topics include the increasing importance of information in business, strategic value of information and information flows, importance of information systems for implementing new organizational structures and management control systems.

Better answers focus on the costs of losing clients to competitors: discussions included the encroachment costs of having clients talking with competitors about IT problems, risk of losing credibility with clients by not being able to solve a problem.

A2: Good answers will focus on various methods to build expertise: buying expertise by acquiring another firm, by raiding IT practices of other firms for a few key consultants, building capacity through recruitment of IT experts and training them to be consultants, building capacity by training current consultants in IT practice skills, establishing a strategic alliance with a IT boutique firm.

Candidates should discuss the pros and cons of each method proposed; impact on firm's current culture, cost to the firm, time needed to build expertise, etc.

Better answers will realize the importance of stimulating client demand as capacity builds through seminars, articles strategic studies in IT areas...

A3: Good answers depend on the expansion methods discussed, but an important issue is the loss of the firm's focus away from just strategy and organization.

Better answers will focus on the difficulty of implementation in IT; rapid technological changes in the IT industry require significant ongoing training and development costs; new practice cultures may be significantly different from current culture, especially if "external experts" are brought into the organization.

CASE 33: CONCRETE MANUFACTURER

Category: Investment

Question (posed by interviewer):

Your client, a concrete manufacturer is considering acquiring a small local firm. What factors should be considered? After considering these factors, would you recommend the acquisition?

Information to be given if asked:

Margins

- The target firm is currently profitable, with margins of 5%.
- Your client's margin is 15%.
- Your client attributes its higher profit margin to economies of scale in trucking and mixing, and a stable labor force.

Market

- Both companies compete in the geographical market, the Southeastern U.S.
- Your client's customers are large construction firms and contractors generally in the office and commercial building construction business.
- The smaller firm sells mainly to other small businesses and contractors. (Swimming pool installation firms, patio builders, etc.)
- Additional research shows that the smaller customers for concrete are growing, while the major office building construction market is stagnant.
- The smaller firm has strong contacts with many local customers, and is often the preferred supplier due to their customer responsiveness.

Financing

- Your client is not able to fund the acquisition internally, but could obtain bank financing at a rate of 10%.
- Similar acquisitions generally are made for two to three times current sales of the target firm.

Solution:

From a financial point of view, the acquisition is not attractive if there are no synergies between the firms. With profit margins of only 5%, the income generated by the smaller firm will not cover the capital charges (interest due to the bank) on the acquisition price. (Acquisition price = 3 x sales. Interest on this amount will be 10% x 3 x sales, or 30% of annual sales. Profits are only 5% of sales. This analysis, of course, ignores the tax shields.)

However, if your client were able to use some of its competitive advantages to improve the financial outlook of the target firm, the acquisition would be advisable. It is reasonable to expect that synergies would arise from economies of scale in trucking and mixing, which could raise the profit level of the target firm, and make the acquisition more attractive.

CASE 34: HEALTHCARE COMPANY GROWTH

Category: Market Expansion

Question (posed by interviewer):

A large health care company has decided it is interested in substantially increasing the size of its operations. Its goal is to double total sales and profits in less than two years. As a consultant brought in to assist them, what would you do? What issues would you consider? What are some likely alternatives for the company?

Possible issues to consider:

What is the current scope of operations? In what areas of health care does the company deal? What is its current market share in these areas?

What plans has the company already considered?

What is the competitive nature of the industry? What would be the effect on sales and profits of reducing prices and margins?

What potential is there for expansion by acquisition? Do they have the financial capability? do potential acquisition targets exist? Will the market for acquisitions be competitive?

Possible recommendations:

Naturally, a suitable solution will depend upon the answers to the above questions.

A business can increase profits by:

- Increasing sales
- Increasing prices
- Decreasing costs

However, if the company's margins are found to be consistent with industry norms, it would seem unlikely that either increasing prices or cutting costs represent feasible methods by which to double sales & profits, particularly if the company is operating in a moderately competitive environment.

This leaves only sales increases, which could be achieved by:

- Selling more of the current products to current customers
- Selling new products to current customers
- Selling current products to new customers
- Selling new products to new customers

The suitability of these options will again depend on the particular environment. In the particular example of this case, it turned out that only selling new products to new customers via some form of diversification could hope to achieve the company goals.

You should then consider the potential for increasing sales by means of diversification through acquisition or joint venture. The relative benefits of each will depend on financial resources as well as the existence of, and competition for suitable targets.

CASE 35: GAS MANUFACTURER

Firm: McKinsey, 2nd round

Category: Market Entry Analysis

Question (posed by the interviewer):

Your client is a gas manufacturer. Currently the client owns and operates its gas plants nationwide. They have hired McKinsey to investigate whether they should enter into the business of running 3rd party gas plants. How will you structure the analysis of this case? Should the client enter or not enter into this business?

Information to be given if asked:

Customer Information

- The client manufactures hydrogen, oxygen etc.
- The customers are other industrial goods companies which use gas for producing steel, waste treatment etc.
- Some of the steel mills and waste treatment agencies own their own gas plants. For instance, a steel mill can have its own gas plant, which is located right next to the steel mill. These are the gas plants that the client wants to operate (not buy them, just provide operations service!!)
- The client has highest market share in the market (about 30%).
- The market grows pretty much along with the GDP (1-3%).
- The cost of the gas for the customers is a small % of their total direct production costs. It is extremely important for the customers to have an uninterrupted supply of gas, since their steel plant shutdown is extremely expensive for them.

Firm's current economics

- The product is a commodity, so the firm is a price taker. The firm's revenues grow with GDP.
- Client's cost structure is the lowest in the industry.
- Think about how the gas plant's cost structure will change if the client operates it:
 - Direct Material (DM) – raw material is air, which is free
 - Direct Labor (DL) – very lean operation. One gas plant can be run by 1-2 persons. There will be no change.
 - SG&A – Some reduction due to client's scale
 - O/H – Some reduction by centralized monitoring and repair crew. Possible due to client's large scale of operations.

Client's resources/capabilities

- They have perfected the technique of monitoring the gas plants (using remote monitoring) and have the minimum average plant downtime/breakdown in the industry.
- By being the largest producer of gas, the client has achieved the highest economies of scale.

Competitive landscape and current issues

- There are 3 other national firms that manufacture and provide gas. Their market shares are smaller than that of our client.

Solution #1:

The client can create value by operating 3rd party gas plants by lowering the operational cost somewhat. More importantly by minimizing the downtime of the gas plants they can add more significant value. Therefore, based on the value proposition, the client should enter into this business.

The client then needs to consider barriers to entry for other firms and implementation strategy.

Barriers to Entry

- The client's capabilities are unique in the industry. They can sign exclusive long term contracts with 3rd party clients to operate the gas plants.
- The client also needs to consider their pricing very carefully.

Implementation

- Evaluate the capital investment of this market entry.
- Since the client's infrastructure is well established, the capital cost will be minimal.
- The client could offer to operate 3rd party gas plants which are located reasonably close to their own plants. This would allow the client to go up the learning curve while ensuring uninterrupted gas supply to the customers.

Summary

- **The client should enter this market since there is value to be captured and the capital investment is low.**

CASE 36: VITAMIN MANUFACTURER ENTRY INTO CHINAFirm: McKinsey, 1st roundCategory: Market Entry Analysis

Question (posed by the interviewer):

Your client is a chicken vitamin manufacturer. The vitamin helps increase the size of chicken breast and reduce fat content. Should they enter China?

Information to be given if asked:*Chicken Industry in China*

- Chinese chicken industry is twice as large as US in terms of amount of chicken consumed.
- Growth trends are similar to those of US.

Customers

- The customers in US consist primarily of large corporate farmers e.g. Tyson, Purdue.
- The customers in China can be segmented into 3 categories:

<i>Customer Segment</i>	Current Market Size	Growth (last 5 years)
Family poultry farms	80%	1%
Village farms	10%	19%
Corporate farms	10%	80%

Competition

- There is no direct competitor at the moment in China. There is one substitute product which sells for 47cents/lb.
- The client's product is superior in performance and has no side effects compared to the substitute product.

Firms Resources

- Magnesium is an important ingredient used to manufacture the vitamins.
- The firm has one mine in Florida which is operating at max capacity.
- There are mines in other parts of the world, which have a cost structure as follows (includes transportation of raw material to China):
 - 2 in Europe- 39cents/lb
 - 1 in Africa – 35cents/lb
 - 1 in India – 37cents/lb
 - 1 in China – 38cents/lb

NOTE: These are prices if the client were to acquire the mines.

Solution:*Economics of entry decision*

- Draw a basic Value Chain for the vitamin manufacturing/distribution process.

- | |
|---|
| Raw Material → Manufacture vitamin → Sales and Marketing → Distribution |
|---|

- The cost of raw material is given above for different mines. The additional cost beyond the raw material is 10cents/lb.

-
- Which mine will you choose? The one in Africa.
 - Now that the cost structure is established, the client should perform an NPV analysis based on certain project sales volume.
 - The NPV analysis was positive.

The client should enter China for the following reasons:

- The corporate market is growing rapidly (80% growth in 5 years). The corporate farms are more likely to use vitamins than the small family farms.
- The client should acquire the mine in Africa.
- There is no significant competition. The client's cost (45cents/lb) is less than that of the substitute product (47cents/lb).

CASE 37: CIGAR BARCategory: Valuation

Question (posed by interviewer):

I was sitting in one of Chicago's new specialty "Cigar Bars" around the end of August with a friend. It was a Saturday night and the weather was fair. While enjoying one of the bar's finest stogies and sipping a cognac, I asked my friend how much he thought the bar was worth.

How would you go about determining the value of this bar?

Information to be given if asked:*Customers*

- We arrived at the bar around 8:30pm. There appeared to be 30 customers already there. By 11pm the place had at least 70 customers. I would estimate the maximum capacity to be close to 100.

Products

- The bar sells two things: liquor and cigars.

Price

- The average cost of a cigar is \$8 and the average cost of a drink is \$7.

Employees

- There was one bar tender, a waiter and a waitress. All three were there the entire evening.

Miscellaneous

- The bar is located on one of Chicago's trendier streets with a lot of foot traffic.
- The bar is open Tuesday thru Sunday from 5 pm until 2 am.

Possible Solution:

This is a straightforward valuation. To perform a valuation you must estimate the cash flows from the business and discount them back using an appropriate weighted average cost of capital (WACC).

Revenues: One way to project revenues is to estimate the number of customers per day or per week and multiply that by the average expenditure of each customer. Keep in mind that Friday's and Saturday's are typically busier than other days and that people tend to be out more during the summer than in the winter.

Costs: There are two components to costs: fixed costs and variable costs. Under fixed costs you might consider: rent, general maintenance, management, insurance, liquor license, and possibly employees. The only real variable cost is the cost of goods sold.

Valuation: Subtract the costs from the revenues and adjust for taxes. You now have the annual cash flows generated from the bar. How long do you anticipate this bar being around? Cigar bars are a trend. In any case pick some number for the expected life (4-5 years). The discount rate should be a rate representative of WACC's of similar businesses with the same risk. Perhaps 20%. This gives you a value of:

$$\text{Value} = CF_1/1.2 + CF_2/(1.2)^2 + \dots + CF_n/(1.2)^n$$

CASE 38: NEW MAGAZINE

Category: Sizing

Question (posed by interviewer):

Your client is the CEO of a publishing company that produces a line of educational magazines as well as a line of women's magazines. Both businesses are profitable but are not growing quickly. He wants to start a third monthly magazine in the US targeted at 30-50 year old men (eg. GQ Magazine). His stated goal is to generate circulation revenues of \$10 million in the first year. He has hired you to figure out whether this is possible.

Possible Solution:

This is an estimation case. The key here is to clearly define your assumptions, the specific answer is not important as long as you are making reasonable assumptions. For example

Target Customers

The total US population is approximately 240 million. Based on a normal distribution with the average life span of 80 years, approximately 2/3 of the population falls between 30-50 or about 160 million people. Approximately 1/2 are male or 80 million.

Of the 80 million 30-50 year old men in the country, assume that at least 1/2 would read a magazine or 40 million. Given the wide range of magazines on the market assume that only 10% of magazine readers would want to read a men's journal or 4 million target customers.

Share

As a new magazine assume that you can generate a 5% share of the men's magazine market in year one or 240,000 customers.

Revenues

Based on what other magazines sell for (\$2.50-\$5.00) assume a cover price. Lets say \$3/magazine at the newsstand and \$2/magazine for a subscription. Now make some assumptions on how many customers will buy on the newsstand versus subscription, lets say 50% subscribe (120,000) and 50% buy at the news stand (120,000). This comes out to \$360,000 + \$240,000 or \$600,000. Finally, this is a monthly magazine. For simplicity assume that all target customers buy a magazine every month. This would generate total revenues of \$600,000 X 12 or \$7.2 million.

- In this case given the CEO's stated goal of \$10 million in circulation revenues, it would not make sense to launch the magazine.

CASE 39: PIANO TUNERS

Category: Sizing

Question (posed by interviewer):

How many piano tuners are there in Chicago?

Approach

This is a brainteaser case. Its purpose is to test your logical and quick mathematical thinking. There is no right answer; the test is to see if you can come up with an answer based on the information you estimate.

You need to start by asking questions about the key factors. One way to solve it is to estimate the number of households in the Chicagoland area. The interviewer gave this piece of information at 2,000,000 households. Next, you can break the income of the households into four quarters (500,000 each). Make an estimate of 20% of highest income quarter have pianos, 10% of second quarter. 5% of third, and 0% of fourth.

Thus:

<u>Income quarter</u>	<u>Population</u>	<u>% w/ Pianos</u>	<u># of Pianos</u>
1st	500,000	20%	100,000
2nd	500,000	10%	50,000
3rd	500,000	5%	25,000
4th	500,000	0%	0

With 175,000 pianos to tune you can estimate how often these pianos are tuned. You can estimate top income quarter tunes their pianos once a year, second quarter once every three years, third quarter once every 10 years. This gives you $(100,000 + 50,000/3 + 25,000/10) = 119,167$ or approximately 120,000.

Estimate a piano tuner can do four a day, 250 days a year, therefore: $120000/250=480$ pianos a day to tune $480/4 = 120$ pianos tuners needed.

How could you check this? Look in the yellow pages. Would all the piano turners be in there? You can guess half. By the way there are 46 piano tuners listed in the Chicago Yellow pages.

CASE 40: CHICAGO LOOP

Firm: Booz.Allen & Hamilton (2nd round – summer internship – 2001)

Type of Case: Market Sizing

Question (posed by the interviewer):

How would you go about estimating the daily average number of motor vehicles in the Chicago Loop?

Solution:

Author's Comments: Since I was not sure whether the interviewer wanted me to actually calculate my best estimate or just brainstorm creative ways to do the calculation, I decided to ask him beforehand. He offered me the following tradeoff: I could choose between going through the calculation or outlying alternative ways to arrive at an estimate. However, by choosing the latter, I had to come up with at least three different procedures (and that's exactly what I decided to do).

- 1st Approach: Secondary research. Contact the transit authority and see if the measurement has already been performed before. Similarly, downtown areas of cities of equivalent size could also have done some previous studies on the topic.
- 2nd Approach: Define the limits of the Loop and treat it as a system in which the units processed are motor vehicles. By measuring the rate in which cars get into and leave the system during the day, we could arrive at an estimate of the average “inventory” built into the system throughout the day. A sample of streets could be monitored (probably the most generally used) and the results could be extrapolated to the whole area.
- 3rd Approach: Use a phone directory to estimate the number of offices in the Loop. From there, estimate the number of people commuting to work everyday, and then the number of cars (discount people that car-pool or that use public transportation). This number will be a percentage of the total number of vehicles in the area, since we have to take into account the vehicles that are just driving through the Loop and heading somewhere else.
- 4th Approach: Measure the quality of the air in the Loop in terms of the concentration of gases (from fuel combustion) throughout the day and contrast it with the expected average contribution per vehicle.

Each suggestion was complemented with a discussion on pros and cons, regarding accuracy, costs, feasibility, time and resources needed.

CASE 41: CHEWING GUM MARKET

Category: Sizing

Question (posed by interviewer):

How would you estimate the size of the annual U.S. chewing gum market? Check your answer for reasonableness.

A typical approach:

Estimate the number of people who chew gum: of the 300 million population, 15% are between the ages of 10 and 20, the heaviest users, for a total of 45 million. Estimate that these people chew two packs per week, for annual sales of 4,500 million packs. For the other users over age 20, (70% of the 300 million population, or 210 million) estimate a usage rate of one half pack per week, for a total of 5,250 packs per year. Total packs per year is 9,750.

To check for reasonableness, figure the dollar sales that these packs represent: at 25 cents per pack, annual sales would be \$2.4 billion, a reasonable figure.

CASE 42: GOLFBALL MARKET ENTRY

Category: Sizing

Question (posed by interviewer):

You are visiting a client who sells golf balls in the United States. Having had no time to do background research, you sit on the plane wondering what is the annual market size for golf balls in the U.S. and what factors drive demand. Your plane lands in fifteen minutes. How do you go about answering these questions?

Typical solution:

Golf ball sales are driven by end-users. The number of end users: take the population of 300 million; assume that people between 20 and 70 play golf (about 2/3 of the population, or 200 million) and estimate what proportion of these people ever learn to play golf (guess 1/4) which reduces the pool to 50 million. Now, estimate the frequency of purchase. If the average golfer plays twenty times per year, and requires two balls per time, that's forty balls per person. Multiply that times the 50 million, resulting in a 2 billion ball market.

CASE 43: OIL REFINING INDUSTRY

Category: Sizing

Question (posed by interviewer):

Your company has 25% world-wide market share of the oil industry. It generates \$4M annually in revenues through the machinery division of the company, which supplies machinery to refineries (not owned by your company) around the world. How do you assess the current operating status of this division?

Approach:

Define "assess...operating status" - most likely in comparison two dissimilar pieces of information: 25% market share and \$4M (but no idea what % of the market this represents). The guide is to request what % of the market \$4M represents. Assume this is unknown. An estimate of the market size is therefore needs to be done. The way to do this is to ask how many oil refineries there are, how much does each cost to build, how long they last (actual life, not dependent life) and what the machinery replacement costs are. From this, one can estimate what the industry spends per year on machinery can. Divide the above mentioned \$4M into this and the refining division's market share can be assessed. This % can then be compared to the 25% share of the parent.

CASE 44: LOGGING COMPANY

Category: Strategy Assessment

Question (posed by interviewer):

You are hired by a Canadian logging company to analyze its current operations and provide advice on future operations. The government regulates the logging industry in Canada. Land is leased to individual companies by the government. The company is making a lot of money and is unsure why. You have been asked to determine: (1) Why they are making money? (2) Is it sustainable? (3) Is it replicable?

Information to be given if asked:

Products

- The company produces lumber boards of two sizes 2"x4" and 2"x8".
- Lumber is a commodity product and as such the company is a price-taker in the market.

Costs

- The government leases tracts of land at an annual price that is set to allow for a 12% profit margin for the entire logging industry. Thus, all tracts of land have the same lease price per acre.
- The leases last for 99 years and the original lessee has the right of first renewal on the lease.
- The company has a 5% cost advantage in its "tree-to-dock" production process. There is no significant difference between the distribution costs among the industry firms.

Profit/Revenue

- The profit equation for the lumber industry can be written as: Profit per ft³ = Revenue per ft³ - Non-land cost per ft³ - Lease Cost per ft³
- There is a revenue advantage for the company due to its product mix.
 - Margins are higher on 2"x8" boards than on 2"x4" boards.
 - The company's product mix is made up of a greater percentage of 2"x8" boards than the "typical" logging company percentage.

Production Process

- The cost advantage is not generated by a better logging process (i.e. better equipment, more skilled laborers) but instead exists because of the exceptional quality of the trees on the particular piece of land that the company leases. The mineral content of the land leads to faster growth of healthier trees, which improves both yield and turnover. Healthier trees are straighter and easier to cut, thus reducing costs in each phase of the logging process. These healthier, taller, straighter trees yield more 2"x8" board feet than is typical and leads to the advantaged product mix. There are no significant economies of scale to the process.

Solution:

- The company leases land with a significantly higher quality of trees. This leads to a revenue advantage because more 2"x8" board feet can be produced per acre of land. Additionally, there is a cost advantage because the higher quality inputs make the logging process easier and increase yields and turnover.
- Since the leases are for 99 years and renewable, the current situation seems sustainable.
- Since it is unlikely that another piece of land similar to this one exists or that another firm will give up advantaged land, the situation is not replicable.

CASE 45: CURE FOR COMMON HEADACHES

Firm: BCG

Category: Problem framing and structured thinking under pressure

Question (posed by the interviewer):

Your firm just discovered a breakthrough formula for common headaches. What would you do now?

Information to be given if asked:

- You are the CEO of this firm and your firm is a large MNC (multi national corporation).

Product

- The product has passed the first round of in-company testing very successfully. We are highly confident that it will provide the masses instant relief from almost all types of headaches. This is a unique discovery, and no existing product comes close to it in terms of effectiveness.
- Almost the same answers to all other questions – “Please make a reasonable assumption”
- No tables and no graphs

Solution:

Test structured thoughts: What is critical – given the limited time, the candidate should first outline a high level picture (set the scope) and then probe the details of each section making reasonable assumptions and displaying their knowledge of frameworks and tools.

- One example of setting such a high-level outline is to explore:
 - Company’s current status
 - Impact of new discovery
 - Feasibility of product’s market success
 - Next steps for the firm
- Having done something akin to the above the candidate should be able to proceed on the detailed analysis by leveraging some frameworks like Customer/Competitor/Company analysis, Internal/ External elements, SWOT, Cost revenue and profitability etc make necessary assumptions like implications of FDA regulations, patent protection, clinical testing success, competitor response etc

Summary:

- Essentially, the candidate needs to provide a structure to the problem, flesh out issues with probing analysis and produce a clear next-steps summary for the firm is the winning solution.

CASE 46: CHEMICAL SWEETENER MANUFACTURER

Category: Customer Analysis

Question (posed by interviewer):

Your client manufactures a chemical sweetener used in beverages and other food products. The chemical will come off patent in one year. You have been asked to predict what might happen to the profitability of this product when the product comes off patent.

Information to be given if asked:

Product

- This is the only product of its kind, in terms of taste and safety (lack of harmful health effects) as proven in lab tests.
- The brand name of the product has slowly become a common household word.

Customers

- The largest two customers (75% of your sales) are two worldwide beverage companies.
- The companies feature the brand name of your client's chemical on their product, and consider it a sign of quality.
- The cost of the chemical sweetener represents 1.5% of their total costs.

Costs

- The costs to manufacture the product are extremely low (about 20% of the price of the product).
- Currently, the margins on this chemical are almost 40%.

Solution:

This is a classic customer analysis problem. While most products that come off patent quickly drop in price (e.g. pharmaceuticals), this product will be able to retain some of its premium due to the strong brand name. Because the major two customers feature the chemical name on their product, and because the chemical represents such a small portion of their total costs, they can be expected to be willing to continue to pay the premium into the future. Therefore, the outlook for the product is good even after the patent expires.

CASE 47: AUSTRIA STAR MOBILE WIRELESS LAUNCH

Firm: DiamondCluster International

Category: Miscellaneous

Question (posed by the interviewer):

It's 2:30 a.m. and you are finalizing some last details to launch a new wireless telecommunication service in the smallest market of seven in Austria. For the client, Austria Star Mobile (ASM), it will be their first launch of seven potential launches in Austria and they want it to be a flawless and successful in order to raise capital. Your team has just finalized the pricing strategy and ordered 100,000 pieces of promotional material when you get a call from the CEO of Austria Star. The CEO says he was just at conference in Singapore with the president of the incumbent wireless provider, AT&M, who says that they will beat the price of any new entrant in Austria by 10%. The CEO of Austria Star wants to know how they should respond to this news. What do you do?

Information to be given if asked:

Current Industry Structure/Marketshare

- AT&M currently controls 100% of the entire Austrian market for mobile and landlines and 30% of the cable television market and operates extremely profitably with all these products.
- Two other mobile providers will enter the market 6 months after Austria Star.
- The market is growing at 20% p.a.

Competitive Information

- AT&M is known to have thorough coverage of Austria, but is known for busy lines, dropped calls, and haphazard service.
- AT&M's rates are a flat €10 per month plus €0.40 per minute, or flat €30 per month and €0.20 per minute, flat €60 per month and €0.10 per minute.
- Your team has spent the last three months developing a highly flexible pricing model. The model suggests that the optimum rates *ex ante* would be 15% less than AT&M and use the same three-level prices.
- AT&M's price cut would be for the entire Austria market, not just this region.

Costs

- Mobile telecommunications is a high-fixed cost, zero marginal-cost business.
- The cost structure of all providers is essentially the same (start-up costs, operating costs, licensing, etc). Incumbent providers generally have a customer acquisition costs that are 25% lower than new entrants do (acquisitions cost average €100 in other launch markets outside Austria).

Products

- Austria Star will launch with the latest 3G (broadband) technology that transmits data 2x faster than AT&M's network.

Other information

- The managing partner on the account is on vacation and can't be reached for three days. However, you teammates can be reached immediately.
- The CEO of Austria Star is on route to Austria and will arrive at his office at 9:30 a.m.

Solution:

The thing to recognize is that Austria T&M (the incumbent) is signaling that they will defend the market at most any cost (they are dropping rates in the entire country not just this market). This makes price-based competition is less appealing and differentiation is more important.

Most importantly, the interviewee should establish a clear program for communicating to the CEO and with her staff. It is important for the interviewee to address what the CEO must be thinking and keep the CEO comfortable. One suggestion is to keep the CEO busy addressing the issues most important to her, whilst you and your team address the pricing issue. As manager how do you motivate your team to re-examine the pricing issue? What do you communicate to the partner?

Summary (*Paraphrase based on elevator test*)

This is startling news and effects a lot of people! I think something that we need to do is divide this up so that we can have an outline of a solution and communications plan by the time you arrive. What I would suggest is that I will convene my team right now and work out some alternative pricing strategies and their overall impact. Are there people that you think need to be at the meeting? Who would you like to have make contact with those people?