The University of Chicago

Graduate School of Business

Management Consulting Group

Casebook 2004-2005

The Student's Reference Guide to Practicing Consulting Case Interviews

The University of Chicago GSB

Management Consulting Group 2004-2005

Contents

Introduction

WHAT IS CASE INTERVIEWING?

Case interviewing is the preferred form of consulting firms to screen candidates. The reason for this is that consulting firms depend on employing flexible and dynamic people who are able to interact extensively with colleagues and clients in varied environments. The case interview is an efficient, but imperfect way to quickly evaluate candidates for their abilities including analytical skills, knowledge, leadership, and communication.

Many times the case you will be given is from the actual experience of your recruiter and may sometimes be the very case they are themselves working on at the time. Do not expect that there is an answer to every case that you receive as you are evaluated for your ability to determine the key factors influencing the situation you are given. Sometimes you may be asked to develop a potential solution, but in many cases you only have time to evaluate and identify key areas that influence the problem.

The cases you receive may be very different from those of the other candidates due to your personal background and experience. If your background is perceived to be weak in one area, although you receive the same case as another candidate, the interviewer may try and evaluate your ability in that skill.

Remember the case interview's purpose is to evaluate your abilities as a consultant and not an interrogation.

HOW TO GET THE MOST OUT OF THE MCG CASEBOOK

The Management Consulting Group Casebook is one of the resources that you find available to you here at the GSB. In order to prepare you for the upcoming recruiting season you should use it in conjunction with the other resources offered by the MCG, Career Services, and the firms themselves. The MCG Resource Guide touches on many of these available resources and provides a sample timetable of what to do on your road to the Consulting Case Interview. Attending case workshops and other events sponsored by the Management Consulting Group are intended to supplement the information in the Casebook.

To best utilize this casebook, we recommend that you use these cases in practicing with other students be they first or second years. There are many other external resources available that will help you start practicing on your own including offerings by **Vault Reports** and **Wet Feet Press**. These offerings can be found in the Career Resource Center at Edelstone and is suggested as an excellent means to start practicing on your own and become familiar with case interviews. Unfortunately the cases included in these books were not as useful for group practicing, which is viewed as the most effective method to preparing for case interviewing by prior students.

WHAT'S NEW IN THE MANAGEMENT CONSULTING GROUP?

The Management Consulting Group's web page is a good resource for links to other resources. The site will be updated regularly to provide you with the most up to date calendar of events sponsored by the Management Consulting Group or events that relate to consulting at the GSB.

The MCG site will also be used this year to allow for continuous improvements to the Casebook and Resource Guides. As these guides are printed on paper during the summer, many changes in consulting may not be captured. To better prepare you for these changes be they in Cases or within the industry, supplements will be available for download if these become necessary.

The Management Consulting Group will also be sponsoring a fall lunchtime series, which will present many frameworks that may be useful in preparation for case interviewing. Selected GSB Professors or invited Consultants will present these sessions.

ACKNOWLEDGMENTS

The 2004-2005 MCG Co-Chairs wish to thank the following organizations and individuals for their assistance and support:

- Past MCG Co-Chairs who helped compile many of the cases currently included
- Members of the MCG, past and present who have contributed to many cases and the frameworks in the casebook
- Office of Career Services for their support and assistance
- Office of Student Affairs for helping to make life a lot easier in coordinating all the logistics necessary to operate the MCG
- Current and past Management Consulting Group members who contributed to the collection of cases in this book

Sincerely,

The Management Consulting Group Co-Chairs for 2004-2005

Dan Brenner *Elena Cant* *Sameer Gulati*

Vivian Li *Sean O'Connell* *Samir Shah*

Before you start reading...
Please understand that this resource guide is based on the <u>opinions</u> and <u>insights</u> of the past and present Management Consulting Group Co-Chairs. Responsibility for any errors, factual or otherwise, rests with the Management Consulting Group and not with other contributors.

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Introduction to Case Interviews

FORMAT OF THE CASE INTERVIEW

As stated earlier the case interview is the most likely form of evaluation you will encounter during your interviews with consulting firms. While preparing for the interviews you will encounter many different opinions on the case interview. Some stories you may hear may make it appear to be an elaborate form of torture to a piece of cake. But as with most things it is somewhere in between and will be easier with practice. Again the greatest comment in hindsight by those who have gone before you are that they wished they had practiced some more.

A standard 30-minute case interview format can be broken down as follows:

1. *Greetings / Introductions* (1-2 minutes)
2. *Personal Questions* – Often focusing on your resume or things you have done and were of interest to the interviewer, make sure you have your story down! (5-10 minutes)
3. *The Case Interview* – Now comes the fun part! (10-20 minutes)
4. *Wrap-up questions* – Ask one or two questions that you would like to know about the firm and is also a good time to ask what the next step is and their business card (1-5 minutes)

It is important to remember that each interview is different as there have been cases where during the course of an interview no case was ever asked! In addition sometimes your background is spun into a pseudo-case where they will ask pertinent questions to better evaluate you. Of course on the other hand, there have been interviews where you hit the case the second you sit down – (Bain & Company's first round cases follow this format)

Often interviews will come in pairs, so you may get a case from one interviewer and then receive none from the second. Also do not be intimidated, as some very senior partners of a firm may interview you. This is not intended to put pressure on you, but gives you an idea how important these interviews are to the future of the firm as well.

We've all been through interviews; you went through one to get into the GSB and were successful. So don't but too much pressure on yourself.

PREPARING FOR THE INTERVIEW

Although this guide is primarily intended for preparation for the cases, it is vital that you also know your own story from your resume. This reflects the importance of your resume on the interview, so please take your time in thinking through what you want to put to paper. As it has been found that the firms' usually only look at the first one you submit as it is the one that makes the official resume book that is put out by Career Services. You may bring a new one to the interview, but your interviewer will most likely have already read your resume from the resume book and noted comments.

We strongly recommend that you also take advantage of resume reading activities where career services, alumni, and second years will look over your resume and comment. But knowing your story is very important. The GSB has a reputation for being too geared into the case and not being very polished on their background or story. Thus it is important to not neglect this aspect of the interview, as stated above there are some interviews where the case will NOT appear and will focus the spotlight directly on you!

So when practicing for Cases, it is highly recommended to work in an official style interview where you greet, talk about your background, and then hit the case. There will be opportunities to practice as well through Mock Interviews sponsored by Career Services and others including the MCG. For first-year students this effort will speed up at the conclusion of second-year recruiting.

As you begin practicing cases it is also very useful to seek the assistance of a second-year or other individual who has gone through the process. This will better prepare you for what to expect from the interview as it is naturally hard to practice for something you've never experienced first hand.

CHICAGO GSB

Practicing Cases

PRACTICING THE CASE

Although it is obvious that every business student must devote time and effort to practicing the case interview, it is less obvious where to obtain cases with which to practice. As each person has different backgrounds, your ability to analyze cases differs from person to person.

The following pages provide over 50 cases for such practice. The general format to every case follows a basic four-step exposition: Background, Question(s), Additional Information, and Approach. It must be emphasized that, for any given case, the approach provided represents only one suggested methodology for solving the problem and is by no means intended to be comprehensive or exhaustive. Other solutions may very well occur to you as you work through the case in question. The approaches are supplied to give you an idea of what the interviewer might be looking for. It is worth reiterating that the most important qualification for succeeding in the case is clarifying your thought process and communicating the results persuasively, not arriving at a specific solution.

APPROACHING THE CASE

As you practice the cases you will most likely develop a style that is most comfortable for you. But below are a few basic tips on approaching the case interview, most of which are common sense.

Basic Approach Tips:

1. Take Notes
2. Make no assumptions
    a. Who is our client?
    b. Has the company faced this issue before? If so outcome?
    c. What have other companies done facing this solution?
    d. Has the firm already done any research?
3. Ask Questions… Concise & Logical
4. Remember to listen to the answers you get
5. Maintain eye contact
6. Take your time
7. Lay out a road may for the interviewer
8. Think out loud. Drawing out the problem also helps as consultants are often very visually based.
9. Present thinking in a clear, logical manner. Where useful use frameworks and business concepts to organize your answer.
10. Quickly summarize your conclusions at the end

CASE FRAMEWORKS

As you approach Case Interviews you will hear a great deal about frameworks. So what is a framework? These are methods that have been found to be useful in structuring your thought process. Many of the models and concepts are right out of classes such as marketing and economics.

The benefit to following a framework is that it provides a logical flow to your story when analyzing the problem. DO NOT fall into the trap that there is a framework that will solve every type of case or that you need to follow a framework to be successful in "cracking" the case. Many cases you will encounter are specifically scripted to tempt you to try and follow one of the standard frameworks and draw you into a lengthy discussion that will waste valuable time.

A common method of effectively using frameworks is to understand and integrate them into your personal methodology of approaching the case.

The MCG will be sponsoring several events this fall that will focus on providing you with more in-depth discussion on the basic frameworks.

Basic Frameworks

The following are methods that will work with most any case:

- Cost-benefit analysis – Basic microeconomics and strategy concepts
- Internal verse external market factors – Strategy and marketing concepts
- Fixed verse variable costs – Microeconomics concept
- Opportunity Costs – Microeconomics concept

Porter's Five Forces (Strategy)

- Before any company expands into new markets, divests product lines, acquires new businesses, or sells divisions it should view the 5 forces.

    1. *Potential entrants* – What is the threat of new entrants into the market?
    2. *Suppliers* – How much bargaining power do suppliers bear?
    3. *Competition* – What rivalry exists among present competitors?
    4. *Buyers* – How much bargaining power do buyers have?
    5. *Substitutes* – What is the threat of substitute products & services?

Product Life Cycle (Marketing)

- Maturity of the product or service

    1. *Emerging* – Sales gaining, negative profits. Concentrate on R&D and engineering, define product and generate need with little or no competition
    2. *Growth* – Sales increasing, profits becoming positive. Emphasize marketing, manage rapid growth, focus on quality, and expect new entrants.
    3. *Maturity* – Sales starting to plateau, profits plateau. Focus on manufacturing costs, Prices fall and competition increases.
    4. *Declining* – Decrease across sales & profits. High-cost and low-share competitors exist, focus on being low-cost or niche strategy

The Four Ps (Marketing)

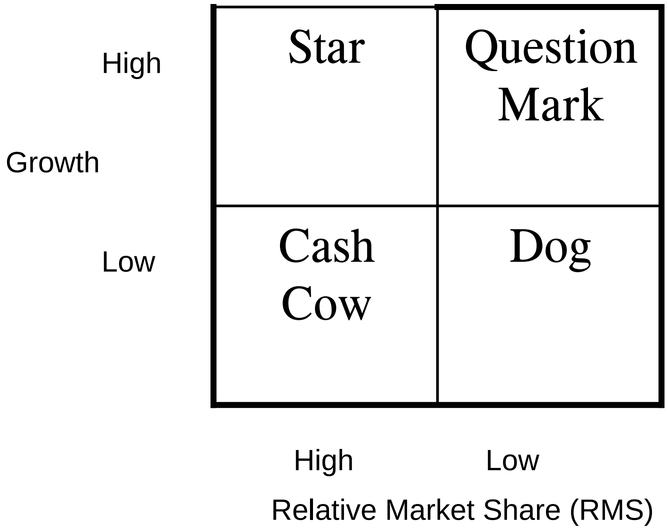
1. *Price:* Predatory or Premium effect.
2. *Product:* Product meets a particular customer need. Or extension of existing products, thus less benefit.
3. *Position / Place*: Physical location is an advantage if superior to competition. Easier to consume for buyers.
4. *Promotion:* What can it do to stand out in category?

The Four Cs (Marketing)

Especially useful for analyzing new product intros and industry analysis

- *Customers*
    - How is the market segmented
    - What are the purchase criteria customers use
- *Competition*
    - What is the market share of the client
    - What is the market position
    - What is the strategy
    - What is their cost position
    - Do they have market advantages
- *Cost*
    - What kind of economies of scale does the client have
    - What is the client's experience curve
    - Will increase production lower costs
- *Capabilities*
    - What resource can the client draw from
    - How is the client organized
    - What is the production system

BCG Matrix - Market Share vs. Growth Rate (Marketing)



A CASE INTERVIEW EXAMPLE

Case Title: Jams & Jelly Company

Background: Our client is a jam & jelly manufacturer in the New England area. They have experienced a drop in profitability over the past few years.

Question: Why has profitability fallen?

Available Information:

- Profitability decreased 2 years ago.
- Firm is a single store operation. Niche player so no major competitors.
- Product is a premium jam / jelly product line.
- Small operation, with no new capital, labor, operations investment expenditures in the past few years.
- Revenues have increased
- Volume has gone up
- Prices have stayed the same
- Product mix has stayed the same
- No changes in direct material, labor, overhead. But transportation costs have risen.
- Transportation change was instituted a little over 2 years ago (26 months ago).
- Shipping was done to allow for sales in New York and Boston.

- Another local firm does the distribution. They are charging us at the rate of transportation, no profit for them. We pass these costs on to our customers.
- Bad products are returned with a full refund.
- Jellies and jams go bad with low temperatures.

Approaches:

Interviewee 1	Interviewee 2
• This sounds like a profitability case. I'd like to break this initially into revenue and cost issues. I would guess jams & jellies have a relatively stable cost structure. So I'd like to start with revenues. • When did profitability drop? • Starting with revenues. What's happening with revenue trends? • Is it because volume is increasing or price? • Why is volume increasing? • Are they selling a same mix of jellies? • Interesting, I'd like to switch over to costs. • Variable costs change in direct materials? Direct labor? Overhead costs? Transportation? • Why have transportation costs increased? • Why did you change distribution and when? • Tell me more about the distribution? • Is there anything different in what he sells versus our jams & jellies? • Is the freezer method affecting our jellies? • What happens when our customers don't like the product? • I would suggest stopping this method of transportation as it is spoiling the jellies during the distribution.	• Interesting. May I ask for some clarifying information? • What are the products sold? • How big is the firm and how long have they been in business? • Who are the major competitors? • I will be approaching this case by analyzing the market dynamics and following with profitability analysis. • Starting with market dynamics. Is the overall market declining? • Who are their competitors? • Looking at their costs quickly I want to confirm no changes to variable cost structure. So any changes in operations costs? Labor? Product raw materials? New capital improvements? • Has the product pricing decreased? • Switching gears, have they seen a change in their product sales, say the mix? • So have sales increased? • Has volume increased? • So product and prices have not changed? • No advertising cost changes? • How do they sell the product? • So they sell products to New York and Boston as well. Do these products cost more to distribute? • When was this started? • Interesting… So they started sell

	products a little over 2 years ago. • I would state that the problem is in this distribution program? • So how is this shipped? • How much does this cost us? • What else is shipped with our products? Is it making our products go bad? • I would state that the freezer is definitely the wrong means to transport. • I suggest ceasing this method and investigating into an alternate means of transportation.

Wrap-up / Analysis

Interviewee 1	Interviewee 2
Attacked it from a profitability angle, as the question appeared to lend itself to this approach. Was looking for inconsistencies in the revenue or costs, which were resulting in the lowered profitability of the company. Keyed into the new change in distribution as a potential cause and found it was the root of the lowered profitability.	Attacked it with elements of the 4P's and profitability. These allowed for a determination of what the market was internally and externally for the firm.

The key thing to take away from this example is that there are many ways to approach a case. By no means should you take either example as the "right" way to approach these cases, as there is no definitive right or wrong way to "crack" the case. What is important is that your approach is logical and structured.

GIVING A CASE

The student giving the case (interviewer) plays a critical role in the case practice sessions. An interviewer who is not well prepared or who is not looking for the right strengths/areas of improvements cannot add a lot of value to the practices. In this section, we will give some pointers that will help the interviewer evaluate/conduct case interviews effectively.

Tips for the interviewer

- Read the case prior to the practice session and have a good understanding of the business problem and industry
- Be serious – a jovial or overly friendly interviewer is rarely reflective of real world
- Do the calculations before-hand – be ready to help the candidate if she is totally off.
- Evaluate the candidate along the following lines:
    - Structure – Does the candidate have/follow a structure while tackling the problem? Is the structure relevant to the case being analyzed? Does the candidate have a structure that is both concise and flexible?
    - Quantitative/Analytical ability – Is the candidate comfortable with numbers? Does she break down ambiguous problems systematically?
    - Issues/Prioritizations – Does the candidate quickly identify a list of issues that are most relevant to the business problem? Can she prioritize/organize the issues or is it more like a laundry list?
    - Energy/Presence – Is she comfortable with the case or is there a sense of "oh no, not this kind of problem"? If the candidate gets stuck on a particular issue, does she recover gracefully?

Fit – This depends on specific firms. We list below potential characteristics of the popular firms:

- Bain & Company: Hypothesis driven – The candidate should quickly analyze facts and make a hypothesis. She should then drill down to see if the hypothesis is true or should be modified. Finally it is very important that she gives actionable recommendation.
- Boston Consulting Group: Intellectual curiosity & prioritization of issues. While the candidate should be structured, she should demonstrate out of the box thinking.
- Booz Allen Hamilton: Booz is big on microeconomic concepts MR = MC, supply/demand etc. Evaluate the candidate on her micro skills. Candidate should also definitely ask questions to understand industry/business trends (this is true for all firms, but with Booz you get dinged if you forget this part).
- Deloitte Consulting: Focus on operational issues. Candidate should never make a recommendation without thinking about how it is going to be implemented.
- McKinsey & Company: Big picture, Big picture, Big picture. Evaluate her on numbers, but it is vital that she lays out all the issues systematically. The issues should be mutually exclusive and collectively exhaustive (MECE). Candidate should never rush into a hypothesis or probe details (quite the opposite of Bain for example)
- ZS Associates – Quantitative ability is a big deal with ZS – so the candidate should demonstrate extra zeal for linear equations, numbers etc.

- Give critical feedback – it is always good to stress what she did well in a case, but follow it up with areas of improvements. It is useful to quantify (on a scale of 1-5 along structure, quantitative/analytical ability, issues, recommendation, curiosity etc).

An example on how to give a case based on information in the case book – Airline call center

Consider the following case:

AIRLINE CALL CENTER

Background

Our client, Airline A, is one of two airline companies (duopoly) in Australia. Both companies are identical in every aspect (brand, price, etc.) and have a 50%, 50% market share. For year X, Airline projected revenue of 200MM. An audit of their projected revenue for the year (in November) reveals that their revenue for the year has actually dropped to 180MM. A 20MM reduction!

Questions

What happened and how can we rectify the situation?

Additional Information

No new competition or regulatory changes
No major changes in customer behavior or segments
No new substitutes
Same prices / promotions by both airlines
Same in-flight services by both as last year
No new organizational changes or new investments
We sell tickets through agents (20%) and through call centers (80%)
Client decided to sell holiday packages in addition to tickets
Call time increased to 3 minutes. Each call center has 20 operators. Old time 2 minutes

What follows is a dialog format of the case**, I: Interviewer. C: Candidate**. Note how the interviewer gives the data in a logical format as opposed to expecting the candidate to ask specific/exact questions.

C: I'd like to look at why revenue is declining.

External: I would like to understand changes in the customer or the Australian market that happened during the year, including possible externalities. Then I'd like to also understand how our competition (Airline B) fared and any strategic changes that they had during the year.

Internal: I'd like to look at the company, specifically any new investments, organizational changes, price drops, or marketing campaigns that the company undertook.

I: *Sounds good* ***(Note down the structure – see if the candidate is following through with this structure as the case progresses.)***

C: Let me start with the external factors. Were there any changes in the Australian Airline Market – new competition, regulation, or big consumer trends that I should be aware of.

I: *Everything was just like last year*

C: How about substitute products – cars, trains, buses, etc – Did gasoline become cheap?

I: *No*

C: What about our competition, did they ….

I: *Our sources indicate they have gained market share, ~20MM.*

C: Hmmm, our loss has gone to Airline B. You mentioned that we were identical in the number of flights, brand, price, delays, etc. Has anything changed over the last year.

I: *Everything is the same as last year.* ***(Strong clue to candidate not to go down the path of 3-C's)***

C: So there were no strategic changes made by Airline B.

I: *None.* ***(Candidate seems to want to find something at the macro level --- should remember to give her feedback to move along faster)***

C: Now, how about the in-flight service that we provide to our customers ….

I: *No change.* ***(Pretty exhaustive and creative search of issues – positive)***

C: Is it possible that we are attracting a new segment of customers that alienated our past customers.

I: *Our average customer segment has not changed.*

The terse answers by the interviewer must give a clue that the problem is not external. Candidates should be instructed to never assume that the interviewer is rude if he is terse, but instead take that as a clue.

C: Ok, let me shift to internal factors. Were there any organizational changes, operational changes in our company?

I: *No*

C: How about new investments.

I: *Nothing that we don't normally do in other years.*

C: No changes. Revenue has dropped. Number of tickets we sell is less – Well through what outlets does the client sell tickets?

I: *Through a call center and through travel agents.* ***(The goal is to try and lead the candidate to this point within 5-10 minutes. An outstanding candidate would get to this point in 5 minutes if she had prioritized the issues based on the situation. It is unlikely that customer preferences/segments changed drastically, so perhaps she could have gone through the above questions a little faster)***

C: Did we have any marketing campaigns/promotions to increase sales through any of these outlets.

I: *No changes with the travel agents. For the call centers Client did include a new feature. Client felt that Air travel should be sold as a package deal – car, hotel, air travel. So they aligned with some partners to provide the package to customers.*

C: Is it possible that customers are dissatisfied with say the car rental or the hotel and reflect the dissatisfaction on us?

I: *Our Client was extremely careful in selecting their partners. In fact customers are extremely satisfied with out deal and our customer satisfaction rating has increased.*

C: Hmmm. How about the average call-time? I'd suspect that it has increased.

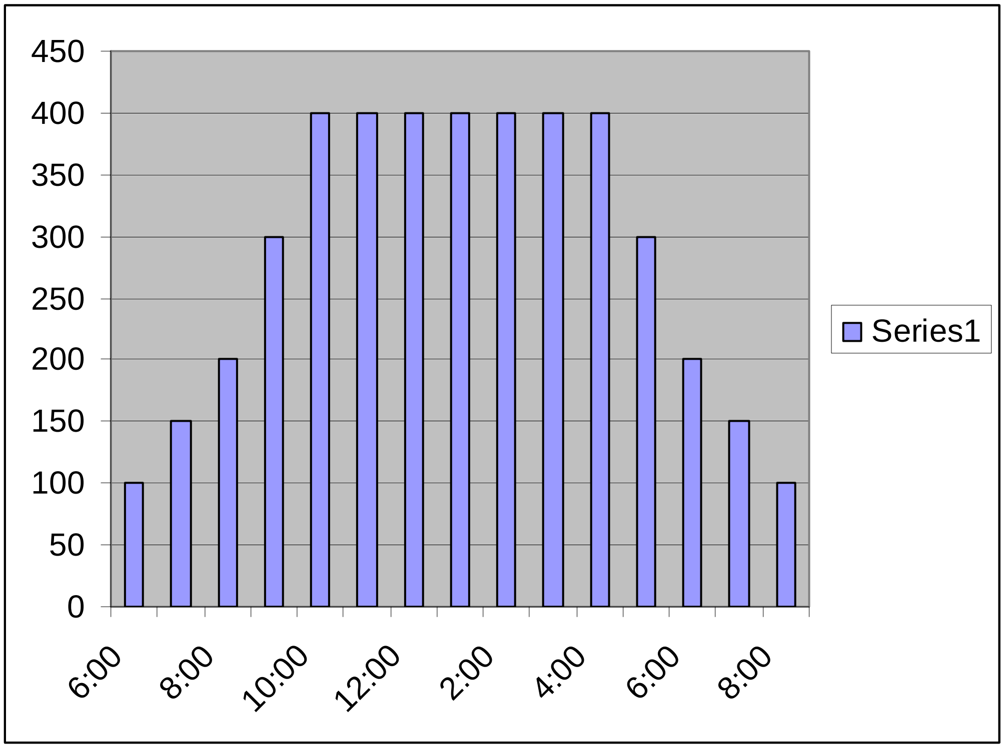
I: *Call time has increased to 3 minutes.*

C: Did we increase the number of operators?

I: *No*

C: So it's possible that our clients are trying to reach us, but get queued and leave …

I: *Possible. Unfortunately the call center managers are not very sophisticated and all that they could provide is the following graph showing the calls per hour for each hour of the* *day*. ***(Nice way to test analytical skills – rarely do interviewers give out facts in a plain form as given in the 'additional information' section)***



C: One thing I note is that the calls flatten around 10:00am at 400 calls. It's unlikely that consumers come in at the same rate from 10:00am – 5:00pm. So perhaps we have queuing during those houses due to capacity constraints and some customers leave.

I: *Good hypothesis – how will you verify that this is true?*

C: Is the call center reaching capacity, or alternatively how many operators they have?

I: *Each center has 20 operators*

C: Each call takes 3 minutes, so in an hour each operator can take 20 calls. 20 operators means 400 calls per hour – so they are indeed at capacity.

I: *Very good, but are you sure that this is the cause of a 20MM drop in revenue – If it is indeed a capacity problem it can be easily solved. But I don't want to look like a fool before the board if I suggest this solution and it does not work. (**Push the candidate and see how comfortable she is with the analysis)***

C: Well 20MM is a huge number, but it is 10% of the revenue. Consider a possible scenario where we had infinite capacity and let us assume that the calls increase till 2:00 and follows a normal distribution.

I: *Fair enough, what are you getting at?*

C: If I complete the bar graph to peak at 2:00 we can fit another 1800 calls (Area of triangle = ½ * 6 (base = 6 hours) * 600 (ht of triangle at peak is 600 calls, assuming linear rise and fall)). This is around 40% of the existing total calls. So I'm fairly confident that this capacity constraint, if it exists in all centers, could account for 10% reduction.

But ….

I: *But, What? (**Great Quantitative skills !!!**)*

C: I'm assuming that customers who leave the phone go to our competition – they may go to travel agents, so we may not be losing all of our customers.

I: *Great point. McKinsey found out that the yield with travel agents was far less – so we actually lost customers in total. Great job! Any questions about McKinsey? **(Note the out-of-box thinking and give her extra credit for the thought**)*

Feedback:

Pros: Good structure. Great analytical & quantitative skills. Creative and probing.

Cons: Must learn to listen to the question and answer pattern to pick up clues not to spend too much time going down a different path. Must also learn to be a little quick with the questions – prioritization can help.

Basic Case Interview Categories

WHAT CATEGORIES?

There are many types of categories, but most can be grouped in general categories focusing on different areas of business. These are as follows:

1. Profitability / Profit Improvement
2. Industry Analysis / Market Sizing
3. Market Expansion / New Product Introduction
4. Pricing
5. Investments / Strategic Acquisitions
6. Guesstimates / Valuation
7. Miscellaneous

Most of the cases given are often a mix of these basic categories.

In the following segment these areas will be introduced with representative questions.

PROFITABILITY / PROFIT IMPROVEMENT

Profitability cases often require you to analyze a situation and determine potential reasons for the client's drop in profits. This will test your understanding of product portfolio mix and several other factors.

Examples:

1. How can a mid-size domestic airline regain profitability?
2. How would you evaluate the profitability of a major accounting firm? What are the best measures?
3. A CEO of a supermarket chain, whose profit margin is declining, contacts you. Why? Assess the situation.
4. Your client is the National Beef Board. The board wants to know if its advertising campaign has been successful. How would you evaluate the campaign's performance?
5. Over the past few years, the client, a retail bank has gone from one bank in one state to eight banks in eight states. All of the banks are operated autonomously and the company as a whole is losing money. Specifically, four individual banks are losing money. The parent bank has tried to mandate cost reductions and has

formed committees with representatives from each bank to address these problems.

6. You are working for a firm whose bottom line is declining and senior management thinks it is because of transportation problems. What would you do?
7. Your client is a manufacturer of large jet engines in the U.S. with 40 percent of the market. There is one major U.S. competitor and one potential Japanese competitor, who will not be able to enter the industry for 10 years. The U.S. competitor's prices are below those of your client, and the major purchasers of jet engines are the commercial airlines. What strategy would you advise for your client?
8. Profits are declining in a firm in the trucking industry. Why? How would you fix the problem?
9. A national retailer has low profits. Its competitors are small, regional, specialty stores. What would you review to improve the situation?
10. A manufacturer makes "flooring" for sports courts; i.e., basketball courts, gyms, etc. The floors are made of maple wood. The company has four national competitors and has a 15 percent market share, but it remains profitable with 16-18 percent ROE after taxes. How can the company increase profits?
11. A company is in the railroad freight business and they own the railroads. Profits are declining. What are the key areas you would examine to understand why?
12. A company makes rubber grips for golf clubs and has stagnant sales. The company is profitable, but wants to know how profits can be increased.
13. A manufacturer of communications equipment is losing share and its profitability is declining. The cost side of the business has been analyzed and there are no cost savings. What about the revenue side?

INDUSTRY ANALYSIS / MARKET SIZING

These types of cases often require you to analyze your client and recommend how they should respond to changes made by their competitors or the marketplace. Industry analysis / market sizing tests your analytical ability to understand internal and external market factors and microeconomic concepts of supply and demand.

Examples:

1. An insurance company, which used to be profitable, has been losing money for the last couple of years. Assess the situation. What could be the cause?
2. What are the potential problems you should consider if a Japanese billionaire asks you about the viability of franchising an NFL football team in Japan?
3. A company with 1,200 sales representatives throughout the U.S. and superior merchandise offerings is experiencing a decline in sales. What can it do to recover sales?
4. Your client is a motorboat engine manufacturer. A competing engine manufacturer has just purchased a pleasure boat maker to begin selling a complete product. What should the client do?

5. Your client is a cash register maker, a U.S. subsidiary of a Japanese firm. The registers are made in Japan. U.S. profits are plummeting. Why?
6. Your client is a cellular phone network company. The industry is a regulated duopoly. There is high churn in the market, 2-3 percent per month. The market is projected to have a net growth of 40 percent. The client wants to better understand the dynamics of its customers and the market. What would you examine to address these questions?
7. I am a manufacturer of railroad cars in a declining market. The firm is losing market share and money, but thinks that the industry may rebound in the near future. What should I do?
8. A regional Bell operating company is considering entering the phone book publishing business. Growth had been 15 percent for five years following the divestiture and deregulation, but it has now stalled. The client wants to know how you would evaluate the situation.
9. Your client is a manufacturer/distributor of disposable hospital gowns. Industry sales grew quickly until two years ago, then leveled off. Half of the hospitals say that cloth gowns are more economical; while the other half believes that disposable gowns are the better choice. What should the client do? Part II: Given that the cost advantage for cloth is 3.75 to 1 in favor of cloth for non-customers, what are the strategic alternatives available to the firm?
10. What are the concerns of the Dean of the Business School?
11. Your client is Domino’s Pizza. You've just heard that Pizza Hut is entering the home delivery business. How big a threat is this for Domino’s?
12. What are the differences between beer distributors and groceries distributors?
13. A beer company has asked you to review the beer industry, taking into account all the changes in drinking habits & new product introductions. Assess the future market and discuss what strategy the company should pursue.

MARKET EXPANSION / NEW PRODUCT INTRODUCTION

This type of case involves your ability to recommend a strategy to enter a new market or bring a product/service to market. This type of case strongly tests your ability to analyze the competitive landscape and the client’s core competencies.

Examples:

1. An East Coast tire retailer is looking to expand in the Midwest. The retailer has the largest (15 percent) share in its existing market, with three competitors who each have 10-12 percent share. The rest of the market is fragmented among independent service station-type outlets. Assume that the Midwest market share distribution is similar, except that the client’s current market share is proportionately distributed among the existing operators. The client has retail-only outlets. The other principal competitors also operate service bays at their outlets. Assess the factors related to the expansion. (Issues to consider: What are the underlying economics of the business? What are the principal factors affecting customer purchase decisions? How price-sensitive are customers? What are the cost structures of the various types of retailers? What are the likely competitor reactions? What are the benefits to a market expansion?)

2. What is your understanding of the organizational structure of the consulting industry?
3. A large glove manufacturer with one major competitor sells product to department stores and wholesalers. How would you assess the competitors' revenues and costs?
4. Your client is an investment company that provides various services (e.g., CDs, IRAs, and Mutual Funds) to individuals. The company is thinking of expanding into Europe. A) Should it undertake this expansion? B) If yes, and given that transaction processing is very computer-intensive and the firm's United States office currently has excess capacity, the company wants to know if it would be a good idea to do the "back-room processing of paperwork" in the United States?

PRICING

This category will test your ability to access your client in relation to competition and may require the ability to "guesstimate" the value of the service/product in the marketplace. The key to this type of case is your ability to understand the basic cost-benefit relationships and microeconomic concepts such as fixed vs. variable costs.

Examples:

1. The 14th century inventor of the telescope wants to know: 1) What is the market for his good, and 2) How to price it? (Hint: Identify uses for product and corresponding user segments.)
2. How would you price and sell services in the consulting industry?
3. Your client is a symphony hall. Revenues at performances are declining. Given that the symphony hall's goal is to maximize exposure while covering costs, what should be done?
4. Why are airline prices so volatile?
5. The production of phone books is essentially a monopoly. There is unlimited production and prices have bounced around in the past. The client wants to know a base price, lowest acceptable price, and prices it could charge various customers. How would you go about pricing an ad for the yellow pages?
6. Part I. How would you price milk? Part II. Your client is an organic manufacturer of milk; how would you advise your client to price his product?

INVESTMENTS / STRATEGIC ACQUISITIONS

These forms of cases will ask you to help determine whether or not a specific acquisition or merger would be advisable for the client. This type of case will often occur in identifying your ability to analyze supply chains, access the market, and valuation of the particular elements in question.

Examples:

1. Your client is a German manufacturer of metal alloys that has been approached by a specialty alloy firm proposing a merger of the two. The specialty alloy manufacturer sells product to steel makers. The firm has the smallest market

share of four players and has lost money in each of the last seven years, except for last year. The firm's costs have remained constant over the time period, as has its market share. Should your client go ahead with the merger?

2. Your client is a large manufacturer of tractors for agricultural and industrial use. The client is considering sourcing some of its tractors from a competitor. What would you do? What impact would this move have on your manufacturing and dealer network?
3. Your client is a sawmill that logs and processes timber into construction wood. Currently, it is making a lot of money and wants to know how to determine whether it should buy more mills, sell parts of its operations, or do nothing. What would you advise?
4. A waffle factory is at 100% capacity. How can it increase its capacity?
5. A beef manufacturer is thinking of integrating forward and selling branded beef. Should it?
6. A chemical company is trying to decide whether to acquire/expand capacity. How would you advise it? Why? Related Question: How would you structure compensation for an individual plant manager of the chemical company?

GUESSTIMATES / VALUATION

These are questions that require you to be able to logically determine a certain quantity. Often these will not be free standing types of questions, but will be required as you solve a larger case. This could exist as a case focusing on the automotive industry might require you to determine how many tires are sold for SUVs per a year.

Examples:

1. Estimate the amount of tea in China.
2. Estimate the number of airline passenger miles flown in one year.
3. Estimate the number of skis sold in one year.
4. How many light bulbs are sold in the United States each year?

   <u>Possible Answer:</u>

   Assume every bulb is replaced once a year.

   Determine number of households (250,000,000/4).

   Assume 20 bulbs in an average household.

   Triple that estimate for industry usage.

   250,000,000*20*3/4.
5. Value the US as an option of the world and give a numerical answer.
6. Estimate the number of gas stations in the United States.

   <u>Possible Answer:</u>

   If you figure there are 250 million people in the U.S. and one car per four people and maybe 500 cars for each gas station, the answer is 125,000.
7. Why are manhole covers round?

Possible Answer:

They can be moved by rolling, and if they were square, they could fall down the hole.

8. If you were to put artificial turf on all the Major League ball-fields, how many square yards would you need?
9. Why do many vending machines and juke boxes have both letters and numbers?

Possible Answer:

There would be too many buttons otherwise.

10. If you were a product, how would you position yourself?

MISCELLANEOUS

There are many other types of cases that are possible that do not meet any of these categories or are combinations of the above styles.

A major development recently in this category is the advent of the E-Commerce oriented case. These often focus on questions related to the "New Economy" as it pertains to one of the other categories. These cases also intend to evaluate your understanding of the new technologies or trends in the marketplace.

Examples:

1. Our client is a local bank who now is seeking to enter into the on-line banking market. Do you think this is a good idea? What is the potential market for our client and growth?
2. The client is a small startup who is in the on-line independent movie distribution chain. Given recent events in the on-line music industry what do you think is the best means to grow in the market?
3. The client is an accounting firm, whose growth has recently stagnated. How would you think about productivity? What would be the optimal size of the firm? How centralized should its operations be? How should it motivate its professionals?
4. Give me your marketing plan to become a partner, including a timetable.
5. A commercial bank has inefficiencies in its loan operations. Think of the process as involving three steps: 1) Application and approval. 2) Loan money 3) Close loan. What would you look at?
6. Why is the trade deficit an issue for the United States? Why is the budget deficit an issue? What are the implications of both?
7. A major airline with a reservations system is thinking about working with a software developer to add a feature to its system that can track fraud by travel agents. The primary fraud perpetrated by travel agents is backdating tickets (i.e. issuing 14-day advance purchase ticket, 10 days before an actual flight.) How would you advise the airline to evaluate whether they should add this feature?
8. A consumer goods company manufacturing shampoo is having problems at the customer locations with cyclical demand. The marketing, manufacturing,

production, and sales departments are not communicating effectively. Furthermore, a bottle supplier is not meeting demand on time, shipping bottles to us a few weeks behind schedule. How would you approach the situation to produce the right brand and size on time while keeping inventory low and smoothing out the demand cycle?

9. A catalog producer for an L.L. Bean-type company has a mailing list of past customers, about twelve million. Currently, it ships four million catalogues but these are not reaching the right people. Sales per catalogue are decreasing, but sales overall have increased. Determine a strategy that will optimize both the number of catalogs shipped and the target customers receiving them.

TYPES OF CASE INTERVIEWS AND FRAMEWORKS

The Cost-Revenue Model

Profit

Revenue — Cost

(Price X Quantity) — (Fixed + Variable)

Price
- Price discrimination
- Changes in pricing structure
- Viability of pricing over time
- Discounts or couponing
- Competitor's pricing

Quantity
- Customer segmentation
  - New/existing
  - Loyal/ switchers
- Channel restrictions or temporary disturbances
- Changing consumer demands

Fixed
- Capital equipment
- Land
- Buildings

Variable
- Labor
- Materials
- Energy

The "Four Cs"

Market Positioning of XYZ Company

Costs
- Break down the company's cost structure
  - Fixed
  - Variable
- Estimate the competitor's cost structure
- Understand trends in cost structures

Customers
- Segment the company's customer base
  - New/existing
  - Loyal/ switchers
- Examine company profitability by segment
  - How much do they purchase?
  - At what price?

Competitors
- Identify major competitors
  - Traditional
  - Unexpected substitutes
- What are the competitor's strengths and weaknesses
  - Profits
  - Costs
- Investigate market share

Channels
- Identify relative channel leverage
  - Sources of advantage
  - Sustain-ability
- Impact of channel strategies on market positioning

The "Four Ps"

Product	Place (Distribution)	Promotion	Price
• What are the product's differentiating attributes? • Why does the consumer purchase this product?	• How is the product distributed to consumers? • What new methods of distribution are coming available?	• What advertising medium is used to sell the product? • What is the most effective method of "getting the word out"?	• How is this product priced? • How are its competitors priced?
• Unique packaging • "Superior cleaning power" • Affinity marketing — "cool people drink XX"	• Retail store • Warehouse store, Sam's Club • Mail order • Internet/electronic distribution	• Newspaper versus TV versus radio ads • Retail placement — aisle-end displays • New media?	• Value pricing/ "Every Day Low Price" • Premium pricing • Price discrimination

How effective is this product's marketing campaign?

Porter's Five Forces

Barriers To Entry
- Economies of scale
- Capital costs
- Cost advantage of existing competitors
- Barriers to exit
- Patents

Supplier Power
- Number and size of suppliers
- Switching costs/product differentiation
- Availability of substitutes
- Possibility of forward integration

Market Rivalry
- Number and size of competitors
- Industry growth rate
- Product differentiation factors
- Industry margins/pricing

Buyer Power
- Significance of the purchase relative to cost structure
- Switching costs
- Purchase volume
- Threat of backward integration

Substitutes
- Relative price/value of the substitute compared to industry's product
- Cost of switching to substitute
- Buyers' propensity to switch

Value Chain

Suppliers	Design and Engineering	Manufacturing	Marketing	Sales	Distribution	Service
•Cost •Quality •Cycle Time •Technology	•Value Engineer. •Research •Development Timetable •Investment hurdle •Prototyping	•Costs (Labor, overhead, WIP, Capacity) •Process (Throughput, general flow, economies of scale, yield, best practice, utilization, asset base, technology)	•Research •Price elasticity •Promotion •Channels	•Size of sale force •Logistics •Agency systems vs. in-house •Commission structure •Retention/attrition levels •Volume vs. profit	•Margins •Inventory turns •Level of support •Logistics network •Structure of network •Delivery/batch sizes	•Response time •Enabling technology •Labor requirements •Satisfaction levels

Financial Analysis

- Estimate Future Cash Flow
  - Revenues - Costs
- Estimate Discount Rates
  - Look at comparables
- Attain Net Present Value (NPV)
  - Discount future cash flows at appropriate discount rate
- Consider Other Synergies
  - Reasons for go ahead despite negative NPV

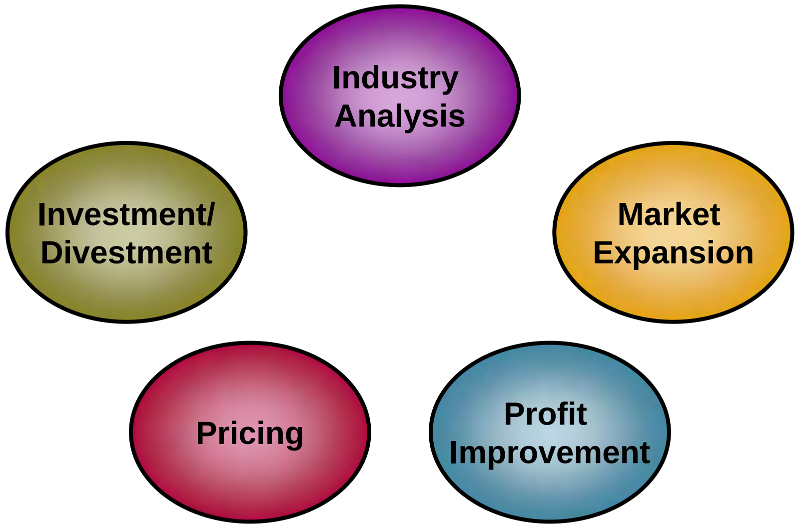
Brain Teasers

- Know Some Basic Statistics
  - US Population: 250 mm
  - Households: 100 mm
  - Employed: 60%
  - Married: 60%
  - Ave Income: 30k per year
  - Income Distribution: $0-25k: 30%, $25-75K: 55%, $75k+:15%
  - Education: High School - 75%, Bachelors degree - 20%

  (Note: All figures are estimates)

  - Elevator Question

Five general types of cases



Industry analysis case studies

Examples

- A manufacturer of automotive batteries is losing market share and profitability is decreasing. What should the company do?
- A leading manufacturer of automobiles is considering acquiring a national rental car company. What factors are important in this decision?
- A group of investors is considering building a 40,000-seat concert pavilion in the Northwest suburbs. What factors should they consider?
- A national provider of in-home health care services is considering purchasing a regional managed care facility with 250 physicians. What factors should our client consider in making this decision?

Industry analysis case studies

Key Points Candidate Should Explore	
• Market	• Market size and segmentation • Analyze product demand/trends • Customer requirements
• Competition	• Analyze competitive economics • Determine levels of — Product differentiation — Market integration — Industry concentration
• Customer/supplier relations	• Evaluate negotiation power • Identify substitutes • Assess vertical integration
• Barriers to entry/exit	• Evaluate companies entering/exiting • Determine competitor reaction to new entrant • Analyze economies of scale • Predict learning curve • Research government regulations
• Financials	• Identify key financials • Evaluate potential ROI • Assess risk factors of industry • Determine fixed and variable costs

Market expansion case studies

Market Entry Case Studies	Questions
	• U.S. domestic express package company; both air and ground transport capability. Over $7 billion in revenue. Highly profitable. European company suggests they form an alliance to provide service between the U.S. and Europe. Should the client enter the international market? If so, what should the client's strategy be? How should revenues be split? • European manufacture of confectionery products wants to enter the U.S. market with premium product line. Should the client consider entering the U.S. market? • A national retailer has approached our client, a manufacturer of fast-moving consumer products, and asked them to consider manufacturing a private label product line for them. The manufacturer is burdened with excess manufacturing capacity, so the proposal looks attractive. What factors should management consider in making the decision?

Market expansion case studies

Key Points Candidate Should Explore	
• Size of market	• Identify data sources for market size • Understand growth trends
• Understand competitors	• Identify current service providers • Evaluate strengths/weaknesses • Estimate competitors' cost structure
• Analyze customer needs	• Identify key customer segments and respective needs • Identify gaps in current services • Discuss cost-benefit trade-offs
• Assess client's capabilities	• Identify client's strengths and weaknesses • Compare client capability to competition • Understand client's cost structure • Determine potential competitive advantages
• Understand economics	• Project expected revenue and costs • Estimate capital expenditures • Perform sensitivity analyses

Profitability case studies

Examples

- The U.S. subsidiary of a French spring water bottler is experiencing a drop in profits. Why?
- A Japanese automotive components (brakes, shocks, struts) manufacturer with a 12% share of the U.S. market is experiencing declining profits. 20% of the products are shipped in from Japan and 80% are manufactured in U.S. facilities. What might be causing the decline and what actions should be taken?
- A company makes stairmasters, treadmills, etc. to sell to health clubs. How can profits be increased?
- Your client is a consumer products company. The board wants to know if its advertising campaign for their new brand of chips has been successful. How would you evaluate the campaign's performance?

Profitability case studies

Key Points Candidate Should Explore

- Costs
  - Fixed and variable
  - Labor costs
  - Suppliers
  - Materials
  - Plant utilization
  - Quality
  - Economies of scale
  - Distribution
- Customers
  - Price sensitivity
  - Segmentation
  - Cost-benefit trade-off
- Competition
  - Pricing
  - Capacity
  - Basis of differentiation
- Channels
  - Relative leverage
  - Market segmentation
  - Strategy

Pricing case studies

Examples

- How should a major retailer price its services in the electronic and appliance service business?
- Your client is a concert pavilion. Revenues at performances are declining. Given the concert pavilion's goal is to maximize exposure while covering costs, what should be done?
- An inventor of a new athletic shoe wants to know: (1) What the market is for his goods, and (2) how to produce it. What steps should be taken?

Pricing case studies

Key Points Candidate Should Explore

- Identify the type of market
  - Monopoly
  - Oligopoly
  - Perfect competition
- Issues to address
  - Consider what the market will bear
  - Think about the long-term effects of pricing decisions
  - Think how the competition will respond to changes in pricing
  - What is the elasticity of demand? Consider the consumer's sensitivity to price changes
  - Consider methods to create price discrimination
  - Consider using strategic tactics such as creating "loss leaders" or "traffic builders"

Investment cases

Examples

- An automotive manufacturer is considering consolidating three of its East Coast assembly plants into one location. What factors should it consider?
- A German manufacturer of consumer products is considering opening a manufacturing facility in Poland to meet Eastern Europe's growing demand for its products. What factors should the company consider?
- A Midwest-based pharmaceutical company is considering opening distribution warehouses on the West Coast to handle the growing Western territory. What factors should it consider?
- A company of chocolate and confectionery products is considering acquiring a regional soft drink manufacturer. Are the distribution synergies sufficient enough to justify an acquisition?

Investment cases

Key Points Candidate Should Explore
• Sustainability of profits in segment • Market size and dynamics • Competitive position • Product differentiation and standards • Price dynamics • Distribution of costs

Summary of advice on frameworks...

- Understand the objectives of the case interview; clarify issues if necessary
- Use notes and take time to collect your thoughts
- Use a standard methodology
- Think “top down”— big picture first
- Focus on identification of issues, developing and testing hypotheses, and next steps, not just right answers
- Use good communication skills — state and revisit your assumptions
- Be “coachable” and integrate feedback quickly
- Be confident and relaxed
- Read industry journals

From the University of Chicago Casebook Editor:

The cases in the following pages address in detail the multiple skills needed to succeed in the case interview. As such there is no specific order to the cases (i.e. cases are not grouped by functional content or level of difficulty). Rather each individual case should be viewed as equally important and as its own individual lesson. Study groups will find it relatively effective to divide the cases and have interviewers specialize in giving three or four of the cases.

An important goal the new cases stress is for both the interviewer and candidate to develop and refine relationship building skills inside the time conditions of the case interview. (In addition to getting the case right). Thus, it will be helpful if the interviewers specialize in particular cases. Finally, it helps a great deal if the person interviewing you has fund during the process. To that extent as you practice the following cases keep having fun in mind.

Lastly, please take a moment to appreciate all the significant work and energy a group of classmates from the classes of 2004 and 2005 put into writing the cases for a new University of Chicago Casebook.

Sincerely,

Sean O’Connell
University of Chicago Graduate School of Business
Class of 2005

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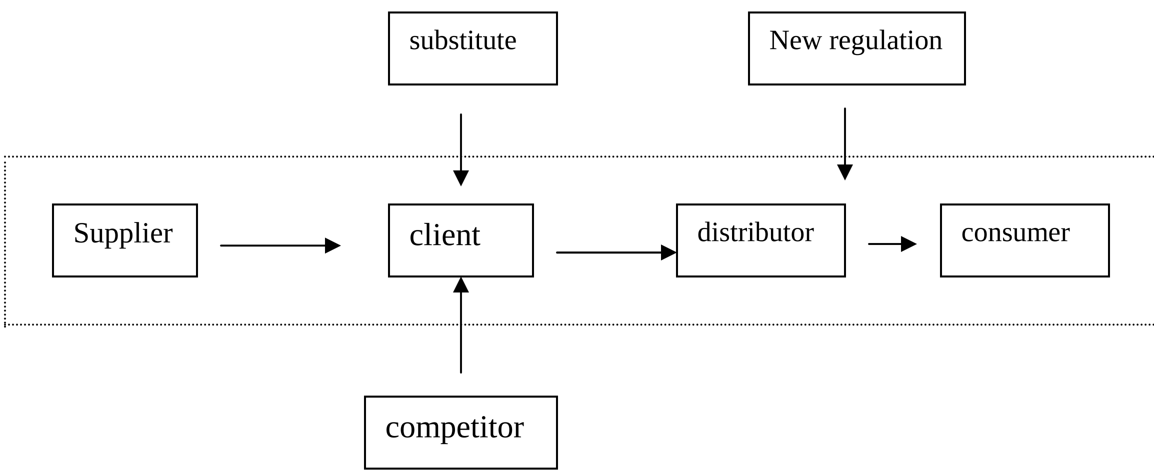
Levin's Strollers

Case: our client is Levin's Strollers, a famous baby stroller manufacturer. They have been in the business for 20 years and know the baby business better then anyone. The company describes the industry as mature and that it typically grows with GDP. Recently, the CEO, Levin, doesn't know why but he just feels something is wrong.

Question: The client, Levin, has hired you to determine if there something wrong with the business?

Structure suggestion: This is a very open ended case. It is essentially asking whether the candidate has good brainstorming and creative problem solving skills. Can the candidate find out what is wrong with the business with basically no beginning info? Thus, an internal and external analysis of the changes of the business is appropriate to analyze the case. A value chain model would be very helpful for this case. Interviewees should focus on the differences of what the client is doing and where the industry or market is shifting towards.



Areas to explore:

Macro environment: the baby stroller business is mature. It generally grows with GDP. Thus that macro environment is not a major issue here. Other factors contributing to demand that the candidate could/should mention as part of brainstorming are natural birth rate and the average duration that a baby utilizes a stroller. A good candidate would identify the fact that babies require different types of strollers as they mature from infancy to toddlers. A good candidate will try to drill down into the type of strollers our client provides.

Suppliers (affecting COGS): supplier terms and suppliers them selves haven't changed much. We have long-term contracts.

Substitute (affecting the price and volume): didn't change much

New regulation (regarding the safety, material, design of the product and etc which might affect the margin and revenue): no

Competitor (actions of competitors could affect margin and steal away market share): incumbent and new entrant – didn't change much

Distributor (increased power of distributor squeeze your margin. Shift in distribution channels could cause us to lose volume/market share): This is where the changes are.
Interviewees should ask following questions:

Where are our client's products distributed: specialty stores and discount stores.

What is the manufacturing cost: $80/stroller

What are prices selling to retailers: $100 to specialty store, $90 to discount stores (Interviewee should work out the profit margin of the client using different channel: (100-80)/80=25% at specialty store, (90-80)/80=12.5% at discount stores). Interview should realize that a shift from specialty store to discount store could squeeze the client's margin.

Then, interviewees should realize the consolidation in retailers and the emergence of larger discount retailers such as Wal-Mart is changing the landscape of distribution channels. Many specialty stores are being and have been forced out of the business by these major discount stores.

Interviewee should ask questions about the composition of sales. Specifically, the interviewee should drive toward identifying the percentage of sales the client derives from specialty store sales vs. discount stores. The answer is 80% and 20% respectively.

A good candidate will ask about historical averages or trends in the client composition. For example, the industry average has moved to 40% sales from specialty stores and 60% from discount stores. Five years ago the average was closer to our clients mix, i.e. it was 40% and 60% for discount and specialty stores respectively. It is true that our client has always had a reputation of selling product thorugh the specialty channel. The problem is quite clear now. The industry model is moving away from our client's specialty and disproportionately to discount stores.

A good candidate will review the problem with the interviewer. The goal as a candidate at this point is to engage the interviewer in a conversation. The candidate should have identified the problem as follows:

1) Market is shifting towards discount stores (due to the increase power of major discount stores).
2) Specialty stores are in turn likely decreasing in number as they get squeezed out.
3) However, our client is still selling 80% of its products in specialty stores. Our client is facing significant risk of losing volume and market share if it doesn't change its distribution channel mix. A secondary problem a good candidate will point our is that our client's margin will decrease if/when it moves towards discount stores.

Consumers: Consumers' purchasing criteria and behavior did not change much except that more and more consumers are buying the product from discount stores.

Recommendations:

The emergence of major discount stores are squeezing out the specialty stores and changing consumer purchasing behavior. Although, the discount stores offer a lower margin, our client may have to shift distribution efforts to the discount stores from specialty stores.

What other options can the candidate brainstorm on? A good candidate will throw out potential ideas such as:

1) Our client should explore other distribution channels – such as catalogue sales and/or bundling and joint ventures with other baby products and companies to cross sell.

2) An out of the box think might suggest something like exploring opportunities of selling through the doctors to new moms at the hospital.

The key to doing this case well is identifying the facts that define the problem. There is no set answer to the problem. The only thing that is clear is that a structural shift has occurred and the client is going to have to alter its previously static strategy to respond. An excellent candidate will find a way to subtly communicate that management of this company has been slow to react to industry. That makes responding now more difficult but no less important.

Elena's Electronics – Growth and Profitability Case

Background

Our client is Elena's Electronics, an electronics goods chain store. Historically, the client has relied on rapid opening of new stores in new locations to increase growth above GDP. However, the client's presence is now so diffuse that it must also look inside for internal growth. The owner of the store has tested a new pilot program for its digital camera division in year 2002. The goal of the test is to test the client's current sales generalist model. Previously, all the store sales agents have been generalists. Each was expected to handle all tasks related to sales and products including client interactions, inventory (ordering), and shelf management.

With the new program, the client interaction function is separated from the other functions and carried out by sales specialists. The motivation is to see if specialists can target customer needs better and thus educate/get to know consumers better and as a result better recommend products to consumers an increase camera sales.

Our client wants us to assess whether or not the program is successful? and whether it should expand the test program to all the divisions of the stores.

Question 1: How would you decide whether the program is successful or not?

Suggested replies:

The candidate should succinctly state the problem as an analysis of a recently implemented new program. The candidate should then lay-out how he/she will analyze the problem: e.g. "I would like to use cost and benefit analysis to analyze the economics of the new program. I would like to find out how much, if at all, the new sales model increased the profit of the digital camera division per store".

A good candidate will get at least three of the below replies. It is crucial that the interviewer take on a client perspective here. The client will be paying significant consideration for our advice. The candidate's setting up the problem quickly in an efficient, confident, expert manner is key to client handling. If the candidate is slow or hesitates in this brainstorming section then respond with clear frustration. On the other hand if the candidate throws out solid ideas including those below and others that they may think of then reward them with positive feedback and clear enthusiasm into their opinion.

Since it is a program related to sales, I would like to look at impact to the morale/motivation of the sales team

- I would also look at the customers feedback. Do customers like the new model better and are we seeing increased traffic in our digital camera division
- Finally competitor response. Have competitors shown signs of watching and/or imitating our program? This provides insight into the success of the program.

Question 2: Good. As you mentioned that you would like to look at the economics of the new program. Why don't we look at this then? I have all the financial statements with me, which number you would like to start with?

Suggested answer: Eventually, I would like to look at the profit per store of the digital camera division before and after the program. If that number is not readily available, we could first look at the revenue per store.

Additional information about digital camera division that candidate should ask:

Rev information

	2001	**2002**
Store number	100	150
Total revenue	32.5mn	47.25mn
Rev/store*	*0.325mn*	*0.315mn* ↓
Total camera sold	20000	45000
Camera sold /store*	*200*	*300* ↑

* Candidate should quickly and confidently work out the rev/store numbers and camera sold/store number

Product information:

Product mix	Profit margin ($/camera)	Quantity sold in 2001	***Quantity/store****	Quantity sold in 2002	*Quantity/store**
High end digital camera	200	7500	***75***	7500	*50* ↓
Medium end	200	7500	***75***	7500	*50* ↓
Low end	50	5000	***50***	30000	*200* ↑

*Candidate should work out the Quantity sold/store 2001 and 2002.

Sales compensation info:

The compensation of the specialist is based on the quantity of the camera sold.

Conclusion of the case:

Total revenue of the digital camera division increased in year 2002. The growth of the revenue came from two avenues: new stores opened and the new program. However, revenue per store of the digital camera division decreased. Possible reasons are: new stores generate less revenue as they are not operating at efficiency, also when company grows quickly; new stores are opened in less optimal locations.

However, the main reason is because product mix is changing due to the new program. Numbers of high end and medium end camera (which have higher margins) sold per store are decreasing while low end camera is increasing. This is because specialists are recommending the low end cameras to the consumers. Why specialists are doing that? Because low end camera is easy to sell due to its simple function and low price and that specialists are compensated for number of cameras sold, but not profit they bring to the store. A good candidate will derive this insight in the course of the conversation. In fact, a good candidate will make this “discovery” during the interview and make the interviewer feel as if they did it together. Id the candidate simply solves the simple math but doesn’t involve the interviewer or create a feeling of discovery then they have not cracked this case.

Conclusion:

The client is selling more cameras due to the new program. However, selling more cameras has not resulted in increased revenue/profit because specialists are compensated in the way that motivates them to sell low end low margin product. Thus, the client should modify the program, focusing on educating/training its specialist and basing their compensation not just on quantity of sales but on the profit they generate for the store. If the modified program is successful, the client should promote the program to other divisions. However, the client should always consider the differences of the other divisions and the digital camera division to apply modification to the program.

Suggestions of the case:

- It is about retail industry, thus candidate should either realize or learn from the interviwer that profit or revenue per store is the key measure of performance.
- It is about the implementation of new program, thus benefit and analysis is the main structure – analyzing the economics of the new program – does it increase the profit of the digital camera division per store? A good candidate will ask how much does it cost to train specialists and how much more does it cost now that former generalist functions have been transferred to other departments. We don't have these numbers but you can assume they are not immaterial.
- The case also contains a profitability problem. It is about a program that changes sales function, thus its focus is on the revenue side. The candidate should focus on the rev/store. From the additional information we know that total revenue increased while the revenue per store decreased. We know two factors affect revenue – price and quantity. Then candidate should look at the number of camera sold per store (it is increased). So, we have quantity increased while revenue decreased, which tells us that average price per store decreased. This leads us to look at the product mix / customer mix. Product mix change will change the average price and affect the margin.
- This case is about a program that changes the sales function. When it is talking about sales organization/function, sales incentive is normally involved. Then one should look at the compensation to see whether the sales force is compensated in the right way.

Linda's Great Burgers Merger

The Situation:

Our client is Linda's Great Burgers (GB). GB is a worldwide fast food chain store. Linda's uses the individual franchise model to sell burgers. The client feels the burger market is saturated and is exploring acquisitions for growth. To increase growth Great Burger is thinking of acquiring Heavenly Donuts.

Heavenly Donuts (HD) is a young coffee/donut chain. It's business model is a territorial franchise model, i.e. franchisers are granted specific regions to sell donuts into. HD is a worldwide company.

The CASE is – is HD a good acquisition and match for GB?

Questions:
1: What is your road map to approach this case?

This is an acquisition case. Ask the candidate how they plan to structure a road map to assess whether or not acquiring HD is a good strategy. There are several aspects of the problem the candidate should consider:

- First, ask the candidate to provide additional motivations in addition to simple sales growth. Some of them are as follows: increased market coverage, product diversification, to pre-empt potential competition, derive operation synergies (economies of scope and scale) and lower costs, financial synergies (lower cost of capital), realize tax gains if HD (which is a young company) has losses (which increases probability of tax gains.) (acquirer transfers tax losses of target to offset income)

- Second, Standalone analysis of HD's business: Is the donut business profitable (attractive) business to be in? Is HD itself an attractive target?

- Third: synergy between GB and HD? Is there operational synergy (revenue synergy and cost saving synergy?), any financial synergy (tax)

- Can GB execute the acquisition: strategic fit? financial and management resources? culture implication? integration after acquisition?

- Any other options?

Question 2: look at the following data and tell me what the synergies are?
Additional information:

	Great Burger	Heavenly Donuts
Stores		
Total	5000	1020
North America	3500	1000
Europe	1000	20
Asia	400	0
Other	100	0
Financials		
growth in store	10%	15%
total sales mn	5500	700
Parent revenue	1900	200
Cost		
COGS	51%	40%
Restaurant operating cost	24%	26%
property and equipment	4.60%	8.50%
Corp SG&A	6.30%	4.90%
Profit		
sales/store mn	1.1	0.7
industry average mn	0.9	0.8

Observations the candidate should get:

1. Revenue synergies: market coverage - GB covers more market than HD, it could bring HD into more markets (such as Europe and Asia). Based upon it s better local business knowledge GB could more rapidly bring HD into markets and in some geographies even experiment with cross-selling to the customers (i.e. placing the stores right next to each other under one roof).

2. Cost savings through economies of scale/scope: raw material purchasing (volume discount), consolidate property and equipment, decrease Corp SG&A.

3. Improve HD's operation: GB is performing better than industry average while HD's is performing worse than the industry average. GB could transfers its better franchise model and store management to HD to improve HD's performance.

There is sufficient data above for numerous observations. A good interviewer will push the candidate to find 5 at least. In the end 4 would be enough if the candidate communicated the findings in a confident, enthusiastic, and relationship building manner.

Question 3: If we can double HD's market share in 5 years, what is the Rev/store need to be?

Assuming the total market size does not change and HD's store number does not change. Currently HD's total rev is 700mn, total store number is 1020. To double the market share, HD's rev need to be doubled, thus per store revenue would also need to be doubled. So per store revenue would need to be (700*2)/1020 = 1.37mn.

Is this possible?

Were talking about doubling sales in 5 years. Based upon its younger age and opportunities for entering new markets where GB already is this should be feasible. However, candidate should mention caveats of: consumers' needs, competitors' response and GB and HD's ability to see whether it is possible to reach this per store revenue.

Other areas the interviewer could develop involve company cultures and management issues. They are not beyond the scope of the case but we leave it to the interviewer to be creative in making them up. Remember getting ready for a case interview is as much as being a good interviewer (i.e. practicing relationship building and creativity skills) as much as anything else.

So have fun with this case!

Schopin's Glass Shop

Business Situation

Your client, Schopin's Small and Steady Glass Co. (S&S), has been producing glass for commercial windows for years. They have had a strong customer base to sell to and have done so over generations. Recently, the CEO's son, Mikhail, has taken over the helm of the company and is intent on growing the business. They are looking at selling into the residential glass marketplace and have hired you to help them figure out what to do.

Case Question
Is this a viable option?

Question and ask period (other data)

Current Utilization – currently they are using 40% of their capacity. Full capacity is considered 80%
New Equipment– Company is not looking into buying new equipment
Differences in glass making process – none
Switching costs in changing to residential - not significant in terms of time or money
Sales process –

Commercial – Smaller architectural firms and vendor companies
Residential – vendors and large home builders – we can do it because of our longstanding reputation for quality

Market Size – based upon new construction permits and repairs

Repairs can be determined by the useful life of windows * # of windows per house * number of houses

Market Share of Residential – 70% one player (Anderson), the rest is fragmented

Math and Data Section for Questions

Types of Glass – Commercial Pricing

	Demand Volume	Commercial Pricing (S&S)	Cost of Producing	Profit
A	25%	$10 sq/ft		
B	50%	$12 sq/ft		
C	25%	$14 sq/ft		

Types of Glass – Commercial Pricing

	Demand Volume	Commercial Pricing (S&S)	Cost of Producing	Profit
A	25%	$10 sq/ft	$5 sq/ft	$5 (50%)
B	50%	$12 sq/ft	$7 sq/ft	$5 (~40%)
C	25%	$14 sq/ft	$9 sq/ft	$5 (~33%)

Types of Glass – Residential Pricing

	Demand Volume	Competitor A Pricing
A	25%	$4 sq/ft
B	50%	$7 sq/ft
C	25%	$10 sq/ft

Comparative Chart – S&S vs. Competitor A

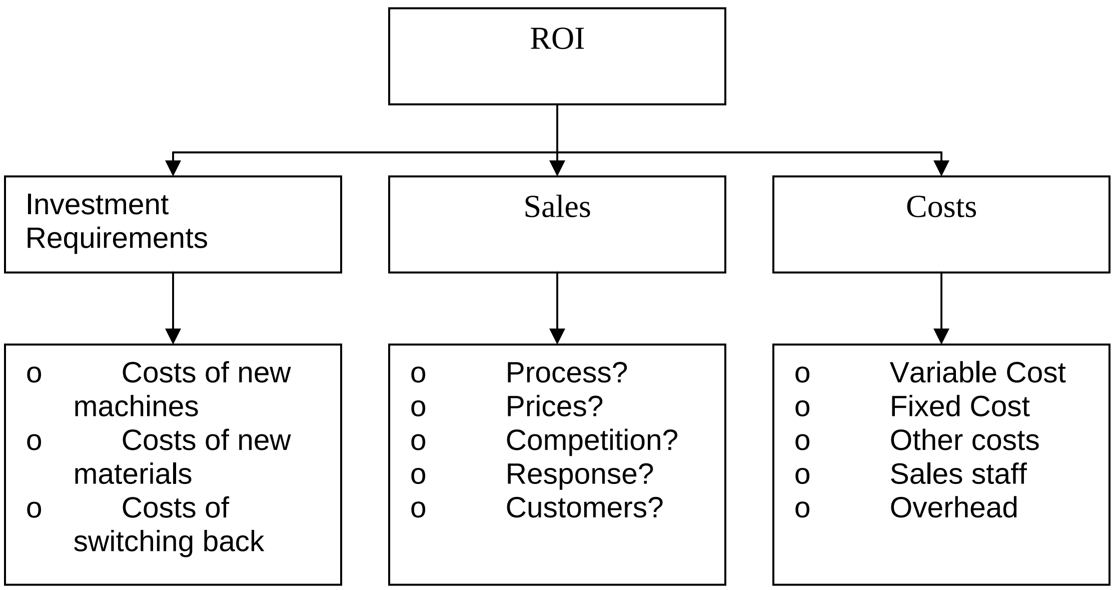
	Demand Volume	Competitor A Pricing	Commercial Pricing (S&S)	Cost of Producing
A	25%	$4 sq/ft	$10 sq/ft	$5 sq/ft
B	50%	$7 sq/ft	$12 sq/ft	$7 sq/ft
C	25%	$10 sq/ft	$14 sq/ft	$9 sq/ft

Types of Glass – Cost (S&S)

	Total cost	Fixed cost	Variable Cost	Fixed Cost
A	$5	$4 sq/ft	$2	$3
B	$7	$7 sq/ft	$3	$4
C	$9	$10 sq/ft	$4	$5

Question and Answer section
The candidate should be asked to focus on determining ROI and the viability of the plan including discussion on risks.

Potential Frameworks
ROI = (Investment requirements, Sales, Costs)
Internal vs. External (if use this be careful of missing costs)
Profitability (if use this be careful of missing competitor reaction)



<u>Key to the case</u>

1) Understanding investment needs versus possible profit
2) Understanding differences in commercial versus residential market
3) Understanding possible competitive responses
4) Understanding you have the capacity
5) Understanding Variable costs are per unit but Fixed costs decrease as utilization increases

<u>Best answer</u>
While the commercial sales are clearly more profitable, our low utilization rate allows us to participate in both the residential and commercial markets concurrently. Selling into the residential market would need establishing some new sales contacts but our reputation will help us do that quickly. If we produce at our capacity, our total costs will be $3.50 for A, $5 for B, and $6.50 for C. At these prices we can competitively match the residential market leader's pricing and still make a profit. Additionally, this will help our profit margins in our commercial business. What is important to note is that we should not sacrifice any commercial sales for residential sales because the commercial sales are significantly more profitable.

<u>OK answer</u>
We can produce in the residential market because our costs can be lower than our competitor's price. We should enter the market and use our extra capacity to meet it.

Vivian's Video Rental

Background

Our client, Vivian's Video, is a nation wide video rental chain. It has flat sales and profit. The CEO and client, Vivian, wants to improve profit. What would you recommend?

The Candidate should lay out a clear structure at the beginning of the case and follow the structure to get the following information

Suggested approach:

This is a typical profitability case, thus the candidate should lay out a clear profitability case structure at the very beginning, finding out the areas on both revenue and cost sides that the client could improve to increase its profit.

When approaching a case, candidate should also take a second thinking about the characteristics of the industry: what are the key revenue/cost drivers, what are the key trends in the industry. This normally helps. In this case, it is the retail industry, thus candidate should realize that revenue per square foot or revenue per store is the key.

Additional Information

Revenue side information:

Revenue stream	% of total revenue	% of store space occupied	Profit margin	Growth rate
New video rental	60%	20%	Higher than classic video	N/a
Classic video rental	20%	60%		N/a
Game	5%	5%		N/a
New video sales	10%	10%		N/a
Convenient – candy, popcorn and etc.	5%	5%	High	N/a

Note: candidate should either know, ask, or determine that revenue per square foot (or revenue per store) is the key measurement of the performance of retail stores. If they don't bring it up themselves then prompt them to explore key metrics. Encourage them to brainstorm around this topic, reward them with positive feedback if they get the answer.

Candidate should also realize that different products provide different profit margins and different revenue/square foot and growth rate. In this case, after the candidate gets the above information, he/she could easily notice the problem the client is having – 60% of the store space is devoted to 20% of revenue, which is not rational. Thus, the store layout should be re-designed. Candidate should also notice that the store is able to charge premium price on the convenient products.

Cost side information:

Main cost items	% of total sales	Industry average / best practice / competitors

Labor	20%	15%
Store cost	30%	30%
Content	40%	40%
Profit margin*	X = 10%	15%

Note: candidate should work out the profit margin with the cost information.

Note: the candidate should discuss the main drivers retail store profitability and growth with the interviewer. Candidates should seize on the contrast of the client's cost structure with the industry averages, or the best practice or that of the competitors. In this case, the candidate should realize that the client is being hurt by higher labor costs.

The candidate should start to drill down on this issue, i.e. he/she should ask for more information on the labor cost side.

Labor cost information: 50% of labor cost in serving customers, 10% in storing and 40% in recommending. Our client on average requires 4 employees per similar sized store while competitors are using 3 employees.

Candidate should ask for the difference in store management technique between the client and the best practice to find out why competitors are using less people, however, no further information is available. Ask the candidate to brain storm as to reason why we are less efficient. Numerous answers are available – the key is relationship building with the interviewer, creativity in answers, and confidence in deliverance.

Note: by now, the candidate should know on the cost side, the client should at least reduce its labor cost to achieve industry average.

Suggested Recommendation:

On the revenue side:

- The store layout should be redesigned so that more space should be devoted to the main revenue driver – new video rentals,
- The store should also charge higher price on the convenient products to earn a high profit margin.
- The store could also try to keep the customers in the store longer so that they would rent more Video or consumer more convenient products

On the cost side:

The store should manage its labor force more efficiently. It could consider installing vending machines that sell/rent video automatically, computer systems that recommend videos or in-store post recommending the latest top 10 etc. to reduce labor involvement. Be creative for additional answers.

D. Martin's Media

Note to interviewer, this case provides a case through by example, i.e. it provides an example of dialogue that might occur to solve the case. Use the dialogue as a guide. Your goal is to help the and test the candidate engage you in a similar dialogue to obtain the case answer and impress you.

Case Question:

Our client, D. Martin Media, is a major country music national cable network in US. It is thinking about launching a country music magazine. Is this a good idea? What is the economics of launching this magazine?

Interviewee: As our client is thinking about entering into country music magazine market, before we look at the economics of launching the magazine, I would like to first analyze the attractiveness of country magazine market: its overall market size, growth, competitive landscape, consumer purchasing behavior, entry barrier and etc. Then, if the market is attractive, I would like to look at our clients' capability to succeed in this market: where does it stand in line with the key successful factors in the magazine business? Could we create any synergy between the cable network and magazine business? Then, I would use cost and benefit analysis to look at the profitability of launching the magazine business. Finally, if all the above analysis is favorable to our client, I would look at different options of entering this business: acquire a current country magazine business, JV, or start a new operation.

As we are specifically looking at the economics of launching the magazine, I would like to focus my analysis on the cost and benefit of launching this new magazine.

Interviewer: Great! Why don't we do that?

Interviewee: Let's start with looking at the revenue of the magazine business. With my understanding of the business, there will be two main revenue streams: subscription and advertisement. Am I right? (note if the candidate doesn't know this then prompt them for what you think are the two main streams – they should be able to develop them on the spot).

Interviewer: yes.

Interviewee: Then I would like to ask whether we have any numbers on these revenues.

Interviewer: We might. But if we didn't immediately have the number then how would you suggest our project team at the subscription revenue number?

Interviewee: well, we could do quick market size estimation. We could divide the market into subscribers and non-subscribers to our cable network. Let's assume there are 100mn households in US. How many subscribers do we have?

Interviewer: well, we know that there are totally 25mn households subscribing to country music cable networks. 60% of them are subscribing to us.

Interviewee: Good. So 25mn * 60%, we have totally 15mn subscribers. Then there are 10mn households who subscribe to other country music cable networks. Lastly, we have 75mn households who don't subscribe to any country music cable networks. My business common sense tells me that the conversion rate of our subscribers would be the highest as they listen to our cable network already which means that they like our collection of country music. We might be able to get some potential customers from the 75mn household who haven't subscribed to the country music cable network yet, but my guess is that the conversion rate would be very low. Do we have any sense of these conversion rates?

Interviewer: I would like you to tell me how would you get these conversation rates?

Interviewee: one way is to look at these numbers of a competitor. If these data are not available, we could do a market research using customer survey/interview.

Interviewer: Good. Let's assume 80% of our 15mn cable network subscriber would subscribe to our magazine. 20% of the 10mn subscribers to other cable network would subscribe to our magazine. To make our life easy, let's forget the 75mn non-subscribers for now.

Interviewee: Good, we have totally: 15*80% + 10*20% = 14mn subscribers to our magazine. What is the revenue for an annual subscription?

Interviewer: One magazine cost $4 and it will be published monthly.

Interviewee: Then the subscription revenue will be: 14*4*12 = 672mn. Now, let's move onto the advertisement revenue. Do we have any data on this?

Interviewer: we know that advertisement revenue is about 50% of the subscription revenue.

Interviewee: So advertisement revenue is 672*50%= 336mn. Thus total revenue is 672+336 = 1008. Now let's move onto the cost side. As it is magazine business, I would assume that the major cost items would be: labor, printing, distribution, marketing & sales. Do we have any data on this?

Interviewer: our competitor has a 12% margin in the magazine business.

Interviewee: Good. I would assume that our competitor enjoys some scale effect and operation efficiency while moving along the experience curve and thus has a higher margin than our client. Then, our client's margin would be 10%. With revenue of 1008mn, the profit from magazine business is around 100mn. It looks pretty good so far. Let's see how significant this means to our client's business. How much profit our client is having right now?

Interviewer: about 300mn.

Interviewee: So magazine will bring 1/3 more profit, which is pretty good. From the pure number side, the economics looks very good. However, I would like to look more at the qualitative side. As I laid out my structure at the very beginning of the case, I would like to further investigate those areas, especially competitors' response and customers' feedback and our client's resources to see whether our client is able to get the 100mn profit for the magazine business.

Interviewer: very good. We will look at these later.

Notes: It is not a very complicated case about entering the new market. It would be nice if the interviewee could lay out the structure for entering the new market at the beginning of the case. However, as the interviewer is asking for economics, the focus should be on benefit and cost analysis. The interviewer is testing the interviewees' ability to carry out a market size estimation and to hold a high level strategy discussion as well. As the interviewer don't be afraid to diverge from the path above. Use your own industry knowledge and experiences to push the candidate to brainstorm more. However, do use the math questions to always bring the candidate back to the case and get at and determine the final market size for the client.

Eugene's Famous Software – (A Profitability Analysis Case)

1) Overview

- Your client, Eugene of Eugene's Famous Software Company, is CEO, President, CFO, and COO of a large software company that makes photo editing, web design, video editing, and desktop publishing software.
- The company has historically been the market leader in two of these four categories (photo editing and desktop publishing).
- Its products in the other two categories (web design and video editing) are newer and have failed to achieve significant market share.
- The company has traditionally sold its four point products separately, but is considering introducing a business model where customers can purchase an integrated "Suite" of the four products for $1000.
- Furthermore, it will raise the prices of the products in the two categories it dominates to motivate customers to purchase the Suite instead.
- The company conducted a concept test on the Suite product, and would like your assistance in deciding whether to go forward with the product launch. Show Exhibit 1 to candidate up front.

2) Case question #1: Will the proposed "Suite" strategy increase company profitability?

MATH: Once the candidate has asked appropriate questions and layed out a logical framework to the first three exhibits, ask him to calculate the profitability of this strategy based on the results of the concept test.
Caveat: don't worry about upgrades or software lifecycles, assume all customers buy full versions of the product.

3) Question and Answer Period #1

Profitability Analysis

1. Q: What are the current prices of each of the four products, and how will they change in the new business model?
   A: See Exhibit 2. Interpretation: the increased pricing of photo editing and desktop publishing products may motivate some customers to buy the Suite instead, but also may cause some customers to balk.
2. Q: How many customers will upsell to the Suite?
   A: See Exhibit 1.
3. Q: How many customers will the company lose because of the increased prices for the photo editing and desktop publishing products?
   A: See Exhibit 1.
4. Q: Will the company capture any new customers who will purchase the Suite who would not have purchased any point products?
   A: Assume that all Suite customers are upsold from point products.
5. Q: What are the variable costs of producing each of the products?
   A: See Exhibit 2. Interpretation: the photo editing and desktop publishing products yield the most profitability, but the new Suite will also be fairly profitable

6. Q: Are there additional fixed costs that the company will incur to launch the new product?
   A: Assume that additional fixed costs and synergies gained from the product strategy are a wash in the short term.
7. Q: How many units of each product does the company sell?
   A: See Exhibit 3.

4) Answer Discussion
See resulting calculation in Exhibit 4. A good answer to the analysis is that although the Suite strategy is slightly more profitable than the status quo, it's not a clear winner. An outstanding candidate will easily grasp the impact of cannibalization and price increases on the product mix.

5) Case Question #2
Start by giving answer to Case Question #1 if the candidate did not calculate correctly.
Background: It appears that there is marginal upside for the company in pursuing the Suite strategy from a near-term profitability standpoint.
Question: What are some additional long-term factors that the company should consider to make a decision on the Suite strategy?

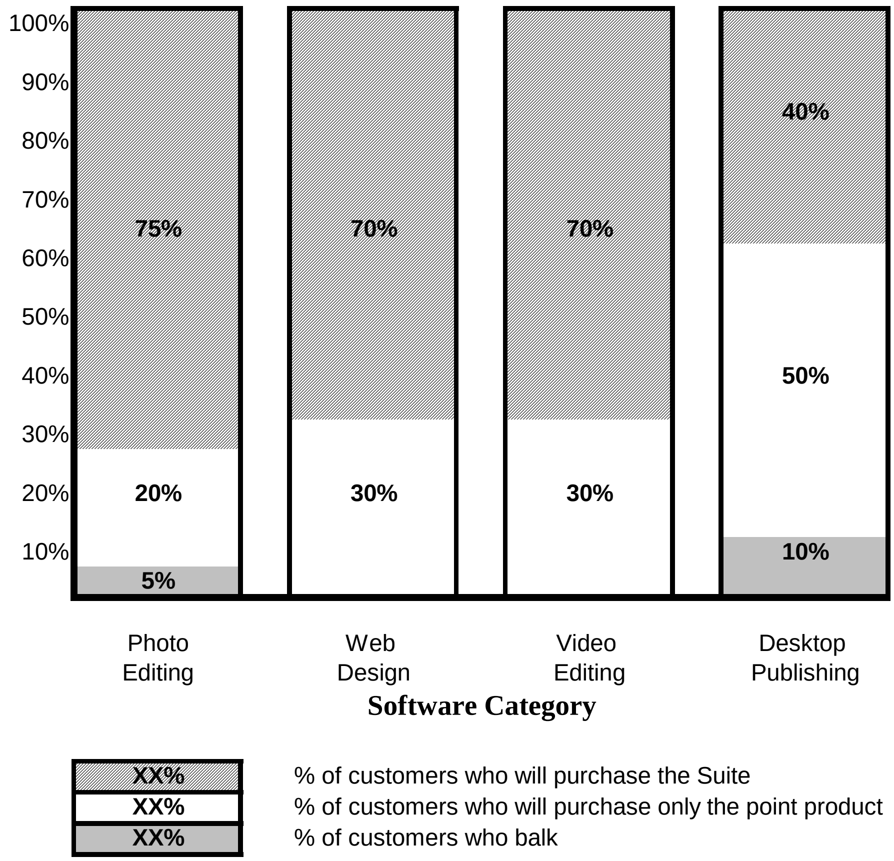
6) Question and Answer Period

Market Opportunity
1. Q: Examine growth, market share, and size of each category.
   A: See Exhibit 3. Interpretation: the newer categories represent significant market opportunities in terms of both size and growth.
2. Q: What is the overlap between customers in each category?
   A: Almost all customers own products from at least three of the four software categories when you include their ownership of competitive products. The majority of our client's customers own competitive products in the web design and video editing categories.
3. Q: Will customers actually adopt the video editing and web design software as a result of owning the Suite if they were previously using competitive products?
   A: Research shows that after customers who own our client's market leading software products and try the company's video editing and web design software products will switch from competitors 75% of the time.
4. Q: What does the competition look like in the video editing and web design markets?
   A: Both categories are currently fragmented by numerous small companies.

7) Answer Discussion
Based on the direction of market growth, it is imperative that the company gain success with its newer products in order to maintain long-term growth. Given the high amount of customer overlap, it is probably wise for the company to leverage its current market leadership in the photo editing and desktop publishing categories.

Exhibit 1

Results of Concept Test - Customer preference shares



Customer overlap

1) Of the desktop publishing customers who chose to purchase the Suite, 50% would have also bought photo editing software.
2) All of the web design customers who chose to purchase the Suite would have bought photo editing software as well.
3) All of the video editing customers who chose to purchase the Suite would have bought photo editing software as well.

Exhibit 2

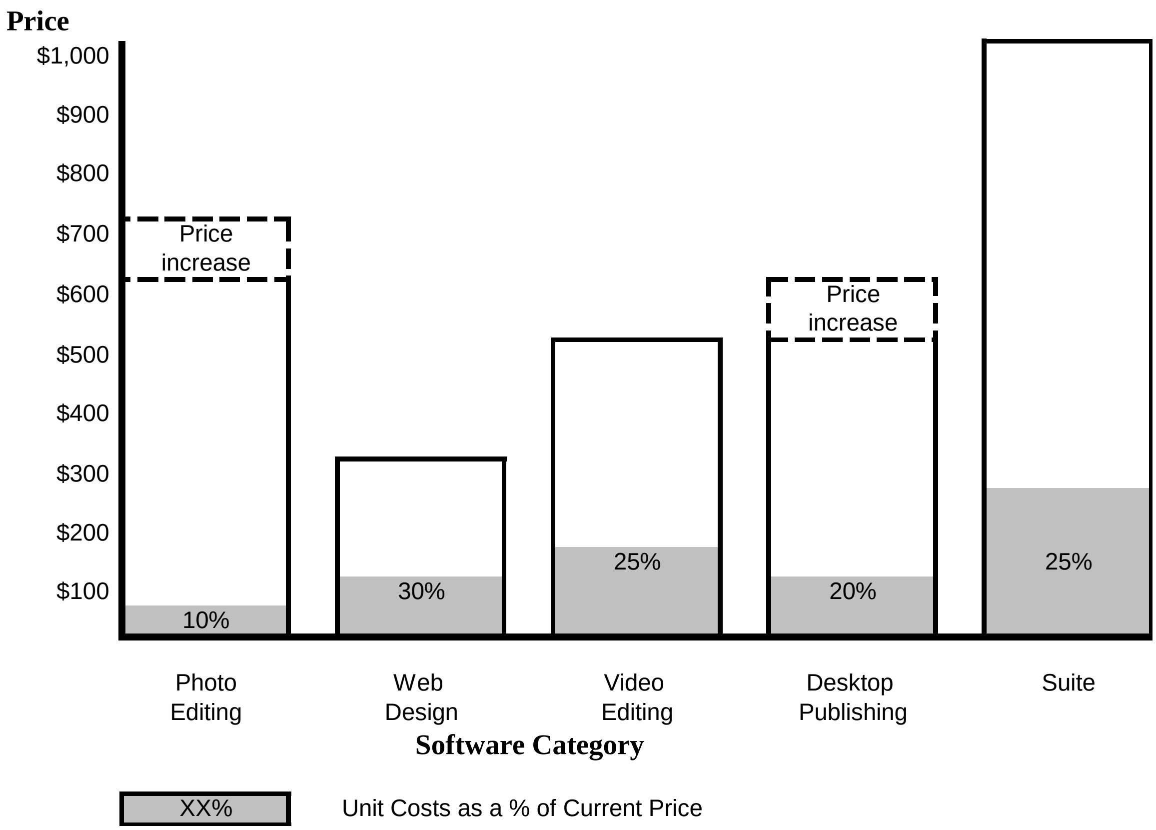


Exhibit 3

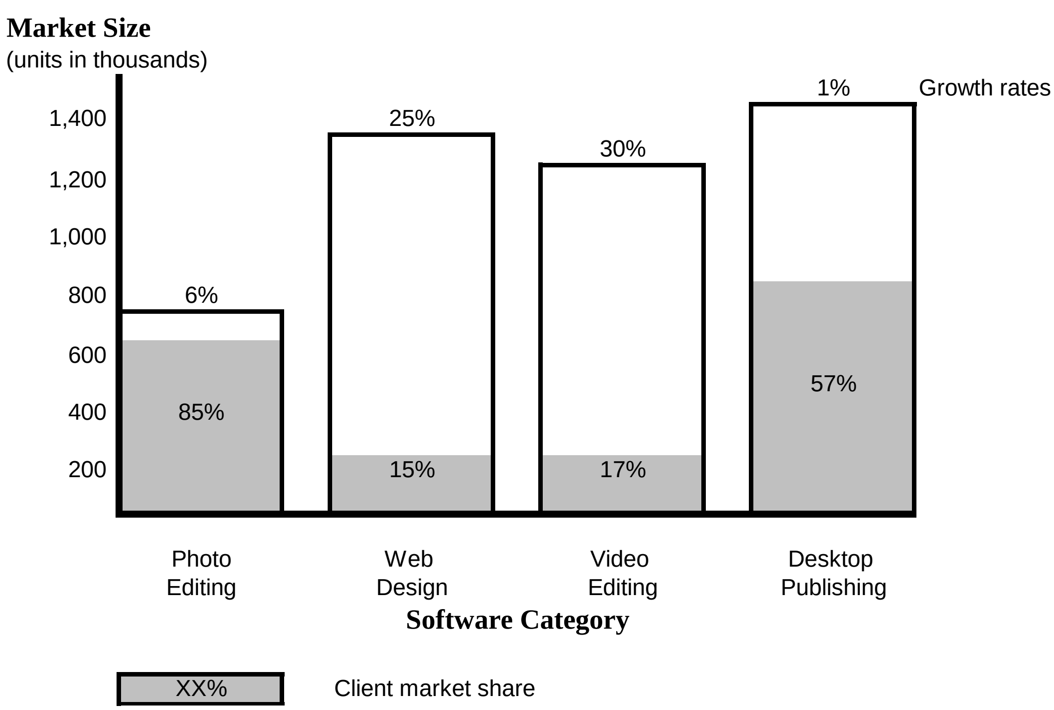


Exhibit 4 – Spreadsheet and Answers

	Photo Editing	Web Design	Video Editing	Desktop Publishing	Suite	Total
Base Case Scenario						
Base case units	600,000	200,000	200,000	800,000	n/a	
Price per unit	$ 600	$ 300	$ 500	$ 500	n/a	
Revenue	$ 360,000,000	$ 60,000,000	$ 100,000,000	$ 400,000,000	n/a	$920,000,000
Costs per unit	$ 60	$ 90	$ 125	$ 100	n/a	
Profits	$ 324,000,000	$ 42,000,000	$ 75,000,000	$ 320,000,000	n/a	**$761,000,000**
Suite Scenario						
Balkers	-30,000	0	0	-80,000	0	
Upsell	-450,000	-140,000	-140,000	-320,000	1,050,000	
Overlap					-440,000	
Revised Units	120,000	60,000	60,000	400,000	610,000	
Price per unit	$ 700	$ 300	$ 500	$ 600	$ 1,000	
Revenue	$ 84,000,000	$ 18,000,000	$ 30,000,000	$ 240,000,000	$ 610,000,000	$ 982,000,000
Costs per unit	$ 60	$ 90	$ 125	$ 100	$ 250	
Profits	$ 76,800,000	$ 12,600,000	$ 22,500,000	$ 200,000,000	$ 457,500,000	**$ 769,400,000**

Kenny's Kapital Management

Overview:

Kenny, our client, is founder and senior partner of the famous Hedge Fund Kenny's Kapital. Kenny developed the fund's proprietary investment strategy over many hard working hours and numerous years of painstaking research. The strategy can be summarized as such:

1. Kenny Kapital invests in and selects from a universe of companies that have tradable securities (debt, equity and derivatives).
2. The PM's and analysts performs in-depth fundamental research and analysis on these companies
3. The PMs decide on a position to take (short or long, type of security)
4. The PMs seeks to exit/unwind typical position within 1-2 years.

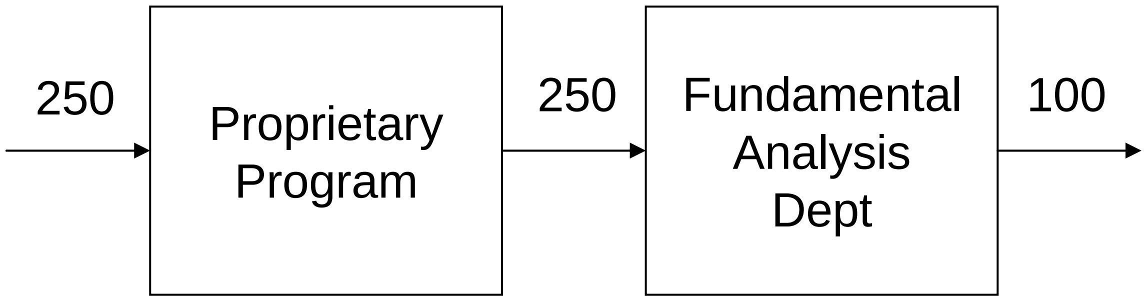
The fund combines a proprietary computer program along with its fundamental analysis to enhance its security selection process. The computer program first shortlists the companies based on criteria such as market capitalization, liquidity of securities and foreign exchange risk. If so desired it then works out a recommended position to take based on weighted assessments along dimensions such as market multiples-based valuation and bond yield-curve shape.

The fundamental analysis department then takes over, performing further research and analysis, and finally deciding on the position that the fund should take. The department currently has a staff of 9 consisting of: 3 senior analysts (who, incidentally, are also the 3 partners of the firm), 4 junior analysts (MBA-level), and 2 assistants (fresh college graduates).

Currently, of the 250 companies that the proprietary program shortlists, based on preliminary criteria, only 100 or so get analyzed every year. The fund partners feel that significant opportunities are being left on the table, and would like to see how they can improve the situation, such as possibly hiring more staff or investing in technology.

Discussion

This is an operations case. The candidate should recognize it and attempt to draw a process flow diagram, such as:



Clearly, the firm is not realizing the full potential of the ideas the computer program is short-listing. The candidate should quickly realize that the bottleneck is in the Fundamental Analysis Dept, and that the solution is to hire more staff.

The next question, then, is what level of staff to hire. The fund does not want to change the number of senior analysts that it already has. So it will only consider hiring additional junior analysts or assistants.

Prompt the candidate to ask questions about information they would seek in order to assess what type and how many people to hire. As the candidate asks about the nature of work that each level of staff does, the following information can be revealed:

There are 3 steps to the process of fundamental analysis: Research, Analysis, and Strategy Formulation. These are typically 50%, 30% and 20% of the work (man-hours) that needs to be done on a company.

Of the Research work, 20% needs to be done by a partner, 60% can be done by a junior analyst and up, and 20% can be done by an assistant and up.

Of the Analysis, 30% must be done by a partner, and 70% can be done by a junior analyst and up.

Of the Strategy Formulation, 60% must be done by a partner, and 40% can be done by a junior analyst and up.

All levels of staff are equally productive, provided they are doing the work they appropriate for their level.

At this point, the candidate should realize that it is important to work out what proportion of the work must be done by a partner and by other staff respectively. Good candidates will work out the following without to much prompting:

1) (.2*.5+.3*.3+.6*.2)=31% of the process must be done by a partner,

2) (.6*.5+.7*.3+.4*.2)=59% of the work can be done by a junior analyst and up,
3) and (.2*.2)=10% of the work can be done by anyone.

So the optimal ratio of staff should be 3:6:1 (partners: junior analysts: assistants).

Since the fund wants to keep the number of partners at 3, it can hire 2 more junior analysts without having to bring in another partner. This makes a total of 6 analysts. The firm is also free to let go one assistant. Ask the candidate the pros and cons of letting an assistant go (marginally lower cost but potentially important to have more then one assistant in case one leaves to business school abruptly)

The candidate may approach the question from the direction of marginal revenue and marginal cost. This is not wrong, but the interviewer should guide the candidate back to the operations-based approach by hinting that each additional company analyzed has an expected return of tens of millions of dollars, while each staff can be hired for hundreds of thousands of dollars (or less), and so the candidate should be able to conclude that the real constraint is that the number of partners is capped at 3.

Higher Level Question 1: Good Candidates will get through the above fairly quickly. They will also demonstrate ability to focus on what is important and engage the interviewer. A good question for candidates with operations backgrounds that they want to leverage in interviews or focusing on going into operations include the following:

If the fund hired 2 more junior analysts as you recommend, what number of firms will the team be able to process a year?

If the candidate assumes that none of the staff were idle before (a wrong assumption, since there is idleness in the system), then the candidate would answer that the throughput would increase by 2/9, or 22%.

If the candidate assumed that only junior analysts were fully utilized before, and idleness existed at both the partner and assistant levels, then the candidate would respond that the throughput would increase by 2/4 or 50% (since junior analysts increased from 4 to 6). This is again wrong, because all work that junior analysts do can also be done by partners, and so it is wrong to assume that partners are idle in the system.

The candidate should be able to realize that in the previous system, partners and junior analysts are fully utilized, but idleness exists at the assistant level. So increasing the junior analysts by 2 is increasing the fully utilized staff by a factor of 2/7 or 29%. So the fund's throughput should increase to 129 companies analyzed a year.

Bonus Question 2

If there is additional time, the candidate could be asked what other ways the fund might optimize their procedure. This question is about relaxing the simplifying assumptions that were made in the model used for addressing the questions above.

The model assumed, among other things, that the companies analyzed all took a fixed amount of work and gave a standard (constant) expected return. If the proprietary program could give each company a unique expected return and an estimate of the time required for fundamental analysis, the fund should prioritize its analysis according to the ratio of *expected return* to *time required for analysis*. For example, if Company A had an expected return of $10 mil and required 5 man-days to analyze, and Company B had an expected return of $5 mil and required 2 man-days to analyze, then Company B should have a higher priority.

Priorities are necessary since the fund can only analyze a fraction of the 250 shortlisted companies.

Brinda's Hair Styles

Overview

Last week, you received a call from Kate, an old friend from college. Kate studied chemistry in school and had gotten a job with a large household products firm after graduation. When the economy went sour in the early 90's, Kate got laid off and began cutting hair at a salon to make ends meet. In 1994, Kate quit the salon to start Hair Co., a premium hair products business.

Hair Co. has been a tremendous success. The company has four major product lines: shampoos, conditioners, color products and styling products. Nearly all retail sales of Hair Co. products are through high-end salons.

Kate scheduled a lunch with you today in order to catch up but also to ask about some issues related to her company. After you get a table and chat for awhile, Kate says the following:

"I think I'm ready to sell Hair Co. It's been over ten years and I need a break. The business has been growing since day one and I'm sure it will sell for a nice number, especially in this economy. However, before I talk to anyone, I want to know what I should expect to hear. I want to know *what an investor is likely to think of Hair Co.* I also want to know *what kinds of things I can do to make Hair Co. more attractive.* I've prepared some financials since I knew you'd ask for them."

Kate hands you a sheet of paper with the following financial data and sits back in her chair.

	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**CAGR**
Revenue	25	35	49	64	90	114	29%
COGS	7	10	14	21	32	50	39%
Gross Margin	18	25	35	43	58	64	24%
Sales & Marketing	2	3	4	6	9	13	37%
Research & Development	1	1	1	1	2	2	12%
General & Administrative	7	10	14	19	24	28	26%
EBIT	8	11	16	17	23	21	17%

Question & Answer

The case has two parts:

(1) assess Hair Co. from the perspective of a potential buyer by commenting on the financial data provided and gathering more information from the interviewer,
(2) recommend specific ways in which the business could be improved given the information made available.

Business Assessment

The obvious problem facing Hair Co. is the decline in profitability from ’03 to ’04. The interviewee should quickly point this out and then spend time discussing the causes of this decline. A simple profitability framework is likely to be most useful. Issues for discussion include:

Declining Gross Margins: COGS is clearly growing faster than revenue. The reason for the decline is related to a change in Hair Co.’s sales mix. When requested, the following information may be provided.

	1999				2004			
	Shampoo	Conditioner	Color	Styling	Shampoo	Conditioner	Color	Styling
GM	70	75	60	NA	67	74	54	30
% of Sales	75	20	5	0	57	11	4	28

The addition of styling products is the most significant reason for the overall decline in gross margin. The interviewee should spend some time considering reasons why margins in Styling are so much lower.

Hair Co. has not been able to leverage its strong brand in Shampoos and Conditioners since it entered the Styling market in 2000. Consumers believe that Hair Co. styling products are of above average quality but are inferior to products offered by companies that *only* offer styling products. Hair Co. has resorted to discounting in order to get salons to carry its styling products.

Margins for Hair Co.’s other products have also declined due to falling prices. It is likely that the line of styling products is having a negative impact on Hair Co.’s other lines.

Sales & Marketing Expense: Spending on sales and marketing is clearly growing at a faster rate than revenue and has contributed to the decline in EBIT. One reason is that Hair Co. has spent heavily to promote the Styling line. Another is that Hair Co. is beginning to saturate the salon market and must now spend more to create new customers.

Low R&D Spending Growth: Spending has not kept pace with revenue growth. There is likely a connection between the lower perceived quality of the styling line and the under-investment in R&D.

Improvement Opportunities

The interviewee should recommend that Hair Co. do something about its styling line. If the recommendation is to drop styling, some way of replacing 30% of revenue must be suggested. One solution is to begin selling Hair Co. products in other channels (i.e. supermarkets, drug stores and/or mass merchandisers.)

Alternatively, the interviewee may suggest that Hair Co. increase investment in R&D and improve the styling product line. However, altering consumers' perceptions will be difficult. One solution is to launch a re-branding campaign once changes to the styling products have been made.

The interviewee should also address the market saturation issue. It seems likely that revenue will not continue to grow at 30% per year unless new channels are tapped or new products are introduced. Given that Hair Co. has had difficulty with introducing new products, new channels are the most likely the best source of growth.

If selling through new channels is recommended, consideration must be given to the following: Would sales in other channels simply divert sales from the salons or would they result in an increase in total sales volume? Would prices remain the same in other channels? What costs must Hair Co. incur when entering a new sales channel?

Math Problem

Suppose that Hair Co. is going to sell its shampoo line in drug stores. Ask the candidate to write an equation or solve for the average price in drug stores that is required to create 10% growth in current salon-only revenue:

Average DS Price = [(1.1 * Current Salon Volume * Current Average Salon Price) – (Post-DS Salon Volume * Post-DS Average Salon Price)] / DS Volume

What is the required DS price if:
Current Salon Volume = 100
Current Salon Average Price = $5
Post DS Salon Volume = 80
Post DS Salon Price = $5
DS Volume = 50

Answer: Average DS Price must be $3

. . . . .

Webb's Bridge Building

Overview

The Buenos Aires transportation system currently operates only one bridge, used primarily by commuters, to cross the main river that connects outlying areas to the downtown city area. Due to traffic congestion, the transportation authority is considering building an additional bridge to remedy constant one-hour or more waits in each direction during peak times. The new bridge would be ten miles away from the existing bridge, and, unlike the existing bridge, would charge a toll.

Case Question
You have been asked to work with Webb's Bridge Building co to determine if the transportation authority should build the new bridge? If yes, what toll should it charge?

Key Issues and Data for Q&A
This valuation case requires that the candidate gather as much numerical data as possible about the expected costs of building and maintaining the bridge, as well as information about the motorists who would use it. After data-gathering, the candidate must construct a logical method to value the project. Answers to potential questions are as follows:

A good candidate will engage the interviewer in a dialogue that bring out all the below info. However, since it is a grerat deal of information the interviewer should add times simply give out sections of it in a rapid style to test the candidate's ability to think quickly and respond in a professional manner to fast input.

Cost of Building Bridge

- Basic - $10 million initial investment
- Basic - $3 million per year to maintain
- Basic - $0.50 per crossing variable/operating cost (includes estimated cost of labor and additional maintenance and training of staff , etc.)
- Better – 10 year intended ROI/timing of break even point
- Best – Assume no taxes for all calculations
- Best – Assume no government subsidies toward the cost of building the bridge

Toll Considerations
- Basic – Toll would be charged in both directions
- Basic – Toll must be charged in whole dollar amounts

Commuter Considerations
- Basic – 190,000 bridge crossings each week on current bridge
- Basic – On existing bridge, 32,000 crossings each weekday, 15,000 on weekends
- Better – Hour-long waits occur only during peak times—6AM-6PM on weekdays (show **Slide 1**)
  - Slide 1 shows 20,000 weekday peak time crossings, thus 10,000 peak time motorists
  - Since there are no waits below levels of 4,000 motorists, there are no weekend waits
  - Key inference is that willingness to pay at peak times may be different than for non-peak times.
- Better – Net time savings of commuter (do not answer—show **Slide 2**)
  - Slide 2 shows a scaled spatial map of the area which includes both bridges and shows the distribution of where current bridge-users live/work
  - Key insight is that the new bridge is significantly less convenient distance-wise than the current bridge for the majority of the people who would use it, which may result in negative net time gain
  - The candidate may be tempted to quantify average net time savings, but this would be impossible given the deliberate absence of certain data. Thus the candidate should be discouraged from this.
  - The only purpose for this slide is to test the candidate's ability to interpret strange-looking graphical representations. Nothing shown in this slide is needed to properly value the project. It

might lead candidate to explore how many motorists would be willing to use the other bridge at different times and toll levels, which IS needed to properly value the project (show **Slide 3**)

- Better – Willingness to pay (show **Slide 3**)
  - Slide 3 shows peak time motorists' willingness to pay—specifically
    - 40% of motorists are unwilling to pay toll
    - 30% of motorists are willing to pay up to $1 per crossing
    - 20% of motorists are willing to pay up to $2 per crossing
    - 5% of motorists are willing to pay up to $3 per crossing
    - 5% of motorists are willing to pay up to $5 per crossing
    - Key insight is that motorists willing to pay up to $5 per crossing are also willing to pay at the $3, $2, and $1 levels. Therefore, a total of 60% of motorists are willing to pay $1, 30% are willing to pay $2, 10% of are willing to pay $3 and 5% are willing to pay $5
- Best – Who other than peak time motorists is willing to pay to use the bridge? (show **Slide 4**)
  - Slide 4 shows willingness to pay of non peak motorists. It tells us that
    - 5000 daily average of non-peak motorists are willing to pay up to $1 per crossing
    - 3000 daily average of non-peak motorists are willing to pay up to $2 per crossing
    - 2000 daily average of non-peak motorists are willing to pay up to $3 per crossing
    - 500 daily average of non-peak motorists are willing to pay up to $4 per crossing
    - Key insight is that motorists willing to pay higher tolls are also willing to pay lower tolls
  - The candidate should notice that this is a daily average, based, therefore, on a seven day week

Mathematical Calculations

Cost of Building the Bridge

- The “Cost of Building the Bridge” will be equal to the total fixed costs for each year until the desired break-even point.
- The variable cost per crossing is best deducted from anticipated toll revenues, which are calculated in another section

Cost of Building Bridge = Initial Cost + (Cost of Maintenance * # years before desired ROI)
Cost of Building Bridge = $10M + ($3M * 10) = $10M + $30M = $40M
Conclusion: Bridge must generate $4M per year in net revenues from tolls to reach desired ROI

Anticipated Motorist Usage

- These calculations are designed to determine the total expected toll revenue per year
- The basic formula for net toll revenue is as follows:

Toll Revenue = M * (t-0.5) * c * 50, where
M = # of motorists willing to pay at a certain level
t = dollar amount per crossing
0.5 = deduction for $0.50 variable cost per crossing
c = # of crossings per week
50 = weeks per year (tell candidate to use this number, as it is easier to work with)

- We should have deduced that there are 10,000 peak time motorists (**Slide 1**), and we know that 40% of them are unwilling to pay toll (**Slide 3**). We can deduce from what we know from Slide 3 that:

6000 motorists * net of $0.50/crossing * 10 crossings/week * 50 weeks/year = $1.5M/year
3000 motorists * net of $1.50/crossing * 10 crossings/week * 50 weeks/year = $2.25M/year
1000 motorists * net of $2.50/crossing * 10 crossings/week * 50 weeks/year = $1.25M/year
500 motorists * net of $4.50/crossing * 10 crossings/week * 50 weeks/year = $1.125M/year

- The thorough candidate has asked about the willingness to pay of non-peak motorists (**Slide 4**). We can deduce from what we known from Slide 3 that:

5000 motorists * $0.50/crossing * 14 crossings/week * 50 weeks/year = $1.75M/year
3000 motorists * $1.50/crossing * 14 crossings/week * 50 weeks/year = $3.15M/year
2000 motorists * $2.50/crossing * 14 crossings/week * 50 weeks/year = $3.5M/year
500 motorists * $3.50/crossing * 14 crossings/week * 50 weeks/year = $1.225M/year

- Remember that Slide 4 specifies that data is shown as a daily average, per motorist, which means that this calculation is based on a seven-day week, and that each motorist will logically make a two-way trip for a total of fourteen crossings.

Value of Bridge Project

- We know the bridge must bring in $4M/year in net revenues in order for the project to go ahead.
- By totaling customer willingness to pay at each level, we can determine whether the $4M net revenue goal can be reached, and, if it can be reached at more than one toll level, which one would be most profitable.

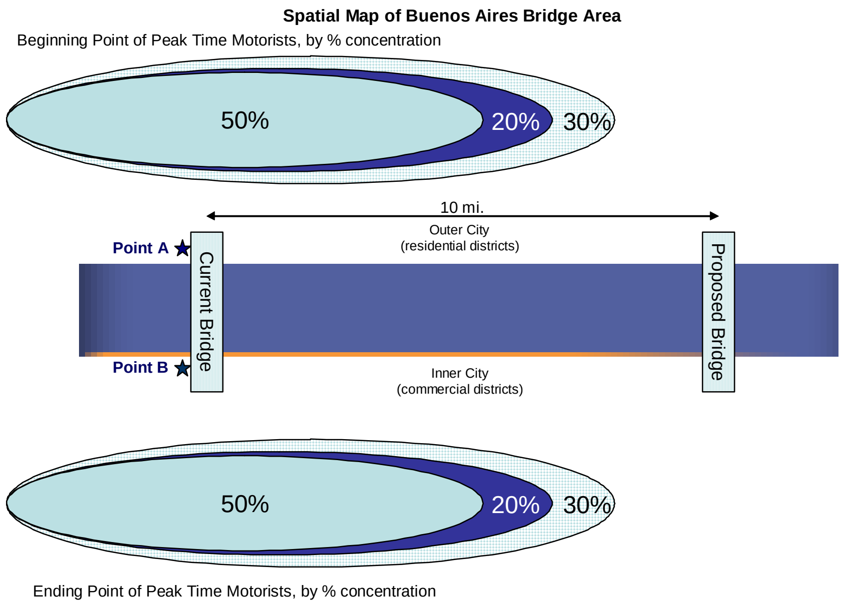
Total Revenue @ $x Toll = Revenue @ $x Toll for Peak Motorists+Revenue @ $x Toll for Others
Total Revenue @ $1 Toll = 1.5M+ 1.75M = $3.25M/year
Total Revenue @ $2 Toll = 2.25M+ 3.15M = $5.4M/year
Total Revenue @ $3 Toll = 1.25M + 3.5M = $4.75M/year
Total Revenue @ $4 Toll = 0 +1.225M = $1.225M/year
Total Revenue @ $5 Toll = 1.125M + 0 = $1.125M/year

- **Case conclusion is that yes, the bridge project can be profitable, and that the profit-maximizing toll-level would be $2 per crossing**

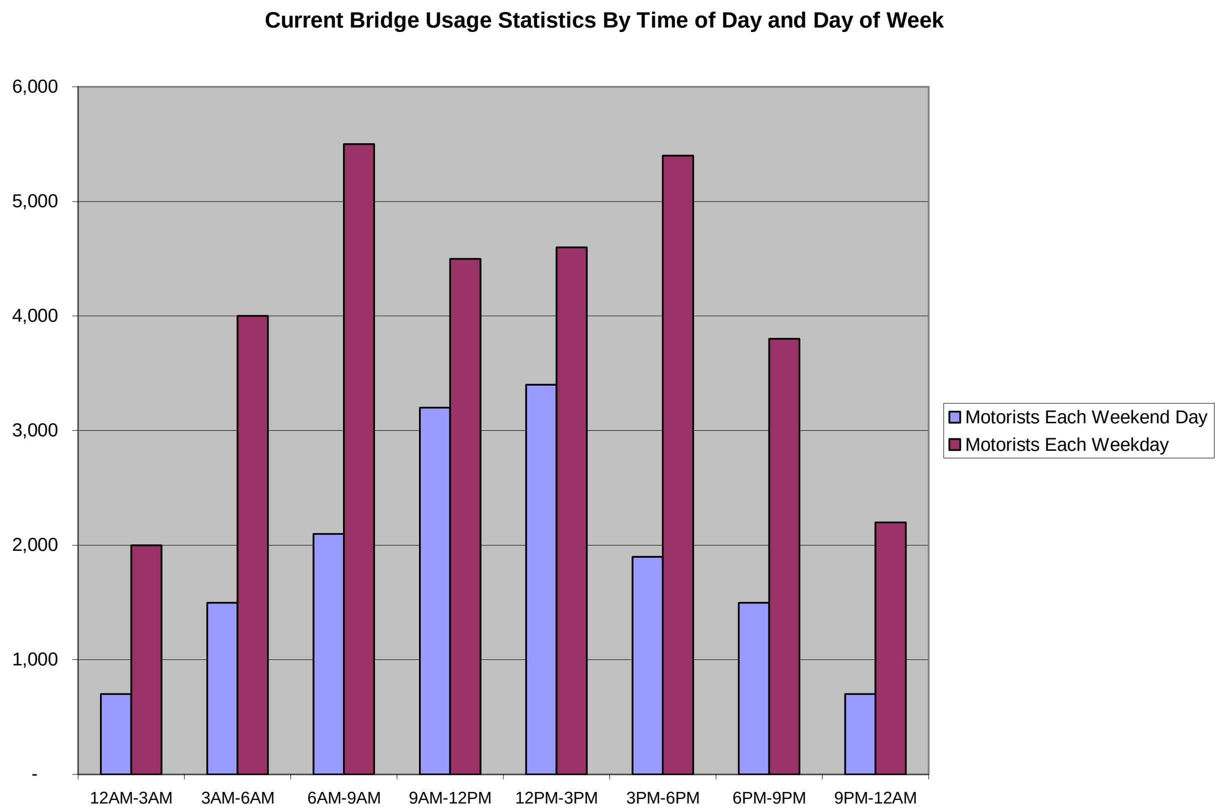
Answer Discussion

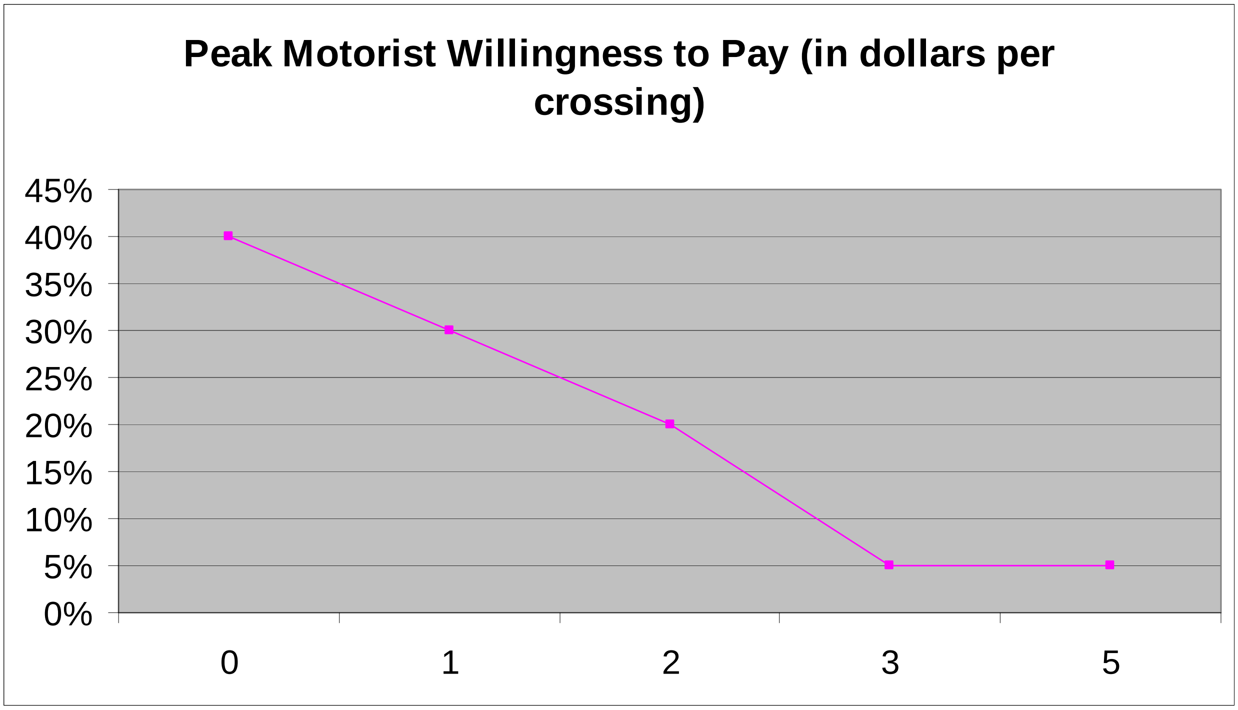
Certain points listed under “Key Issues and Data for Q&A” are labeled **Basic, Better, or Best**. Candidates who understand the question but lack depth of insight will mostly limit themselves to “Basic” items. Candidates who dig deeper, but not as deep as the most sophisticated set of questions and calculations limit themselves to “Better”. Candidates who cover most items under Basic and Better, and follow through toward completing a logical valuation can be classified as “Best”, though there is only one “Best” item. Because this case has a finite answer, candidates who display the “Best” qualities will incorporate additional insights that may not be pertinent IN THIS CASE but that show thoroughness in logic and breadth of thinking. Examples of this would be asking about discount rates, NPV, taxes, government or regulatory issues, etc. The best candidates will pay attention to details such as legends on graphs, etc.

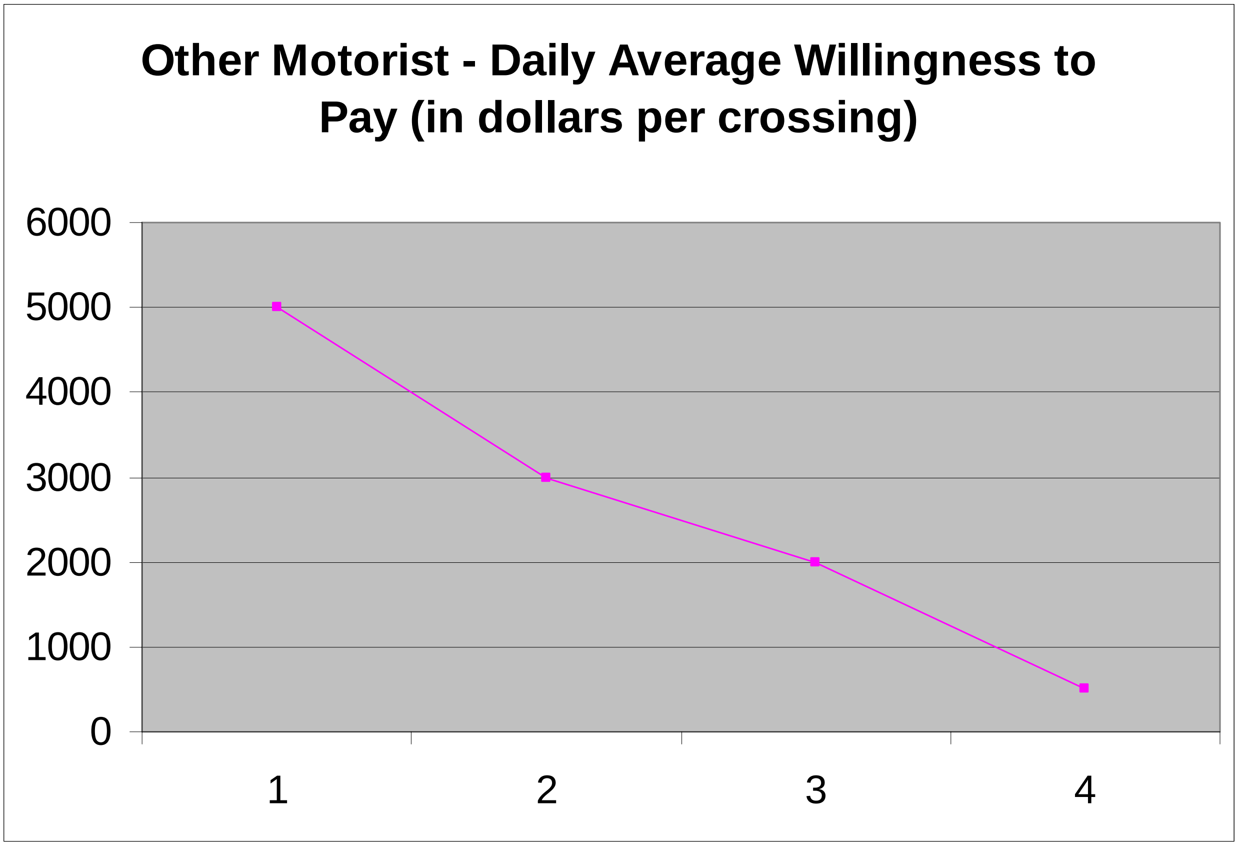
This case requires no specific framework. However, the more key issues candidates can identify by name, and the faster they can do so, the better we can say they have done on the case. Key issues and terms that should be identified in conjunction with this case include: **valuation, fixed costs vs. variable costs, profitability, willingness to pay, profit-maximizing level, return on investment (ROI), volume of traffic, frequency of usage, peak/off-peak**



Buenos Aires Bridge - Slide 2


Current Bridge Usage Statistics By Time of Day and Day of Week
6,000
5,000
4,000
3,000
2,000
1,000
-
12AM-3AM
3AM-6AM
6AM-9AM
9AM-12PM
12PM-3PM
3PM-6PM
6PM-9PM
9PM-12AM
Motorists Each Weekend Day
Motorists Each Weekday


Peak Motorist Willingness to Pay (in dollars per crossing)
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
0
1
2
3
5


Other Motorist - Daily Average Willingness to Pay (in dollars per crossing)
6000
5000
4000
3000
2000
1000
0
1
2
3
4

Hauffman's Paper

Background

- Hauffman's Paper is the # 2 paper manufacturer, right now, in the US market

- Hauffman's believe that if they increase capacity by 50 tons/year, they can become the #1 player in the market (their goal) in both revenue and volume

- Interviewer = note that this case is about testing how well the candidate can engage the interviewer in intellectual discussion of key facts/strategic issues. This case assumes that the candidate has made the second round and that the partner doing th interview is more interested in getting to know how the candidate thinks, builds relationships, and communicates then standard first round cases. So while a hard case solution would be nice it is not necessary and not the focus of the case.

Case Question

- The client would like you to advise them whether or not they should increase capacity 50 tons/year

Q&A/Relevant Frameworks

- It helps if the candidate can articulate that the decision comes down to whether the benefits outweigh the costs (it is pretty obvious, but it shows that the individual knows what the problem boils down to)
  - Potential benefits:
    - incremental revenue
    - increased number of customers: untapped population, steal from competitors, and/or expand the market
    - better pricing/margins
  - Potential costs
    - capital investment
    - marketing/business development

- Customer = newspapers (e.g. Wall Street Journal, New York Times) → note to interviewer: do not volunteer this information, as it is important question the candidate should ask to understand what type of client it is and what they do

- Industry demand is completely flat (i.e. no growth or depletion expected) and is a commodity market, so pricing not a factor
  - As a commodity, all competitors have the exact same price, equal quality, aren't differentiated on service, value-added offerings, reliability, or anything else → only price matters, and any movement by one company triggers a reaction from all competitors

- Capital investment to increase capacity
  - Probe candidate about what considerations might be:
    - build entirely new plant vs. use existing facility?
    - cost of new machinery vs. have available machinery
    - incremental labor costs
    - maybe per-unit production costs decline through economies of scale, thus increasing net margins?
    - benefits it might offer other divisions in the company?
    - other?
  - After discussion, have candidate can assume that investment is costless (i.e. have available machinery, factory space, labor, etc.) for the sake of simplicity…obviously, though, this would be an important factor

Quantitative Analysis

- Competitive snapshot

Company Rank (by market share)	Capacity (000 tons)	Units Sold/Utilization (000 tons)	Cost of production/ton ($US)
1	300	300	$22
2 (Client)	**250**	**250**	**$25**
3	200	200	$20
4	150	150	$30
5	100	100	$45
6	50	20	$60

(Interviewer – you should prepare a separate slide with the above data for purposes of giving this case)

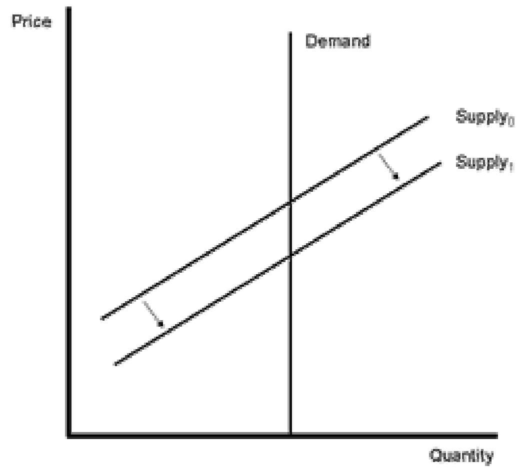
- Total industry capacity is 1,050k tons and utilization is 1,020k tons
- Utilization rate for all competitors is 100%, except for #6 (only 40%)
- Market clearing price is $60/ton (commodity, so price taker), so candidate can quickly calculate margins if desired or just realize that #6 is only breaking even
- Can also calculate break-even quantity they would need to obtain or break-even cost of investment for project to be positive NPV

The "Answer"

- If client adds the 50 tons of capacity and pricing remains constant, there may not be any incremental business attained

- Reducing price significantly will destroy significant value in the market (e.g. if lower price to $40/ton, everyone will match and assuming per-unit cost

- If, after increasing capacity, client lowers price to $59/ton, everyone else will also lower their price, while presumably company #6 will drop out of the market b/c they'd be operating at a loss
  - Client would capture all their business (i.e. #6) (i.e. steal share), since everyone else is at capacity
  - This makes sense when you consider the microeconomic framework of supply and demand (inelastic demand, supply curve shifts out, price declines)



  - That would then create 20 tons of capacity, i.e. additional revenue…but 30 tons are then still available
    - » Bonus conclusion would be for candidate to inquire what else can be done with that available capacity
      - In fact, can manufacture gift wrapping paper with the same machine, so that might present a worthwhile opportunity
      - See if at all possible to increase market size
      - Consider non-US customers
      - Other?

- Ask candidate how answer might differ if capacity increase weren't costless
  - Would need to factor in additional costs vs. incremental revenues using discounted cash flow (DCF) analysis

- In summary, candidate should articulate key assumptions about what the core essence of the problem, how client should only undertake project if profitable (shouldn't just strive to be #1 company in market, unless offers some meaningful benefits), competitive landscape of commodity environment, and the chain of events that happens if price is decreased
  - Again, case is more an intellectual discussion of key microeconomic/strategic factors as opposed to "such and such" is the right "answer"

Lola Lo Zoos (Net Present Value):

Overview

The client, Lola Lo, owns and runs a zoo in a metropolitan area. There has been a recent discovery of a dinosaur in Africa. This is the only dinosaur in the world. They would like to investigate if purchasing the dinosaur is a good project.

Case Question

Help the client with the following questions:

1) How would you determine if purchasing the dinosaur is a good project?
2) If so, how would you determine the purchase price for the dinosaur?
3) How would you design the exhibit area for the dinosaur?
   a) What would be the size of the exhibit area?
   b) How would you route traffic around the exhibit area?
   c) Draw the shape of the exhibit area in relation to the dinosaur and show how the traffic is routed around the exhibit area.
   d)

(Note: Questions 1 and 2 should be presented first. Once the candidate has a good handle on the answers for those questions should the interviewer present Question 3. Question 3 is asking the candidate the think outside the box.)

Background on Client and Project:
Dinosaur is the size of an elephant.
The dinosaur can easily be transported from Africa to the US.
The age of the dinosaur is unknown.
The dinosaur cannot reproduce.
The dinosaur is not violent but cannot interact with non-trained individuals.
The zoo has enough land to house the dinosaur and construct an exhibit area without reconfiguring the existing park.

Q&A Session

Relevant Questions and Data (Wait to see if the student asks for this relevant information before giving it to them):

Question 1 and 2:

The candidate will probably ask what are the costs and revenues associated with this project. Do not just give them the revenues and cost. Ask them what they think the revenues and costs are associated with the project and ask them to explain each one.

For Example: Tickets

How do you determine the revenue from tickets? Are you proposing a separate ticket? If so, then you can count those revenues. If you are proposing the same ticket for the zoo and dinosaur exhibit, then not all the revenues from tickets will count. Only the revenues from the tickets in excess of original ticket sells will count.

Revenue

- Tickets = 2 M
- Hotels Accommodations = 1 M
- Movie & Entertainment Licensing = .5M
- Food in the park = .5M
- Merchandise = .25M
- Research = .25M

Cost

Fixed
- Dinosaur = ?
- Exhibit Area and Housing Area = 15 M

Variable
- Staff to serve the dinosaur = 1 M
- Food & Merchandise sales = .25M
- Operations = .25 M

Expected Lifespan of Dinosaur = 50 years
Current Age = 20 years

Discount rate = 10%

The candidate will probably ask you for actual numbers associated with the revenues and cost. While the actual numbers are not that important, it is important that the candidate realize that just having the sum of the revenues greater than the sum of the cost is not enough.

The candidate needs to realize that this is a net present value problem and the project lasts as long as the dinosaur is alive. It is important to determine the age of the dinosaur. Since the client does not know the age and average lifespan, the candidate should suggest ways of determining the age and lifespan of the dinosaur. Some suggestions could be asking anthropologist, DNA testing, fossil testing, and etc.

Besides knowing the expected lifespan of the dinosaur and all the revenues and cost, the candidate needs to ask about the discount rate. Now with all the information, the candidate can determine the most the client should pay for the dinosaur. Again, the calculations are not important but knowing the right equation is.

NPV = Fixed Cost – [(revenues – cost)] / discount rate
(assume revenues and costs are static over time to simplify the equation)

To solve for maximum cost of dinosaur assume the minimum NPV = 0.

Question 3

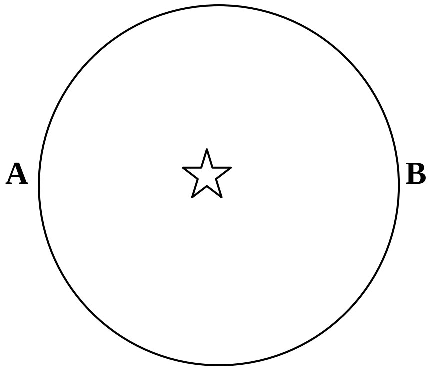
The candidate should ask about the size of the dinosaur before recommending the size of the exhibit area. An example answer will be – Since the dinosaur is the size of an elephant, a football field will be a good size area. If the dinosaur is at the other end of the field, the spectators will still be able to see the dinosaur.

Suppose the exhibit area is round with a diameter of 100 yards, what is the circumference of the exhibit area? Circumference = Π * Diameter

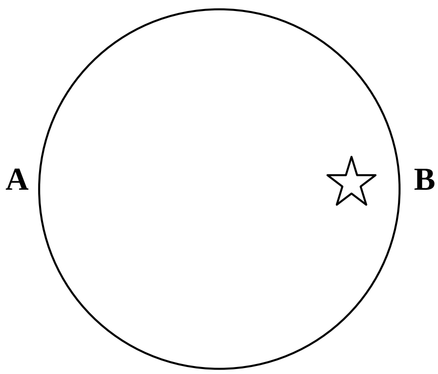
The candidate should realize that there will be a heavy demand to view the dinosaur. Spectators will be coming from all over the world to see the world's only dinosaur. It is important to cycle the spectators through the exhibit area so they have an enjoyable visit and the client is able to get as many spectators through as possible in a day.

How will you route the spectators around the exhibit area?

If the candidate proposes having the spectators walk around the exhibit area in either a clockwise or counter clockwise direction, have them explain how they will prevent traffic from collecting around the location the dinosaur (   ) is at.



Ideal Situation - Every spectator has the same view.



Not the ideal situation - The spectators at A and B don't have the same view. Traffic will likely build up at B. Ask the candidate, how can you prevent this from happening?

There is no right or wrong answer. An example will be – Make the exhibit area like an amusement ride. Therefore the client can prevent traffic from building up and the client can control the cycle time the spectators spend in the exhibit area. Another good answer – Is to have the exhibit level multiple levels so the client can cycle more spectators through.

Right approach

- The right approach should quickly focus on the Net Present Value equation and what the revenue and cost of this project are. NPV = Current Cost – Present Value (Revenues – Cost)
- Revenue should be broken down into all the possible avenues that will generate sales. Cost should be broken down in all the possible costs that are associated with the project.
- Realizing the dinosaur does not live forever therefore the revenue stream would disappear as soon as the dinosaur died.

Risks

- The dinosaur could die of diseases in north asmerica.
- No zoo in the world has ever cared for a dinosaur before. The creates a host of unknowns that could drive up costs.
- The dinosaur may be more able to attack/hurt spectators then normal animal, raise liability risk.

Wacky Wireless Company – Industry Analysis Case

1) Overview
- Your client is a private equity firm.
- The client has asked you to do due diligence on a Wacky Wireless, a Puerto Rican wireless company.
- The company is the third largest player on the market and has 20% market share.
- Historically, Puerto Rico has seen double digit growth in demand for wireless services.

2) Case question
Is this is a good business for your client to invest in? Please assess the company's future growth and profitability; a full-blown valuation is unnecessary.

3) Question and Answer Period

1. Market Opportunity
- Q: How large is the wireless market in Puerto Rico?
- A: Do not directly give the candidate an answer, but ask them to try to estimate the figures below.
    - Population of Puerto Rico is 4.0 million
    - Number of people who currently subscribe to wireless service is only 1.6 million people (40% penetration)
    - Growth of population is 2%/year
- Q: Does 40% market penetration mean that Puerto Rico represents a great market opportunity?
- A: Do not directly give the answer, but ask the candidate what information they would look for to answer this question. Some good ideas:
    - Forecasted growth rate for wireline services in Puerto Rico (info n/a)
    - Compare Puerto Rico to more developed countries (mature markets) to see what market penetration in wireless services looks like over time (good answer, but info n/a)
    - Compare Puerto Rico to more developed countries to see how much demand for wireline services has declined and use substitution rates (good answer, info n/a)
    - Consider purchasing power in Puerto Rico – 50% of population lives under the poverty line (show Exhibit 1)

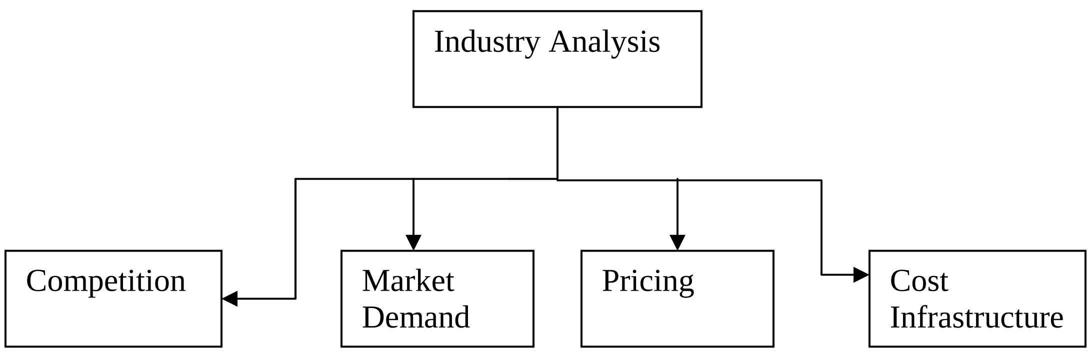
2. Pricing
- Q: Have prices for wireless services remained steady?
- A: Show Exhibit 2. Good interpretation: there is downward pressure on prices, which have declined quickly in recent years.
- Math: Ask the candidate to calculate the market opportunity
    a. Total Potential Market = 4.0 million people * 50% potential customers * $30/customer/month * 12 months

= \$720 million

3. Costs
- Q: How do the target company's fixed and variable costs compare with the competition?
- A: See Exhibit 3. Good interpretation: the network costs are for the most part comparable; the target's fixed costs are slightly higher but will improve slowly with some low economies of scale.
- Q: Are there any significant capital requirements for the target to scale up its network?
- A: No

4. Competition/Barriers to Entry
- Q: Who are the other major competitive players?
- A: AT&T and Sprint own 70% of the market; they have recently entered by purchasing existing companies.
- Q: Are there any significant regulatory issues that limit growth?
- A: No, regulation is not an issue

4) Answer Discussion



Conclusion:
- Client should be wary of this investment because the wireless service market is approaching saturation in Puerto Rico.
- The target company does not have significant cost advantages over competitors and prices are declining, putting a squeeze on profitability.
- The existence of large competitors with major market share and deep pockets is also a concern.

Good Answer:
- In order to solve this case, it is important that the candidate dig deeply into the market opportunity in Puerto Rico. A good candidate would be able to come up with at least two different ways of measuring whether 40% penetration is a lot or a little.
- The candidate should cover all of the framework elements above to make sure that he understands the full picture before coming to a final recommendation.

- The candidate should be able to interpret the exhibits correctly.

Great Answer:

- Candidate takes into consideration Puerto Rico's status as a developing market and hits on the issue of consumer purchasing power as being central to the market opportunity.
- Candidate makes the connection between declining prices and market saturation.
- Candidate thinks of additional information that would help him make a better recommendation (i.e. future GDP growth in Puerto Rico, market potential for value-added wireless services, return demanded by the private equity client)
- Candidate does total potential market calculation easily and adds in other variables to fine tune the number

Exhibit 1

Wireless Service Penetration

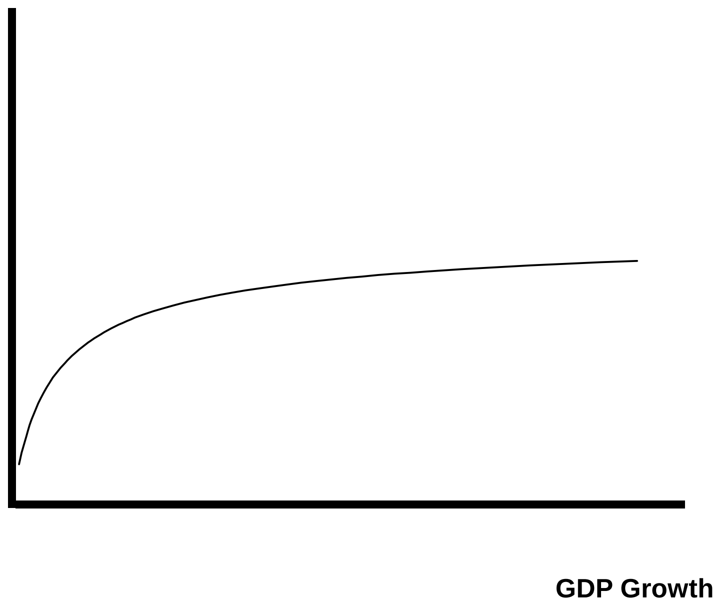


Exhibit 2

Wireless Service Price/Month

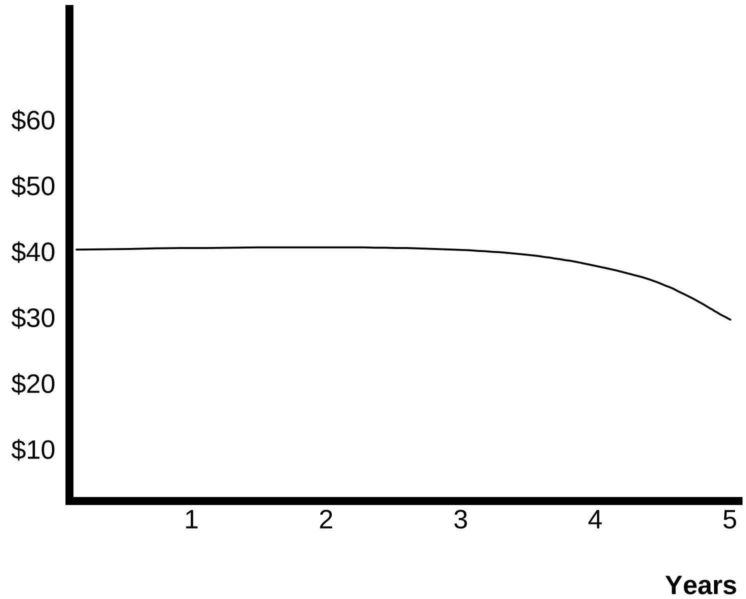
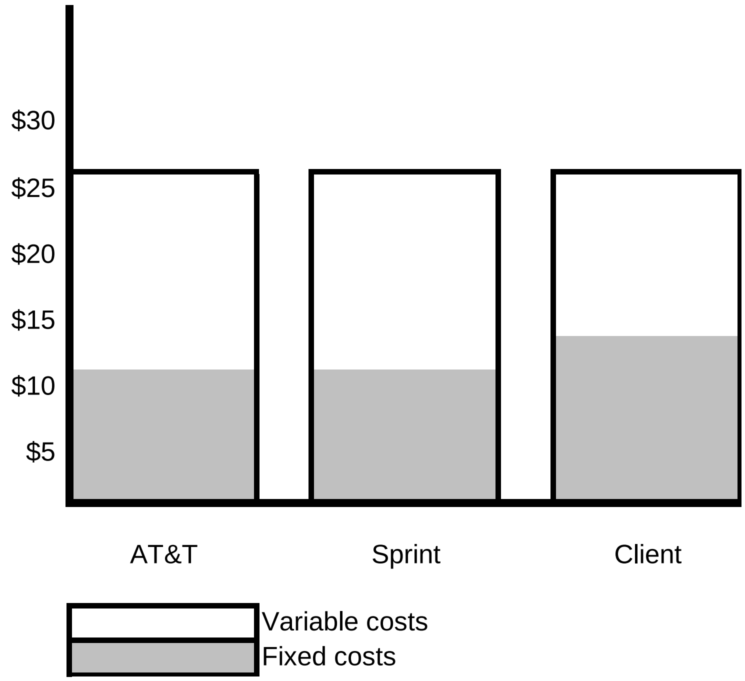


Exhibit 3

Cost Structure by Competitor



Sankar's Saucy Foods (Profitability):

Overview

The client is Sankar's Saucy Foods. The company specializes in the manufacturing and preparation of high quality sauces. The client is based in the U.S and caters only to the U.S retail stores. The client has recently seen an increase in their volume of sales (by 20%). However, their profits have declined by 10% in the same period

Case Question

The client wants to address the following questions:

- What is the cause for the decline in profits even though the unit volume increased?
- What can be done to reverse this trend?

Q&A Session

Relevant Questions and Data (Wait to see if the student asks for this relevant information before giving it to them):

Let the student ask all the important questions:

- **Revenue**:
  - Products sold: Pasta sauce, tomato sauce, and salad dressing
  - Overall price change: None
  - Channel sales (volume, price): Only retailers, no problems here
  - Product mix change: None
  - Competitive pressure: None
  - Substitutes: No new substitutes or change in customer taste
  - Market conditions: No problems here
  - Quality: No problems here

- **Cost**:
  - Manufacturing cost: No change here
  - Distribution cost (by channel): No change here
  - ***Promotion cost: This has gone up!***

Other Relevant Information:

Promotion cost is an important component of total cost in the food industry. The client started providing a $15 discount per product (across all products) for 40% of its products during this period
(For sake of simplicity, assume that all products are sold at the same price per case and the discount is across all products)

Relevant Analysis and Answer Discussion

Data Table:

Scenario	Before Promotion	After Promotion
Total Volume (Units)	100 (hypothetical)	120
Price/product	$100	$100 for 80 products
		$85 for 40 products
Cost	$80	$80
Profit	$2000 (100*$100*0.2)	$1800 [80*($100-$80) + 40*($85-$80)]

The above table proves that with a 20% increase in volume, the profits dropped by 10% ($200/$2000) due to the promotion cost.

Breakeven Analysis:

- If discount is offered for 40% of products, then the discount/product has to be $10/product (After promotion revenue = $2000 [80*($100-$80) + 40*($90-$80)])
- If discount/product is $15/product, then the percentage of products for which the discount is given should be 26.66% (After promotion revenue = $2000 [93.33*($100-$80) + 26.66*($85-$80)])

Answer Analysis:

- Identify that the promotion cost is the cause of the problem and prove the 10% decline in profits
- Ask the candidate to do the break even analysis. In the end this is the key part of the case. Candidates have an opportunity to impress the interviewer here and drive themselves forward by nailing the breakeven analysis in a confident and cool manner (all the while continuing to focus on relationship building with the interviewer).
- Suggest ways to turn the situation around:
  - Why is volume increasing only by 20% even though discount was given for 40% of products? Is the promotion being implemented and advertised effectively? Is the channel taking away most of the discount such that the consumer is not seeing a lot of it?
  - Primary demand stimulation – make consumers consume more (new uses for the products) or increase the number of time they use our product through ad campaigns

Good approach

- Revenue-Cost approach is ideal for this case. Identify all the key revenue and cost buckets and explore the promotion cost component in detail (promotion cost is key in this industry)

- It is important to first prove the 10% decline in profits with the 20% increase in volume. This will establish the source of the problem clearly and let the interviewer know that you can analyze and structure a problem well.
- Finally, drive toward a break even analysis without the interviewer requesting you to do it (this will get you bonus points).

Kunal's Auto Parts (Growth Opportunity Case):

Overview

The client, Kunal's Auto Parts, is an auto parts manufacturer (a single specific part in the car engine like carburetor). This is a simple and homogenous component. This product can be fitted in any car/make and it is an essential product with no substitutes in the market today. The client is doing OK. However, they are looking for growth opportunities.

Case Question

What opportunities should the client explore for growth? (They are looking specifically for both Revenue and Margin growth – don't say this upfront – see if the student asks for it and then give it to the student!). Ask the candidate to brainstorm around ideas for revenue growth. Ideally, the candidate would come up with 4 or 5 good ideas.

After identifying the opportunities, please explain the rationale for choosing these opportunities (or prioritize them) and list the ways in which we can execute these recommendations?

Q&A Session

Relevant Questions and Data (Wait to see if the student asks for this relevant information before giving it to them):

- **Market**:
  - Size: 100M units
  - Growth: Steady Growth (not relevant for case, but good question)
  - Target Segment: Mainly after market (used and new)
  - Geography: North America Only

One of the most critical factors for success in this business is efficient supply chain and strong distribution channel. Ignore supply chain for now and focus on the potential sales channels. Ask the candidate to brainstorm again about what the potential distribution channels are (they are listed in the table on the following page). Ask the candidate to comment on the profit margins he/she expects to see in each channel.

Channel Details (Let the student identify the key channels) – it is a good idea to print out the below table separately and show it as a slide)

Channels	Small Mechanics	Car Dealers	Mass Merchants	Auto Parts Stores
Market Share (Units)	40%	20%	20%	20%
Market Price	$85	$70	$50	$60
Share of Client's Total Sales (Units)	70%	10%	10%	10%
Client Production Cost	$45	$45	$45	$45
Client Distbn Cost	$10	$5	$5	$5

As noted ask the candidates what they expect the price, distribution cost, and production cost to be across the different channels before giving the data. Purchasing power for Mass Merchants is clearly going to be higher and hence a lower price and margin for our client. In the small mechanics we have higher distribution costs, since small mechanics are scattered, but if we create brand loyalty we can tend to charge higher prices. Continue to brainstorm around this subject for a couple minutes. The real test here is for the candidate to create a relationship with the interviewer. They should take this opportunity to demonstrate energy, creativity, and strong business skills.

Continuing the case problem, good candidates will ask about and get the following info:

- **Client (Macro):**
    - Share Overall (Units): 30%
    - Brand Image: Good, comparable to other big player in the market
    - Sales Incentive: Base salary plus a fixed % of $ sales

- **Client (Operational)**:
    - Manufacturing: 3-4 plants, all in the U.S
    - Suppliers/Raw Materials: All U.S suppliers

    (the student should get bonus points if they suggest cost cutting measures by identifying opportunities for off-shoring the manufacturing facilities like competition. This is not directly relevant to the case question, so if suggested note it but push the candidate forward)

- **Competition (One large player, rest is fragmented)**:
    - Large player share (units): 30%
    - Sales Channels: Same as client
    - Manufacturing: Most plants in a low cost foreign country
    - Channel Share: Not relevant
    - Brand Image: Similar to client

(Note: there is no real brand awareness among customers and they only care about the product quality and service. Both our client and the other large player in the market are comparable in these aspects)

Other Relevant Information:

Small mechanics value service more; Large channel customers don't care about service as much
Service Definition (*let the student brainstorm here*): timely delivery, quick parts replacement, assistance with technical questions (from end customers and mechanics)

Relevant Analysis and Answer Discussion

- Identify the client's unit sales and the market unit sales in each channel
- Identify the profit/unit (price minus total cost) for each channel
- Identify the client's penetration in each channel (using market unit sales and client's sales by channel)
- Identify that the small mechanics channel is the most profitable and is only ~50% penetrated by the client. So, this is #1 priority for growth. Identify Car Dealers as the next most profitable channel and so on
- Develop an effective way to increase penetration in the small mechanics channel

- Sales incentive: Increase commission for sales to the small mechanics or tie the sales commission to the margin generated by the sale rather than just the revenue (which is the current incentive structure – the student should ask for this)
- Increase training to sales to provide good service to the small mechanics

Answer Table:

Channels	Small Mechanics	Car Dealers	Mass Merchants	Auto Parts Stores
Market	40M	20M	20M	20M
Market Price	$85	$70	$50	$60
Client's Sales (Units)	21M	3M	3M	3M
Unit Margin	$30	$20	$0	$10

Example Analysis:
Client's total sales: 30% of 100M Market = 30M units
Client's sales (units) in small mechanics: 70% of 30M = 21M units
The rest of the answers the interviewer should work out on his/her own. They are simple and working them out will help you prepare both as interviewer and, if applicable, as a candidate as well.

Good approaches

- 4Ps would be ideal approach – the key is to identify that the distribution is the focus area and drill deeper in this area.
- After identifying the channel to focus on, form clear recommendations (identify key business insights like purchasing power of Mass Merchant stores like Wal-mart, distribution cost differences across channels, and change to sales incentives)

Samir and Sameer's Clothes Manufacturing:

Overview

The client, Samir and Sameers's, is a men's clothes manufacturer. The clients purchased their high-end, brand name sports attire operation from Subramanyan Conglomeration 10 years ago. For the past ten years Samir and Sameer's have managed respectable sales growth. However, they would now like to explore opportunities to double $ sales in a year.

Case Question

We have been asked to help with the following questions:

- Is doubling of $ sales possible in *1 year*?
- If so, come up with a clear recommendation for achieving this goal:

Background on Client:

Current Sales = ~$20M
Current market share in high-end sports wear = ~50%
Been in the market for over 7 years
Clothes manufactured in China and shipped directly to the U.S stores
Client's own designers design the clothes in China
Sold exclusively through the clients own high end stores in select U.S cities

Q&A Session

Relevant Questions and Data (Wait to see if the student asks for this relevant information before giving it to them):

Market:

The market relevant for the client is divided along 2 dimensions:

1. Brand quality/image (Low end, Medium end, High end)
2. Type of men's wear (Casual, Multi-Purpose, Sports)

Overall expected market growth: 5% per year (you can assume its roughly 4% for both sectors)

Market Data Table:

Total Sports Sales: ~$150M
Total Multi-Purpose Sales: ~$500M
Total Casual Sales: ~$1.3B

(% in the table below is % of low, med, and high end for each type of men's wear)

	Casual	Multi-Purpose	Sports
High End	7% 24%	19% 29%	24% current market 29%
MedEnd	69%	52%	47%
Low End			

(Note to interviewer – if this is case you give often you should photocopy or re-draw this table in a slide so you have it ready to give to the candidate)

Other Relevant Information:

- The client would like to achieve this revenue growth within a year
- The client increased prices about 2 years ago by ~25% and found the volume actually went up a little bit
- The client is very particular about the brand image and quality in the market and would only want to sell its own products through its own stores *(ask the student to explore the pros and cons of this)*

Answer Analysis and Discussion

- Total growth required is 100% (or ~$20M)
  Market growth: Gives 5% of required revenue growth

- Current market: Increase price by 25% and assume volume does not drop (based on results from previous price increase 2 years ago) – this gives another ~25% increase in revenue

- Enter adjacent markets:

- First, estimate the size of the other high end markets ($95M for Multi-Purpose and $91M for casual). These are obvious adjacent markets they can explore *(ask the student to brainstorm this argument – synergies due to brand name, same customer base and retail outlets etc)*
- Next, estimate the attainable market share: 2 approaches can be used.
  - First, use the share the client gained in their first year of entry into their current market (~6%).
  - Second, use the current share of the players in each of these other high end markets (~8%). Assume that the client can get an average of ~7% share in the first year (the client has a very reputed name in the high-end circle and has the resources to launch effectively due to prior experience in the sports market)

  (Let the student come up with these or other ways to estimate attainable market share).
  This translates to ~$6.7M for each of the other 2 high end markets. This translates to ~70% of current sales

Adding all the three above growth opportunities comes to ~100% revenue growth

Thus, it is possible to double revenue in a year, with the following caveats or key issues which have to be considered

<u>Key Issues to consider:</u>

- Whether the designers and manufacturers in China can ship on time with expanded product line: No problems here
- What about supplier relationships: No problems here
- What about need for new designers: No problems here
- What about brand image and dilution: Will not be an issue as we only enter other high end markets
- What about selling through other retail outlets: Management is against this (*get students thoughts on this*)
- What about entering the low-end casual market – Even though this is a big market, fighting with the Wal-mart's of the world may not be a good idea because of different customer base who are less brand sensitive and more price sensitive (*ask student to explain why*)
- M&A is not possible as growth is needed in 1 year (integration will take longer than a year)

<u>Right approach</u>

- The right approach should quickly focus on the revenue side and ignore cost completely

- Revenue should be broken down as price X volume. Then, opportunities to grow price (increase it) or volume (market growth and adjacent market entry) should be explored systematically
- Making sound assumptions for which adjacent markets to enter and what share is attainable is very important
- Finally, bringing up all the key issues and discussing them in a confident, engaging manner that draws the interviewer into the conversation is very important. This case is very much about good business sense. Right answers don't have to follow the path above if the candidate displays clear industry knowledge and can lay out his/her arguments in a cogent and engaging manner.

Subramanyan-Sanafi Pharmaceuticals
(Pricing a New Drug):

Overview

The world's second largest drug manufacturer, Subramanyan-Sanafi, has come up with a new idea for selling its two blockbuster drugs. One of them is for lowering blood pressure (BP) and the other is for lowering cholesterol. The client is experimenting a new drug that is a combination of these two drugs. They think this will generate more revenues in the near term.

Case Question

The client would like you to help them with the following questions:
- Is this a good idea?
- If so, how should they price the new drug and what is its impact on the client's revenue?

Client and Product Background: (Good candidates will start this discussion before the interviewer has to lay it out for them)

- The client is an established player in the U.S market (focus of this case)
- Both the drugs under consideration are prescription drugs and the new drug they are thinking of will also be a prescription drug
- No additional cost was incurred in this combination drug and it has already received FDA approval

Q&A Session

Relevant Questions and Data (Wait to see if the student asks for this relevant information before giving it to them):

Client has 50% share for both the cholesterol and BP drug
Substitutes: There are no other products like the combination drug in the market
Competition: One other competitor (50% share for both the cholesterol and BP drug)
Patent: Available for ~10 years (for both the individual and combination drug)

Following is the summary of survey of several doctors and HMOs (scale of 1 to 5 with 5 being the best)

	Client's New Combo Drug	Client's Current Portfolio		Competition's Current Portfolio	
		Cholesterol	BP	Cholesterol	BP
Efficacy	5	4	4	3.5	3.5
User Convenience	5	3	3	3	3
Drug Interaction	None	Small	Small	Small	Small
Side Effect/Safety	None	Small	Small	Small	Small
# of Customers	***?***	40,000	50,000	40,000	50,000
Price to HMOs	***?***	$40	$30	$40	$30

- Consumers pay a co-pay of $10 per prescription (for 1 month worth of medicines)

- Also currently, 30,000 of the total 90,000 customers for both the client and competitor use both the cholesterol and BP drug

Note: User convenience is a measure of compliance or how often patients consume the drugs properly on time. This is higher for the combo drug as it is only one pill compared to the current two pills. This is expected to cause the patients to take the proper dosage of both the pills more frequently.

Relevant Analysis and Answer Discussion

Pricing for the new combination drug:
Current Scenario:
- Consumers currently pay 2 * $10 = $20 co-pay for a month's prescription of both the drugs
- HMOs currently pay ($40+$30)-($20) = $50 to the client for a month's prescription of both the drugs
- Client receives a total revenue of ($70*30,000) = $2.1M/month (from customers who buy both drugs)

Combo Scenario:
- Since new drug is more effective and convenient than the current two drugs, customers can be charged and are able and willing to pay $15 co-pay for a month's prescription of both the drugs ($15 is less than the current $20 co-pay customers pay for the two separate drugs) – Good candidates will ask if they are changes to pricing for the new drug or even speculate on it. If the candidate does not raise the issue then let them swim around for awhile to see if they come back to it. Eventually, if they don't ask then give it to them.
- HMOs pay for combo drug = $50 for a month's prescription of both the drugs (assuming HMOs do not pay more than before)
- Cannibalization Effect: Assume all 30,000 customers who buy both the drugs will start buying the new combo drug. Lost revenue = ($70-($50+$15))*30,000 = ($150,000/month)

New customers from competition
- The client could potentially get a reasonable share of the competition's 30,000 customers who use both the drugs (because of benefits of the drug and the reduction in monthly co-pay)
- Let's say they get 50% of competitor's customers: This translates to a revenue of ($50+$15)*15,000 = $975,000/month

Net impact on client's revenue (Short-term)
- Net direct impact is a revenue growth of $825,000 per month
- In the long-term, there is potential to woo more competitor customers.
- The above are strong positives but good candidates will point out that competition may make own combo drug and ask about if they have such a drug in the pipeline (they did but it failed). In any event, the compeition is expected to eventually create a competitor drug. This will cause the advantage to shrink a little bit in the long-term.

Potential Synergies:
- Distribution (Sales force, Doctors, Pharmacies, Hospitals, HMOs): Well established (and the same) network which can be used for the combo drug
- Marketing and advertising: Current programs can be used to push the new combo drug to consumers (currently, client has a very effective Direct-to-Consumer marketing)

Right approach

- The student should identify the key entities in the industry value chain like doctors, HMOs, hospitals, and the end consumer (bringing in the government and state agencies is a bonus though this is outside the scope of this case)
- The next step will be to identify the feasibility of the idea which should include the key aspects of drug efficacy, side effects, interactions etc
- Finally, the student should try to estimate a price that the market will bear for this product. Here, the co-pay for end customers should be used properly. Also, the student should address the cannibalization effect of introducing this new combination drug (very important) and its impact on overall revenues
- Bonus points: If the student mentions the benefits of increased compliance to the HMOs (because of reduced long-term costs to them) and consequently makes an assumption that they may be willing to pay more than the current $50 for the two drugs together to the client.

Brenner's Wireless License Bid

Background

The Singapore government is rewarding an wireless licenses via a bid process. Mr. Brenner, Senior Vice President of Strategy and Sales Growth at Vodafone, i.e. your client, is considering whether it should participate and bid for this license. Your job is to assess the attractiveness of bidding.

First Question:
Mr Brenner would like for you to analyze the market opportunity.

Information – Note the candidate should ask for the following data specifically before getting it.

Market Size: Mobile use in Singapore is expected to increase 20% in 2004, 30% in 2005, 40% in 2006 and 30% in 2007. There are now 2.4 million mobile users in Singapore. The average mobile user spends $60 a month for a mobile phone.

Customer Acquisition: To enter the market the company projects that it will have to invest an incremental $100 million to acquire the first 200 thousand customers. 200 thousand subscribers is Vodafones benchmark for a minimum threshold to enter a new market. Each additional 10 thousand customers will require $1 million in advertising.

Competition: There are three players in the Singapore wireless telecom market who have 60%, 30% and 10% of market share respectively.

Industry Economics: Industry EBITDA is 60%. The new license is expected to cost $100 million.

Project discount rate: 20%

Approach
The candidate should do following:
Market attractiveness analysis:

- **Market Analysis** – the size and growth of the market, profitability of the industry, etc.
- **Consumers analysis –** Discuss what consumers value (i.e. features) and the types of services they use. (there is no hard data on this point, rather the candidate should brainstorm with the interviewer about consumers in general)
- **Competitor analysis** – The candidate should recognize that the existing competition will react to Vodafone's market entry by offering more services, better features, better coverage, lowering prices, etc. In addition, the candidate should mention the importance of fully understanding the realm of possible strategies that will circumvent competitor reactions. This does not need to be specific, but this is analysis that will require further work.

Client analysis – its ability to win in this market: The candidate should mention that cost structure, core competencies, and competitive advantages of vodafone will be key as well.

However, they are not the issue at them moment, the candidate may assume that these are seen as sources of strength for us.

Economics of the bid –cost benefit analysis to see whether the client should attend the bid. This is the true the focus of the case. The candidate should realize this and focus on drilling down here and into the numbers given at the beginning of the case. The goal is to get a simple NPV of the potential project. Since NPVs are not common the interviewer should ask for it specifically but ask for a rough estimate so the candidate doesn't over-focus on the math.

First consider the threshold investment. If the bid is profitable at threshold, then assume that it is also profitable at added-in investment stage. If it is not profitable at threshold stage, then consider added-in investment stage to see whether it would be profitable (it is good to start with threshold investment only because you do not need to consider the growth rate of the business for your NPV calculation – especially if you have not learned corporate finance yet at this stage, this will save you a lot of trouble).

- Up-front investment: total $200 million (license $100 million + threshold investment $100 million).
- Cash inflow = $60.00 * 200,000 * 60% * 12 = $86.4 million (every mobile user spends $ 60*12 each year for mobile bills. Assume that you client is able to get 200 thousand customers. 200 thousand customers is less than 10% of current mobile users which is 2,400 thousand. As the market is growing at 20%, acquiring 200 thousand customers seems reasonable for our client. EBITDA is 60%).
- NPV = $86.4M / 20% - $200M = $232M (Assume that the project could go on for ever, and that the competitors' discount rate is 20%) – this is a quick and dirty way of doing NPV to get a sense of the numbers. Based on this; we should look deeper into this project.

Second Question

What are the risks and why?

1) 200 thousand customers – competitors will probably respond. However, as the current mobile-user market is growing at 40% and the current market has 2.4M customers. If our client focuses on new customers, which is 2.4M*40% = 960 thousand it should be able to get 200 thousand customers.
2) 60% EBITDA won't change. This is not necessarily true either as with new entrants into the market, the current players might cut price to maintain their market share. This could drive down EBITDA.
3) We assumed that the project would go on forever – there might be country risk – e,g, Singapore government decided to nationalize the mobile telecom market – though this risk is small, but we should also consider
4) We used the industry discount rate – which does not necessarily represents the risk of the project for Vodafone.

Third Question

If the current market share were not 60%, 30% and 10%, but 40%, 40% and 20%, which market is better for a new entrant? There is not an absolute answer to this, rather the candidate should pick a market and defend his / her position.

<u>Potential answer:</u>

The 60-30-10 market is better for entrant as it is a more stable market than the 40-40-20 market. In the 40-40-20 market, player have relatively same market share. There is no dominant player. Thus, players are more aggressive in acquiring new customers or stealing customers from other players to strengthen their position in the market. While in the 60-30-10 market, there is an obvious industry leader and each player's position is more or less decided. Thus the market is more stable.

Shah's Stop and Save

Note to interviewer: please know this case well before giving to candidate. There is a lot of information here!

Background (read to candidate):
Say: RFID (Radio Frequency Identification) is a new technology. It is a tiny system that consists of wireless technology to transmit product serial numbers from tags to a scanner without human intervention. It is widely seen as the likely successor to barcode technology.

Our client is Shop-N-Save, a discount consumer goods retailer (similar to Wal-Mart or Target). They are investigating the possibility of requiring its suppliers to tag each product with RFID. Our client's board requires that all major capital improvement projects recoup all costs within 3 years or less. They have come to us to investigate this opportunity. Should we advise our client to pursue it? If so, what risks are there? If not, what alternatives can we investigate?

Case path:

1. *Structure the solution*
   Here is one possible structure, one that is probably overkill. Any structure that is able to address all relevant aspects of the issue is acceptable.
   - Cost/benefit
   - Supplier relationships
   - Consumer privacy concerns
   - Technology considerations and capital outlay
   - Internal change considerations

   The main aspect of the structure for this case is cost/benefit. If they delve into other areas (i.e. privacy concerns), be aloof and mention you do not have data on that subject. That should bring the candidate back to cost/benefit.

2. *Benefit/cost details*
   Costs:

   Candidate may want to start with benefits first. Interviewer should direct them to start with costs first. Costs are more interesting in terms of dissecting a graph, and for benefits interviewer can give candidate answers easily without requiring diving into calculations if time is short.

   Ask candidate to brainstorm on what costs could occur. Let them generate 4-5 ideas, then ask which is likely to be the greatest and why. Then, dive into details.

   Give candidate "General Information" slide to refer to for cost discussion.

   Say: Let's examine the cost of rolling out RFID to individual stores and DCs. Our client's Strategic Planning Team worked closely with the IT department and came up with the following chart to determine how many receivers, which will read the RFID tags, to install in stores. (Show chart "Store Receiver Layout").

- What does this chart indicate? (Wait for answer; guide them if necessary).
- With this, can you determine the cost of rolling out RFID receivers to stores?
- What are you missing? (Let candidate compute; candidate should realize that he/she is missing cost of receivers, wiring, and systems).
  - The cost of each receiver, including all wiring and systems, is $100 per receiver.
- Now, what is the cost of rolling out the receiver to all stores? (Let them compute).
- *Expected candidate math*:
  - First, compute number of receivers per 10,000 square feet Store space: 4/low x 2 low + 10/med x 5 med + 20/high x 2 high = 8 + 50 + 40 = ~100/10,000 sq ft.
  - Second, compute cost of receivers per Store: $100/receiver x (100,000 sq ft / 10,000 sq ft) = $100,000/store
  - Third, compute cost of receivers in all stores: $100,000/store x 30 stores = $3M

Say: Now, let's look at the DCs. (Show chart "DC Receiver Layout") Let's again assume that the total cost per receiver, including all wiring and systems costs, is $100 per receiver.

- What is the cost of rolling out to all DCs? (Let them compute).
- *Expected candidate math*:
  - First, compute number receivers per 10,000 square feet DC space: 4/low x 3 low + 10/med x 5 med + 20/high x 1 high = 12 + 50 + 20 = ~80 receivers/10,000 sq ft.
  - Second, compute cost of receivers per DC: $100/receiver x (400,000 sq ft / 10,000 sq ft) = $328,000/DC
  - Third, compute cost of DCs in all stores: $328,000/DC x 3 DCs = ~$1M

Say: There will be an additional one-time cost of $8M for developing supporting computer systems and training, in the first year. In addition, the cost of yearly maintenance will be $3M/year.

Expected candidate math (Note: a great candidate will summarize costs this way before moving onto benefits):

- ***One-time costs: $10M (systems & training) + $3M (receivers in stores) + $1M (receivers in DCs) = $14M***
- Yearly costs = $5M

Benefits:

Ask candidate to brainstorm on what benefits could occur. Let them generate 4-5 ideas, then ask which is likely to be the greatest and why. Then, dive into details.

They should come up with some of the following answers. These are lumped into three main categories. Feel free to group their suggestions into one of the following, or say "that's not applicable/relevant to this case" if not classifiable.

Note: their framework may say Revenue/cost instead of Benefit/cost. If so, feel free to tell them that the following benefits are effects on contribution to fixed cost, as opposed to revenue. They should realize that we are not dealing with revenue directly in this case, but rather focusing on cost and on contribution.

- Reduction in out-of-stock; Reduction in theft (both in-store and in distribution).
    - Say: Sales are projected to increase 0.1%/year as a result.
    - *Expected candidate math*: Sales/store/year=$50M [from General Info] x 30 stores [General Info] = $1.5B/year sales x 0.1% = additional $1.5M/year contribution.
- Better inventory management; Faster cross-docking distribution.
    - Say: There is a one-time savings of 5% on total inventory once the distribution process has been re-engineered. Assume that this happens within the first year.
    - *Expected candidate math*:
        - First, compute total inventory: inventory = $1.5M/store x 30 stores + $5M/DC x 3 DCs [all #s from General Info] = $45M + $15M = $60M
        - Next, compute one-time savings: $60M x 5% = $3M *one time* contribution.
    - Note to interviewer: This is a really complicated calculation; if running out of time (esp. with 1/2 hour interview), feel free to give this number to candidate.
- Reduced in-store and warehouse labor; Faster checkout in store.
    - Say: We expect a decrease in Store and DC labor cost of 5% per year.
    - *Expected candidate math:*
        - First, determine total store and DC labor cost: labor = $20K/store employee x 100 employees/store x 30 stores + $20K/DC employee x 300 employees/DC x 3 stores [all #s from General Info] = $60M + $18M = $78M ~= $80M/year (expect rounding)
        - Second, determine yearly cost decrease: 5% x $80M/year = $4M/year.
    - Note to interviewer: This is a really complicated calculation; if running out of time (esp. with 1/2 hour interview), feel free to give this number to candidate.

Expected candidate math (Note: a great candidate will summarize benefits this way before moving away from benefit/cost):

- ***One-time benefits: $3M (better inventory mgmt & faster cross-docking)***
- ***Yearly benefits: $1.5M (reduction in out-of-stock & reduction in theft) + $4M (reduction in labor & faster checkout) = $5.5M***

Expected candidate math (Note: this is expected, as it directly answers whether Shop-N-Save should consider this proposal as-is):

(All values in $Millions)

Year:		***1***	***2***	***3***	***4***
Cost:	15	3	3	3	
Benefit:	8.5	5.5	5.5	5.5	
Net (year):	-6.5	2.5	2.5	2.5	
Net (cumulative):	-6.5	-4	-1.5	1	

3. *Risks to accepting technology*
   If the candidate determined (through incorrect math) that the client should accept the technology as-is, they should begin to brainstorm risks. Here are some examples; the more descriptive their risks, the less a math error should be held against them (especially if most of the math was correct):
   - Technology risk: RFID is a rapidly changing technology. If Shop-N-Save makes a decision on one non-standard technology type, that type may be phased out of the market if a different type is chosen as a standard.
   - Budget risk: Massive projects are inherently difficult, and as a result the project may surpass budget. Depending on candidate's calculations, there should be little leeway between recouping expenditures and not recouping expenditures by year 4.
   - Assumptions risk: There were many assumptions that were made, that could easily be incorrect.
   - Growth/shrink risk: how do costs scale if company grows or shrinks?
   - Others: let the candidate be creative.
4. *Alternatives to proposed plan*
   - Start small: instead of instituting a full rollout, stage the rollout based on geography or sales category.
   - Distribution first, then retail: focus on implementing RFID for distribution as first phase of plan, then on retail enhancement for second phase. Two separate phases will allow two separate periods to recoup expenditure.
   - Others: let the candidate be creative.
5. *Summary*
   - Give the candidate 2 minutes to create summary and summarize at end of case. Note that, given 30 minutes, I do not expect anyone to finish case in full. Ensure that the candidate summarizes what has been discussed and gives a strong statement as to whether he/she believes client should pursue.

Shop-N-Save

Candidate Slide

- RFID: Radio Frequency Identification.
  - Wireless technology to transmit product serial numbers from tags to a scanner without human intervention.
  - Likely successor to barcode technology.

- Shop-N-Save: discount consumer goods retailer.
- Client considering requiring suppliers to tag each product with RFID.
- Board requirement: All capital improvement projects recoup all costs within 3 years or less.

→ Should we advise our client to pursue this opportunity?
→ If so, what risks exist?
→ If not, what alternatives can we investigate?

Shop-N-Save – General Information

Candidate Slide

- 30 Stores and 3 Distribution Centers (DCs)

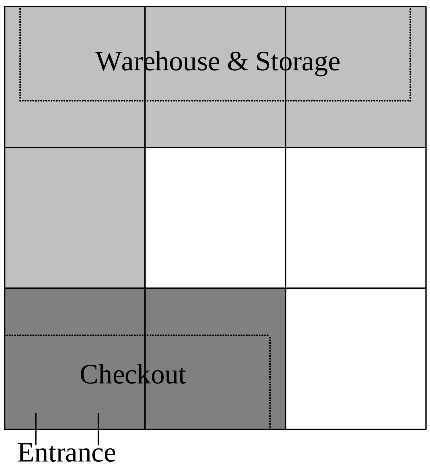
	Store	Distribution Center
Financial		
Sales/year	$50M	
COGS	($39.4M)	
Total assets	$3M	$8M
Total inventory	$1.5M	$5M
Operational		
Size	100,000 sq ft	400,000 sq ft
SKUs (unique products)	50,000	225,000
# of Employees	100	300
Average employee wage	$20,000/yr	$20,000/yr

*Note: all values are average per Store or Distribution Center

Shop-N-Save – Store Receiver Layout

Candidate Slide

The following chart depicts the recommended RFID receiver layout for a standard Shop-N-Save Store. To simplify analysis, store layout has been abstracted to high-level blocks, with each block having a specific level of traffic.



Legend

Low density – 4 receivers/10,000 sq ft

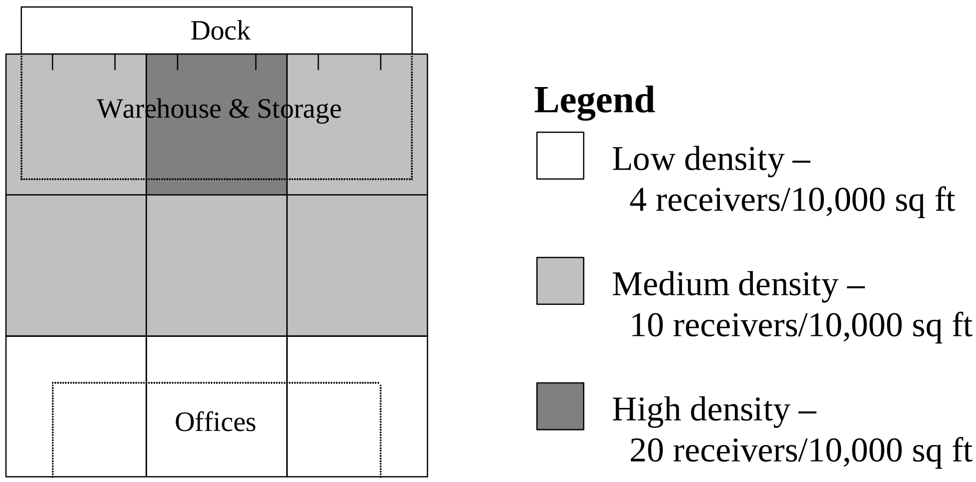
Medium density – 10 receivers/10,000 sq ft

High density – 20 receivers/10,000 sq ft

Shop-N-Save – DC Receiver Layout

Candidate Slide

The following chart depicts the recommended RFID receiver layout for a standard Shop-N-Save Distribution Center. To simplify analysis, store layout has been abstracted to high-level blocks, with each block having a specific level of traffic.



Good Luck!