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TOP CONSULTING INTERVIEW PREP

MCG CHICAGO BOOTH

2011 - 2012

Chicago Booth Case Book

The Reference Guide to Practicing Case Interviews

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THE CASE INTERVIEW PROCESS

I. Objective

The interviewer's objective is to gauge the candidate's interpersonal skills, comfort with ambiguity, business sense, logic, quantitative skills, coachability, and interpersonal skills. Ultimately, the interviewer is looking for someone he or she would want to work with. Candidates often make the mistake of thinking about the consulting interview in terms of two distinct sections – fit and case, but the interviewer is in fact assessing the above qualities in both interview sections. As you prepare for the interview, remember to portray a confident, well-rounded, likeable self to the interviewer. As a Bain interviewer said, confidence is key as a consultant's job is to ultimately sell confidence.

II. The Official Fit Section

The "Fit" part of the interview is often underestimated in importance. Though the case part of the interview is unquestionably important, let's face it: if you were accepted in this school, having the quantitative skills or brains is most likely not a problem. If you are coachable, you can easily learn the skills that are needed to succeed as a consultant. What you would not be able to learn is a good personality or a good attitude.

While the time interviewers spend on this section varies among firms, for every firm there is an official fit section in the interview. To prepare for this, you must know yourself inside out and tell a story that flows logically while letting your personality shine. Be able to walk through the details of your resume and explain the logic behind your decisions. During this section, you should also succinctly present your track record (hopefully of success), the challenges you've overcome. Most importantly, this is the time where you can win over the interviewer by setting yourself apart from others (in terms of both personality/attitude and past experience). If you can get the interviewer to be on your side during the fit, the case part of the interview is more likely to go smoothly as the interviewer subconsciously already likes you and wants you to succeed.

WHAT DO RECRUITERS SAY?

Booth consulting recruiters have consistently reported that students don't focus enough on preparing for the fit interview. Use the fit portion of the interview to show your passion for the firm and show off your track record. Firms expect that you know yourself well!

In addition to understanding yourself, you should also understand the firms. From the websites, presentations and networking events, you should have an understanding of what the firm prides itself on, what differentiates it from others, and most importantly, the culture. ***You should tailor your stories to what you've learned about the company.*** You should also have a good understanding of their business model/structure.

McKinsey Personal Experience Interview (PEI)

Throughout the interview, McKinsey looks for four main attributes in a candidate – confidence, presence, ability to listen, and ability to influence others. There are two main types of questions that McKinsey will almost surely ask to assess these attributes – leadership and personal challenge. Be sure to prepare your story very thoroughly as the interviewer will expect extreme detail. For instance, if you're speaking about a personal conflict with a co-worker, the interviewer might ask you exactly what you said to the co-worker and what the response was. He/she may also delve into the reasons behind what was said. Be sure to practice your stories thoroughly prior to the interview. In addition, try to have several stories for each the leadership and personal challenge questions since, during the second round, the interviewer may ask for a story that has not been told during other interviews. ***They will take notes on what you say during each interview, so be consistent!***

Fit with Other Companies

Other than McKinsey, most other firms will not have such rigorous fit sections. We've provided a list below of potential questions you should be prepared for. Note that other companies will likely not dig into quite the level of detail that McKinsey does.

Approach

When possible, try to apply the SOAR method to behavioral/fit questions:

Situation = in a sentence or two, describe the situation/context/environment

Obstacle = briefly describe the obstacle needed to be resolved

Action = describe what action <u>you</u> took

Result = discuss the outcome of that action

As mentioned, the goal of your story is to convey your personality, sense of confidence, and leadership ability. Keep in mind that even during this section, you are being tested on your ability to think and communicate in a logical manner, so be sure to keep your answers concise and well structured. Spend most of your time talking about the actions you took and minimize the time you spend on situation and obstacle.

In addition to applying the SOAR framework, many Booth students have found it helpful to create a written outline of their behavioral answers, using four or five sentences. The first sentence in this approach is the newspaper headline. The next few sentences concisely summarize the main components of the story that will be discussed. The final sentence should reiterate the results/impact of your behavioral example.

Some students have also found it helpful to fit their stories into a matrix of question type and the skill-set/quality you wish to convey.

FIT PORTION - PREPARATION TIPS

1. Incorporate one to two fit questions into every case prep session.
2. Use the SOAR framework to outline 6-10 stories using 4-5 sentence headlines. Especially if you are preparing for the McKinsey PEI, be prepared to go deep into several of these.
3. Use a spreadsheet to track which stories highlight different situations, personal qualities, and skills.
4. Be sure you have a story highlighting impact for every line of your resume!
5. Know what you like about each firm and be able to provide concrete examples.
6. Practice!

Common fit questions include (listed in random order):

- Tell me about yourself
- Walk me through your resume
- Tell me more about [a specific bullet on your resume]
- Why did you choose consulting?
- Why did you choose firm X?
- Why did you choose Booth?
- How would you evaluate the business of one of your previous employers?
- What do you like to do for fun?
- What is your favorite book? Why?
- What books have you read recently?
- What are three qualities your friends would use to describe you?
- What accomplishment are you most proud of?
- What distinguishes you from other candidates I am meeting today?
- What is one thing you want me to remember about you?
- Tell me about a time when you set your goals too high? (too low?)
- Who do you look up to professionally and why?
- Which classes have you enjoyed the most and why?
- What does management consulting mean to you?
- What are your short and long term goals?
- What are your areas for improvement?
- Who are you?
- Make an elevator pitch on why we should hire you?
- Tell me about a time when you had to persuade someone to do something they initially did not want to do.
- Tell me about a time when you had a disagreement with your boss and how you handled it.
- Tell me about a time when you had to lead a team through significant change.
- Tell me about a time when you had to deal with a difficult teammate.
- Tell me about a time a time when you had to deal with an ambiguous situation.
- Tell me about a time when you had to work with a lot of ambiguous data and how you handled it.
- Tell me about a time when you worked with people who approached things differently than you.
- How would your co-workers / classmates describe your leadership style?
- Tell me about your biggest failure.
- What is your greatest weakness?

III. The Official Case Section

Introduction

The case interview typically begins with the interviewer describing the business situation and providing the candidate with some initial information. The amount of information given up front will vary. Always make sure that you listen carefully, take notes and identify and focus on the relevant case information. Make sure you understand what questions you are trying to answer and ask clarifying questions about the business and data provided. Take some time (about a minute) to structure your analysis. For the sake of courtesy, you may want to ask the interviewer for permission to take this time.

Framework

A framework is important because it helps ensure that your response will be structured, logical and thorough. Additionally, the interviewer will begin to draw conclusions about your candidacy based on your ability to break down the problem. Several "canned" frameworks exist which can be useful in approaching case problems. For instance, many cases can be evaluated using the structures listed below:

- Porter's 5 Forces – internal rivalry, barriers to entry, substitutes (and complements), suppliers' power, buyers' power
- 4Cs – company, competitors, customers, collaborators
- Profitability = Revenue – Cost
- Value chain analysis
- Kotler's 4 Ps – product, placement, promotion, price
- Market segmentation – size, profitability, share, growth
- Internal/external factors – internal factors that affect only the subject firm vs. environmental/external forces that also impact the firm's competitors
- Microeconomics factors – market structures, supply and demand, long-run vs. short-run, price elasticity, marginal cost and marginal revenue, variable costs and fixed costs
- Financial statement analysis – income statement classification, revenue and cost analysis
- Cost-benefit analysis
- Net present value (NPV) and cost of capital

Developing Frameworks

Understand thoroughly the structures above and the sample frameworks below. In addition, to develop flexibility, a good way to practice is to pick out issues from the newspaper and write out frameworks for them. Be sure to think in terms of buckets and break them down to smaller details to work on your structure. Doing so will not only help you quickly develop frameworks in a logical and structured way, but will give you exposure to various industries.

Applying Frameworks

Never use the popular frameworks directly and *do not blindly memorize and apply frameworks!* Too much emphasis on framework can make a candidate appear robotic. Instead, you should **customize** the framework to the question you are being asked and be creative with your analysis. Based on the framework you have developed, you should be able to identify several possible paths towards addressing the core issue. It is important to **prioritize** the issues you will investigate in the case. The case giver may steer you in a particular direction, so make sure to **take cues** from your interviewer on what is important. Based on the case information received and the framework you have developed, you should formulate an **initial hypothesis** about the problem you are evaluating. In consultant-speak, a hypothesis is what you believe to be the central issue of the case, or the solution to it.

> **WHAT DO RECRUITERS SAY?**
>
> What was the biggest criticism reported to Career Services about Booth students last year? That they were too robotic! Using canned frameworks and doing too many cases can lead to students who focus too much on memory and hinder their own ability to think on the spot. Don't fall into this trap! Remember that the case should be an actively engaging conversation.

Take notes during the case interview, some interviewers will keep your notes to help them remember the path you took to complete your analysis. Sketch out your thoughts on paper, use large handwriting, and tell the interviewer what you are doing. Be as structured as possible when you are giving your thoughts on an issue or performing calculations. In the analysis phase, you should ask questions, synthesize the information provided and draw conclusions based on the facts. This process helps you to test your hypothesis. If the data proves your hypothesis to be invalid, use your framework and proceed to the issue with the next highest priority. You may have to develop a new hypothesis. Asking questions, collecting information and developing and testing a hypothesis is an iterative process. Do not forget that it is important to verbalize your thought process throughout the interview. As you work through the case, it is a good idea to verbally summarize where you are, what you have learned, what information means in diagnosing the problem and where you are heading next.

Doing the Math

When doing calculations, talk through your logic so that the interviewer understands your approach. If you make a mistake or stumble through the math, ***do not panic!*** Candidates have successfully obtained offers despite making mistakes (in certain cases, several of them) in calculations. Remember that during the case interview, the interviewer is not only assessing how you think, but also your personality. Making a mistake on the math and moving on with confidence and composure indicates that you're someone who can recognize your mistakes but not become petrified by them and allow them to impact your future performance. What's going through the interviewer's mind is this: "oh, so this is how this candidate would react if he made a mistake in front of a high level client." Bottom line, if you make a mistake on the math, getting nervous will only exacerbate the mistake. Also, don't apologize – remember to display confidence throughout the entire interview process.

Recommendation

Always end your interviews with a **succinct recommendation**. Try not to recap your path of analysis; instead, draw on key facts to give a clear answer to the central questions of the case. Some people have found it helpful to keep a list of key findings and recommendations to the side throughout the case so that it's easier to bring them back in the recommendation. In addition to the recommendation, you should have a couple of bullets for next steps and risks/significant assumptions. We've received (negative) feedback in the past that when asked for a conclusion, Chicago students tend to ask for a minute, scribble furiously on paper, then proceed to read from the paper. Instead, you should tie everything you've done (all the analysis, calculations, discussions) in your mind and articulate the verdict in a concise and fluid manner.

Interaction with the Interviewer

As you go through the interview, remember that the interviewer is assessing whether he/she would like to work with you. With that in mind, keeping the interviewer engaged and interested in you and your thought process will be key to a successful interview.

IV. Wrap-up Questions

Once the case part is over, you will typically have a few minutes to ask questions. Students often make the mistake of under-preparing for this section. Be sure to prepare by asking insightful questions after thoroughly doing your homework. The interviewer will use this to assess your candidacy and how much you want the job.

V. Interview Format

Difference between Firms

McKinsey interviews will tend to be a lot more structured, and the interviewer will drive the case. Similar to other firms, you will be given a problem statement upfront and facts surrounding the case. However, you will then be asked a list of questions to answer and finally tie together in the conclusion. It may be helpful to do a mini framework for each question asked.

For other consulting firms, the candidate must drive the case. Unlike McKinsey where they may tell you where to go next, you will need to draw up a framework and point out what the steps should be. Be sure to **listen carefully** to the interviewer for hints on where to go.

First vs. Second Round

In general, first round interviews will tend to be a lot more case-driven, with less time devoted to fit. The format will usually consist of 5-10 minutes on fit upfront with both interviewers followed by the case. With McKinsey, be prepared to spend 10-15 minutes on the fit portion. During the second round, you will generally have 3 interviews with partners, with the structure ranging from having a fit (5-15 minutes) upfront with each partner followed by a case session, or having an entire interview devoted to fit.

For the case portion, you will generally see typical cases during the first round and more complex or unstructured cases during the second round. Since first round interviews are usually with associates or managers, they are typically more structured so everyone knows what to expect. For second round interviews, given that interviewers are mostly partners, they will tend to vary significantly. Do not be surprised if you find yourself going from talking about your experience at XYZ firm to analyzing the firm as though it's a case. Be prepared for anything, and remember to keep up your energy and confidence.

Stress interviews

Your interviewer may also use a stress interview to assess how you react under stress/pressure. She may stress you through several ways, such as being rude, acting uninterested, disagreeing with you, or firing several questions to you at once. Past candidates have spoken of interviewers who had the wrong resume during the interview or even gave wrong information during the case session. The key to acing a stress interview is to stay calm, maintain a good attitude, avoid getting defensive or angry, keep a sense of humor, and again, maintain a confident demeanor.

PREPARATION TIPS

I. Timelines

The amount of time required to successfully prepare for a consulting interview varies depending on the individual. There have been some who got away with doing a few cases and obtaining offers, but most have done around 20 cases or more. Doing a wide variety of cases will give you exposure to functions (PE, marketing, operations, etc) and industries that you may not have experience in. As you practice the cases, remember that in addition to fine-tuning your case-cracking skills, phrasing and engaging the interviewer will also be key to obtaining an offer. Finally, be careful not to burnout from doing too many cases and running the risk of becoming robotic.

II. Giving and Receiving a Case

You should allot between 40 minutes to an hour to give or receive a case. This includes 25-30 minutes for the case itself and 10-15 minutes, or more, to discuss feedback or revisit portions of the case.

Prior to giving a case, you should go through the entire case—calculations included—on your own. Without preparing ahead of time it is difficult to provide accurate feedback to your interviewee, especially as you will be distracted in trying to get through the case yourself! One recommendation is to give only 2-3 different cases to all case prep partners. This ensures you've mastered the case you are giving and helps you to provide more effective feedback.

III. Feedback

As you prepare for the interviews by giving your classmates cases, remember to keep track of the feedback you receive. In the back of the book, you will find several feedback sheets to help you keep a record of your progress.

IV. Other Resources

Read carefully through the following "Resources" section of this book, which will provide you with sample frameworks, key terminology, case math tips, case facts, and other tips.

This book has been written to provide a strong foundation, but by no means is meant to encompass everything. Other resources (a few of many) that you may find useful:

- Case in Point, by Marc P. Cosentino: This book often serves as a starting point for case preparation and is useful to read through. Students don't typically use the cases for actual practice, but the book provides good background information and familiarity with the dialogue that goes on during the interview process. The frameworks can also be helpful (though they are too exhaustive for actual interviews).

- Crack the Case, by David Orhvall: More tips and information as well as the author's specific set of frameworks, which some students find very helpful.
- Casebooks from other schools: These are perhaps one of the most useful additional resources. Of particularly mention are the books from Ross (2005 and 2006), HBS, and Wharton. Wharton 2009 in particular also includes a great overview of a variety of industries and a list of suggested cases from other casebooks.
- Caseinterview.com: This site provides a series of free videos and other resources by a former McKinsey consultant on case prep and frameworks.

In addition, don't forget to visit the MCG website for more interview preparation tools. There, you will find helpful industry guides and PowerPoint slides of various function seminars given by our professors. Visit: http://student.chicagobooth.edu/group/mcg/tools.htm

RESOURCES

Market Current Options

Market
Sz.
Gr.
Cust.
Competitor
~~Econ.~~
Company

Sample Case Framework: Growth Strategy

"Client would like help in defining a near-term (3-5 year) growth strategy"

Client's Current Business

- What is their core business?
- Which consumer segments do they serve today?
- Which geographies do they serve?
- Revenue and profitability today?
- Future revenue or profitability goals (e.g. x% increase in five years)

Market

- Customers
  - Segments
  - Growth / trends by segment
  - Channels / locations
- Competition
  - Key players
  - Core capabilities
  - Market share
- New markets
  - Research indicating attractive new locations?

Options

- Operational improvement
  - Sales force effectiveness
- Marketing vehicles
  - New products
  - More promotion
  - New pricing
  - New distribution
- Enter new markets/ geographies

Please note that this is a sample framework for a growth strategy case. It is not meant to represent a 'perfect' framework. It is simply one way to approach this type of problem, and it illustrates the amount of content that an interviewee can be expected to write down in the 60-90 seconds they take to collect their thoughts after hearing the problem. Please note that the author of this framework would write abbreviations rather than complete sentences or words. For example "core bus?" Instead of "what is the core business?"

Market Financial Assess. Strategic Fit

Sample Case Framework: $\boxed{\text{New Market Entry}}$

"Should the banana producer begin selling coconuts"

Market

- How big is the coconut market?
- How fast is it growing?
- What are the recent trends?
- Competition:
  - Relevant players?
  - Market share of each competitors
  - Core competencies?
- Customers
  - Key segments?
  - Channels?
  - Preferences?

Financial Assessment

- Based on market data, what market share is attainable?
- Revenue based on share?
- Costs
  - Initial investment?
  - Ongoing direct costs?
  - Ongoing fixed costs?
- Net present value / break-even?

Strategic Fit

- Does product fit with core competencies?
- Fit with the brand?
- What is the opportunity cost to diverting resources to the new market?
- What is the organizational impact of entering the new market?

Please note that this is a sample framework for a new market entry case. It is not meant to represent a 'perfect' framework. It is simply one way to approach this type of problem, and it illustrates the amount of content that an interviewee can be expected to write down in the 60-90 seconds they take to collect their thoughts after hearing the problem. Please note that the author of this framework would write abbreviations rather than complete sentences or words. For example "mkt size?" Instead of "how big is the coconut market?"

Sample Case Framework: Profitability

"Despite strong historical performance, margins have been declining over the last year"

Revenues

- How do they price and has there been a change in prices?
- Have volumes changed?
- Product mix – number of SKUs and contribution margins?
- Customers
  - Key segments?
  - Preferences?
  - Distribution channels?

Costs

- Fixed costs
  - Rent?
  - Insurance?
  - Marketing?
  - Research & development?
- Variable Costs
  - Direct materials?
  - Direct labor?
  - Variable overhead?

Market

- Competitive landscape
  - Key players / new entrants?
  - Market share?
  - Sources of competitive advantage?
  - How do they compete?
  - Indirect competitors (substitute products)?
- Trends in the end-user market?
- Economic cycle – disposable income level?

Please note that this is a sample framework for a profitability case. It is not meant to represent a 'perfect' framework. It is simply one way to approach this type of problem, and it illustrates the amount of content that an interviewee can be expected to write down in the 60-90 seconds they take to collect their thoughts after hearing the problem. Please note that the author of this framework would write abbreviations rather than complete sentences or words. For example "price?" Instead of "How do they price and has there been a change in prices?"

Sample Case Framework: Private Equity

"Recommend whether or not a PE client should acquire a pest control company"

Market

- What is the size of the pest control market?
- Is it growing?
- Recent trends?
- Who are the main players?
- How much market share to they have?
- How do they compete (price / service / etc.)?
- Customers
  - Key segments?
  - Purchasing behavior?
  - Distribution channels?

Target (Company)

- Core capabilities and source of competitive advantage
  - Customer loyalty?
  - Distribution network?
  - Quality of service?
  - Strength of brand?
  - Management team?
- Financial Assessment: NPV Analysis

Client (Fund)

- Investment strategy and style?
- Size and / or number of investments?
- Hurdle rate?
- Expertise in the pest control service industry?

Please note that this is a sample framework for a private equity case. It is not meant to represent a 'perfect' framework. It is simply one way to approach this type of problem, and it illustrates the amount of content that an interviewee can be expected to write down in the 60-90 seconds they take to collect their thoughts after hearing the problem. Please note that the author of this framework would write abbreviations rather than complete sentences or words. For example "NPV" Instead of "Financial Assessment: NPV Analysis"

ADDITIONAL POINTS FOR CASE ANALYSIS

Here are some common points to think about when building your framework or running through a case. Please note that this list is *not exhaustive*. Additionally, not all bullet points will apply to all cases.

- **Industry Analysis**
  - Industry structure (usually one of the following)
    - Perfectly competitive
    - Oligopoly
    - Monopoly
  - Relevant conditions
    - Size
    - Profitability
    - Growth
    - Segment
    - Regulation
    - Technological advances
  - Key players and their respective market shares
  - Value chain – vertical chain of productions including suppliers and distributors
  - Barriers to entry or exit (also see *Growth Strategy* below)
    - Economies of scale
    - Learning curve
    - Access to distribution channels
    - Access to suppliers
  - Key drivers for success
    - Consumer insight
    - Technological advances
    - Brand equity
  - Current substitutes
  - Current trends
    - Cost drivers (outsourcing, new competitors, etc.)
    - Product trends
- **Profitability Analysis**
  - Revenues (Price * Volume)
    - Factors affecting prices
      - Elasticity of demand
      - Product mix
      - Differentiation
    - Factors affecting volume
      - Internal
        - Distribution logistics
          - Supply chain

- Inventory management
- Capacity
- External
  - Competition
  - Customer trends
  - Substitutes / complements
  - Market trends (declining market, regulation, etc.)
- Costs (Variable + Fixed)
  - Variable costs (Costs of Goods Sold)
    - Materials
    - Labor
  - Fixed costs
    - Property, plant and equipment
    - Operating costs: distribution, marketing, R&D, SG&A
  - Other cost considerations
    - Sunk cost fallacy
    - Capacity utilization and impact on total average cost per unit
    - Benchmark costs with key competitors
    - Relative percentage of cost components
    - Cost allocation across multiple products
    - Total costs, average variable costs (economies and diseconomies of scale)
    - Variations in costs over a period of time
    - Inventory holding costs

- **Growth Strategy**
  - Mapping

	Existing Market	**New Market**
Existing Products	Increased Penetration	New Market Entry
New Products	Product Development	Diversification

  - Increased penetration
    - Capacity to sustain increased volume (see *Capacity Expansion* below)
    - Increased marketing expense
  - Methods of market entry or product entry: organic, acquisition, partnership / joint venture
  - Factors for new market / new product
    - Industry structure and analysis (see *above*)
    - Localization of product / service offerings, regulations, tariffs
    - Source of volume (steal share, create new market)
    - Customer related barriers to entry
      - Switching costs
      - Access to distribution channels

            - Brand awareness
        - Non-customer related barriers to entry
            - Capital requirements
            - Regulation
            - Economies of scale
        - Quantify investment cost and risk
        - Prior experience with market / product entry – have they tried this before? If so, what was the outcome?
    - Additional factors for new product entry
        - Cannibalization
        - Trading up, trading down
- **Acquisition**
    - Rationale: revenue increase and/or cost reduction
    - Resources
        - Capacity
        - Technology
        - Distribution
        - Human capital
        - Brand
        - Product line
        - Network effects
        - Complementarities
    - Cost synergies
        - Economies of scale
        - Economies of scope
        - Learning curve
    - NPV analysis: price of acquisition < revenue increase and/or decrease in cost
    - Organization considerations
        - Synergies, required changes to organizational structure, corporate culture fit
    - Vertical integration
        - Coordination costs, costs of using the market
    - Competitive reaction
- **Investment in a new business or equipment**
    - Industry analysis
    - Rationale
    - Financial assessment
        - NPV: initial investment, ongoing costs, projected cash flows, cost of capital, sensitivity analysis / risks
    - Property, plant and equipment
        - Useful life of equipment
        - Depreciation
        - Utilization

        - Salvage value
    - Opportunity costs / economic rent
    - Option value
- **Capacity Expansion**
    - Rational for expansion (e.g. capacity utilization, demand increase)
    - Impact on prices – increasing supply may affect demand
    - Competitive reaction
    - Options
        - Expand existing facility
        - Build new facility
            - Proximity to suppliers / distributors and transportation requirements
            - Time to build
        - Seek alternatives – lease, outsource, acquire, etc.
- **Pricing Strategy**
    - Elasticity of demand
        - Substitutes
        - Short run outcomes
        - Long run effects
    - Economic value analysis
        - Reference value
        - Differentiation value
    - Cost-plus method
    - Non-linear pricing
        - Two-part tariffs
        - Bundling: complements, non-complements

CASE MATH

Case math provides an opportunity for firms to test candidate's ability to perform calculations quickly and accurately, as well as their general "number sense" or understanding of how to extract a meaningful conclusion from a large quantity of information.

GUIDELINES: Case Math

1. ***Be accurate.*** Performing long division to get the right answer is much better than trying to do the math mentally and then get it wrong!
2. ***Rounding*** is a great way to more quickly get to the 80/20 solution. Just be sure to ask your interviewer to see if it's okay to round first.
3. ***Use whatever paper you feel comfortable with.*** While people most often use white 8.5" x 11" paper, try graphing or engineering paper if you prefer and think it would help you stay organized with your case math or other areas in the case.
4. ***Talk through your process and calculations.*** This helps the interviewer to understand your thought process and avoids awkward silences. This also can help if you misstep as your interview can quickly correct.
5. ***There are usually many "right" ways to get to the answer.*** What separates the good from the great response is (i) elegance of the solution, (ii) articulation of the math/logic and (iii) and synthesis of the key takeaway, or "so what?" that comes from the result.
6. ***Don't get flustered if you make a mistake!*** Many people have messed up on calculations and still gotten job offers because they kept their cool, corrected their errors and moved forward.

Here are some basic math principals and equations that you can/should use in your case interviews.

Round it

223 million * 21
≈ 220M * 20
= 4,400M or 4.4 billion

1,030,850 / 33 million
≈ 1/33
≈ 3%

Distributive property

23 * 51
= (20 * 50) + (3 * 50) + 23
= 1,000 + 150 + 23

3,756 / 33
= (3,300 / 33) + (456 / 33)
= 100 + (330 / 33) + (126 / 33)
≈ 100 + 10 + 4
= 114 (or 120)

Scientific notation to avoid miscounting zeros

Multiplication Example

2,000 * 300
$= (2 * 10^3) * (3 * 10^2)$
$= 6 * 10^5$
= 600,000

Division Example

100,000,000 / 5,000
$= (10 * 10^7) / (5 * 10^3)$
$= 2 * 10^4$
= 20,000

Rule of 72

The *rule of 72* allows you to calculate the growth rate an investment will require to **double** in a specific number of years. Conversely, it can be used to calculate the number of years it will take an investment to double in value at a given growth rate.

- For an investment to double in 5 years, it must grow at (72 / 5) = 14.4%
- An investment growing at 12% will double in (72 / 12) = 6 years

Equivalent fractions

1/2 = 50%	1/3 = 33%	1/4 = 25%
1/5 = 20%	1/6 = 16.7%	1/7 = 14%
1/8 = 12.5%	1/9 = 11%	1/10 = 10%

TIPS: Math Practice ideas

1. Flash cards or Times tests
2. GMAT prep books
3. CQ Interactive (membership required): http://www.cqinteractive.com/cqi_main.cfm
4. iPhone or other mobile apps: (i.e. Fractionator, Fraction Factory, Brain Tuner Lite(Free), ArithmeTick)

Business formulae

$$\text{Contribution Margin} = \text{Price} - \text{Variable Costs}$$

$$\text{Break Even Quantity} = \frac{\text{Fixed Costs}}{\text{Contribution Margin}}$$

$$\text{Time to Break Even} = \frac{\text{Fixed Costs} + (\text{Penetration in \# of units} * \text{Variable Costs per unit})}{\text{Penetration in \# of units} * \text{Contribution Margin}}$$

$$\text{Elasticity} = \frac{\%\ \Delta\ \text{Quantity}}{\%\ \Delta\ \text{Price}}$$

$$\text{Revenue Growth} = \%\ \Delta\ \text{Price} + \%\ \Delta\ \text{Volume} + (\%\ \Delta\ \text{Price} * \%\ \Delta\ \text{Volume})$$

$$\text{CAPM Discount Rate} = \text{Risk Free Rate} + \text{Beta} * (\text{Market Return} - \text{Risk Free Rate})$$

$$\text{Present Value} = \frac{\$\ \text{Amount}}{(1 + \text{Interest Rate})^t}$$ ✓

$$\text{Perpetuity Calculation} = \frac{\$\ \text{Amount}}{\text{Interest Rate}}$$

$$\text{NPV} = -\text{Investment} + \frac{\text{CF 1}}{(1+\text{i})^1} + \frac{\text{CF 2}}{(1+\text{i})^2} + \frac{\text{CF 3}}{(1+\text{i})^3} + \cdots$$ ✓

$$\text{CAGR} = \frac{\text{Ending Value}}{\text{Beginning Value}}^{\left(\frac{1}{\text{\# of yrs}}\right)} - 1$$

☆ $$\text{Return on Assets (ROA)} = \frac{\text{Net Income}}{\text{Total Assets}}$$

$$\text{Return on Equity (ROE)} = \frac{\text{Net Income}}{\text{Shareholders' Equity}}$$

☆ $$\text{Return on Investment (ROI)} = \frac{\text{Gain from Investment} - \text{Cost of Investment}}{\text{Cost of Investment}}$$

☆ $$\text{Gross Margin} = \text{Revenue} - \text{Cost of Goods Sold}$$ ✓

$$\text{Gross Margin \%} = \frac{\text{Gross Margin}}{\text{Revenue}}$$ ✓

$$\text{Operating Margin \%} = \frac{\text{Operating Income}}{\text{Revenue}}$$

CASE FACTOIDS

Knowing the information below is not required but it may be helpful to have a basic familiarity with some of this information.

Population Data

U.S. Population	307 million
Population of New York City	8 million
Population of Los Angeles	4 million
Population of Chicago	3 million
Population of Houston	2 million
Population of Philadelphia	1.5 million
U.S. Households	100 million
Population of People's Republic of China	1.3 billion
Population of India	1.15 billion
Global Population	6.8 billion

Economic Data

U.S. GDP Growth Rate	2.5%
World Nominal GDP	$58 trillion
U.S. Nominal GDP	$14 trillion
E.U. Nominal GDP	$16 trillion

Sources:
www.infoplease.com, CIA World Factbook, Nov. 27, 2010

CASE EVALUATION & FEEDBACK

Be sure you understand what your interviewer is looking for! See criteria and evaluation form below:

Case Evaluation Criteria

Structure and framework

a. Mutually exclusive, collectively exhaustive
b. Customized – not entirely generic
c. Easy to understand and implement
d. Referred to framework throughout to guide discussion

Analytical and problem solving ability

a. Interpreted and used data well, draw strategic insights and conclusions
b. Quick and accurate calculations
c. Able to keep complex fact base organized and structured
d. Creative in drawing conclusions, analyzing reasons

Synthesis and conclusion

a. Used framework to organize and convey conclusions succinctly
b. Conclusions were compelling and backed with evidence developed during the interview
c. Comprehensive, captured all relevant points discussed during the case

Communication skills

a. Verbalized and communicated thinking at every stage
b. Communicated in a crisp and concise manner without rambling or wandering
c. Build strong rapport with interviewer, case discussion was not a monologue

Presentation

a. Drove the case discussion, active rather than passive
b. Confident and relaxed
c. Enthusiastic and engaging

TIPS: Effectively Using Feedback

1. ***Track your case performance.*** Use a feedback sheet or other means to keep track of practice case performance. Keep an action list of what you need to work on to improve. Before starting a case, ask your interviewer to look for some of these specifics so they can give you targeted feedback.
2. ***Reflect on past cases.*** After a case, spend time reviewing your approach, feedback and what you could have done differently for better performance.
3. ***Learn from others.*** If you really like what one of your fellow students does in a case, incorporate it into your own approach. Note that the more thoughtful you are at giving someone else feedback, the more likely you are to benefit from learning something as well!
4. ***Get feedback from different people.*** Interviewers will vary in both the quality and focus of their feedback. The best way to ensure you benefit is to do cases with a variety of people.
5. ***Do multiple cases with the same person.*** Variety (see above) is important as well as doing cases with someone who can honestly gauge your progress over time. Find a classmate who can provide constructive criticism that you know and trust and do several cases with them as you prepare.
6. ***Mindful practice makes perfect!*** The more mindful you are with considering and incorporating feedback, the better you will become. Quality of case practice is far more important than quantity.

Case Evaluation Form

Interviewer: .... Interviewee: .... Case:...

Specific Interviewee Requests (to look for in interview):

....

....

		Improve <-----------------> Rockstar				
1.	Framework	1	2	3	4	5
	....					
2.	Math	1	2	3	4	5
	....					
3.	Analytics / Structured storyline	1	2	3	4	5
	....					
4.	Eye Contact / Interpersonal skills	1	2	3	4	5
	....					
5.	Professionalism / Presence	1	2	3	4	5
	....					
6.	Confidence	1	2	3	4	5
	....					
7.	Creativity	1	2	3	4	5
	....					

Other Comments:

....

....

....

PRACTICE CASES

New Vaccine (1 of 8)

LEK Consulting

Problem Statement Narrative

- *Our client is a large pharmaceutical corporation*
- *They have developed a new vaccine that prevents low birth weight infants from staph infections*
- *They've approached us to determine the potential for this vaccine*

Guidance for Interviewer

Provide the candidate with the following information when asked:

- **Q**: What is meant by "potential for this vaccine"
  - **A**: *Our client is looking for some clarity about the amount of revenue they can expect to generate from this product*
- **Q**: Where is the company planning on launching? Are they looking for worldwide potential?
  - **A**: *The customer wants to know the revenue potential for this product in the United States*

See next slide for guidelines on framework.

New Vaccine (2 of 8)

LEK Consulting

Sample candidate framework...

Below is a more detailed framework that the interviewee might use:

- To find the market size for this drug, some areas to explore are...
  - **Population / demand**:
    - # of low birth weight infants
    - Rates of staph infections
  - **Product**:
    - Cost / price point
    - Distribution
    - Production
    - Product details - frequency of administration, etc.
  - **Competition**:
    - Other vaccines
    - Substitute products

New Vaccine (3 of 8)

LEK Consulting

Guidance for Interviewer...

Case Details

- *This is the back-and-forth section after the framework is presented. This section includes several data points & pieces of information that the interviewer should present if asked, or if appropriate:*

Basic Population / demand info.:

Babies born each year in the US	5 million
Low birth weight babies born each year	10% of all babies (500K)

Basic Product info.:

Price	$1,000 per dose
Administration	Shots (6 doses / shots needed)
Total cost	$6,000 per child
FDA approved?	Yes
R&D a concern?	No – not for this case
Is it successful?	Yes – for this case it can be assumed that it's successful 100% of the time

New Vaccine (4 of 8)

LEK Consulting

Sample candidate response…

At this point, the interviewee should be able to calculate the maximum revenue potential of this vaccine:

(500K low birth weight babies) * ($6,000/vaccination) = **$3 billion in revenue potential**

If the interviewee tries to end the case here (which they shouldn't), press him/her on it. *Wow, that's a huge number, can we go tell our client they will get $3b per year in revenues for this vaccine? Do you think that's realistic?* A strong candidate would do this automatically.

<u>Further Case Details</u>

Basic Competition info.:

Are there other vaccines on the market?	No
Are there alternative products?	Yes – if a low birth weight baby contracts staph, the infection can be treated with antibiotics (assume these are always successful)

New Vaccine (5 of 8)

LEK Consulting

Sample candidate response (if you want to include an additional object/table/ etc.)

The candidate should inquire if there is any additional information available regarding staph infection treatment with antibiotics.

At this point the interviewer may **provide the interviewee with Exhibit 1 (next slide)** and state the following:
The frequency of staph infections and the cost to treat them with antibiotics varies depending on the size of the baby. Here is some information on the frequency of staff infections and the cost of substitute products. Can you calculate the cost to vaccinate each segment and the frequency (in number of babies) for each segment?

The candidate should calculate the numbers below:

Size of baby (all low birth weight)	% of low birth weight babies	Cost to vaccinate entire segment	Frequency of staph for this segment	Cost per child for antibiotics
<1,000 grams	10% (50k babies)	*(50k babies) * ($6k per baby) = $300m*	40% (20k babies)	$35k/child
1,000 – 1,500 grams	10% (50k babies)	*(50k babies) * ($6k per baby) = $300m*	10% (5k babies)	$25k/child
1,500 – 2,500 grams	80% (400k babies)	*(400k babies) * ($6k per baby) = $2.4b*	2% (8k babies)	$10k/child

New Vaccine (6 of 8)

LEK Consulting

Exhibit 1 – Staff Infection Treatment by Size of Baby

Size of baby (all low birth weight)	% of low birth weight babies	Cost to vaccinate entire segment	Frequency of staph for this segment	Cost per child for antibiotics
<1,000 grams	10%		40%	$35k/child
1,000 – 1,500 grams	10%		10%	$25k/child
1,500 – 2,500 grams	80%		2%	$10k/child

New Vaccine (7 of 8)

LEK Consulting

Additional Question

At this point, the interviewee may ask something like "does it make sense for me to calculate the cost of vaccinating these segments vs. treating them with anti-biotics? The answer is yes.

Guidance for Interviewer

Basically, at this point you should guide the interviewee toward doing a cost / benefit analysis.

The person doing the case may ask a lot of questions about who's paying, etc. For this case that's not so important. Just inform them that whatever is most cost effective will be the treatment most likely administered.

New Vaccine (8 of 8)
LEK Consulting

Sample calculations

Once the data above is presented / calculated, the interviewee should be able to perform a cost / benefit analysis to see which segments are realistically going to purchase the vaccine:

Segment	Cost to vaccinate	Cost to treat w/ antibiotics	Conclusion
<1,000 g	$300m	$700m	It is reasonable to expect that our client will attain the $300m in revenue from this segment
1,000 – 1,500 g	$300m	$125m	Our client could potentially capture this $300m in revenue, but it is not guaranteed.
1,500 – 2,500 g	$2.4b	$80m	It is unlikely that our client will attain this $2.4b in revenue, unless there is some sort of government mandate that this vaccine be given to all low birth weight infants.

Conclusion

Someone who “cracks the case” will realize that it’s cheaper to vaccinate the smallest group, but it may be more cost effective to treat the other groups with anti-biotics. The interviewer should present the possibilities for capturing the market for each segment.

Elena’s Electronics (1 of 7)

Unknown

Problem Statement Narrative

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 broad 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 program is to test the client’s current sales generalist model. Previously, sales agent were 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 and 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.

Guidance for Interviewer

A strong candidate may ask if there is any criteria for success. Instruct the candidate that *“they want us to determine if the program is successful”* basically forcing them to look into different success metrics.

The framework and success metrics developed by the candidate should include:

- Economics of the program (profitability with vs. without program)
- Morale/motivation of sales team
- Customer experience
- Competitor response

Burger Palace (1 of 5)

Unknown

Problem Statement Narrative

Our client is Burger Palace, a Chicago area fast food restaurant with 20 locations. They have been approached by Midway airport about opening a new location inside the main terminal. They have asked us to come to a meeting in 20 minutes and tell them if we think this would be a profitable venture. What do you think we should tell them?

Guidance for Interviewer

There should be few questions the interviewee needs to ask at this stage, however if asked you may provide the following information:

- *Burger Palace ownership would be operating the new restaurant (e.g. no franchise model)*
- *The new location in the main terminal would mean anyone in the airport would have access.*

The candidate should follow a basic profitability or market entry framework. Good candidates will tailor terminology to airport and fast food industry.

Burger Palace (2 of 5)

Unknown

Additional Question

Where would you like to start?

Guidance for Interviewer

This case should be entirely driven by the candidate. You can provide the candidate with the information below. A strong candidate should quickly realize they need 4 major pieces of information to determine profitability: (1) expected volume of sales, (2) average revenue per sale, (3) fixed costs and (4) variable cost

<u>Competition</u>

- There are currently 4 restaurants at Midway. They each have an equal market share. If BP were to open a restaurant we expect that each of the 5 restaurants would gain an equal market share (20%). We would not expect the number of customers to increase because of the new BP location. The share of employee business is also spread out evenly over all restaurants.
- We don't know anything about the types of restaurants currently at Midway

<u>Facts about Burger Palace</u> (assume will hold for new location)

- We do not know anything about the profitability of other Burger Palace locations although we do have some revenue/cost information
  - The average transaction size is $10
  - Variable costs run around 80% of sales
  - Fixed costs include:
    - $250,000 royalty fee paid to Midway airport annually
    - $200,000 in rent and fixed operating costs

See next slide for information on Midway airport.

Burger Palace (3 of 5)

Unknown

Additional Question

Where would you like to start?

(continued from previous slide)

Guidance for Interviewer

As a reminder, only provide the following information when asked by the candidate:

Midway airport Information:

- Midway is open every day of the year
- Burger Palace will be open the same hours/days that the airport is open
- Gates at Midway: 25
- Hours of operation: 4am – 12am (20 hours per day)
- Average planes per hour: 1 per hour per gate
- Average plane size: 150 passengers (think Southwest - 6 across X 25 rows)
- Average load factor: 66% (number of seats filled on average)
- People who will eat at Midway: 5% of passengers will eat at Midway
- Number of employees: 2,000
- Employees who will eat each day: 50%

Some interviewees will have trouble starting the market sizing and may need a little nudge to begin thinking in that manner. That is OK; it isn't about whether or not someone can read the mind of the instructor, it's about how logically they think about the problem as they go. Do they make realistic assumptions about how many people are on a plane? Do they account for the fact that the planes won't all be full?

Most candidates will miss that customers will include both passengers and Midway employees. If so, let the candidate go through calculations for passengers only, then ask "*Would anyone else be eating at BP*" and then proceed to the second calculation. Calculations found on next slide.

Burger Palace (4 of 5)

Unknown

Sample calculations...

Below represents one way to calculate annual profits:

Revenue from Passengers:

25 gates x 1 plane/hour x 20 hours/day = 500 planes /day
150 capacity/plane x 66% average load factor = 100 passengers/plane
500 planes/day x 100 passengers/plane = 50,000 passengers/day
50,000 passengers x 5% eat per day x 20% BP market share = 500 passengers eat at BP/day
500 passenger customers/day x $10 ave transaction size x 20% profit margin = $1,000 profit/day
$1,000 profit/day x 365 days/year = **$365,000 customer profit/year** (excl. FC)

Revenue from Employees:

2,000 employees x 50% eat per day x 20% BP market share = 200 employees eat at BP/day
200 employee customers/day x $10 ave transaction size x 20% profit margin = $400
$400 profit/day x 365 days/year = **$146,000 passenger profit/year** (excl. FC)

Annual Profit calculations

$365,000 passenger profit + $146,000 employee profit = $511,000 total annual profit (excl. FC)
$511,000 - $450,000 annual fixed costs = **$61,000 total annual profit**

Burger Palace (5 of 5)

Unknown

Final Question

What would you recommend to our client?

Guidance for Interviewer

Provide the candidate with a moment to collect their thoughts. Based on profitability alone it is clear that BP should move forward.

A strong candidate should also consider additional risks/opportunities, for example:

- This would be a huge advertising opportunity for BP's other locations, what might this be worth?
- Often chains charge higher prices at their airport locations to compensate for their royalty fees to the airport. Is there room for BP to raise prices?
- We assumed we would split market share with the other Midway restaurants. Is this completely realistic? Do we need to look deeper into what other/similar types of food are present at Midway and where they are located?

Quahog Public Schools (1 of 6)

McKinsey – Round 1

Problem Statement Narrative

Our client is the superintendent of a system of schools in Quahog, Rhode Island.

He is concerned because the performance of students from these schools in standardized tests has been repeatedly sub par.

He has asked us what he should do about it?

Guidance for Interviewer

If asked, provide the following information:

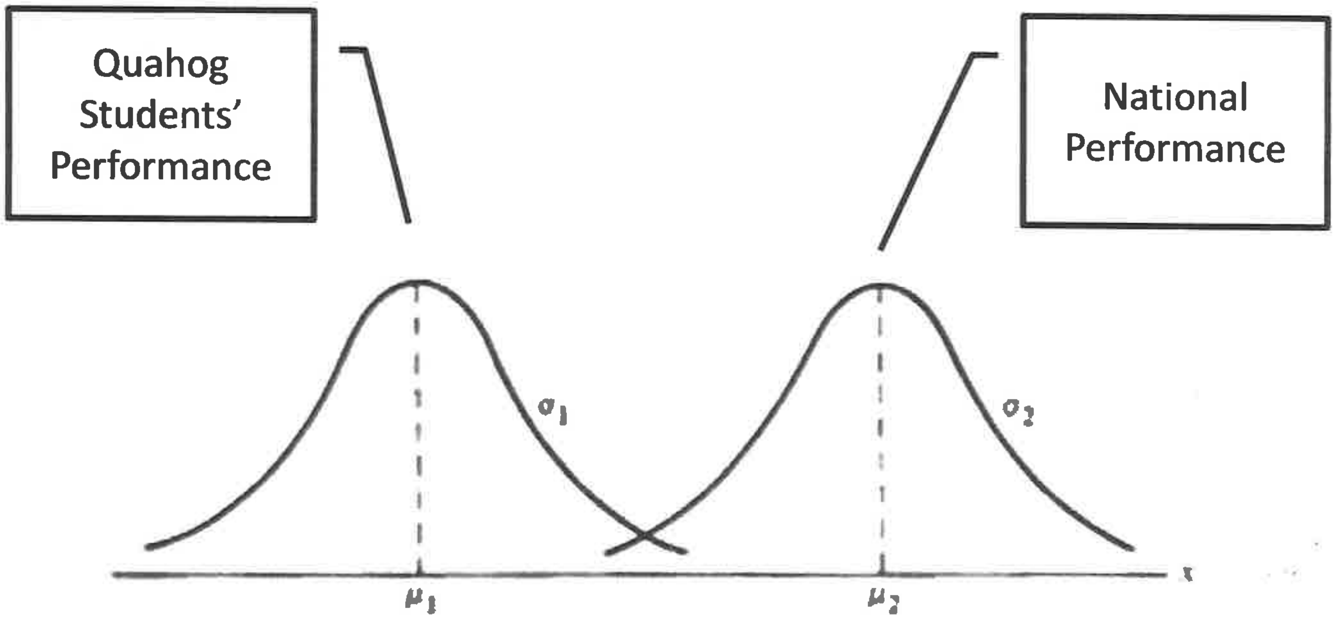
- **Q** : What is "system of schools"?
  - *e.g. Chicago Public Schools*
- **Q:** *What are standardized tests?*
  - *e.g. SAT*
- **Q** : What is subpar performance?
  - *On average, a student from Quahog Schools does poorly on standardized tests compared to the national average. Show exhibit 1.*

Sample framework follows after exhibit

Quahog Public Schools (2 of 6)

McKinsey – Round 1

Exhibit # 1



Students' test scores in standardized tests

Quahog Public Schools (3 of 6)

McKinsey – Round 1

Sample Framework

A good framework would consider four dimensions:

- **Students**
  - Attendance rates? E.g. Criminal / unsafe neighborhoods → low attendance → bad results
  - Demographics. E.g. poor students → work after school → low attention to studies
- **Teachers**
  - Recruitment standards (i.e. do we hire bad teachers?)
  - Training programs (i.e. do we keep our teachers current in pedagogical skills?)
- **Resources**
  - Syllabus (i.e. are we customizing our syllabus to these standardized tests?)
  - Books
  - Library and Laboratories
  - Blackboards etc.
- **Teaching environment**
  - Windows / Air conditioning; i.e. are our classrooms too hot / too cold to be taught in?

Quahog Public Schools (4 of 6)

McKinsey – Round 1

Additional Question

In response to the candidates questions about teachers / teaching environment, inform them that it is at par with other schools.

If the candidate asks about students' demographic, inform them that students are from low-mid household income category.

If the candidate has not brought out the issue of "books", inform him / her that the schools provide the books to the students.

Early findings suggest the shortage of books has been a major factor affecting student performance at Quahog. How do you think we can address this?

Guidance for Interviewer

This is a classic "What Else" situation. Probe and test the ability of candidate to think from multiple perspectives. <u>Good candidates</u> will also structure their responses into three groups.

Potential answer:

- Raise money to buy books
  - Fundraising (grants / donations)
  - Price discrimination to students (if students can pay for books, they have the option to buy through the school)
- Arrange new books without additional money
  - Gifts (in-kind donations)
  - Borrow from other school systems
  - Partnership with Amazon etc. (retailers) for used books, as a philanthropy measure on their part.
- Manage with current number of books
  - Coordinated book sharing system
  - Scan / copies

Quahog Public Schools (5 of 6)

McKinsey – Round 1

Additional Question

An immediate area of concern is Grade VI math and science books.

We've identified a shortage of 8,000 such books. 60% of these books are math books and rest are science books. The math book are available on Amazon but the science ones are not. By partnering with Amazon, we can reduce shortage of math books by 70%. Independently, by coordinated book sharing, you can reduce shortage of science books by 20%.

What is the total impact of this?

Guidance for Interviewer

- Total shortage = 8,000 books
  - Math shortage= 60% * 8000 = 4,800
  - Science shortage = 40%*8000 = 3,200
- Benefit
  - Amazon partnership = 70%*4,800 = 3,360
  - coordinated sharing = 20%*3,200 = 640
- **Total benefit = 4,000 books**

<u>Good candidates :</u>

- Will spot the pattern in percentages. Total benefit = 70%*60% + 20%*40% = 42% + 8% = 50% = 4,000 books
- Focus on the *"so what?"* of the 50% benefit

Quahog Public Schools (6 of 6)

McKinsey – Round 1

Final Question	Sample answer
You meet the superintendent in the hallway and he asks you what have you found so far. *What will your response be?* Good candidates will spot that this is the 'recommendation' question, and will be comfortable verbalizing their rec.	• Preliminary analysis has shown that shortage of books is the leading indicator of subpar student performance • We have identified several ways to reduce effective shortage, in three categories : fundraising, arranging books without additional cash, and managing with same number of books • Our estimates indicate that we can reduce grade VI book shortage by 50% by two of these initiatives : partnership with Amazon; and coordinated book sharing • The next steps are : – Estimating how to reduce remaining book shortage – Quantitatively estimating impact of reduced book shortage on student performance – Exploring other drivers of subpar student performance (teachers etc)

55

Kunal's Auto Parts (1 of 8)

Unknown

Problem Statement Narrative

The client, Kunal's Auto Parts, is an auto parts manufacturer (a 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 is an essential product with no substitutes in the market today. The client is doing OK, but is looking for growth opportunities:

- *What opportunities should the client explore for growth?*
- *After identifying the opportunities, explain the rationale for choosing these opportunities (or prioritize) and list ways in which recommendations can be executed.*

Guidance of Interviewer

The client is 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 how they would approach this problem.

Framework guidelines on next slide.

Kunal's Auto Parts (2 of 8)

Unknown

Sample candidate framework…

A sample candidate framework might examine:

- Existing Market
  - Geography
  - Customers
  - Growth of market
  - Competition
- Current Profitability
  - Revenues: Price, Volume, Product Mix (Channels/distribution)
  - Costs: Fixed Costs, Variable Costs
- Growth opportunities
  - New products
  - New geographies
  - New channels
  - Acquisitions

Let the candidate drive the case. When asked provide the candidate with the information on the following slides. The key to this case is understanding the profitability of the different distribution channels.

Kunal's Auto Parts (3 of 8)

Unknown

Additional case information if asked...

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

See next slide for additional clarifying information.

Kunal's Auto Parts (4 of 8)

Unknown

Additional case information...

Provide the following information when asked:

- **Client (Macro):**
  - Share Overall (Units): 30%
  - Brand Image: Good, comparable to other big mkt player
  - 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

Note: A strong candidate will also suggest cost cutting measures by identifying opportunities for off-shoring the manufacturing facilities like competition. This is not directly relevant, so move forward.

Additional case information provided on next slide.

Kunal's Auto Parts (5 of 8)

Unknown

Additional case information…

Once the candidate begins to focus on distribution, they have reached the crux of the case. First tell the candidate:

- *One of the most critical factors for success in this business is efficient supply chain and strong distribution channel.*
- Then ask: *What are the different distribution channels?*

Push the candidate to generate some ideas. Once potential distribution channels have been identified, (small mechanics, car dealers, mass merchants, auto parts stores) ask the candidate:

- *What profit margins would you expect to see in each channel?*

The candidate should mention that profit margins 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. They should take this opportunity to demonstrate energy, creativity, and strong business skills.

Next tell the candidate that *"We have some information about the different channels"* and provide them with **Exhibit 1** (next slide)

Kunal's Auto Parts (6 of 8)

Unknown

Exhibit # 1 – Distribution Channels

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 Distribution Cost	$10	$5	$5	$5

Kunal's Auto Parts (7 of 8)

Unknown

Additional Question

What conclusions can you draw from this information?

Guidance of Interviewer

The candidate should recognize that given the total market size provided earlier (100M), they can make the calculations shown below:

- 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)

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

The candidate should 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. Car Dealers is the next most profitable channel and so on.

Kunal's Auto Parts (8 of 8)

Unknown

Final Recommendation

Ask the candidate for a final recommendation.

Guidance of Interviewer

The candidate should suggest a channel to focus on and 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) The 4Ps would be an ideal approach – the key is to identify that the distribution is the focus area and to drill deeper in this area.

The candidate should look to first develop an effective way to increase penetration in the small mechanics channel. Some suggestions include:

- 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

Boozy Co. (1 of 8)

Unknown – Round 1

Problem Statement Narrative

Our client, Boozy Co. produces commodity widgets. Profits have declined over the last three years. Boozy has engaged us to help them with this issue. The two questions facing them are:

- *Why have profits declined?*
- *How can Boozy Co. restore profitability?*

Guidance of Interviewer

Candidate should utilize a profitability framework as well as touch upon other drivers within the market. Sample framework shown below:

Profitability

- Revenues
  - Volume (inc. manufacturer capacity)
  - Price
  - Product mix
- Costs
  - Fixed
  - Variable (raw materials, labor)
  - Efficiency

Market

- Demand
- Competition
  - New?
  - Differentiated
  - Also seeing decline?
  - Pricing

Boozy Co. (2 of 8)

Unknown – Round 1

Additional case information

Let the candidate drive the case. Provide the following if asked:

More about Boozy Co.

- *True commodity products, no ability to differentiate*
- *Pricing has held constant for each product line*
- *Overall quantity has remained constant at 100% effective capacity*

The Market

- *No substitutes in market (make it clear this is NOT a 5-forces case)*
- *Overall market demand has remained constant*
- *COGS and SG&A should be allocated pro rata across total units produced*
- *There are two other big competitors in the market*
- *Our competitor's products are very similar to ours and are priced similarly as well*
- *Our competitors have limited differentiation when it comes to the product, promotions, or price*

Exhibits:

- Provide Exhibit 1 if asked about historical performance
- Provide Exhibit 2 if asked about product mix

Boozy Co. (3 of 8)

Unknown – Round 1

Exhibit 1 – Historical Performance

Boozy Co.
Summary Income Statement

$ in millions	2004	2005	2006
Net Sales	$100	$90	$80
Cost of Goods	$60	$60	$60
Gross Profit	$40	$30	$20
SG&A	$30	$30	$30
Operating Income (EBIT)	$10	$0	($10)

Boozy Co. (4 of 8)

Unknown – Round 1

Exhibit 2 – Product Mix

Price	2004	2005	2006
Snoozie	$5	$5	$5
Coozie	$10	$10	$10

Quantity (millions)	2004	2005	2006
Snoozie	10	12	14
Coozie	5	3	1

Boozy Co. (5 of 8)

Unknown – Round 1

Guidance for Interviewer

Once the candidate sees the product mix slide (Exhibit 2), explain that Snoozie and Coozie are manufactured interchangeably with the same machines.

Let the candidate drive forward on calculations of individual product profitability. In order to do this, he should ask for costs.

If he does, provide **Exhibit 3**, describing unit costs versus the competition.

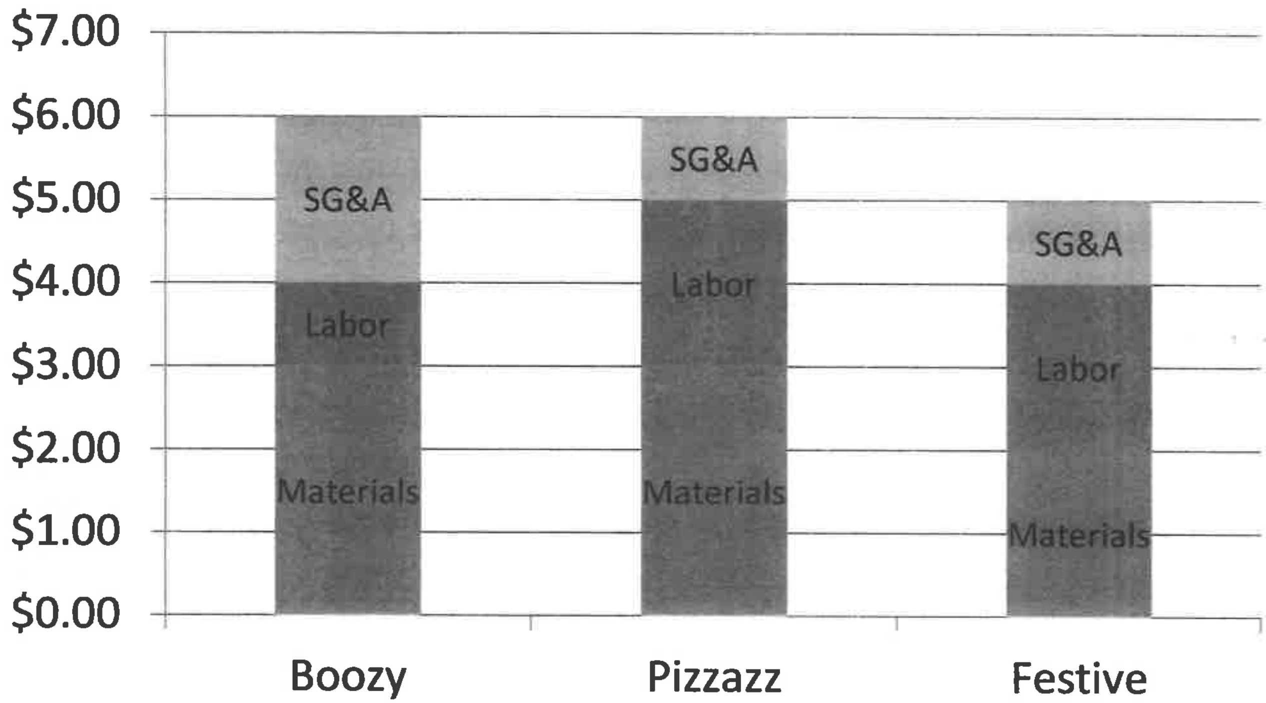
The candidate should see that in order to meet industry best practice, Boozy needs to lower both SG&A and material costs. In particular, SG&A has remained the same despite lower gross profits.

→ The candidate should also draw conclusions about the profitability of each of Boozy Co.'s two products, as outlined in the slide 7.

Boozy Co. (6 of 8)

Unknown – Round 1

Exhibit 3 – Unit Costs vs. Competitors



Boozy Co. (7 of 8)

Unknown – Round 1

Sample Candidate Response

1. On a fully-loaded basis, Boozy is losing money on each Snoozie sold ($6 price, $5 cost)
2. If demand has remained constant, and price is the only differentiator, Coozie is over-priced and Snoozie is under-priced.
3. We should look first at reducing SG&A costs then at raw material costs
   a. SG&A: possibility of making team leaner, more efficient.
   b. Materials: lower cost materials, different suppliers, less waste if applicable

What a strong interviewee should consider

- High materials/lower labor costs may be related. Some locations may have low cost of labor, but be far away from raw materials. Or a highly automated manufacturing process may require less labor, but more materials.
- Competitors may be defining category differently – some costs in our SG&A may be in Festive's Labor.

Boozy Co. (8 of 8)

Unknown – Round 1

Final Recommendation

The client has asked us for our recommendation. What would you tell the client?

What are some of the potential risks?

Note: a strong candidate will include risks in initial conclusion

Sample Candidate Response

Boozy has seen decline in gross profit but static SG&A expense. Its SG&A expense is also the highest of its competitors. In addition, Coozie is overpriced while Snoozie is underpriced.

In the short-term, Boozy should raise Snoozie prices and lower Coozie prices. In the long- term, Boozy should lower SG&A to industry best practice by increasing efficiency. It should also lower material costs by looking at eliminating waste or using different materials that provide the same quality.

Risks to consider include:

1. Our labor cost is lower but is it sustainable? Will there be significant capital expenditures due in the near future to maintain/upgrade facilities?
2. Any change in operations may result in modest product deficiencies and/or distribution issue – what is our recourse under this scenario? This may result in a loss of goodwill.
3. Running machines at capacity may result in faster wear and tear, resulting in incremental maintenance expenditure.

Hawaiian Smoothies (1 of 9)

BCG – Round 2

Problem Statement Narrative

The year is 1990 and Dan has come to you with the following issue: he was approached by a serial entrepreneur, Jim, who wanted to discuss the possibility of Dan investing in one of his ideas. Jim has a history of successfully launching new business ideas, but Dan is not sure whether to invest.

The idea Jim is proposing is to open a new "smoothie" shop, a type of drink he saw when he was recently in Hawaii. He thinks that smoothies could be a big business and he wants to get the first store opened up soon so that he can start rolling out franchises if they are successful. Jim has asked Dan to invest $30,000 in the concept, for which he will get a 50% ownership stake in the business (i.e., 50% of the profits).

Dan wants to know what you think he should consider at this point.

Guidance of Interviewer

This is a profitability/break-even problem. The candidate should draw out a framework and explore the major costs of opening the smoothie store and then running it on a daily basis.

A sample framework is shown on the next slide.

Push the candidate to drive the case. Information should be provided to the candidate when asked (provided in slides 3-5).

The candidate should start by asking about the fixed costs of opening the store. If not, prompt the candidate to ask what he thinks they might be.

Hawaiian Smoothies (2 of 9)

BCG – Round 2

Sample candidate framework...

Profitability

- **Capex**
  - Payback period
- **Revenues**
  - Volume
    - Manufacturer capacity
  - Price
  - Product mix
  - Growth
- **Expenses**
  - Fixed
    - Real estate
    - Equipment
  - Variable
    - Raw materials
    - Labor

External

- **Market**
  - Demand
  - Growth
- **Competition**
  - New
  - Fragmented?
  - Location?

Hawaiian Smoothies (3 of 9)

BCG – Round 2

Additional Question

What do you think the major fixed costs of opening the store are?

- Once candidate identifies Real Estate, prompt him to estimate what it might cost as the store will be located in a suburban strip mall. Then provide the candidate with the rent figure of **$6,000/month** and ask him to convert to day rates **($200/day)**
- Once candidate identifies equipment, ask what kind. Then provide with a figure of **$20,000** at the outset, which will have to be repaid at the end of the first year.
- Once Insurance is identified, provide the candidate with cost of **$10,000/year** and ask him to convert to price/day **($28/day).**

Sample Response

1. Real Estate
2. Equipment
   – Juicers, cash registers, freezers, refrigerators
3. Insurance

Hawaiian Smoothies (4 of 9)

BCG – Round 2

Additional Question

What types of variable costs might be involved in running the store?

- Once candidate identifies employees, probe how many (2), and how much they're expected to cost ($6/hr).
- Once candidate identifies raw materials, probe for type and estimation of cost. Provide with a cost of $1 per smoothie.

Sample Response

1. Employees
   - Likely high-school or college age kids making minimum wage of $6.
2. Raw materials
   - Fruits, milk, juices, etc.

Hawaiian Smoothies (5 of 9)

BCG – Round 2

Guidance for Interviewer

The candidate should also ask for the following information. If not, probe them to see what they're missing and provide the data in the next box.

- Store hours
- Price per smoothie per size
- Payback period

Data to provide to candidate

- Store hours
  - *7 days a week from 11am – 10pm.*
  - *Candidate should calculate employment cost per day: 11 hours * 2 employees * 6 = $132*
- Price of smoothies
  - *$4 per smoothie. There will only be one size*
- Payback period
  - *2 years*

Hawaiian Smoothies (6 of 9)

BCG – Round 2

Candidate should perform daily breakeven analysis	

- Total cost to run the store per day:
  - $200 + $132 + 28 = $360
- Total profit margin per smoothie:
  - $4 - $1 = $3
- Total number of smoothies needed to break even per day:
  - 120 or 11 per hour

The the interviewer should also consider	

- *Is the amount calculated a reasonable amount to expect the store to sell per hour?*
- Candidate should recognize that 11 is a reasonable amount as that is about one every 5-6 minutes.

Hawaiian Smoothies (7 of 9)

BCG – Round 2

Q: Compute profit if store sells 15 smoothies on average/ hour

- Number of smoothies sold per day:
  - 15 * 11 = 165
- Profit per day:
  - ($3 * 165) – 360 = 135
- Assuming a 360-day year, the total yearly profits are:
  - 135 * 360 = $48,600

The the interviewer should also consider

- The candidate should remember that at the end of the first year he will have to repay the $20,000 in equipment costs which means that first year profits will only be $28,600.
- Candidate should recognize that Dan will receive $14,300 in returns in the first year and $24,300 per year on an ongoing basis in returns from the store. Therefore, he will recover his investment during the second year.

Hawaiian Smoothies (8 of 9)

BCG – Round 2

Additional Questions

- *What are some other ways the store could increase revenues?*

Sample Response

- Open for additional hours and serve "breakfast" smoothies
- Sell food items
- Add premium drinks with "boosters"
- Sell athletic supplements
- Enter into partnerships with local gyms
- Consider franchising the stores

Hawaiian Smoothies (9 of 9)

BCG – Round 2

Ask the candidate to wrap-up the case	**Recommendation** • Dan should invest in Hawaiian Smoothies • He should recover his $30k investment during the first half of the second year and should earn $24,300 annually on an on-going basis from the investment. **Next Steps** Dan should look into other ways to increase revenues • Opening for breakfast hours and serving breakfast smoothies • Attracting health-conscientious and potentially higher margin customers by serving athletic and healthy smoothies • Increase larger offering of sizes – small and large **Risks** • Bad economy could adversely affect estimates • However, even if estimates are 50% overstated, Dan should still earn back his investment during the third year

GreenShield Health Insurance (1 of 8)

Booz & Company

Problem Statement Narrative

Your client is GHI (GreenShield Health Insurance), a health insurance company, that wants to expand into Florida. Please help GHI create a business plan for this venture.

Guidance for Interviewer

PART 1: MARKET ATTRACTIVENESS (15 min)

- Testing: Market Sizing, Breakeven Analysis, other factors

PART 2: CHANNEL SELECTION (15 min)

- Testing: Grasp of channel economics of client acquisition model, other channel factors

PART 3: PROPOSED STRATEGY DISCUSSION (5 min)

- Testing: Ability to synthesize from large amounts of data, identify risks and respond to challenges

GreenShield Health Insurance (2 of 8)

Booz & Company

Sample candidate response...

PART 1: MARKET ATTRACTIVENESS

Hypothesis: Market characteristics make Florida attractive for entry and breakeven can be achieved

1. Identify attractiveness factors

Size	Growth	Fragmentation	Demographics	Income
Regulatory	Customer Preferences	Others		

2. Discuss the process for estimated potential market size. Determine potential data sources. Ask for an order-of-magnitude estimate. Then show **Exhibit 1**.

3. Conduct breakeven analysis

   Determine breakeven criteria and formula, given that

   Revenue per policy = $500

   Medical Cost per policy = $350

   Admin Cost per policy = $100

   Contribution Margin per policy $50

   Investment Required $2,000,000

   As a result, 40,000 policies need to be sold to cover the 2M investment, if all costs and revenues are taken as being over the lifetime of the customer.

   Once candidate has responded, show **Exhibit 2**.

4. Calculate and evaluate necessary market share

   Number of policies from Exhibit 2 / Number of insured from Exhibit 1= 0.8%

   Note: Use number of insured, not target market

   The candidate should identify that this is a realistic market share target

GreenShield Health Insurance (3 of 8)

Booz & Company

Sample candidate response...

PART 2: CHANNEL SELECTION

1. How is insurance sold? Discuss direct (calling customers, direct mail, agents) and indirect models (internet, billboard)
2. Where do the sales come from? Discuss leads – specifically, the candidate should identify that direct models generate far higher leads than indirect models as shown in **Exhibit 3.**
3. After candidate identifies channel differences in leads, show **Exhibit 3**
4. Ask to explain differences between yields (ask for a guess on which model would have highest and lowest yields).
5. Ask to identify most attractive sales channel:

   Revenue adjusted for cost of leads is

   Internet 75K **Direct Mail** 100K **Call Center** 200K **Billboard** 0 **Agent** 1,950K

   Calculation: Total Revenue-Total Cost
6. Ask to identify other issues: market expertise, channel conflict, etc.

GreenShield Health Insurance (4 of 8)

Booz & Company

Sample candidate response…

PART 3: PROPOSED STRATEGY DISCUSSION

Potential questions:

1. If the market is so attractive, why aren't other competitors rushing in? What barriers to entry will you create?
2. If you are an incumbent, how do you keep the client from entering?
3. Is there a value in partnering/allying/purchasing?

GreenShield Health Insurance (5 of 8)

Booz & Company

Sample calculations

See exhibit 2 for break-even calculation

What a strong interviewee should consider

Part 1:

- -Which population segments should be targeted?
- -Is the market share needed to break-even realistic?

Part 2:

- -Why are some channels more appropriate and profitable than others, given the target segments?
- -What are the channel conflict considerations when using external sales people (brokers)?

Part 3:

- -What does the case suggest about the overall industry structure and the levers of profitability?

GreenShield Health Insurance (6 of 8)

Booz & Company

Exhibit # 1: Sample Market Sizing

Market Estimation	
Florida population	17,000,000
Over 18 yrs old	12,000,000
Not covered by employer, %	50%
Not covered by employer, amt	6,000,000
Currently Insured, %	80%
Currently Insured, amt	4,800,000
Uninsured, %	20%
Uninsured, amt	1,200,000
Uninsured, can afford	30%
Uninsured, can afford	360,000
Insured but unhappy	30%
Unhappy, amt	1,440,000
Total Target Audience	1,800,000

GreenShield Health Insurance (7 of 8)

Booz & Company

Exhibit # 2: Break-Even Analysis

Breakeven Analysis	
Upfront Investment	2,000,000
Revenue Per Policy	500
Medical Cost Per Policy	350
Administrative Cost Per Policy	100
Profit Per Policy	50
Breakeven, policies	40,000

GreenShield Health Insurance (8 of 8)

Booz & Company

Exhibit # 3: Channel Costs

	Internet	Direct Mail	Call Center	Billboard	Agents	
Cost Per Lead	25	15	30	10	30	
Number of Leads	1,000	20,000	10,000	500	10,000	
Cost of Leads	25,000	300,000	300,000	5,000	300,000	cost*number
Yield	10%	2%	5%	1%	30%	
Number of Sales	100	400	500	5	3,000	number*yield
Revenue Per Sale	**1000**	**1000**	**1000**	**1000**	**750**	

White Boards (1 of 7)

Bain & Company – Round 1

Problem Statement Narrative	Guidance of Interviewer
Our client is a manufacturer of white boards. The client ships the boards from its factories to its distribution center and then from the distribution center to all of its retail locations. To meet their shipping needs, the client presently uses in-house trucking services. *They have approached Bain & Company asking for advice as to whether they should look to outsource their trucking services instead.*	This is a cost/benefit analysis case. Candidate should try to compare the advantages and disadvantages of in-house trucking services with that of outsourced trucking services. If asked: • *It does not matter whether the company's retail outlets are their own or franchises* • *The logistics of how the trucking industry works is not important*

White Boards (2 of 7)

Bain & Company – Round 1

Sample candidate framework…

	In-house	Outsourced
Revenues	Same	Same
Fixed costs	Truck fleet, Insurance	None
Variable costs	Truck maintenance, Fuel, Salaries	Charge per lb of load
Other costs	Union costs	
Profit		
Non-monetary benefits	Better control on distribution/verticle integration	Lower fixed costs, Lower # of employees required
Non-monetary costs		Dependency on outsourcing vendors

White Boards (3 of 7)

Bain & Company – Round 1

Guidance for Interviewer

Push the candidate to think more about costs. A major cost of transport in this case is the damage to goods during transit.

Once the candidate gets that this is a major cost, ask why this would need to be included in the comparison. After all, if transportation damages occur in both cases, it does not need to be included for comparison.

When outsourced, the external contractors will not be as careful while loading/ unloading thus changing the percentage of the whiteboards that get damaged.

Additional Question

Once the candidate has gotten the key to the left, provide the following:

- *The transit damage is 15% of the load when in-house trucking services are used.*
- *For outsourcing trucking, the transit damage is 25% of the load.*

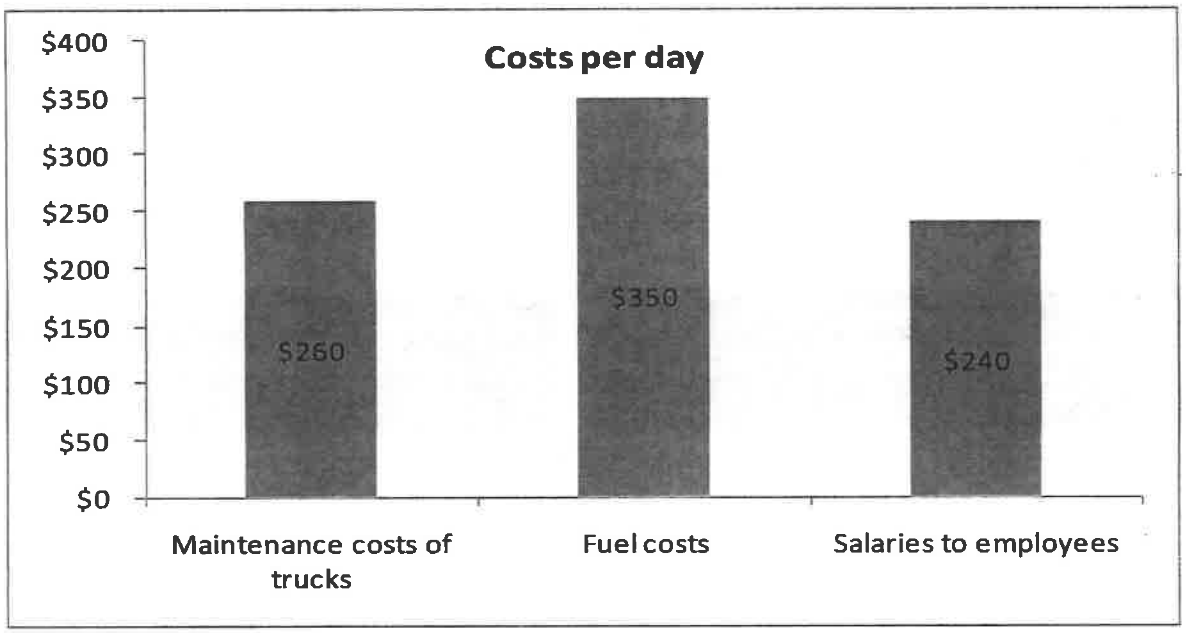
White Boards (4 of 7)

Bain & Company – Round 1

Exhibit 1

The company ships 50 lbs of white boards a day to the distribution center and the distribution center ships the same amount to the retail stores every day.

If outsourced, vendor charges $8.50/lb, irrespective of distance



White Boards (5 of 7)

Bain & Company – Round 1

Guidance for the interviewer

The candidate should use the above chart to perform a cost benefit analysis. He can do so by calculating the transportation cost per lb of saleable white board per day under both the outsourcing and in-house scenarios and present the one that has the most cost savings.

After performing calculation, ask the candidate for recommendations and solutions to help reduce damages during transit. If asked, the boards come in 3 sizes – small, medium, and large. The small boards are rarely damaged during transit while rate of damage is highest for large boards, which are bulky.

In-house calculations

- Costs per day
  - Maintenance (260) + Fuel (350) + Salaries (240) = $850/day
- Loss in damages
  - 50 lbs transported daily, round trip = 100 lbs
  - 15% damage: -15 lbs
  - Number of saleable white boards: 85
- Transportation cost per lb of saleable white board = 850/85 = $10/day

White Boards (6 of 7)

Bain & Company – Round 1

Outsource Calculations

- Costs per day
  - $8.50/lb x 100 lbs = $850/day
- Loss in damages
  - 50 lbs transported daily, round trip = 100 lbs
  - 25% damage: -25 lbs
  - Number of saleable white boards: 75
- Transportation cost per lb of saleable white board = 850/75= $11.33/day

Comparing outsourcing vs. in-house

- Cost Comparison

  In-house: $10.00

  <u>Outsource: $11.33</u>

  ($1.33) savings/day Costs more to outsource than transport in-house
- Additional savings opportunity
  - In addition to lower transportation cost, company can also sell more boards

White Boards (7 of 7)

Bain & Company – Round 1

Sample candidate Conclusion…

Recommendation

- The company should continue with keeping the trucking services in-house because
  - Costs an additional $1.33 per day per board to outsource
  - Additional margins on the boards that would not be damaged when the company keeps trucking in-house versus outsourced would also result in more benefits per board

Next Steps

- The company can try to reduce damages during transit by
  - Making white boards modular and transport them in smaller parts to be reassembled
  - Use better packaging and cushioning to reduce damage during transportation
  - Negotiate with outsourcing firm for them to bear losses during transit

Risks

- Cost of using better packaging or making boards modular may outweigh benefit of reducing transit damage

Prescott Publishing (1 of 7)

Booz & Company

Problem Statement Narrative

Your client is Prescott Publishing, a major business media company. They have a wide range of product offerings, including general business magazines, industry trade letters and branded television programming. Performance has suffered recently, as print circulation has declined.

The client leadership team wants to reboot their offerings with a new premium digital product. It wants to specifically target business executives with a paid web news offering. They would like your help to understand the opportunity and whether you would recommend they go forward with an investment.

Guidance for Interviewer

- Company is focused solely on the U.S. market
- Company is focused on a subscription model, any other revenue could be explored but will initially be immaterial
- Opportunity should elicit a negative recommendation. Given time, push the candidate to identify ways to improve the concept

Framework should include:

- Market Size/Revenue Opportunity
  - Potential Customers
  - Subscription Pricing and Other Revenue
  - Cost (infrastructure, talent, etc.)
- Could also include Competition, Risks, etc.

Prescott Publishing (2 of 7)

Booz & Company

Sample candidate response...

- I'd like to start by clarifying exactly what the product is so we can then size its potential market and evaluate whether we'll pursue the opportunity
  Note for interviewer: There are exhibits and descriptions on the next two pages that should be provided only if the candidate asks

- The product will be the executive's home page
  - Provides deep industry insights and knowledge
  - Analysis of breaking events impacting their company
  - Provides equivalent to a 'Morning Briefing', all the critical information an executive needs for the day
  - Premium product positioning, will focus on revenue through paid subscriptions, little if any emphasis on advertising

- Now that we know a little more about the product and its revenue model, we can develop estimates of what it can generate
  - Based on competitive landscape and company research a monthly subscription price of $10 seems reasonable = $120 annual subscription
  - Based on the client's target market, we can estimate that there are 180,000 people in the target audience *(As noted on page 4: 5x6x6=180 per company, x Fortune 1000, 180,000)*
  - From these two estimates there is a potential market opportunity of about $21.6M
  - However, we should also consider that people outside the target market may likely be subscribers as well

Prescott Publishing (3 of 7)

Booz & Company

Competitive Landscape Exhibit

Competitor	Pricing Model	Offering Description
Wahoo	Free	– Company financial reports – General Business News
Froogle	Free	– SEC filings – Company news
Wealth Publishing	$24.99/year	– Executive-focused lifestyle articles and general news
Lews Corp	$74.99/year	– In-depth business articles – Industry Analysis
Woodson Research	$350.00/year	– Customized research reports on specific industries/companies

Prescott Publishing (4 of 7)

Booz & Company

Additional Question	Guidance for Interviewer
What kind of product is it?	The client wants to become the 'Home Page' of the modern executive, providing them with current insights and trends on their industry, deep subject matter expertise, and relevant data.
Do they know what price they want to charge?	Give the candidate competitive exhibit and ask their opinion. They should want to focus between the $75 and $350 annual subscription fee options given the product description. After they make an estimate, tell them the client thinks customers would pay $10/month.
What does the company think defines 'an executive'?	To the client, an executive is either someone in the top five leadership positions (CXOs), one of the top 6 direct reports to those positions, or one of their 6 direct reports (5x6x6=180 per company). They'll also typically work for a large public company (e.g., Fortune 1000).

Prescott Publishing (5 of 7)

Booz & Company

Additional Question	Guidance for Interviewer
What does the company expect it will cost?	Push the candidate to identify different buckets of costs for such a product (e.g., infrastructure, labor costs, marketing, etc.) The company anticipates the construction and launch of the product would cost up to $30M, and would remain that significant going forward

Prescott Publishing (6 of 7)

Booz & Company

Sample candidate response…

- With a $21.6M potential market size, we should now turn our attention to the investment's cost
  - Costs will include infrastructure for a new web site, design, technical and reporting staff, maintenance, and marketing
  - The initial estimate of costs of the new site is $30M annually

- At that projected cost, the new product will require many more subscribers than our target market. This is before accounting for any competitive risks. As such, we would not recommend investment.

- To make the investment case more attractive, there are several potential levers that could make it a stronger opportunity
  - Mobile App complements
  - Higher pricing (for a premium product)
  - Broader targeting (small and medium size businesses)
  - Advertising (keeping in mind a premium position)
  - Providing additional value beyond media (e.g., networking, industry events)

Prescott Publishing (7 of 7)

Booz & Company

Sample calculations	Revenue/Customer - \$10/Month x 12 Months = \$120/customer/year Customers – (5x6x6)=180 X 1,000 (Number of Companies) = 180,000 Total Target Market Size = \$120 x 180,000 = \$21.6M per year **OR** Breakeven customer number = \$30M/120 = 250k customers (ask how many companies you'd need to target), 250k/180 = ~1,400 companies
What a strong interviewee should consider	- Additional revenue through advertising, mobile apps, other creative ideas - Opportunity cost of investing in this product - Risk of new competition providing information for free - Adoption of product by non-executives (i.e., those outside the target audience)

Katrina (1 of 7)

BCG - Round 1

Problem Statement Narrative

Our client, a school district has been completely devastated by hurricane Katrina. The school district is in New Orleans and they saw most of their students leave and relocate to nearby states after the hurricane. 2 years into the disaster, the students are now slowly returning back. The school district has hired us to advise them on two things:

- *What are the number of schools they need to immediately reopen?*
- *What can be done to improve the quality of education?*

Guidance of Interviewer

Let the candidate drive the case. Here is some of the information that a candidate may ask for.

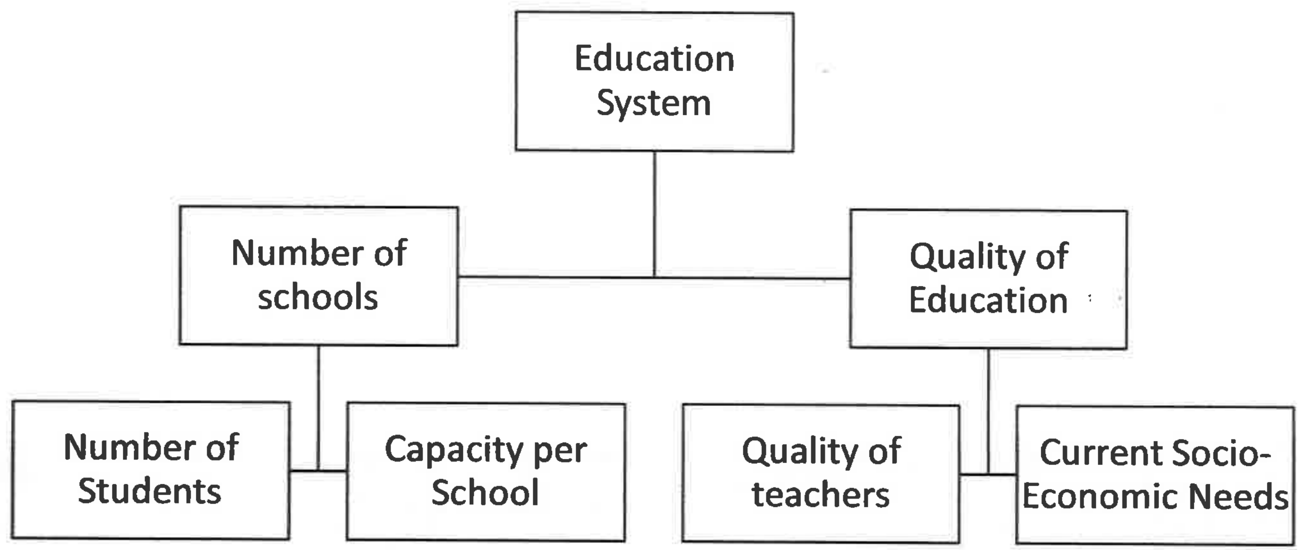
- *Before Hurricane Katrina, New Orleans Public Schools ranked as one of the lowest performing school districts in the country.*
- *The district faced significant financial problems and was on the verge of bankruptcy.*
- *There were 64,000 students that got displaced due to the hurricane.*
- *There were 64 schools before the hurricane struck, 18 have been reopened since.*
- *Approximately 24,000 students have already returned to the state.*
- *About 1,600 students are returning every month.*

Katrina (2 of 7)

BCG - Round 1

Sample candidate response…

- This is a non-profit case, and thus it has an unusual framework. A possible framework is below.



Katrina (3 of 7)

BCG - Round 1

Sample candidate response…

What are the number of schools they need to immediately reopen?

- Formerly, 64 schools with 64,000 students, so 1,000 students per school.
- 18 schools have reopened already.
  - 18 * 1,000 = 18,000 students can be accommodated.
- Number of students who have returned to New Orleans = 24,000.
  - Over-capacity for 24,000 – 18,000 = 6,000 students
- Every month 1,600 students are returning.
  - By next month there will be an over-capacity of 6,000 + 2*1,600. (current month + next month) = 9,200 students.
- Thus, by end of next month, the school district should target to reopen 10 new schools (to accommodate 9,200 students).
  - Beyond that, the school district would need to open ~2 schools per month to accommodate the 1,600 students that are returning every month.

Having solved the first question, it is time to move onto the second.

Katrina (4 of 7)

BCG - Round 1

Additional Question	Guidance for Interviewer

What can be done to improve the quality of education?	The candidate can be provided with the below information if asked:
	• *Before the hurricane, the school district statistics were the following:*
	  – *For every 10 students who enroll in schools, fewer than 6 make it to graduation*
	  – *Only 2 enroll in college .*
	
	Good candidates will want to go deeper into understanding this. There are no set answers here, but example brainstorming responses are on the next slide. The objective of this exercise is to see if the candidate can break down a problem statement to analyze the different causes that might be creating the problem

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Katrina (5 of 7)

BCG - Round 1

107

Sample candidate response ...

The candidate should brainstorm ideas to improve school district performance:

- Attract, develop and retain quality teachers, principals and school administrators.
- Improve the student teacher ratio to allow more individual attention.
- Engage students better by catering to courses that are more pertinent to today's world. For example, look to introduce courses like computer education etc. that can give the students an edge in getting jobs in high-paying sectors. Also, offer education in areas like carpentry, masonry, nursing etc. that can allow students to learn skills that can prove helpful to find jobs in local area.
- Ensure adequate capacity in the schools.
- Experiment with new school models by setting up a Charter system allowing private groups and corporations to be involved.
- Benchmark best practices with other school districts.
- Get the community involved and have parental involvement in school activities. They could also be encouraged to volunteer time that could help especially in the early days when the system is being revamped.
- Make information about the new changes available and advertise to ensure that the community supports and participates in the changes for the better.
- Grant some amount of autonomy to the schools in exchange for increased accountability, encouraging sharper focus on student achievement. This will also allow the schools the incentive to find creative ways to decrease spending in utilities and instead invest the money in instruction.
- Get local and national non-profit and/or corporate involvement. This will allow for funding to achieve the goals set.

Katrina (6 of 7)

BCG - Round 1

Sample calculations

Calculations are fairly simple: calculate a ratio based on based on student population and number of schools before Katrina (64,000 students /64 schools = 1000 students per school), and then use that to calculate a number of schools needed currently (24,000 students / 1,000 students per school = 24 schools) . Given that you have 18 schools currently open, you need to open 6 more. Given that you have 1,600 students returning each month, you need to open 2 schools each month in order to have enough facilities for returning students.

What a strong interviewee should consider

Basic Answer:

- The number of students who have returned to the state far exceeds the capacity of the 18 schools that have reopened. Investments should be made to reopen 10 more new schools on an urgent basis (8 this month and 2 next month to meet incoming students)
- With the rebuilding, there exists a potential to revamp the education system to make it more engaging and useful to find jobs. This can be done while ensuring the quality of education is improved by attracting and retaining high quality teachers and principals.

Superior answer will recognize risks. These include:

- For a community rebuilding itself, costs can be a constraint. However, it can be also viewed as an opportunity to get endowments to fund the plans.
- Media and community might focus on the negatives especially if the school district cannot provide adequate capacity in the schools quickly enough for the returning student body. In that case, students might be dissuaded from returning, causing more harm to the school district. Forging relationships with the local media to cover the advancements and achievements of the schools will be a way to mitigate the risks.

Katrina (7 of 7)

BCG - Round 1

Conclude the case

Recommendation

- Client should immediately open 6 more schools, and 2 more each month going forward

Next Steps

- Use this opportunity to ask for more funding from endowments, foundations, and other charities, donors
- Rebuild/rebrand the schools for quality
  - Attract, develop, and retain better teachers and other personnel
  - Improve student to teacher ratio for better quality of education – use industry best standards

Risks

- Negative portrayal by the media
  - Mitigate this by forging relationships with them and using them for publicity and to obtain more funding

Cleaning Products (1 of 7)

McKinsey - Round 1

Problem Statement Narrative

Our client is a prominent manufacturer of household cleaning products such as soap. They feel that an opportunity exists for them to do better in the market.

What will be some of the first things that you will ask the client?

Guidance of Interviewer

Drive the candidate to ask what is meant by "doing better in the market." If the candidate doesn't bring it up, guide the discussion. Possible replies may include stronger growth, more market share, more profitable, etc.

Try to push the candidate to come up with at least 4 responses and ask deeper questions to judge candidate's understanding by asking questions such as "what is a good growth rate in this industry?" "what can a company do to increase market share?"

Cleaning Products (2 of 7)

McKinsey – Round 1

Sample candidate framework…

Profitability

- **Revenues**
  - Price
    - Elasticity
  - Quantity
    - Product Mix
    - Channel Mix
- **Expenses**
  - Fixed Costs
  - Variable Costs
    - Labor
    - Raw Material

External Factors

- **Market**
  - Growth
  - % share
- **Competition**
  - New entrants
  - Differentiation
  - Price

Cleaning Products (3 of 7)

McKinsey - Round 1

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Additional Question

Once candidate presents the framework, ask:

What questions will you ask our client to help you get the information you require?

Only provide the following if asked, if not drive the candidate towards the information:

- *Revenues in the last year: $3 billion*
- *Client's product mix: Dish washing powder, clothes detergent powder, hand wash liquid, shower gel, all-purpose soap*
- *There are no opportunities in cost savings or adding new products to the mix*

Sample Candidate Response

- It appears that the only way to increase profitability is to get an increase in revenues.
- Possible ways to do this is by either increasing volumes or altering prices.
- Can increase volumes by either grabbing more market share or growing the market

A strong candidate will ask about <u>price elasticity</u> at this point.

Cleaning Products (4 of 7)

McKinsey - Round 1

Exhibit 1 – <u>Provide</u> when asked about price elasticity

Based on your ideas, you conducted a market research study. Your research has shown that if the prices of their products are changed all at once in the percentages shown, the <u>volumes</u> of the products sold <u>will remain unchanged</u>. ***Note that changes in price either <u>happen all at once or none at all</u>.***

Product	Price change % that can be implemented without changing volume	% of revenues (Current)
Dish Washing Powder	-2	5
Clothes Detergent Powder	1	20
Hand Wash Liquid	0	30
Shower Gel	2	30
All-Purpose Soap	4	15

Cleaning Products (5 of 7)

McKinsey - Round 1

Additional Question

The client has told us that they will be happy with a 1% increase in revenues.

Should they go ahead with the price change as the table recommends?

Sample Candidate response

Candidate should calculate current revenue and revenue after price change from table given above (ie, candidate comes up with the 2 rightmost columns – guide the discussion to arrive at these columns).

Product	Price change % that can be implemented without changing volume	% of revenues (Current)	Current Revenue ($mil.)	Revenue after price change ($mil.)
Dish Washing Powder	-2	5	150	147
Clothes Detergent Powder	1	20	600	606
Hand Wash Liquid	0	30	900	900
Shower Gel	2	30	900	918
All-Purpose Soap	4	15	450	468

Based on calculations, revenues will be $3.039 billion after the price change, an increase of $39 million. The client's target was $30 million (1% revenue change), so go ahead with the price change.

Cleaning Products (6 of 7)

McKinsey - Round 1

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Additional Question	Sample Candidate Response
Is there anything that our client should watch out for?	• Competitor's moves may undermine our price changes • Are we a monopoly producer? If so, we may invite anti-trust suits by price increases • There is a risk that the research was not reflective of all the geographies that our client supplies its products • This is a one-time increase in revenues. The client cannot expect to continue raising prices to keep a steady top-line growth • We have only analyzed revenues. There may be some additional costs associated with price increase (i.e. advertising to explain price increase) that may eat into profits generated through the $39M additional revenue ***Since this is a McKinsey case, probe the candidate to come up with 4-5 ideas if he/she stops after 2-3***

Cleaning Products (7 of 7)

McKinsey - Round 1

Sample Conclusion

Recommendation

- Go ahead with the price change – increase revenue by $39M, higher than 1% increase targeted

Risks

- Research was not reflective of client's geographic/demographic market
- Research based on status quo – if competitors use the opportunity to lower prices, we may lose customers
- Additional costs associated with price increase

Next Steps

- Explore selling through different channels: Sam's club, online website, etc.

German Telecom (1 of 9)

BCG - Round 1

Problem Statement Narrative

Our client is a large German telecom company. It is considering making a bid for one of 5 licenses to operate a new generation of mobile phone network (3G) in the United Kingdom.

It has engaged us to help with the issue and determine the appropriate strategy for the auction.

Guidance of Interviewer

If the candidate asks for more information on the **auction**, provide the following:

The auction will be a sealed bid auction with all bids received simultaneously. The licenses will go to the highest 5 bidders. Each bidder can attain only one license. The British government intends for the auction to open the mobile phone market to competition to help control consumer prices. As a result, one license has been reserved for a new entrant, but the other four are open to both new entrants as well as established competitors. Because it is a sealed bid auction, our client will not know the true bidding strategies of its competitors with any certainty. The auction is the first of its kind for 3G networks in Europe. The licenses will be valid for 5 years.

Additional clarifying information on next slide.

German Telecom (2 of 9)

BCG - Round 1

Problem Statement Narrative

Our client is a large German telecom company. It is considering making a bid for one of 5 licenses to operate a new generation of mobile phone network (3G) in the United Kingdom. It has engaged us to help with the issue and determine the appropriate strategy for the auction.

(continued)

Guidance of Interviewer

If the candidate asks for more information on the **technology**, provide the following:

The most important characteristics of the new network are the high data speeds and increased capacity for service that it offers. 3G networks will enable data speeds of up to five times greater than the most advanced 2.5G networks available today. These high data speeds could enable applications such as speedy access to corporate networks and the Internet, video-on-demand, online shopping, and video conferencing, all via a mobile device. More importantly, however, the additional 3G spectrum enables incumbent wireless companies to build out their capacity in order to support more customers and to enable high-bandwidth services in an environment that is increasingly becoming capacity-constrained. Following the introduction of 3G technology, old technology networks will be phased out by the government over the span of 3 years.

Additional clarifying information on next slide.

German Telecom (3 of 9)

BCG - Round 1

Additional Guidance

Let the candidate drive the case. The candidate should, at this time, draw out a framework. Here is some of the information that a candidate may ask for. Provide this only if the candidate asks:

More about our client:

- Market leader in Germany
- Has large presence in rest of Europe, but no presence in the United Kingdom currently
- Has been experiencing stagnating growth
- Looking for opportunities to expand
- Has the financial capability to bid what is needed, but does not want to overpay for license
- Has the financial capability to build network that will be needed to operate in UK

The competition:

- Unclear how many competitive bids will be received or who will bid
- 4 major operators exist in the current UK market
- They roughly split the market equally
- Already have established networks as well as retail outlets that they can leverage for the introduction of 3G technology

Guidelines for framework on next slide.

German Telecom (4 of 9)

BCG - Round 1

Sample framework guidelines...

The candidate's framework should discuss:

i. the attractiveness of the market
ii. the profitability when entering the market, and
iii. the client's capabilities.

The candidate should utilize industry specific terminology and examples as they walk through their framework.

The candidate should approach this case in two sections. First, the candidate must assess if the market is attractive for our client. To do this, they must assess the profitability when considering entry into this market:

<u>The market:</u>

- Approximately 30 million people have a mobile phone in the UK
- Growth has been slow recently (3-5% per year)
- Converting to the new network will require the purchase of a 3G network-enabled device
- Customers pay £30 per month for their current mobile phone plans

German Telecom (5 of 9)

BCG - Round 1

Sample candidate response…

Do not provide the candidate with any information about the framework. Rather, push them to make assumptions about each factor. Some of these qualitative considerations should include:

Volume:

- Some potential for growth beyond current market due to new services
- Must consider that conversion of customers will be critical and that client is at a disadvantage compared to established competitors
- A likely outcome is that our client will receive less than 1/5 of the total customers due to new entrant status

Price:

- Likely able to charge more than what customers currently pay
  - Could charge additional fees for additional services and allow customer to pick and choose what they want
  - Could charge more for a fixed plan with all services included
- However, there will also be increased competition in the market
- Candidate should consider both the factors that will increase the price (new services) and decrease the price (increased competition)

German Telecom (6 of 9)

BCG - Round 1

Sample candidate response…

Fixed Cost:

- Significant up-front cost for our client as they must set up network and retail chains
- Up-front costs not as significant for established competitors
  - This is a key disadvantage to our client
- Once network is established, fixed costs consist of:
  - Network operation
  - Maintenance
  - Retail operations, etc.

Variable Cost:

- Minor once network is established (i.e. one extra customer costs very little)

German Telecom (7 of 9)

BCG - Round 1

Additional Question

The candidate should be driving to calculate annual profitability (or both annual revenues and costs) in order to calculate the present value of the future cash flows for the next 5 years.

If he/she is struggling to come up with values for fixed cost, variable cost, price and volume—provide them with the following information at right.

Guidance for Interviewer

Volume:

- *Increase of 33% in customers* (to 40M) *overall*
- *Client will receive 1/8 of market annually* (5M total)

Price:

- *Average prices will increase to £50 due to new service adoption among key customer segments*

Fixed costs

- *£740M to build network*
- *£50M to run network annually*

Variable costs:

- *£50M to run network annually*

German Telecom (8 of 9)

BCG - Round 1

Sample candidate response...

At this point, ***instruct the candidate not to worry about discounting*** future cash flows (or that the discount rate is 0%).

Our client's bid is based on our assessment of the profitability:

- The bid could be as high as the total value of the cash flows from the license (break-even)
- However, the candidate should consider if the bid should be lower to realize some profits from the venture

→ As a result, the bid will be no higher than £13.7B.

Revenues	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Price/Customer	£600	£600	£600	£600	£600
# of Customers	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Revenues	£3,000,000,000	£3,000,000,000	£3,000,000,000	£3,000,000,000	£3,000,000,000
Total Revenue:	£15,000,000,000				

Fixed Costs:	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Build Network	£740,000,000	£0	£0	£0	£0
Run Network	£50,000,000	£50,000,000	£50,000,000	£50,000,000	£50,000,000
Variable Costs:	£50,000,000	£50,000,000	£50,000,000	£50,000,000	£50,000,000
Total Costs:	£1,240,000,000		Profit	£13,760,000,000	

German Telecom (9 of 9)

BCG - Round 1

Final recommendation

Ask for a recommendation from the candidate.

A strong candidate response will include a recommendation backed by the data with a mention of key risks to moving forward:

The 3G mobile network in the United Kingdom is a profitable market for our client. Although our client will face significant competition from established players, I believe they will be able to operate profitably over the life of the license. As a result, our client should enter a bid in the auction. Based on my calculations, the most our client should bid is £13.7B to breakeven on the license. However, there are considerable risks surrounding this bid that should also be considered.

A strong candidate will recognize that established competitors are willing to pay far more as their fixed costs are significantly lower. This would imply that it is unlikely that our client would be willing to outbid the established competitors as a result. Instead the client's real competition comes from other new entrants for the licenses reserved for them.

Truck Battery Manufacturing Co. (1 of 7)

Booz & Company - Round 1

Problem Statement Narrative

Our client is a manufacturer of battery-operated portable generator sets. The client has come up with a new product which lasts 20% longer than existing generators in the market and wants us to help them evaluate if there is a demand in the market and what kind of volumes they can be expected to sell.

Guidance of Interviewer

Let the candidate drive the case. The candidate should, at this time, draw out a framework. On the next page is some of the information that a candidate may ask for. Provide this only if the candidate asks. Please note that some of this information is key to solving the case and if the candidate does not delve into it, this information should NOT be provided willingly at all.

Truck Battery Manufacturing Co. (2 of 7)

Booz & Company - Round 1

Additional Information

More about the new product:

- The product is typically used by the trucking industry.
- When the trucks are powered off, i.e. they are in the rest areas and the engine is idle, the trucks use generators to cool the inside of the cabin when the driver naps or relaxes. The generators typically power portable refrigerators, air-conditioning/heating of the driver cabin, TV/entertainment units etc.
- The existing options in the market include diesel powered generators.
- Diesel generators run using diesel and give out the familiar strong smelling stench. They are definitely not environment friendly. They also run making a large amount of noise.
- Our product is better than diesel generators on both the above respects. Our generators are silent and because we don't run on diesel, our generators have no smell. Our generators however need to be charged prior to use and typically need 4 hours of truck running to charge fully.
- The drivers can also choose to leave the engine running and use the engine to cool the cabin, power entertainment units etc. However, in this case the truck will be consuming gas.

Truck Battery Manufacturing Co. (3 of 7)

Booz & Company - Round 1

Sample candidate framework…

The candidate should, at some point, draw out the framework. Below is an example and is not intended to be comprehensive:

- Market Sizing/Demand:
  - Trucks sold that would require a generator
  - Customer segments
  - Customer needs
  - Growth rate
- Competition/Substitutes:
  - Substitutes
  - Cost/benefit analysis
  - Market share of competitors
- External considerations:
  - Environmental issues
  - Patent protection??
  - Competitive reaction

Truck Battery Manufacturing Co. (4 of 7)

Booz & Company - Round 1

Additional Question

Calculate the market size.

You can either provide the data at right or let the candidate make assumptions (that you can validate) depending on stage of case preparation

Guidance of Interviewer

You may tell the candidate the following:

- *There are 10,000 trucks being sold in the US on an average daily basis*
- *Of these, 60% of the trucks are designed and used for long-distance travel*
- *The generators will be a feature that will be wanted by the long-distance drivers since they will be making the rest area stops and needing power during the break*
- *Of the old trucks sold, there are none that can have this product installed in now, so they are not a potential market*

→ Therefore, average market size in the US:

60% * 10,000 * 30 = 180,000 trucks/month

Since there is no other company that has the same product, the candidate can assume that we can capture this entire market if:

i. we can meet demand estimates with production capacity and
ii. we conclude that the entire potential market will appreciate and value our product features and not take to any of the substitutes

Truck Battery Manufacturing Co. (5 of 7)

Booz & Company - Round 1

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Calculating market size (cost-benefit analysis to determine value)

The candidate should then move to address if the second assumption is indeed true. Guide the candidate towards the question. The objective of this exercise is to do a cost-benefit analysis of the options and see which option the truckers would prefer.

The candidate can be provided with below information if asked about different options:

- *The battery operated generator –*
  - *Will be sold for $15,000 a unit*
  - *Is costless to charge since it charges during the run time of the truck and does not cost gas or any other resources*
  - *Has a useful life of 5 years and a zero salvage value*
  - *Can be used for 40 hours a month on an average.*
  - *Runs for a stretch of 10 hours when fully charged.*
- *The diesel sets –*
  - *Cost $12,000 a set and have zero salvage value. They last for 5 years as well.*
  - *Every hour of the diesel generator costs a gallon of diesel that sells for $2.50 a gallon*
- *Leaving the truck on is also an option –*
  - *It would cost a gallon of gas on an average to power the standard units for .5 hrs. Gas costs $4 a gallon.*

See next slide for calculations

Truck Battery Manufacturing Co. (6 of 7)

Booz & Company - Round 1

Calculating market size (cost-benefit analysis to determine value)

One possible approach to the cost-benefit analysis is shown below:

- Assume that the trucker makes a rest area stop for 10 hours and compare the cost-benefit of each option around that.
- We break the costs into fixed and variable costs. We amortize the cost of the unit over the number of hours it will last and calculate the fixed costs.
- We use the run time of 10 hours to find what the variable costs will look like. You could also do this on a per hour basis. The key is to pick a simple basis for comparison and add the fixed cost to the analysis.
- We compare the total cost for each of the options and note that the client's generators are financially the cheapest option available to the truckers.

	Fixed Cost (per 10 hrs)	Variable Cost (per 10 hrs)	Total Cost
Option 1 – Leaving the truck running	$0	10/.5*$4= $80	$80
Option 2 – Using diesel generators	$[12,000/(12months/yr*5yrs*40 hours/month)]*10 hours = $50	10*2.50 = $ 25	$75
Option 3 – Using the client generators	$[15,000/(12*5*40)]*10 = $62.5	$0	$62.50

Truck Battery Manufacturing Co. (7 of 7)

Booz & Company - Round 1

Final Recommendation

Any other creative ideas are also to be rewarded. The idea is to see that the candidate can think on the fly and think of the potential benefits and cost that might impact the recommendation.

Ask for a Recommendation:

The client has asked us for our recommendation. What would you tell the client?

Here is a possible response:

- There is a steady demand for the product at about 180K units per month and we can capture a large share of the demand with the right advertising and manufacturing capacity.
- We should look to educate the buyers of the benefits of our product – clearly both financially and environmentally we are much better than our competition/substitutes.
- Risks include competitors copying the concept and the high upfront cost of purchasing the product.

Midwest Machinery Co. (1 of 10)

Bain & Company - Round 1

Situation

Midwest makes a variety of machines designed for the medium to heavy industrial sector that are used in everything from factories, farms, tractors, and industrial buildings. Revenues are $3B and net profit margins are 12%.

The CEO wants to find cheaper ways to produce machines. It's pushed management to comb the globe for alternate suppliers in faraway places such as Colombia, Shanghai and India.

The CEO also wants to increase efficiency in processes that support operations. In particular he wants to ensure basic activities that do not involve intellectual capital are performed at the lowest cost possible. He does not want to overpay for labor when it isn't necessary. He respects Midwest' traditions and the strong sense of community it has with the town, but he knows that profitability must come first for him and his shareholders.

Issue and Question

The Six Sigma team (business management strategy aiming to improve manufacturing process) has proposed moving to India the manufacturing process for the XL292 machine, a critical machine for many of Midwest's end products. Also, these results may affect Karl's decision on whether to outsource other processes totaling over $300M worth of costs. Before the CEO looks at the financial data, he wants to have a clear understanding of the pros and cons of outsourcing.

Develop a structure for thinking through the pros and cons of outsourcing this process to India. Your structure can only cover 5 topics that may/may not concern the business. You can only ask two questions before creating your structure. Explain the model and what you'd advise the CEO to consider as he reviews the data.

Midwest Machinery Co. (2 of 10)

Bain & Company - Round 1

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Additional information (only if asked)

- ***Community*** *– Midwest is located in a small town in Midwest USA and has been he largest employer in that town for over 30 years*
- ***Unions*** *– Midwest is unionized but the union and management have typically been on friendly terms*
- ***CEO Personal Incentive*** *– If he saves the company over $50M this year, he will receive a $1M bonus*
- ***Competitors –*** *They have been outsourcing for years and benefiting by getting their costs down*

Midwest Machinery Co. (3 of 10)

Bain & Company - Round 1

Sample candidate framework…

__Stay Local__

Pros

- **People:** loyalty, best people stay, morale will be up
- **Plant operations:** Capacity should remain steady
- **Community Relations:** Unions and community leaders will continue to support Midwest management
- **Technology:** By producing locally, Midwest can keep on top of technical changes quickly

Cons

- **Financials, revenue, cost, TT:** Midwest will continue to waste profit dollars
- **People:** Good employees still may leave as personal opportunities diminish
- **Plant Operations:** Operations aren't going to change and costs remain high

__Go to India__

Pros

- **People:** Eliminate low level jobs may force some people to try to advance and build their skills
- **Plant operations:** Unnecessary production may be streamlined resulting in more savings long term
- **Technology:** By going abroad, Midwest will be exposed to better technology and may grow as a result

Cons

- **Financials, revenues, cost, TT:** hidden costs in terms of handling product and dealing with a foreign country may be higher than expected
- **People:** fearing for their jobs, good people may leave
- **Plant operations:** idle capacity may cause further expense in local plants
- **Community relations:** backlash from community may destroy value of company
- **Technology:** cheaper prices may require cheaper technology as a result, higher CAPEX

Midwest Machinery Co. (4 of 10)

Bain & Company - Round 1

Exhibit 1

Calculate the profitability of staying local vs. going abroad to India. Using the data, return to your model and explain how it has affected your thinking. You may ask three more questions at this point before concluding with your final advice to the CEO

	Stay Local	India
Total units	10,000	10,000
Labor and benefits per hour	$22	$7
Hours to product a unit	12	4
Materials cost per unit	$400	$250
Holding cost per unit	$30	$20
Shipping per unit	$12	$44
Import duty per unit	$0	$150
Made in USA credit per unit	$85	$0

Midwest Machinery Co. (5 of 10)

Bain & Company - Round 1

Candidate Calculation

Stay Local

= (Labor * Hours) ($264)
+ Materials ($400)
+ Holding cost ($30)
+ Shipping ($12)
+ Import duty ($0)
- USA credit ($85)

$621/unit
= $6,210,000 total cost

Go to India

= (Labor * Hours) ($28)
+ Materials ($250)
+ Holding cost ($20)
+ Shipping ($44)
+ Import duty ($150)
- USA credit ($0)

$492/unit
= $4,920,000 total cost

Cost savings = $1.3M (4.92M - $6.21M) or 20.8%

Extrapolating to other processes of $300M of costs – it can save ~60M. $60M is 17% of Midwest's bottom line ($3B * 12% = $360M of profit)

Midwest Machinery Co. (6 of 10)

Bain & Company - Round 1

Additional Question	Guidance for Interviewer
What would happen if Indian Labor costs doubled?	= (Labor * Hours) ($56) + Materials ($250) + Holding cost ($20) + Shipping ($44) + Import duty ($150) - USA credit ($0) ---------------------------- $520/unit = $5,200,000 total cost • Compared with staying local, save 16% • If outsource all $300M = $48.8M savings • New profit margin = 14%

Midwest Machinery Co. (7 of 10)

Bain & Company - Round 1

Additional Question

What if US production goes to 8 hours?

Guidance for Interviewer

= (Labor * Hours) ($176)

+ Materials ($400)

+ Holding cost ($30)

+ Shipping ($12)

+ Import duty ($0)

- USA credit ($85)

$533/unit

= $5,330,000 total cost

- Savings of 8% if outsource
- If outsource all $300M = $23.1M savings
- New profit margin = 13%

Midwest Machinery Co. (8 of 10)

Bain & Company - Round 1

Additional Question

What if US credit goes to $125?

Guidance for Interviewer

= (Labor * Hours) ($264)

+ Materials ($400)

+ Holding cost ($30)

+ Shipping ($12)

+ Import duty ($0)

- USA credit ($125)

$581/unit

= $3810,000 total cost

- Savings of 15% if outsource
- If outsource all $300M = $46M savings
- New profit margin = 14%

Midwest Machinery Co. (9 of 10)

Bain & Company - Round 1

Additional Question

What if import duty goes up to $200?

Guidance for Interviewer

= (Labor * Hours) ($28)

+ Materials ($250)

+ Holding cost ($20)

+ Shipping ($44)

+ Import duty ($200)

- USA credit ($0)

$542/unit

= $5,420,000 total cost

- Savings of 13% if outsource
- If outsource all $300M = $38.2M savings
- New profit margin = 13%

Midwest Machinery Co. (10 of 10)

Bain & Company - Round 1

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Wrap-up the case: Sample Recommend ation	Recommendation • Savings for going abroad of about \$1.3M for XL282 machine is reachable. Based on the discussion of pros and cons of outsourcing to India, it may be a good idea to perform a pilot using the XL282 machine and making sure this part is successful before moving the additional processes of \$300M worth of costs to India. It will be important to invest time in communication frequently and openly with employees in order to keep motivation high. Next steps • CEO should begin to craft a proposal for the XL292 machine pilot and to begin forecasting costs Risks • Supplier charge – large savings may disappear • Government changes – will the taxes and credit shift • Hourly rate – may see a big shift in hours for India

Heavy Attrition (1 of 6)

ZS Associates - Round 2

Problem Statement Narrative

Our client has asked us to look into why there is such heavy attrition amongst the junior sales people in the organization. Where do you think we should start?

Guidance for Interviewer

This is an open-ended case typically provided by partners that focuses on brainstorming.

Let the candidate drive the case. The candidate should ask clarifying questions around the qualitative “heavy attrition” verbiage. When asked, reveal the following:

1. *The average time that a newly hired salesperson is staying in the organization is less than one year. This is worrisome since it takes about 6 months for the salesperson to learn and come up to speed.*
2. *On the other hand, experienced salespersons (people with experience in the organization greater than 3 years) are staying on with the organization with almost zero attrition.*
3. *The organization is a fairly new medical devices company which has been operating for 10 years.*

See next slide for framework guidelines.

Heavy Attrition (2 of 6)

ZS Associates - Round 2

Guidelines for candidate framework....	
	The ideal candidate should be quick to hypothesize that there seems to be an incentive problem. As a result, while the framework may have an additional bucket addressing additional factors (i.e. industry regulations or exams, barriers from pre-existing relationships, etc.) the bulk of the framework should be examining different types of incentives and how these work differently between new and experienced sales representatives. The incentives could be a variety of things including kind of work, compensation, perks etc. Since the primary work of sales people is to sell, we can assume that the nature of work is similar to both types of sales people. So we focus on the monetary aspect of the incentive structure. Sales people are typically paid a small fixed salary and a commission which is based off the sales they accomplish. Thus: • Commission for a sales person = Function (volumes sold (kind of clients, kind of product sold), distance travelled) Therefore the candidate should look to investigate how and why the commission varies between the junior and more senior sales people.

Heavy Attrition (3 of 6)

ZS Associates - Round 2

Additional Questions

What are the main factors determining incentives realization?

Example 1: Type of product sold

Guidance for Interviewer

This candidate should mention several factors including type of product sold, kind of clients, distance to customer location and be able to go into depth on reasoning behind each of these, as exemplified in the following slides:

Types of product sold:

- The candidate should try to delve deeper into understanding the company's product line. (*Do not provide any details but ask the candidate why that is important. The candidate should show an understanding that it is important if the company sells multiple products of differing commissions and price ranges and if the junior salesperson does not have access to entire range of products.)
- By way of an example: Apple iPods priced in the $100-300 range practically sell themselves, i.e they require little effort on the part of the salesperson. Apple iMacs, on the other hand, are priced in the range of $2000-3000 and require a greater effort on the part of the salesperson
- The candidate should investigate whether the incentives at the client firm are aligned such that the salesperson's commission is in such an example as above, far more for selling an iMac than for selling an iPod.
- If the commissions are structured as above, then the candidate should investigate whether junior salespeople are allowed to sell the higher margin, higher commission products or whether they are forced to sell the lower-priced end of the product line.
- Improper incentives could lead to lower morale among junior sales people and motivate them to leave quickly.

Heavy Attrition (4 of 6)

ZS Associates - Round 2

Additional Questions

What are the main factors determining incentives realization?

Example 2: Kind of clients in territory

Guidance for Interviewer

Kind of clients in territory:

- Typically sales people are assigned territories so that one salesperson is not stepping competing with another salesperson for the same customers.
- The candidate should want to know how the salespersons are assigned territories. If the territories are geographically marked then there could be a problem is junior sales people are provided territories with lower income neighborhoods, while senior sales people command coveted higher-income neighborhoods. Such an allocation of territories could skew a junior salesperson's compensation as accomplishing sales in a higher-income neighborhood might be easier (greater disposable income per person) and might even result in higher volume sales
- If, on the other hand, the territories are based on industries of customers, for example, a few salespeople sell to higher education, a few sell to businesses, few to retail, etc. and if the junior sales people are assigned to a client-group where they have to acquire new customers and where customers don't know the client product well, it might again have an impact on their compensation.
- Another issue could be that typically big customers for the firm are considered its most important customers. It is possible that the client is earmarking these big customers to be serviced by its senior sales team. Both the customer and the client might be more comfortable with this kind of an interaction. However, this might hurt the junior sales person if s/he cannot see themselves as being trusted enough to ever participate in those transactions. Also because big customers by definition are big spenders on the client's goods, it is highly likely that the commissions of the senior salesperson is inflated even though s/he does not have to make the extra effort to sell to the big customers.

Heavy Attrition (5 of 6)

ZS Associates - Round 2

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Additional Questions	Guidance for Interviewer
What are the main factors determining incentives realization? Example 3: Distance to customer location	Distance to customer location: • A salesperson's commissions could be heavily impacted especially if his/her customers are geographically separated by large distances and s/he is forced to spend a lot more time on the road traveling than with customers. This could be a problem if the junior salespersons are getting the new potential customers who are far-apart from each other.

Heavy Attrition (6 of 6)

ZS Associates - Round 2

Final Conclusion	Guidance for Interviewer
Where would you recommend we start our investigation?	As mentioned earlier, this case focuses on the candidates ability to brainstorm. The interviewee should include the following key points but should also be rewarded for creative suggestions. After investigating the cause for the high attrition amongst the junior sales people, we could recommend to the client to look to restructure the incentive compensation system to include the following : 1. Align incentives of the senior sales person to the success of the junior sales people – Every senior sales person can be a mentor to a junior person and his/her incentives could have a component linked to the junior person's success and staying on with the client firm. 2. Clear growth path for the junior sales person – If the junior sales person can see what milestones s/he can meet to ensure that s/he can get to sell to the big customers (i.e., if there were more transparency and clarity in the allocation process), they might be more encouraged to stay on with the client.

Lola Lo Zoos (1 of 9)

Unknown

Problem Statement Narrative

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.

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?*

Guidance of Interviewer

If the candidate asks for any more information, provide the following:

- 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.

Guidance for framework on next slide.

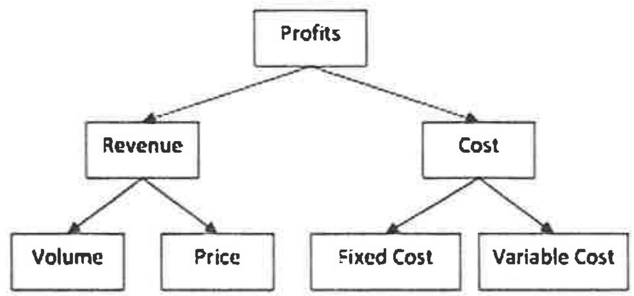
Lola Lo Zoos (2 of 9)

Unknown

150

Sample candidate framework

The candidate should realize this is a net present value problem, meaning that Lola should be willing to purchase the dinosaur at any price producing a positive net present value. Thus, the candidate's framework should focus on profitability and potentially "Additional Considerations" to cover other risks/ideas such as risk of disease, possibility of cloning, legal requirements, etc.



Ask the candidate to think about 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.*

Additional information provided on next slide.

Lola Lo Zoos (3 of 9)

Unknown

Additional Information

The candidate should then drive the case. When asked, and after discussion around the various revenue streams, you can provide the candidate with the following numbers based on internal research:

Revenues

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

Fixed Costs:

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

Variable Costs:

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

Lola Lo Zoos (4 of 9)

Unknown

Analysis

While the actual numbers are not that important, 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, etc.

- Provide interviewee with the following once he/she comes up with lifespan suggestions:
  - *Expected Lifespan of Dinosaur = 50 years*
  - *Current Age = 20 years*
- Besides knowing the expected lifespan of the dinosaur and all the revenues and cost, the candidate needs to ask about the discount rate
  - *Discount rate = 10%*

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. (see next slide)

Lola Lo Zoos (5 of 9)

Unknown

NPV Calculations

Simply have the candidate set up and describe how they would solve for the dinosaur price, and then move on. Exact solving is outlined below, **only to illustrate** process.

Base on the information provided, we can calculate the annual operating cash flows for the next 20 years:

- **Annual Revenue** = 2M (tickets) + 1M (hotel) + .5M (movie) + .5M (park food) + .25M (merchandise) + .25M (research) = **4.5 M**
- **Annual Costs** = 1M (staff) + .25M (food &merchandise) + .25M (operations) = **1.5 M**
- Therefore , **Annual Operating Profit** = 4.5 M – 1.5 M = **3 M**

To calculate NPV (excluding fixed costs) you can use the perpetuity formula twice to calculate the NPV of operating cash flows as follows:

$$NPV_{next\ 30\ yrs} = NPV_{perpetuity\ starting\ today} - NPV_{perpetuity\ starting\ in\ 30\ yrs}$$

$$NPV_{next\ 30\ years} = \frac{3\ M}{.1} - \frac{\left(\frac{3M}{(1.1)^{30}}\right)}{.1} = 28.3M$$

$$fixed\ costs + 28.3M > 0$$

$$-15M - cost\ of\ dinosaur + 28.3M > 0 \rightarrow \boxed{cost\ of\ dinosaur < 13.3M}$$

Lola Lo Zoos (6 of 9)

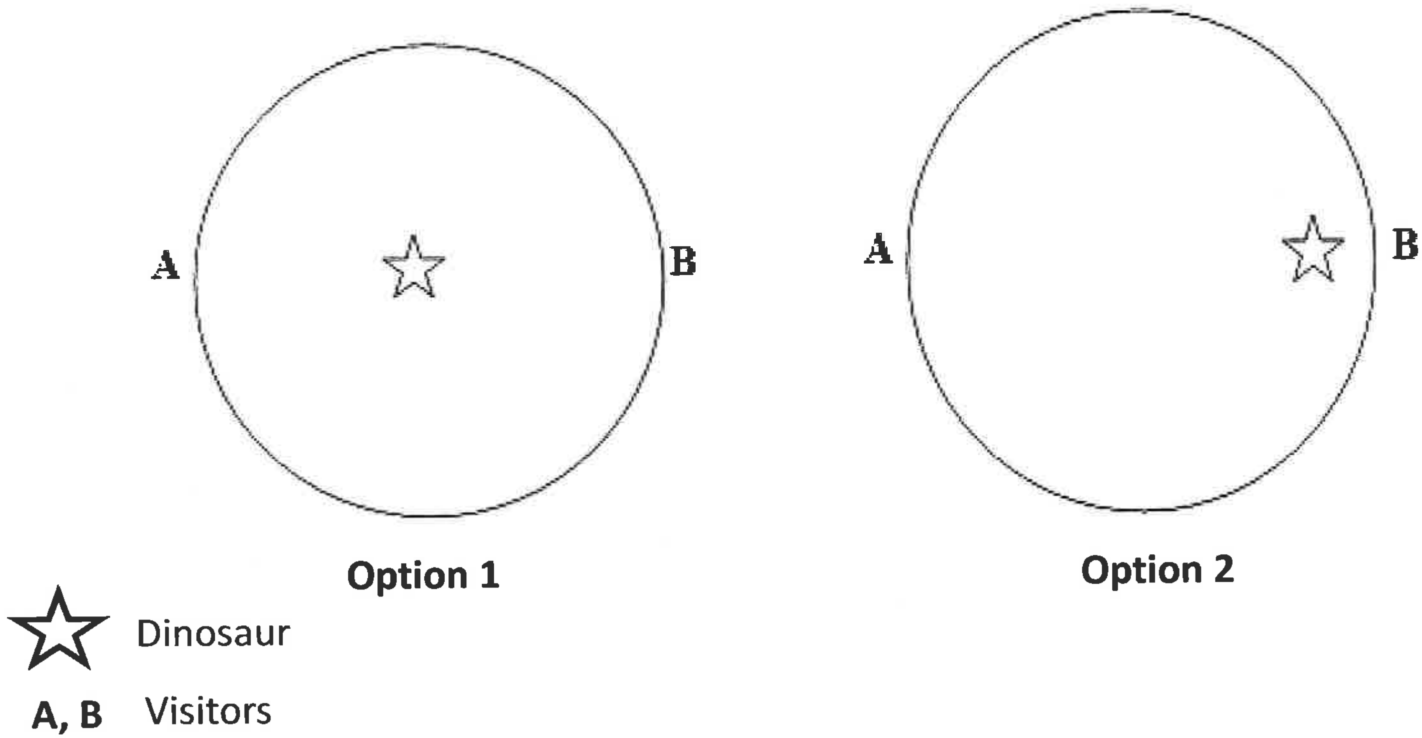
Unknown

Additional Question	Guidance for Interviewer
• *How would you design the exhibit area for the dinosaur?* – *What would be the size of the exhibit area?* – *How would you route traffic around the exhibit area?* – *Draw the shape of the exhibit area in relation to the dinosaur and show how the traffic is routed around the exhibit area.*	Have the candidate think for a moment and potentially suggest some options and sketch an option. Then show Exhibit 1(next page) to interviewee.

Lola Lo Zoos (7 of 9)

Unknown

Exhibit 1 – Two options for Dinosaur Exhibit



Lola Lo Zoos (8 of 9)

Unknown

Exhibit Analysis	Guidance of Interviewer
Ask the interviewer "*What the strength and weakness of both approaches?*" 1. Ideal situation – all spectators have same view 2. Not 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? "*	In response to ideal exhibit design, there is no right or wrong answer. One example: 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: Have the exhibit level multiple levels so the client can cycle more spectators through.

Lola Lo Zoos (9 of 9)

Unknown

Final Recommendation	Ask the candidate to make final recommendations—go back to the initial question posed: • 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. • Identify Risks: – The dinosaur could die of diseases in North America. – 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.

Contact Lenses (1 of 12)

McKinsey – Round 1

Problem Statement Narrative

Your client is a well-known contact lens provider called BB. BB manufactures and distributes contact lenses in the U.S.

While BB is one of the largest players in the US market, and has been for quite some time. However, the company feels that compared to its main competitor, it is not doing as well as it could.

BB had called in McKinsey to find out how to solve this problem and to recommend a solution.

Guidance for Interviewer

If the candidate asks for more information on the product, provide the following:

- *For the scope of this case BB manufactures and distributes only in the US.*
- *Demand for contact lenses has been growing steadily at about 3% annually.*

The problem of the case as read is intentionally very vague. Interviewee should clarify what is meant by "compared to its main competitor, not doing as well as it could", not just assume that it means lack of growth, etc.

- *BB completed a benchmark study of itself versus its biggest competitor and discovered that its profits are not growing as fast as the competitors'.*
- *Two main players in market: BB and Competitor. Other, smaller firms exist, but for scope of case are negligible.*
- *Competitor is also a US-only manufacturer & distributor.*
- *Market is equally divided between BB and Competitor.*
- *BB and Competitor are of roughly equal size.*
- *BB and Competitor sell same products.*

Contact Lenses (2 of 12)

McKinsey – Round 1

Framework Question	Guidance for Interviewer
How would you go about structuring this case?	**Note:** If the interviewee hasn't clarified the purpose of the case (i.e. what problem does BB want them to solve?), push them to do so. A lot of people automatically assume that BB's sales aren't growing at industry rate, or that BB isn't satisfied with its market share. If they do, read back the statement of the issue in the introduction ("is not doing as well as it could") and ask them to explain to me what that could mean. If they still don't get it, point out that the statement is very subjective (as in, could be interpreted to mean many different things) and by then, they usually figure it out. This is a profitability problem, so classic profitability framework. The best candidates will be specific about their bullet points, giving concrete examples and eliminating certain areas based on their communicated hypotheses. Often interviewees don't do this, so after the framework is laid out, push back and ask them.

Contact Lenses (3 of 12)

McKinsey – Round 1

Additional Question	Guidance for Interviewer
Based on the information you've been given so far, and based on what you know about the contact lens industry, where do you think the problem lies?	What answer they end up with doesn't matter, but they should concretely and rationally eliminate certain options, running through their framework. Easiest way to reason out possible problem areas is by thinking about current, established major contact lens players – Bausch & Lomb, Johnson & Johnson. them. Please see next slide for guidelines how the interviewee should reason through framework.

Contact Lenses (4 of 12)

McKinsey - Round 1

Sample candidate response...

Industry is defined by high barriers to entry (since high R&D outlay necessary); also, industry is mature (20 years plus) & dominated by two players, so can expect players to be equal in most things. Thus, see below:

<u>Variable costs</u>

- Raw Material: inputs will be plastic, saline solution (water, salt), packaging (paper, aluminum foil, plastic). These are all commodities. Any issues BB has with raw material costs are likely also experienced by the Competitor. Thus not an issue.
- Labor: will be unskilled, wage rate probably set by minimum wage standards. Unless unionized and competitor not, nothing here to put BB at disadvantage to Competitor. Thus not an issue.

<u>Fixed costs</u>

- Plant, Property & Equipment: given US contact lens industry, probably no difference between BB and Competitor (think Bausch & Lomb or Johnson & Johnson). There should be no major difference in plant costs or plant efficiency. Probably no major equipment differences.
- R&D: big cost factor, but probably equal between BB and Competitor.
- Overhead (People): Again, no major differences as companies are of similar size.
- Marketing/Distribution: Probably no differences.
- Legal issues? Possible, but BB is probably big enough that even a huge class action settlement shouldn't affect its bottom line too much.

<u>Price</u>

- Contact lenses are fairly commoditized. Minor differences in pricing may exist, but probably nothing major.
- Customers may be price sensitive, but given that lenses are fitted to a person by their doctor, customers do not purchase lens purely on price. Comfort/fit and compatibility is a big issue.

<u>Product mix</u> : Maybe competitor is selling more profitable mix of lenses?

- Distribution/Sales channels: Competitor may be selling through more profitable channels?

<u>Volume</u>

- Substitute goods: May be substituting away from BB? However, any substitutes (Lasik, glasses, etc.) will likely hit Competitor equally.
- Competitor may capture more of market – better branding, better distribution, better price, better products? Could be possible.

Contact Lenses (5 of 12)

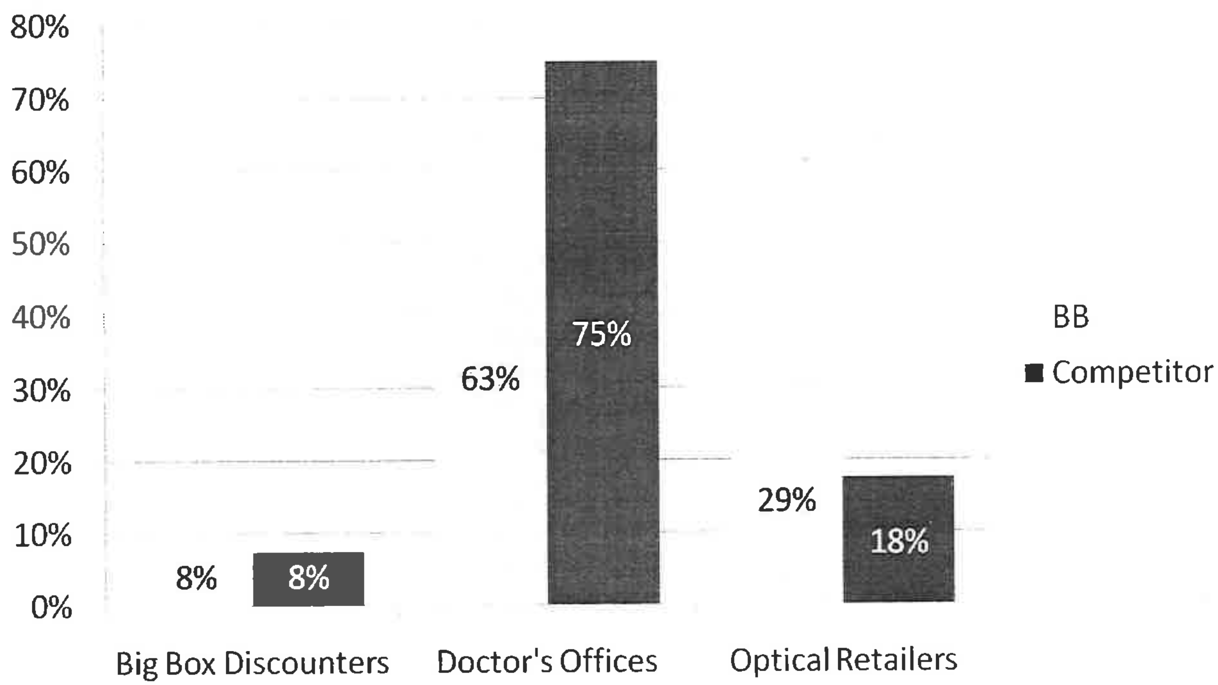
McKinsey - Round 1

Additional Question	Guidance for Interviewer
After analyzing BB's cost structure, McKinsey is confident that BB's costs are extremely competitive. Knowing this, where do you think the problem could lie?	The candidate should mention that the issue is on the revenue side and specifically should focus on sales. Once the interviewee comments on customer and product mix or distribution, make the following comment and present the Customer Mix slide: *McKinsey analyzed the distribution channels of BB and its competitor, and came up with the following information.* See case slide 7 for suggested interviewee responses.

Contact Lenses (6 of 12)

McKinsey - Round 1

Exhibit # 1 – Customer Mix



Contact Lenses (7 of 12)

McKinsey - Round 1

Sample candidate response and interviewer guidance…

The Customer Mix slide is vague. Interviewee should immediately walk through and clarify what is being shown. Most students won't do this. If they don't, start pointing things out to them.

- This slide shows customer mix in terms of volume. As a reminder, the competitor and BB sell equal volume annually (around 10,000,000 lenses per year).
- There are three main channels/customers:
  - Big Box Discounter = Wal-Mart; Sam's Club
  - Doctor's Offices = your local mom & pop non-chain doctor's office
  - Optical Retailer = Lenscrafters, etc.

Important Takeaways:

→ Competitor sells more via Doctor's offices; BB via Optical Retailers.

→ Each customer has a varying degree of buying power. Wal-Mart purchases in large volume; Doctor's office is purchasing in small quantities, probably also not super business savvy (no procurement department). Lenscrafters is in the middle.

→ These customers/channels differentiate themselves: Wal-Mart is known for cheap prices; Doctor's office is specialized & high on service; Lenscrafters in the middle.

Key Point:

BB and Competitor charge same prices for same products (as established earlier in framework). The issue is overall profitability, therefore the issue must lie in that there must be a pricing difference between the different sales channels that makes some channels more profitable. If the candidate has not clearly explained their reasoning behind why the pricing is different, probe by asking *"Does this surprise you?"* Then move onto the next slide and provide interviewee with Exhibit 2 – Profitability by Customer.

Contact Lenses (8 of 12)

McKinsey - Round 1

Additional Question

Can you tell me what you see here, does any of this surprise you?

(Show Exhibit 2, Profitability by Customer slide)

Guidance for Interviewer

Candidate should point out that prices are in line with what was expected. Discounters such as Wal-Mart price lowest, Doctor's offices are priced highest. Given purchasing power, this makes sense. Also, customers generally are willing to pay a premium at a Doctor's office, due to personalized service.

COGS & Fixed Costs: It makes sense for these to be equal since it is the same product.

Sales, Distribution: It is interesting that these are different; this could be due to advertising needs or self space requirements.

Contact Lenses (9 of 12)

McKinsey - Round 1

Exhibit # 2 – Profitability by Customer

Per box of contacts (6 lenses)	Big Box Discounter	Doctor's Office	Optical Retailer
Revenue	$16.50	$28.00	$22.00
COGS	$8.00	$8.00	$8.00
Sale, Distribution	$5.00	$2.00	$3.50
Other Fixed Costs	$2.00	$2.00	$2.00
Profit			

Contact Lenses (10 of 12)

McKinsey - Round 1

Additional Question	Calculations & Guidance for Interviewer
Calculate profit and percent profit margin per channel. (Follow up with additional questions on right)	Candidate should reach the following conclusions: • Big Box Discounter: \$1.50 (9%) • Doctor's Office: \$16.00 (57%) • Optical Retailer: \$8.00 (36%) Once calculated, ask the candidate: *Does any of this surprise you?* The interviewee should comment on how BB is behind competitors in the most profitable channel. Next, ask the candidate: *Given this information and the initial problem we're solving for, what would you want to look at?* The candidate should want to look at how we can sell more lenses in the Doctor's office channel; possibly shifting resources from Big Box channel.

Contact Lenses (11 of 12)

McKinsey - Round 1

Additional Question

Like its Competitor, BB relies on sales reps to distribute its contact lenses to the Doctor's Offices. Currently, BB has 5 reps in its call center dedicated to reaching out to the Doctor's Offices and doing whatever is necessary to get them to sell as many BB lenses as possible.

Interestingly, McKinsey has discovered a relationship between call frequency and sales generated:
- *For every 2 calls made to a customer per month, our client sees a 5% increase in revenue from that customer*
- *For every 3 calls made, our client sees a 15% increase in revenue over revenue for 1 call*

Currently, each B&B sales person has 100 customer accounts. Each account must be called at least once a month, as B&B does not want to lose any customers. Assume that sales per customers, when the customer is called once a month, is $100.

Given these findings, what should BB do?

Calculations & Guidance for Interviewer

The interviewee should realize that they need to isolate the effect of making additional calls to a customer per month.

Provide the following information to the interviewee when asked:
- *Each sales call takes 30 minutes.*
- *Each sales rep works 20 days per month, 8 hours a day.*
- *Each sales rep spends approximately 3 hours of each work day on administrative work, lunch break, etc.*

Calculations provided on next slide.

Contact Lenses (12 of 12)

McKinsey – Round 1

Sample calculations	

Sample calculations

- 8 hours a day less 3 hours a day for admin = 5 hours a day for sales calls.
- 5 hours divided by 30 min per call = 10 calls per day.
- 10 calls per day times 20 days total = maximum capacity is 200 calls per month per rep.
- 200 calls max less 100 calls necessary = 100 "free" calls.

You can use all options to call additional customers (a) three times, or (b) two times per month:

- Already have called all customers once, so to reach 3 calls per month, must only call customer 2 additional times. Therefore, BB could call 100/2 = 50 customers 3 times per month.
- Alternatively, B&B could also call 100/1 = 100 customers 2 times per month.

Recall effectiveness of different numbers of calls:

- 1 call = $100
- 2 calls = $100 * 1.05 = $105.
- 3 calls = $100 * 1.15 = $115.

→ If all customers are called twice then sales = 100 customers * $105 per customer = $10,500

→ Otherwise, sales = 50 customers * $100 + 50 customers * $115 = $10,750

Final recommendation

BB should call 50 customers once and 50 customers 3 times.

Commercial Vehicle OEM in China (1 of 7)

Booz & Company

Problem Statement Narrative

Our client is Matthew Stafford, CEO of Megatron International, a global commercial vehicle OEM

The company is successful and has strong positions in "mature" markets - i.e., North America and Western Europe. Nonetheless, while it entered China five years ago, it has struggled to grow there. This is particularly troubling since China has become the world's largest market, and which now represents 80% of global demand by volume

We have been tasked to help Stafford and Megatron profitably increase its share position in China.

Guidance for Interviewer

A key assumption to this case is that profitability will result from growth - the critical question is how to increase share

There are two dimensions to this case:

- Qualitative discussion (10 - 15 min)
  - Why did Megatron originally believe it could be successful in China?
  - Why has Megatron struggled in China?
- Quantitative calculation (10 - 15 min)
  - Should Megatron proceed with the capital investment?
  - What are the risks to each decision?

Commercial Vehicle OEM in China (2 of 7)

Booz & Company

Additional Question

As we mentioned, Megatron is an established and successful player in North American and Western European markets.

Looking back at the decision to enter China five years ago:

What capabilities did Megatron assume it could bring to bear as it expanded into China?

Or, put another way, what advantages that helped drive its success in mature markets would have been most applicable as it expanded into emerging regions?

Guidance for Interviewer

There is no data to support the question - the interviewee is merely to provide hypotheses

A "great" response would draw out the various steps of the value chain and then comment on whether or not such capabilities could be transferred to China; for example:

- Strong product development capabilities
- Scale in manufacturing
- Low-cost and global manufacturing footprint and supply chain (It currently supplies two regions)
- Excellent product quality and reliability
- Strong brand / marketing and sales capabilities
- Global management team

Commercial Vehicle OEM in China (3 of 7)

Booz & Company

Additional Question	Guidance for Interviewer
Despite these advantages, Megatron has clearly struggled to increase its presence in China. *What capabilities do you think it lacks? What factors have contributed to its difficulties?*	Again, there is no date - the candidate is asked to develop hypotheses A "good" response *must* mention lack of local market knowledge - i.e., unfamiliarly with new competitors, customer needs, buying criteria, product requirements, etc. Additional factors that may be mentioned include: - Inadequate dealership network - Lack of parts / service availability - Over-engineered product - Lack of regional scale Note: Candidate may mention concerns around government involvement in market / need to find local JV partner: While these are very valid concerns, they are not the focus of this example

Commercial Vehicle OEM in China (4 of 7)

Booz & Company

Interviewer narrative

- At this point, the interviewer will direct the candidate to explore in greater depth the issue of "lack of local market knowledge"

- The Chinese commercial vehicle market is dominated by domestic firms, which control 90% of volume (five major players - top domestic OEM controls 20%)
- These competitors have adopted a completely different strategy:
  - While Megatron trucks are built to last for twenty years, Chinese entries are far less durable - lasting for, at most, 4 years
  - Nonetheless, these trucks are far less expensive - priced at ¼ the amount of Megatron's entries
  - This value proposition plays well to Chinese customers, for whom price and payback period are critical considerations
- In attaining market leadership, Megatron is considering introducing a new brand - Ndamukung Inc. - with products specifically built for the Chinese market
- These products would be priced similarly to those of the competition, with equivalent performance / cost trade-offs
- We are to advise Stafford and Megatron on whether or not to invest in Ndamukung: to simplify, the required investment would consist of a $500M facility / supply base / distribution network to produce Ndamukung-branded commercial vehicles

Commercial Vehicle OEM in China (5 of 7)

Booz & Company

Instructions for interviewer

- The interviewer will share the following information with the candidate only upon request
  - Total size of global market: 500K units
  - Price of Ndamukung vehicle: $50.0K per unit
  - COGS of Ndamukung vehicle: 75% of price
  - SG&A: $10K per unit
  - Stafford and Megatron would require a break-even period of 4 years
  - For ease of calculation, the Chinese truck market is not expected to grow over the next five years
- The key calculation is to determine the market share required to break even on the investment within the four-year time frame

Commercial Vehicle OEM in China (6 of 7)

Booz & Company

Sample calculations	Size of Chinese Market = 500K x 80% = 400K units Variable Margin per Vehicle = \$50.0K - (75%*50.0K) - 10K = \$2.5K Vehicle Sales Required to Break Even = \$500M / \$2.5K = 200,000 units Vehicle Sales per Year Required to Break Even = 200,000 units / 4 years = 50,000 units Market Share Required = 50,000 / 400,000 = ***12.5%***
What a strong interviewee should consider	Candidates could also perform additional calculations; for example, - Calculate additional profit potential - Each 1% share delivers \$10M in variable margin - Describe share as percent of domestically-controlled market (14% = 50K / 360K annual units), as this is the most applicable segment for Ndamukung products In this example, either answer (proceed / do not proceed with investment) is acceptable. The candidate should augment his / her decision by stating potential risks of either scenario (*Next page*)

Commercial Vehicle OEM in China (7 of 7)

Booz & Company

Sample candidate response…	

Sample candidate response…

- Risks of proceeding with investment
  - Failure to obtain required share due to competitive pressure / inability to distinguish Ndamukung offering in the market
  - Dilution of Megatron brand / confusion over brand promises (i.e., customers expect Megatron quality from Ndamukung product)
  - Megatron may lack the capabilities to engineer to "good enough" standards
- Risks of not proceeding with investment
  - Omission from world's largest truck market
  - Cession of global scale to Chinese OEMs
  - Failure to develop manufacturing / design capabilities from which to serve other emerging markets

Smart Cards (1 of 9)

McKinsey

Problem Statement Narrative

Our client, Electronics Inc, is a large diversified Electronic Component manufacturer. One of their businesses is the manufacture of Smart Cards used by transport authorities (passenger cards). They entered this business 3 years back.

Their CEO is unhappy with the performance of the business and has asked McKinsey to figure out what to do with the business. What areas will you explore?

Guidance for Interviewer

Answers to potential questions asked by interviewee

- *They also manufacture chips and custom electronic components in the US*
- *They manufacture both Smart Cards and Card Readers. The customers are primarily transport authorities (eg: CTA)*
- *The focus is just the US*
- *If the candidate asks, the business has witnessed low growth and recent customer complaints; the CEO is considering whether to spin off / sell the business*

Framework should include:

- **Market**
- **Customers**
- **Competition**

Smart Cards (2 of 9)

McKinsey

Sample candidate response…

Candidate should consider the following factors for the smart card business to evaluate their current state and growth opportunities

- Market – Overall Size, customer segments, Growth rate, Trends in adoption
- Competition – Who, market share, competencies
- Company – Company's customers, value chain, synergies with other businesses

Candidate should also try to understand the cause for customer complaints ***(the candidate should not assume the cause for the complaint is price or product quality)***:

- Product related
  - Price
  - Quality issues (can state a few examples)
- Service related
  - Delivery
  - Customer service

Smart Cards (3 of 9)

McKinsey

Additional Question and Candidate Response	
	Our main customers are transport authorities. How would you segment them?
	Response:
	One way to do it would be by revenue (or margin)– Tier-1 transport authorities (e.g., New York, Chicago, SF) and small transport authorities (e.g., smaller tier-2 cities). ***(lead candidate to size-based segmentation if needed)***
	That's exactly how the industry does it. Ok, now what?
	Response:
	I'd like to understand how we do in these segments vis-à-vis the competitors
	Look at this information (following page)

Smart Cards (4 of 9)

McKinsey

Additional Question and Candidate Response

Segment	Smart Cards Penetration in Segment	Electronics Inc (Client)	Comp A share	Comp B share	Others share
Tier-1 (10 customers)	100%	15%	40%	45%	0%
Tier-2 (70 customers)	10%	0%	2%	8%	0%

We're a weak third player in the market. Other competitors have a significant advantage in the Tier-1 base and we need to consider what is needed to grow share in this segment. There does seem to be opportunity in Tier-2 but that may not be profitable to serve, considering the low existing penetration

A good candidate will realize that the low penetration does not necessarily mean there is an opportunity – it could imply that these customers are unprofitable to serve, currently

Smart Cards (5 of 9)

McKinsey

Additional Question

What do you think are the key purchase drivers in this business? (Why would a customer choose one player over another)

***(The candidate must realize the solution here is the reader + smart cards and hopefully state that a dual-pricing scheme may be adopted)**

Guidance for Interviewer

The main aspects of the value proposition are:

- Reliability of technology (the most important)
- Time and cost needed for back-end database management
- Price of the solution*
- Validation by prior customers (transport authorities are more likely to use a solution successfully deployed elsewhere)
- Quality of service/ support

If asked tell the candidate that all players in the market have parity on everything except reliability

Smart Cards (6 of 9)

McKinsey

Additional Question	Guidance for Interviewer
As mentioned earlier, there have been some recent customer complaints. As a result, some of the client's current customers are considering moving to other vendors. ***Electronics Inc-*** ***Reader reliability: 90%, Card reliability – 75%*** ***Comp A-*** ***Reader reliability: 98%, Card reliability – 60%*** ***Comp B-*** ***Reader reliability: 99%, Card reliability – 70%***	*The candidate should realize that reader reliability is much more important than card reliability since cards can be replaced easily but reader failure can shut-down the entire system* *The candidate should explore the possibility of improving reader reliability since it threatens the integrity of the system.* ***Tell the candidate that upgrading the reader quality to 99% reliability will involve an investment of $10M.*** *The candidate might want to do a cost-benefit analysis, but a strong candidate will hypothesize that it may not make sense to upgrade since we have such a low market share and face two dominant players who already have 99% reliability*

Smart Cards (7 of 9)

McKinsey

Additional Question	Sample Candidate Response
Based on this information, what do you think the client should do with the business? ***(if the candidate asks for any additional information, gently nudge them to hypothesize a solution)*** ***A strong candidate will realize the "platform strategy" and "winner-takes-all" situation.***	For Tier-1 customers, it looks like the client is worse off than Comp A and Comp B. The client has reliability issues and does not have a superior "value-proposition" in any other respect. This is a platform strategy where the "winner-takes-all" within each geography and all Tier 1 geographies are saturated. Further, there are demand-side economies (proof of concept with more installed customer base) and supply-side economies (scale, lower infrastructure cost) that provide the competitors with additional advantages. There might be an opportunity in the Tier-2 segment, and the client should explore this possibility. However, the Tier 2 segment could simply be unprofitable and that's why Comp A and Comp B haven't targeted a larger share. Unless a profitable solution can be developed for Tier 2, the client should exit the market and sell off assets to Competitor A or Competitor B.

Smart Cards (8 of 9)

McKinsey

Bonus Question	Sample Candidate Response
How would you find out if there is an opportunity in the Tier-2 segment?	The client should go to the Tier 2 customers and find out why they have not adopted the smart cards. The insights from this investigation could potentially be used to develop a better solution for Tier 2. For instance, the client might find that Tier 2 customers don't need and don't want to pay for the full-scale product offered to Tier 1 customers and might be willing to consider a cheaper, functional system. In this case, the client should consider the possibility of providing a cheaper "lite" solution to the Tier 2 customers.

Smart Cards (9 of 9)

McKinsey

What separates a good candidate from a very strong candidate in this case	
	• A framework suited to this case – it has to explore the industry and competition, not profitability • Realizing that Tier-2 segment may be unprofitable to serve • Recognizing that reader reliability is more important for integrity of the system • Understanding the "winner-takes-all" nature of this business • Answer the original question "what to do" – sell-off assets to competitor and exit

American Express (1 of 7)

Unknown – Round 1

Problem Statement Narrative

American Express (Amex) is a consumer services company providing a variety of services to its card holders. Its primary service is its well-known charge card, that enables "members" to purchase goods and services from millions of merchants that accept the card. Unlike other credit cards, cardholders are required to pay off their accrued balances each month, and interest is not charged. Recently Amex has faced strong competition from new credit cards entering the market. They have considered dropping the $55 annual fee. Amex has engaged our firm to answer two questions:

1. *What are the economics of such a decision, and*
2. *Should the fee be dropped or not?*

Guidance of Interviewer

The candidate's framework should support the candidate's ability to do the following:

- Determine how Amex makes money
- Evaluate the pros and cons of dropping the annual fee
- Explore options for replacement revenue
- Make a recommendation

The candidate should ask for the following information (the interviewer should encourage him to establish estimates first).

- *Number of members: 14 million*
- *No additional revenues from customers, since balances are paid monthly and Amex doesn't enforce late fees*
- *1% merchant fees for transactions from merchants*
- *Average annual transactions: $1,000/member*

American Express (2 of 7)

Unknown – Round 1

Sample candidate response…

In responding to the first question, *"What are the economics of such a decision"*, the candidate should determine the lost revenue if the annual fee is dropped. In this case, Amex loses $770M ($55 x 14M members)

As a result, Amex would have to generate new or additional revenues to overcome the loss of annual-fee revenue.

The company might be able to do this by:

- Increasing number of customers thereby earning more from merchant fees
- Increase merchant transaction fees
- Going after a client base that has higher annual spending amounts
- Entering into the credit card market where balances are carried over and interest is charged for this privilege

American Express (3 of 7)

Unknown – Round 1

Additional Question

Will consumer spending increase sufficiently to generate merchant-transaction revenue?

Sample Response

The candidate should recognize that this is not likely, since cardholders must still pay-off balances at the end of the month. Therefore, Amex must increase the number of cardholders to increase merchant-transaction revenue.

Currently, given the estimated annual transaction average per cardholder of $1,000, Amex earns $140 M/ year from merchant-transaction revenue:

→ $1,000 x 1% x 14 M = $140 million

With only the current customer base, Amex would need an incremental $770 M in revenue which would require a 5.5 fold increase in overall transaction amount.

American Express (4 of 7)

Unknown – Round 1

Additional Question

Is it possible to increase the number of cardholders enough to offset the lost revenue?

Sample Response

The candidate should calculate the required number of new members to offset the needed $770 M in revenue lost:

- The average annual transaction revenues are $1,000 x 1% = $10 per member
- Therefore, the number of new customers required to overcome the revenue loss would be 770M/10 = 77 million. It is not likely for Amex to gain 77 million new members this year.
- An alternative Amex could consider is raising transaction fees. This would result in more revenues, but Amex would have to address the consequences for vendor relations.

American Express (5 of 7)

Unknown – Round 1

Additional Question

Should Amex charge interest and allow card-members to hold a balance? What would the impact be?

Sample Response

The candidate should consider the following:

- Prior to making such a change, the company should consider the impact on the brand.
- The change would also require new activities to support the new business model, since Amex would now have to assess customers' credit worthiness and amount of credit to extend. This could mean increasing exposure to people with lower credit ratings, and thus higher risk for Amex.
- In terms of profitability, Amex is not likely to lose its existing client base if they start to charge interest on a different card. Therefore, they should see incremental increase in revenues.

American Express (6 of 7)

Unknown – Round 1

Calculating the impact…

The impact of the change will depend on the rate of interest, the average balance, and the number of consumers that begin carrying a balance

- Assume a rate of interest of 10% and an average balance of $500 in any account carrying a balance greater than $0
- Even if 50% of Amex's current customers begin to carry a balance, the additional revenue will not cover the lost revenue of $770 M:

→ If average balance = $500 at 10% APR = $50 per member x 50% x 14 million members = $350 million annually.

American Express (7 of 7)

Unknown – Round 1

Sample Conclusion	Based on economic analysis, don't drop the fee. It is difficult to replace the lost revenue.
What a strong interviewee should consider	• Candidate should explore the issue of rival credit cards entering the market, how their product offering is similar or different from the American Express card, and the strengths and weaknesses of American Express' position. Alternative revenues should be explored. One option is charging interest and allowing cardholders to hold a balance. Answers should address how this would affect the Amex brand, i.e., the consequences of becoming just another ordinary credit card. Another is enforcing late fees or raising merchant fees. The consequences of these should also be discussed. • Outstanding answers should explore effects of competition among credit cards and recommend how Amex could increase revenues without dropping the fee. Comment on quality of new members acquired, since competition is forcing many credit card companies to issue cards to riskier consumers.

International Airlines (1 of 8)

Bain & Company – Round 1

Problem Statement Narrative	Guidance of Interviewer
One of our clients, a leading international airline, has come to us with a problem. Over the last three years they've noticed that while their business has been doing well, their profitability seems to be stagnant. *They have come to Bain to try to determine what the issue is and how they can correct the problem.*	This is a profitability case. The candidate should draw out a framework, outlining the possible issues then use it to ask exploratory questions.

International Airlines (2 of 8)

Bain & Company – Round 1

Sample candidate framework…

Internal

- Revenues
  - Change in price more likely than quantity
  - Product mix revenues
  - Channel revenues
  - Customer mix
  - Capacity – full or idle?
- Costs
  - Fixed
    - Airplanes (leased)
    - Airport charges
  - Variable
    - Fluctuation in price of oil
    - Labor
      - Efficiency /turnaround time

External

- Market
  - Change in demand
  - % share
- Competition
  - Number of competitors
  - New entrants
  - Differentiation/price

International Airlines (3 of 8)

Bain & Company – Round 1

Exhibit 1 – Financial Results

(Provide only if asked about business segments)

The two main areas of business for the airline are its passenger business and its freight business.

	2000	2001	2002
Passenger Revenues	$300 million	$375 million	$450 million
Profits from Passenger Business	$140 million	$165 million	$190 million
Freight Revenues	$212.5 million	$225	$275 million
Freight profits	$200 million	$190 million	$120 million

International Airlines (4 of 8)

Bain & Company – Round 1

<table>
<tr>
<td>Additional information (once freight is established as the issue)</td>
<td>

There are two main types of freight: belly freight, which is carried in the bays of the planes that are operating as passenger jets, and freighter freight, which is carried on specially-designed freighters
With the exception of live animal freight, which is an inconsequential portion of this airline's overall business, all types of freight can be carried on either freighters or passenger planes
Passenger planes typically have about 35% of the room of the freighters

</td>
</tr>
<tr>
<td>What the candidate should recognize</td>
<td>

There might be a problem with the usage of freighter and passenger jets to carry the freight
Belly freight is a substitute for freighters themselves
Candidate should now ask for some information about the profitability of belly freight versus freighter freight

</td>
</tr>
</table>

International Airlines (5 of 8)

Bain & Company – Round 1

Additional information: Belly vs. freighter freight

- *The cost per ton of belly freight (i.e. the incremental cost to the airline) is approximately 20% that of freighter freight*
- *The time to deliver belly freight is approximately 10% longer than that of freighter freight*
- *The destinations served are actually greater with belly freight flights than with freighter freight*
- *They operate out of the same airports, although separate personnel are required to operate freighter freight flights*
- *If belly freight or freighter freight capacity goes unoccupied, it's non-revenue generating (i.e. nothing else is carried in that space)*

International Airlines (6 of 8)

Bain & Company – Round 1

Additional information: What's happened over past couple of years	
	• *Airline has quadrupled their number of freighters from 3 to 12 over the past 3 years. Further they have added new freighter flights. This has led to the usage of the freighters' capacity on each flight to drop from 85% to 35%* • *At the same time, the number of passenger flights has doubled and the number of destinations served via passenger flights has increased by 1/3. Belly freight capacity usage however has dropped from 85% to 60%*

International Airlines (7 of 8)

Bain & Company – Round 1

Exhibit 2 – Profit Margins (provide only if asked by candidate)

The total cost for a freighter freight flight averages $400,000 per flight and for passenger flights they are $600,000 (regardless of the freight carried). Further, revenues for each flight from the freight move on a sliding scale based upon how full the planes are:

Freight usage:	25%	50%	75%	100%
Passenger (freight revenues per flight)	$150,000	$300,000	$450,000	$600,000
Freighter (freight revenues per flight)	$200,000	$400,000	$600,000	$800,000

International Airlines (8 of 8)

Bain & Company – Round 1

Sample Candidate Conclusion	**Conclusion** • Due to the unnecessary freighter expansion project, the airline is making $280k per freighter flight down from $680k. As a result, it is now losing $120k per flight versus a profit of $280k per flight **Recommendations** • Much of this freight could be carried in the belly of the planes and would result in a cost free incremental profit to the airline • It should charge a premium for express packages for which the 10% additional time savings gained by using a freighter is crucial • It should sell off or terminate the leases of some of its freighters • It should consider adding more passenger flights as the demand seems to be picking up for these. By adding more belly freight the profitability per flight should also increase • It can consider trimming its freighter operations to lower facility/personnel costs • The airline could try and become a leader in the express freighting business • Consider entering into agreements with other freighter companies in order to share usage of planes and personnel in an effort to cut costs/maximize usage **Risks** • Customers may not respond well to premiums charged for express packages • Union issues with regards to trimming personnel • Expensive and risky to try and become a leader in the express freighting business

Linda's Great Burgers (1 of 7)

Unknown

Problem Statement Narrative	Guidance of Interviewer
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.* *Is HD a good acquisition and match for GB?*	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.

Linda's Great Burgers (2 of 7)

Unknown

Additional Question	Guidance for Interviewer
What is your roadmap to approach this case?	1. Ask for additional motivation in addition to simple sale growth . 2. Standalone analysis of HD's business: is the donut business an attractive business to be in? Is HD itself an attractive target? 2. Synergies between GB & HD? Is there operational or financial synergies? 2. Can GB execute the acquisition: strategic fit? Financial & management resources? Culture implications? Integration after acquisition? 2. Other options?

Linda's Great Burgers (3 of 7)

Unknown

Sample candidate response…

Heavenly Donuts

- **Financial considerations**
  - Payback period
  - Financial synergies (lower cost of capital)
  - Potential tax gains if HD has losses
  - Revenue synergies
- **Operational considerations**
  - Operational synergies (economies of scale leading to lower costs)
- **Other considerations**
  - Locations
  - Strategic fit

Donut Industry

- **Market considerations**
  - Profitability
  - Growth
  - % share of market
- **Competition**
  - Number and intensity
- **Increase in product diversification**

Linda's Great Burgers (4 of 7)

Unknown

Exhibit 1

Where are the synergies?

	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

Linda's Great Burgers (5 of 7)

Unknown

Sample candidate response…	
	• **Revenue synergies:** market coverage - GB covers more market than HD, it could bring HD into more markets (such as Europe and Asia). Based upon its 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). • **Cost savings through economies of scale/scope:** raw material purchasing (volume discount), consolidate property and equipment, decrease Corp SG&A. • **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. **Note to interviewer:** 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 communicate the findings in a confident, enthusiastic, and relationship building manner.

Linda's Great Burgers (6 of 7)

Unknown

What would revenues/store need to be if HD were to double market share in 5 years?	Assuming total market size and number of stores do not change, revenues would need to be \$1.37M per store. Current revenue = \$700M Double current revenue to double market share = \$1.4Bn \$1.4Bn / 1020 stores = \$1.37M revenues per store
What a strong interviewee should consider	Candidate should immediately look at the above calculation and think whether it's feasible. You would need to double revenues per store from \$686.3k over 5 years. This means that HG would have to grow revenues by around 15% per year, so should be feasible. Candidate should list some ideas to promote such growth 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.

Linda's Great Burgers (7 of 7)

Unknown

Guidance for interviewer

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.

Sample Candidate Response

Candidate should wrap up the case, bringing back key synergies mentioned earlier in the case, the possibility of doubling HG market share in 5 years, and what might be needed to achieve this.

Candidate should also mention next steps, such as what other due diligence GB might need to do (physically visit the locations, perform market analysis, customer surveys, etc)

Finally, candidate should mention risks of acquiring HD. What's the worst case scenario?

Pyeongchang Winter Olympics (1 of 5)

McKinsey - Round 1

Problem Statement Narrative
In the year 2012, we have been retained by a television network that is trying to decide how much to bid for the rights to broadcast the 2018 Winter Olympic Games in Pyeongchang, South Korea. *How much should they bid?*

Pyeongchang Winter Olympics (2 of 5)

McKinsey - Round 1

Sample candidate response…

A good framework would include the following elements:

- **Market**
  - Competition (other networks) / Substitutes (Streaming online)
  - Growing / Shrinking Viewership
  - Population segments – are viewers compelling population to advertisers?
- **Company**
  - Fit: Are we ESPN, ABC or HGTV?
  - Experience: Past sports or Olympic broadcasting experience
- **Amount to bid – determined by profitability**
  - **Revenue**
    - Advertising
    - Merchandising
    - License non-US networks to use our feed
  - **Cost**
    - Fixed Costs – building on-site studio, paying talent, broadcast infrastructure
    - Variable Costs – hotels, insurance,
    - Opportunity Cost – what else could we be showing
    - Discounting – cash flows will be in the future; what is client's discount rate?

Pyeongchang Winter Olympics (3 of 5)

McKinsey - Round 1

Guidance for interviewer

<u>**Facts and data to give upon candidate's request**</u> *(interviewer should read this information prior to the case interview and guide the discussion)*:

- The Winter Olympics lasts for 16 days
  - The first day, a Friday, is taken up with the Opening Ceremonies
    - 3 hours of broadcasting from 8-11 PM
  - The games themselves are held during the next fourteen days
    - 10 hours of broadcasting per day
  - Client will broadcast Olympics weekday coverage from 9 AM- 12PM, 2-5P M, and 7-11 PM.
  - Our client will broadcast Olympics weekend coverage from 11 AM to 9 PM
  - The final day, a Saturday, is taken up with the Closing Ceremonies
    - 3 hours of broadcasting from 8-11 PM
- Our client is a broadcast television network that receives no subscription revenue
  - It will be able to keep 100% of its ad revenue, without sharing any with its affiliates
- Advertising rates are estimated to be $400,000 per 30-second ad for prime-time programming and $200,000 per 30-second ad for non-prime-time programming
- Slot = 30 seconds of advertising time
- Prime Time = M-F from 7 PM - 11 PM; Sat-Sun all day, Opening and Closing Ceremonies
- Non Prime Time = M-F all other times
- Market research has shown that consumers / watchers can take no more than 10 minutes of advertising per hour of television; they will stop watching if there is more advertising than that

Guide the candidate to start on revenue, you will drive case <u>as this is a McKinsey case</u>, and only have revenue data on advertising, but listing other sources is important.

Pyeongchang Winter Olympics (4 of 5)

McKinsey - Round 1

Sample candidate response...

- After leading candidate to focus on ad revenue, they should calculate it as $928M. Per hour revenue is $4M ($200K per slot x 20 slots per hour) in non-prime, and $8M in prime ($400K per slot x 20 slots per hour)

Category	Calculation	Total
Weekday (non prime)	10 days X 6 hours X $4M	$240M
Weekday (Prime)	10 days X 4 hours X $8M	$320M
Weekend (Prime)	4 days X 10 hours X $8M	$320M
Opening/Closing	2 events X 3 hours X $8M	$48M
	Total	$928M

- After calculating revenue, have candidate give you a list of relevant accounting costs. There is no breakdown here, total accounting cost is $428M.
- This yields an even accounting profit of $500M ($928M-$428M). Many candidates will think the case is over; however, we still need to worry about opportunity cost.
- If candidate <u>doesn't mention opportunity cost, remind them</u>. Here, opportunity cost is $1M per hour of displaced programming ($1M X 146 hours), or $146M. Economic profit is $354M.
- Again, many candidates will think final answer is $354M ($500-$146). However, these cash flows are 6 yrs in future (case is set in 2012) and need to be discounted. Discount rate is 12%; through rule of 72 (see page 23), you end up dividing 2018 profit in half = $177M profit in 2012 dollars.

Pyeongchang Winter Olympics (5 of 5)

McKinsey - Round 1

Conclude the case	**Recommendation** • Enter a bid of $177M • Expect additional revenue opportunities from being a part of Olympics might warrant a higher bid as you may be able to expand your viewership from this opportunity, enabling you to charge higher advertising fees. • You will also prevent a competitor from having an event that is hard to counterprogram against.

Levin's Strollers (1 of 6)

Unknown

Problem Statement Narrative

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.

The client, Levin, has hired you to determine if there is something wrong with the business.

Guidance of Interviewer

This is a very open ended case. It is essentially testing 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?
- 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.

Levin's Strollers (2 of 6)

Unknown

Sample candidate framework…

Internal

- Profitability
  - Revenues (P x Q)
    - Product mix
      - Ages
      - Quality
    - Channel mix
    - Any changes in these?
  - Costs (FC, VC)
- Suppliers
  - Number of suppliers
  - Power of suppliers
  - Quality and price
- Customers/Distributors
  - Changes in trends/attitudes

External

- Competition
  - Number of
  - Intensity of
  - New entrants
- Regulatory changes
- Market
  - Growth – likely GDP & birthrate
  - Changes
  - % market share

Levin's Strollers (3 of 6)

Unknown

Guidance for Interviewer	
	• **Macro environment**: macro environment isn't a major issue since industry is mature and grows with GDP. 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 themselves haven't changed much. We have long-term contracts. • **Substitutes (affecting the price and volume)**: haven't change much • **New regulation** (regarding the safety, material, design of the product, etc which might affect the margin and revenue): hasn't changed • **Competitor** (actions of competitors could affect margin and steal away market share): incumbent and new entrant – haven't changed much • **Distributor** (increased power of distributor could squeeze margin. Shift in distribution channels could cause us to lose volume/market share): This is where the changes have occurred. • **Consumers**: purchasing criteria and behavior did not change much except that more and more consumers are buying the product from discount stores. Steer candidate to asking where our client's products are distributed: specialty stores and discount stores.

Levin's Strollers (4 of 6)

Unknown

Guidance for Interviewer

The candidate should try to obtain more information regarding specialty vs. discount discount stores. If asked, provide the following:

- *Manufacturing cost: $80/stroller*
- *Price to specialty store: $100*
- *Price to discount store: $90*

After calculating margin, interviewee should ask about composition of sales:

Client derives 80% of sales from specialty stores and 20% of sales from discount stores.

Sample Response

- Profit margin at specialty store: (100-80)/100 = 20%
- Profit margin at discount store: (90-80)/90 = 11.1%
- Therefore, a shift from specialty to discount store could squeeze the client's margin to half.
- 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.
- Next step would be to find out what client's composition is in terms of revenues from specialty vs. discount stores and what the average trend is in industry

Levin's Strollers (5 of 6)

Unknown

Guidance for Interviewer

Provide only if asked

- *Industry average has moved to 40% sales from specialty stores and 60% from discount stores.*
- *5 years ago, the average was closer to our client's mix: it was 40% for discount and 60% for specialty stores.*
- *Our client has always had a reputation of selling product through the specialty channel.*

Sample Response

- Market is shifting towards discount stores (due to the increased power of major discount stores).
- Specialty stores are in turn likely decreasing in number as they get squeezed out.
- 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.
- However, our client's margin will decrease if/when it moves towards discount stores.

Levin's Strollers (6 of 6)

Unknown

Sample Conclusion

Recommendation

- 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.

Next Steps

- Our client should explore other options to distribution channels (such as catalogue sales and specialty internet), bundling with other products, and joint ventures with other companies to cross sell.
- Our client should also consider other actions that could help justify a higher margin even in the discount stores. These actions could include marketing efforts to promote the benefits of the product and/or new product development efforts to improve the value to customers of their strollers.
- The client may also want to consider cost reduction of current products.

Risks

- Moving to discount stores will likely compress client's margins by half

Note: 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.

Deepwater Inc. (1 of 7)

Unknown

Problem Statement Narrative

The client is an oil refinery firm looking at an investment in a filtering unit to transform residual oil into useful feedstock to produce gasoline [show exhibit 1]. The inputs are crude oil which get refined to gasoline.

Deepwater would like your help in determining whether they should invest in the filtering unit or not.

Guidance of Interviewer

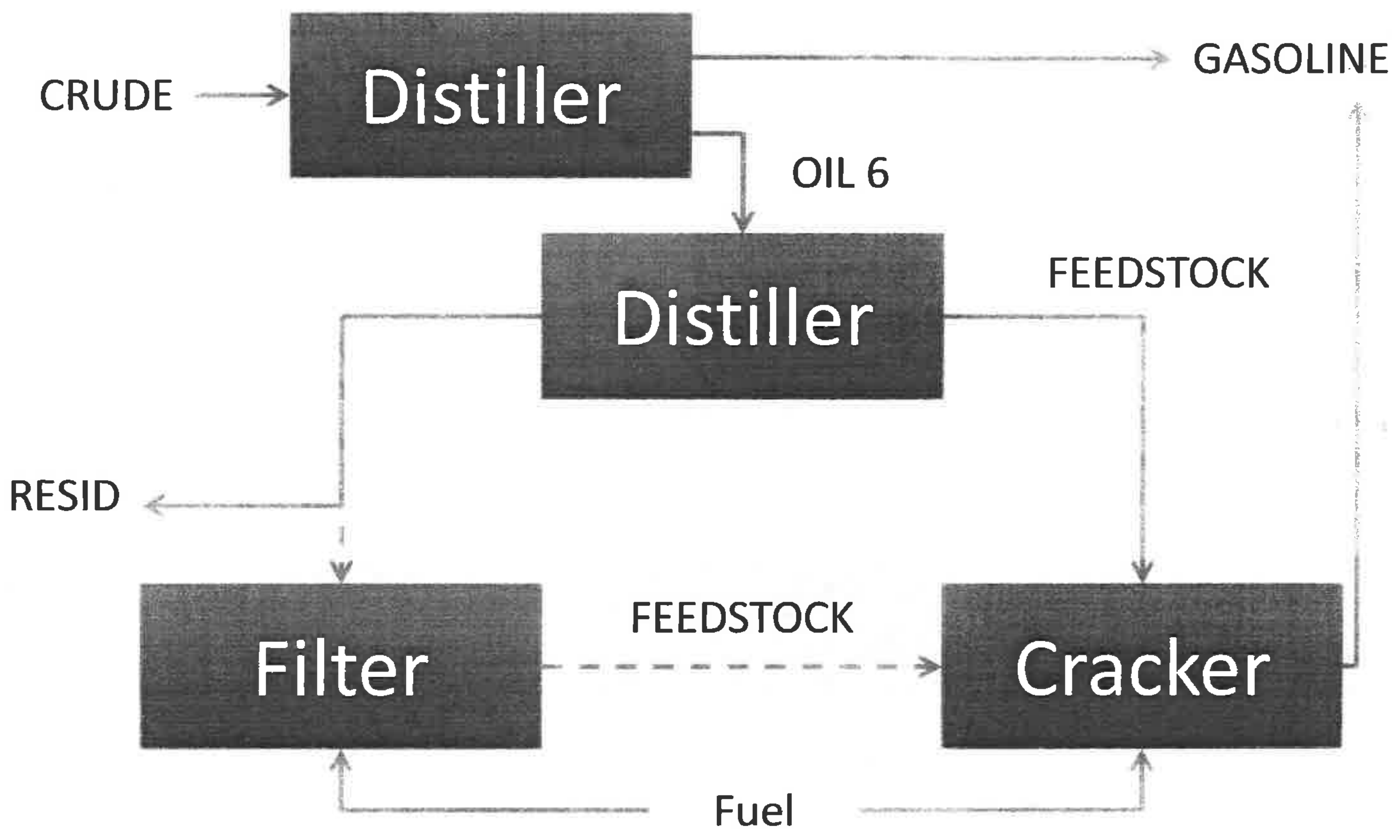
The candidate should ask for information regarding the ***company's products, other outputs, pricing, environment concerns and company background.*** If asked, provide candidate with the following:

- *The outputs are gasoline, residual, and fuel gas*
- *Gasoline is sold to a competitive market and the company has no influence on the price of gasoline*
- *There is enough demand for gasoline*
- *Fuel has no outside market: it can be used internally to fire the different units. If not enough fuel is available, residual is used*
- *Residual are leftovers, heavy oils.*
- *[Only if asked for!] Residual has an outside spot market*
- *The filter transforms residual in useful cracker feedstock*
- *Many of deepwater competitors have invested in filter unit.*
- *Ask whether there should be environmental concerns and how these would influence a possible decision. Not considered here.*

Deepwater Inc. (2 of 7)

Unknown

Exhibit 1



Deepwater Inc. (3 of 7)

Unknown

Sample candidate framework…

Market Considerations

- Influence on the residual price
- Fluctuation of market prices
- Competitive response

Investment Considerations

- Profitability
  - Revenues
    - volume
  - Expenses
    - Initial investment, fixed costs (labor, utilities), variable costs (inputs, marketing)
- Payback Period
- ROI
- Management Experience

Company Considerations

- Relations with distributors
- Diversification of products

Deepwater Inc. (4 of 7)

Unknown

Sample candidate response and guidance for interviewer…

- The candidate should know that he/she should first look into the profitability issue. Let the candidate identify some of the costs.
  - Fixed costs: Labor (most is independent of output), some basic utilities (water etc.), rent of the space, …
  - Variable costs: inputs
    - *0.1 barrel of fuel in the cracker*
    - *0.1 barrel of fuel in the filter*
    - *1 barrel of residual for 1 barrel of feedstock*
    - *1 barrel of feedstock for 1 barrel of gasoline*
  - All other variable costs: negligible
- The candidate should realize that the additional revenues and costs are important. Total numbers don't matter
- The candidate should ask for more data on the filter unit. Only give data for items that the candidate brings up.
  - *Investment cost = $40M*
  - *20 year lifetime – straight depreciation*
  - *Throughput = 5k barrels/day*
  - *Operates 350 day / year*
  - *Currently no excess capacity for fuel*

Deepwater Inc. (5 of 7)

Unknown

Guidance for Interviewer

The candidate should ask for more data on the different costs and selling prices. Only give data for items that the candidate brings up.

- *Crude oil: $30/barrel*
- *Gasoline is sold at $58/barrel*
- *Internal cost for residual (based on cost accounting): $40/barrel*
- *Residual has a spot market price of $45/barrel. Ask which of the two costs is relevant for this problem: the spot market price or the cost accounted number. Obviously the spot market price is relevant.*
- *Fuel has no spot market, but let the candidate think about a good reference point: the opportunity cost = the cost of residual = $45/bbl*
- *Annual fixed costs = $4M/year*

Deepwater Inc. (6 of 7)

Unknown

Sample candidate response...

The candidate should do an similar analysis:

- Contribution margin = sales price – residual cost – fuel cost in cracker – fuel cost in filter
- CM = \$58 - \$45 - \$45 x 0.1 x 2 = \$4/barrel
- CM = \$20000/day = \$7,000,000/year
- Annual profits = CM – FC = \$7M – \$4M = \$3M/year
- Payback period is approximately 14 years so that is enough to cover for additional depreciation. Annual profit after depreciation is \$1M.

Deepwater Inc. (7 of 7)

Unknown

Sample candidate conclusion...

Good recommendations point to the fact that

- It is profitable to invest in this filtering unit.
- Payback period is 10 years

Risks:

- Volatility in the market of residual and gasoline
- Changing environmental concerns about technology: Fuel usage might be taxes and taxes on gasoline might increase.
- Loss of diversification
- Lost relationships with utilities that fired electricity plants on cheap residual

Next steps:

- Assess volatility in the markets
- Perform analysis with discount factor

Railroad Co. (1 of 5)

Bain & Company – Round 1

Problem Statement Narrative

Our client is considering investing in a high-speed railroad between Beijing and Shanghai. Should they go ahead with the investment?

Guidance for Interviewer

The key question: *Will this be a profitable investment?* The candidate's framework should cover market and profitability (tailored to the terminology for this case):

Market
- Size of Market
- Competitors/Substitutes (how are people traveling today: airlines, buses)
- Target customers (subset of entire market)

Profitability
- Revenues: Volume x Price, Product mix (i.e. different classes of tickets), non-ticketing revenue (i.e. advertising, food sales, etc.), market penetration
- Costs: Fixed(trains, track rights), variable(fuel, labor)

Other Considerations
- Tax breaks for infrastructure projects
- Competitive response
- Chinese govt. influence
- Brand impact

Railroad Co. (2 of 5)

Bain & Company – Round 1

Additional Question	Guidance for Interviewer
Where do you want to start? Step 1: Size the market (passenger trips)	A strong candidate should realize that the first step needed is to look at the size of the market, followed by then examining what percentage of the market the business can expect to capture. Provide the following information to the candidate when asked: Some possible ways to size the market (interviewer should guide the candidate): 1. Population of these two cites: The candidate should have a general sense of the population of Beijing and Shanghai. *But for simplicity, let's say 10 million people in each city. But not everyone can afford our service, since we will probably charge a premium over regular railroad services.* This approach to size the market is a dead end. 2. Size of competitive services: – *Regular railroad: The current size is 4,000 people each way per day* – *Airlines: There are 20 flights each way per day. Each flight holds 100 people (avg).* Information on competitors: • *It takes 10 hours to travel between Beijing and Shanghai by regular railroad.* • *The flight time between Beijing and Shanghai is 1.5 hours.* • *Our high-speed train will take 2 hours to go between Beijing and Shanghai. But with security and everything else, we estimate that our high-speed train will be 1 to 1.5 hours faster than planes.* • *If someone is willing to spend 10 hours, they are unlikely to be our target customer!* → Most likely market is current airplane passengers: 20 x 100 x 2 = 2,000 trips (1-way)/day

Railroad Co. (3 of 5)

Bain & Company – Round 1

Next Step	Guidance for Interviewer
Step 2: Understand potential profitability	The candidate should now be looking to understand how profitable the project could potentially be by (a) understanding the cost and revenue structure, and (b) understanding how much market share we can penetrate. Provide the following information to the candidate when asked: <u>Costs</u> Fixed (Infrastructure) cost: *US$2.5 billion* Variable (Operational) cost: *$50,000 per train each day; each train holds 100 passengers* <u>Revenues</u> Ask the interviewee, *"What can we charge? Round trip plane tickets cost $500."* Wait for the candidate to talk about willingness to pay and <u>hopefully</u> suggest a customer survey. Then you may tell the candidate: *Based on our study, the #1 criterion of our target customers (business travelers) is speed, followed by flexibility of the schedule, i.e. we need to be servicing as frequently as the flights. We also found that we cannot charge more than $500 as corporate clients are unlikely to reimburse.* <u>Market penetration</u> *The penetration rate was 15% after 3 years for the last project completed in Thailand. i.e. after 3 yrs, they converted 15% of the airline customers into their railroad customers.*

Railroad Co. (4 of 5)

Bain & Company – Round 1

Sample candidate calculations…

See sample calculations below. Small differences in assumptions should not change the nature of the end result:

Breakdown and sample assumptions (*interviewer should read this section ahead of time, and guide the discussion during the case interview*):

- Target customers value speed; therefore we need to match the service level of the airlines, which have 20 departures each way
- A round trip requires around 6 hours: For every one-way travel time of 2 hours we need, say, another hour for cleaning, unloading, etc
- 6 hours per round trip → 4 round trips maximum per train per 24hr day
- At least 5 trains needed (20 round trips/4 round trips per train) → more realistically, 6 trains needed to allow some buffer
- Total cost of six trains is $50,000 x 6 = $300,000 per day in variable cost.
- If we capture 100% of the airline market and charge $500 each round trip, we have $500 per round trip x 20 round trips x 100 passengers per round trip = $1 million in revenue per day
- However, recall from the last slide the penetration information from the Thailand project: *The penetration rate was 15% after three years* (i.e. $150,000 per year in revenue for our case, which is less than our daily cost of $300,000!)

→ $150,000 is below our variable cost per day of $300,000

Railroad Co. (5 of 5)

Bain & Company – Round 1

Final Recommendation	Guidance for Interviewer
What would you recommend to our client?	A strong candidate will present their response in the format of (1) recommendation, (2) reasoning, (3) risks and (4) next steps. Based on financial considerations, this should be a no go. Candidate can also explore other use of the new railroad, e.g. transportation of perishable goods, express mail, etc. Other interesting points: expected growth of market, national pride, etc.

Army Hotel (1 of 7)

McKinsey – Round 1

Problem Statement Narrative

Your client is a PE firm that has the opportunity to invest in building a 400 room hotel on an Army base. The idea was given to the PE firm by the army. The government has decided to give your client the land for free – Your client can build the hotel and keep all of the profits. Your client has hired you to find out what they need to know to determine if they should build it or not.

Guidance for Interviewer

If asked, provide the interviewee with the following:

- *Existing hotels near the base (approx.) 20 miles away:*
  - *Hilton ($110/night), Hampton Inn ($75/night) and the Days Inn ($40/night)*
- *The purpose of the hotel is for the use of soldiers at the base for training as well as temporary housing for those who have been relocated to the base. There are two training classes held at the base:*
  - *Basic Officer Training: 200 soldiers per class. Class lasts 10 weeks. Class held 5 times per year.*
  - *Advanced Officer Training: 50 soldiers per class. Class lasts 4 weeks. Class held 10 times per year*
  - *With respect to temporary housing: soldiers are transferred every 3 years and are given 15 days to find a permanent place to stay. There are 9000 active duty soldiers subject to this rotation.*

Sample framework on next slide.

Army Hotel (2 of 7)

McKinsey – Round 1

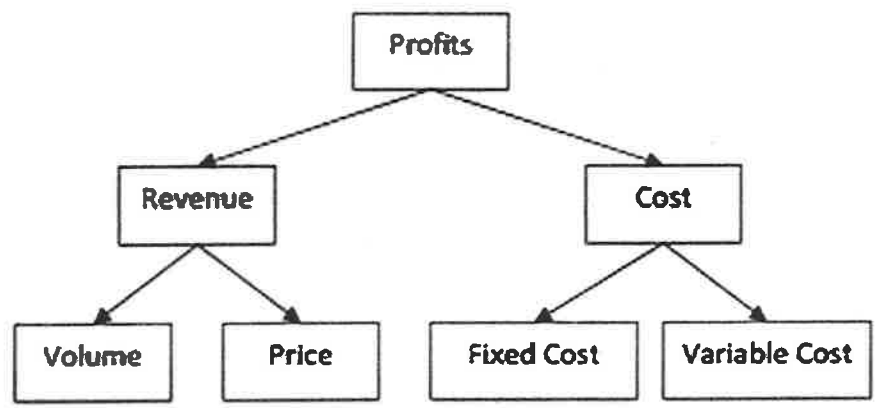
Sample candidate framework…

Whether or not the interviewee has probed further about the purpose of the hotel, the candidate should recognize that the objective of the PE firm is to be profitable.

This is a basic profitability case, and a basic profitability tree should be included as part of the candidate's framework. The candidate should <u>also</u> touch upon the need to better understand the market and competition in the area.

<u>Market</u>

- Size
- Customers
- Competition
- Means for competing
- Geography



Probe the candidate to ask more around *"What would you want to know about the market?"*. Note that if at this point the candidate has not asked about the key questions from the first slide, you may provide them with this information.

Army Hotel (3 of 7)

McKinsey – Round 1

Additional Question

The Army will reimburse soldiers $75 per night (per diem). How much would you charge at the hotel?

Guidance for Interviewer

- Clarify that this per day reimbursement is also intended to cover the soldiers dinner and breakfast.
- Probe the student to determine how much per night the hotel will charge and what services should be included.

The candidate should consider how much breakfast and dinner will cost the soldier and ensure that those costs in addition to the nightly rate will not exceed the stipend. The candidate should recognize that the Days Inn ($40/night) is the only competitive option the soldier is likely to consider, and should discuss how the distance away (20 miles) might also impact this decision, as well as what amenities are included.

Army Hotel (4 of 7)

McKinsey – Round 1

Additional Question

Assume for purposes of the rest of the case that the client decides the hotel will charge a fee of $60/night.

Assuming that the classes and relocation of soldiers are the only sources of revenue, what is the total potential revenue per year for the hotel?

Guidance for Interviewer

The candidate should use the information provided to calculate that the total potential revenue given these conditions is $7.8 M.

Type of training	People #	Time Period	Times/ year	Total rooms/ year
Basic	200	10 weeks	5	70,000
Advanced	50	4 weeks	10	14,000
Temporary	3000	15 nights		45,000
			Total nights	129,000 (round to 130,000)
			At $60/night	$7.8 Million

Army Hotel (5 of 7)

McKinsey – Round 1

Additional Question	Guidance for Interviewer
Having addressed the revenue side lets talk about costs. What are the costs associated with operating a hotel? If the candidate has not yet touched upon initial investment costs, probe them to do so by asking: *What is the other costs associate with running a hotel?*	The candidate should list off relevant fixed and variable operating costs such as labor, supplies and utilities. → You may tell them to "assume that total operating costs are \$4 million per year." The candidate should also talk about investment costs. → Once the candidate reaches this, tell them "We determined that the Hampton Inn made an initial investment of \$50,000 per room. We will assume the same costs for our hotel." → The student should calculate a total initial investment of \$20 million to build a 400 room hotel. Questioning continues on next slide.

Army Hotel (6 of 7)

McKinsey – Round 1

Additional Question	Guidance for Interviewer
Are there any issues that may keep the hotel from attaining the calculated revenue? *Ask the candidate to recalculate the revenue projection created earlier and to determine the operating profit.*	We are looking for the candidate to touch on capacity issues. → After the candidate mentions capacity state that *"during their busiest part of the year, which lasts four months, the hotel runs a capacity shortage of 80 rooms."* →The candidate should perform a revised revenue calculation: • 80 rooms x 4 months x 30 days per month = 9600 rooms per year (tell the student to round this to 10,000 rooms) • So, the new number of rooms are 120,000 x $60 per night = $7.2M/ yr in annual revenue • Therefore operating profit is $7.2 M (Revenue) - $4M (Operating Cost) = $3.2M per year (profit).

Army Hotel (7 of 7)

McKinsey – Round 1

Additional Questions	Guidance for Interviewer
What is the breakeven point for the PE Firm?	The candidate should be able to quickly calculate that breakeven time = fixed costs (investment) / operating margin: → \$20M / \$3.2M = 6-7 years. Once the candidate responds, ask them *"Is this a good rate of return? Why do you think so?"*
Tell the candidate to "assume the client wants to break even within 4-5 years", then ask, "What else can you do to bring down the break even time?"	Probe the candidate to come up with some ideas and suggestions: • Add a restaurant to the hotel • Find ways to decrease costs • Decrease number of hotel rooms and keep utilization up End by asking the candidate to summarize the findings of the case. The focus should be on getting a succinct yet exhaustive recap of key points.

Chicken Pox Vaccine (1 of 11)

Unknown

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Problem Statement Narrative

Your client is a large pharmaceutical drug company working on a vaccine for chicken pox. The vaccine needs to pass three phases of testing to be approved by the FDA. It has just completed the second phase and the client is asking your help to decide if they should fund the third phase. The third phase would last 2 years, cost $300M, and results from previous phases indicate the vaccine has a 95% chance of approval. We would be able to start producing vaccine immediately following approval.

Should they invest or not?

Guidance of Interviewer

This case contains a lot of information to be given, but other than the fact that we are only concerned with the US market, it is only to be given if asked. Information includes:

- Vaccine is a one time pill
- Assume US population is 300M and uniformly distributed from 0-75 (as many people enter population as leave every year)
- When asked what portion of population would need vaccine hand them Exhibit #1 (**<u>Answer: 50%</u>**)
- It is estimated that it would take 3 years to vaccinate existing population, and would be done at even pace

Interviewee should begin by sizing the US market

Chicken Pox Vaccine (2 of 11)

Unknown

Sample candidate response…

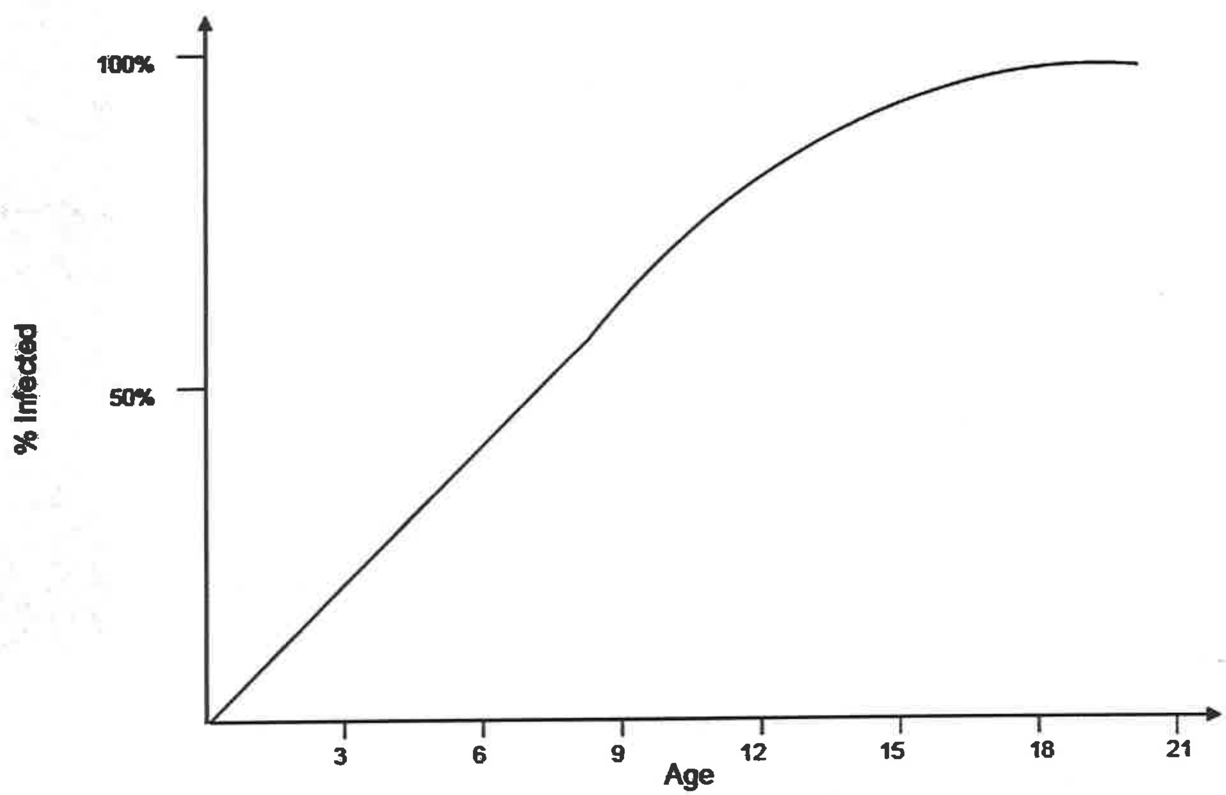
- **Market**
  - Competition / Substitutes
  - Size / Growth Rate
  - Customer Segments – likely children, but maybe adults?
- **Company**
  - Fit with existing products, i.e. other Vaccines or childhood focused therapies?
- **Profitability**
  - Revenue
    - Price – per treatment
    - Volume - number of treatments needed
- **Costs**
    - Fixed Costs – i.e. plant capacity, R&D costs
    - Variable costs – i.e. SG&A, inputs for production, labor
    - Opportunity cost - could this money be spent elsewhere?
    - "Discounting Cost" – do we need to discount these FCF?

Chicken Pox Vaccine (3 of 11)

Unknown

Exhibit 1

Cumulative Distribution of Chicken Pox Exposure



Chicken Pox Vaccine (4 of 11)

Unknown

241

Sample candidate response...

Candidate should begin by sizing the population that can be treated by this drug, which can be viewed in two parts: existing population when vaccine is released and people that will be born every year

- By age 18, 100% of population has had exposure to chicken pox thus does not need the vaccine.
- 300M/75 = 4M people of each age. 4M*18 = 72M people in 0-18 bucket.
- Since only those who haven't been infected would need the vaccine, we should vaccinate ages 0 – 9, 50% of the 0-18 population.
  - This is used as a cut off point since population is evenly distributed, those younger than 9 have >50% chance of not having been infected and those older than 9 has <50% chance.
  - 72M x 50% = 36M in addressable market

Chicken Pox Vaccine (5 of 11)

Unknown

242

Guidance for Interviewer

- When asked about price provide Exhibit #2
  - Client should price at $30
  - While an argument could be made for a lower price point, the inflection point at $30 and low price elasticity below $30 suggests it is the right price point

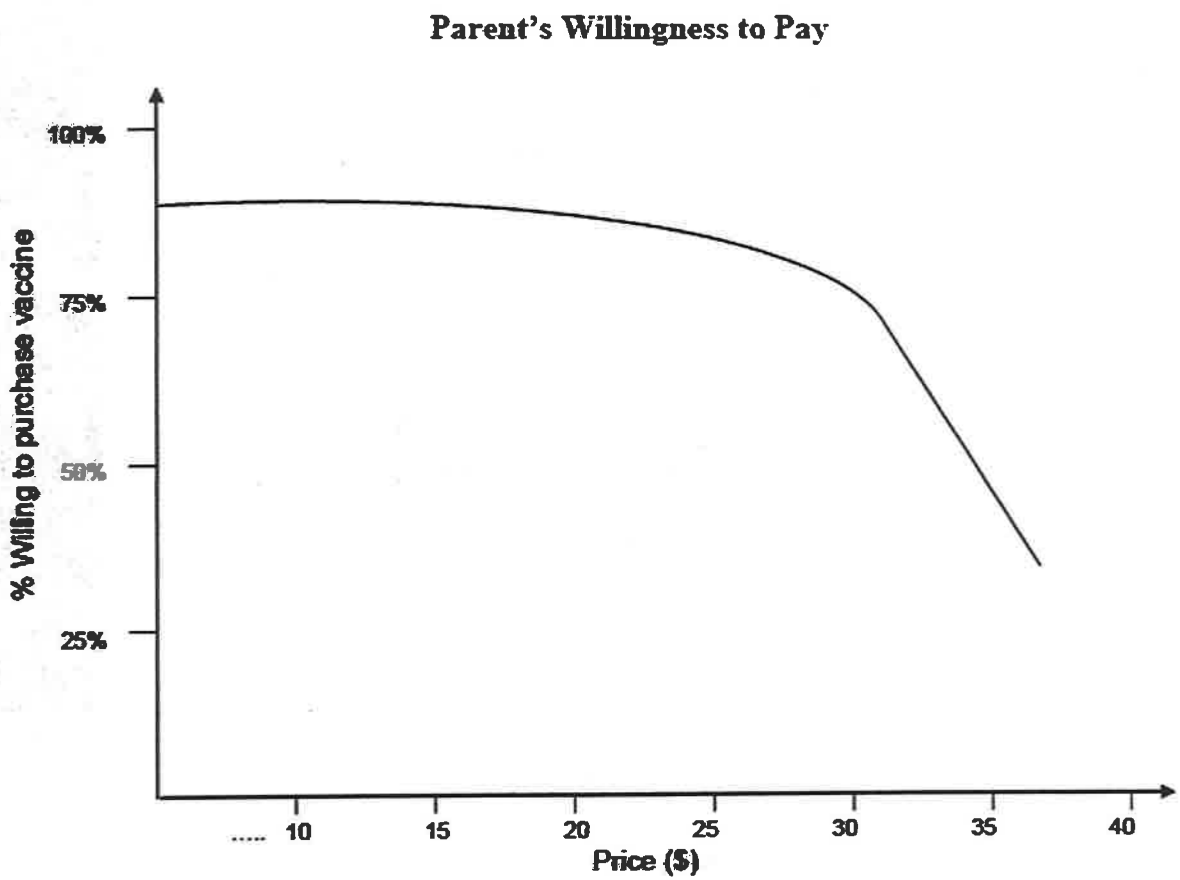
Provide the following only when asked

- *Costs (per pill)*
  - *Distribution $1.50*
  - *Production $2.50*
  - *SG&A $5.00*
- *Assume the $300M costs for phase three includes everything else (plant set up costs, etc.) and can be expensed evenly over the 2 years of testing*

Chicken Pox Vaccine (6 of 11)

Unknown

Exhibit 2



243

Chicken Pox Vaccine (7 of 11)

Unknown

Sample candidate response…

- The vaccine should be priced at $30. There is a slight decline between $25 and $30 that will lose a small population for $5 more per unit over total populace, but slope of demand gets considerably steeper after $30.
- Thus, 72M*50% = 36M population approachable market 36M*75% = 27M willing to pay
  - 9M treated per year based on the assumption it takes 3 years to vaccinate existing population
- In addition, there are 4M babies being born each year (as population is steady state), with parent willingness to pay staying constant at $30
  - Thus, 4M*75% = 3M vaccinations per year.
- Costs per pill are $9 and thus margin is $21 per pill.
- See next page for Profitability Table.

Chicken Pox Vaccine (8 of 11)

Unknown

Sample candidate response (if you want to include an additional object/table/ etc.)

Year (Millions)	1	2	3	4	5	6	... After
Existing Population Vaccines			9	9	9		
New Baby Vaccines			3	3	3	3	3
Total			12	12	12	3	3
Revenue			360	360	360	90	90
Costs	-150	-150	-108	-108	-108	-27	-27
Net Profit	-150	-150	252	252	252	63	63

→ There are 4M babies being born each year (as population is steady state), with parent WTP being constant. Thus, 4M*75% = Total Profit

- Profitability during first 3 years is $756M, annuity profit is $63M.
- Break-even in ~1.25 years.
- Pharma companies usually have rather high hurdle rates due to risky nature of business model but any reasonable rate will yield a high positive NPV. Interviewee should also mention the 5% chance of failure and how that could effect the calculation (there are a couple correct ways to interpret the effect). They do not need to calculate NPV – just recognize high positive value.

Chicken Pox Vaccine (9 of 11)

Unknown

Additional Question

Do we need to be worried about any entrants?

Guidance for Interviewer

This information is only to be provided when asked.

- *Vaccine will not be patented.*
- *Other companies would have to undergo same series of testing.*
- *No other companies have started formal testing of vaccine.*
- *Phase 1 and 2 combined take 3 years (we have 3 years of competitive protection).*
- *Phase 1 and 2 cost $200M.*

Many interviewees will blindly say yes. Then provide the first bullet and that should trigger them to ask about the rest of the data.

Chicken Pox Vaccine (10 of 11)

Unknown

Sample candidate response...

We do not need to be worried about additional entrants. Why?

- Since there is a natural three year protection due to required FDA testing other companies would not be able to capture the “existing population” segment of the market.
  - Assume they did enter in year 6 we would be sharing only 3M vaccines per year. Even assuming they were able to capture a descent portion of the market they wouldn’t be able to cover the upfront testing costs for years.
    - With 50% of market and holding price constant (which is itself unrealistic), competition gets only $31.5M, and break-even time is ~10 years.
    - Under more likely scenario where price is reduced in half to $15, competition only gets $9M if they get 50% of market, and break-even time on phase 3 alone is ~33 years.
      - Calculation: ($15-$9)*3M*50% = $9M.
  - Costs for phase 1 and 2 should not be used when calculating our go/no go since they are sunk, but should be taken into consideration when evaluating competitors decision.
  - Competitors do not have much incentive to follow us into this market making our position even stronger.

Chicken Pox Vaccine (11 of 11)

Unknown

Conclude the case...

Recommendation

- Invest in the chicken pox vaccine
- Break-even in 1.25 years, profitability during first 3 years is $756M, annuity profit is $63M.
- Charge $30 per pill, target ages 0-9, have 75% of parents willing to pay at this price point, gross margin of $21 (70%)

Risks

- New entrants
  - But competitors have no real incentive to enter, even for generics
  - Pharmaceuticals usually have high hurdle rates, and given that we will have 3 years protection from FDA process and will corner the existing market, it will take several years for competitors to breakeven.

Skylight Goods (1 of 12)

BCG – Round 1

Problem Statement Narrative

Our client, Skylight Goods, is a $12B industrial goods manufacturer. They have various divisions and the division they are working with makes pressure sensitive self adhesive canvases for sign boards. This division has seen revenues stagnate over the past few years and profitability has declined.

Skylight has engaged BCG to help them with this issue. The two questions facing them are:

1. *How to restore profitability*
2. *Should the client improve their delivery channel?*

Guidance of Interviewer

This is a profitability case. Candidate should draw out the basic profitability tree.

Once the candidate starts to dig more about profitability, provide the following:

1. *Revenue has stagnated at about $100M per year*
2. *Price has not changed. There are no opportunities to increase or decrease price*

Once the candidate starts to ask for more information on the product, provide the description from the next slide.

Skylight Goods (2 of 12)

BCG – Round 1

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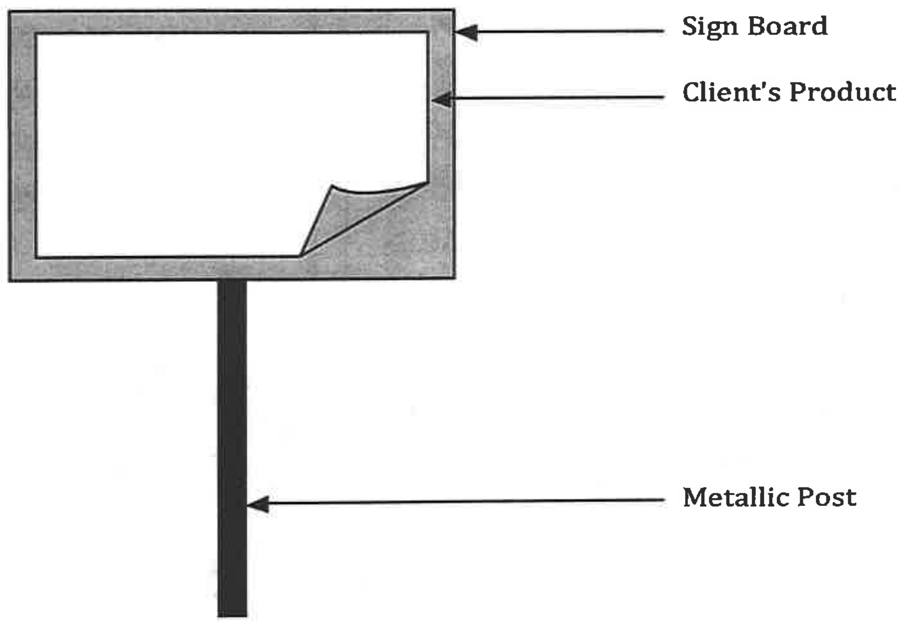
Guidance for Interviewer (DO NOT SHARE GRAPHIC WITH CANDIDATE)	*To understand what the product is, think of any signboard that you see. One part of the signboard is the metallic post that holds the board up, and upon that board you can stick our client's product. Skylight's customers buy blank canvases from Skylight, print their signs onto the canvas and then simply paste the canvas over sign boards, just like you would paste a normal sticker.*



Skylight Goods (3 of 12)

BCG – Round 1

Sample candidate response…

Profitability

- **Revenues**
  - Price (unchanged)
  - Quantity
    - Product Mix
    - Channel Mix
- **Expenses**
  - Fixed Costs
  - Variable Costs
    - Labor
    - Raw Material
      - Glue
      - Paper

External Factors

- **Market**
  - Growth
  - % share held by Skylight Goods
- **Competition**
  - New entrants
  - Number of competitors
  - Differentiation
  - Price

Skylight Goods (6 of 12)

BCG – Round 1

Exhibit 2 - Provide when asked about manufacturing costs. Otherwise, drive the candidate towards manufacturing costs then provide the exhibit

	2004	2005	2006
Total Volume (Yards)	50M	50M	50M
Average Run Length (Yards)	1000	750	500
Yards of material produced per minute	25	25	25
Average Set-up time for each run (Minutes)	20	20	20
# of employees	100	110	120
# of overtime hours per employee per year	100	200	300
Inventory Turns	8	9	10

Skylight Goods (7 of 12)

BCG – Round 1

Guidance for Interviewer

With the previous chart, provide the following:

The product is sold by the yard. The way the process works is that the raw materials are fed into the machine for a pre-set run length (run-length = length of canvas produced in the run). The machine runs for that period, generates the pre-set amount of canvas, and then stops and needs to be set up again for the next run.

Guidance for Interviewer

If asked, provide with the following:

- *Skylight goods has heard about inventory management and they have learned that a high inventory turn is generally good for the company*
- *Inventory turn = total volume/average inventory* (candidate should infer that average inventory has been decreasing)
- Skylight Goods has sought to increase inventory turns because they feel that the demand in the market for these canvases is uncertain. So they're unwilling to keep inventory indefinitely
- The product can be kept in inventory for long periods and Skylight already has capability to store them

If candidate asks why the client feels that the market demand is uncertain, say *that it's what a different consulting firm has told them*. Good candidates will want to go deeper into this

Skylight Goods (8 of 12)

BCG – Round 1

Sample Candidate Response	Skylight Goods has produced the same length of canvas per year but their average run length has been decreasing, number of employees increase, and employee overtime increasing. Inventory turns has been increasing too. The decrease in run lengths was done to reduce inventory, but it has in turn caused inefficiencies in the manufacturing process.

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Skylight Goods (9 of 12)

BCG – Round 1

Additional Question

How inefficient is Skylight Goods today in comparison to 2004?

Sample Calculations

<u>2004</u>

- Average run: 40 minutes
  - –1000 yards / 25 yards per minute = 40
- Set up time: 20 minutes
- Total time: 60 minutes to produce 1000 yards
- Speed: 16.67 yards per minute
  - –1000 yards /60 minutes

<u>2006</u>

- Average run: 20 minutes
  - –500 yards / 25 yards per minute
- Set up time: 20 minutes
- Total time: 40 minutes to produce 500 yards
- Speed: 12.5 yards per minute
  - –500 yards / 40 minutes

To produce 1,000 yards in 2006, Skylight will need 80 minutes, 33% more than 2004.

→ **Efficiency is down 33%.**

Skylight Goods (12 of 12)

BCG – Round 1

Conclude the case – ask for conclusion

Restore Profitability by increasing run lengths

Our profitability has declined because we have reduced our average run length from 1000 yards to 500 yards. This has reduced our efficiency by 33%.

To restore profitability, Skylight Goods should aim to increase run lengths to the maximum of 1500 yards per run. This will increase their efficiency by 50% over 2006 results and 12.5% over 2004 results.

Improve Sourcing by Diversifying

We should engage more distributors in geographically diverse regions of the US so our customers may be able to source the canvases more easily. This will allow us to regain our growth and start growing at the market growth rate again.

Risks/Next Steps

- May need to fire employees, potential loss of goodwill, lower morale, bad press.
- Running machines at capacity may result in more wear and tear, resulting in added maintenance expenditure.
- Engaging new distributors may make our existing distributors unhappy.
- Skylight Goods will need to spend resources to find new distributors and to find ways to get the canvases to them.
- Explore reductions in inventory holding costs (less manpower, less inventory storage space) to realize the benefits of increased inventory turns. The reduction of these costs may be enough to compensate for increases in manufacturing costs.

Super Jr. Baby Formula (1 of 10)

Bain & Company – Round 2

Problem Statement Narrative

The client is a private equity firm looking at the baby formula market in China. In particular they are looking at a company called Super Jr., which is a local Chinese company that brands itself as a foreign company (it's considered a "local specialty company"). Super Jr. advertise their products to be made and imported from Australia.

The PE firm would like your help in determining whether Super Jr. is worth investing in.

Guidance of Interviewer

The candidate should ask for information regarding the company's ***manufacturing capabilities, sourcing, brand image, distribution, management, and growth strategy.*** If asked, provide candidate with the following:

- Super Jr. is a startup founded in 2006
- They currently have no manufacturing capabilities and source their product, "Super Jr. Formula", from an Australian manufacturer
- Super Jr. has spent a lot on marketing and has gained reputation in the Chinese market as a "decent" brand
- Super Jr. primarily distributes to regional and local supermarkets. The supermarkets currently charge them a fee for stocking their product (for shelf-space usage)
- The management team at Super Jr. is composed of people who have previously worked in the food sales and distribution industry
- The current growth strategy is to continue expanding distribution to large-format, national retail chains (such as, Walmart), while investing further in marketing to penetrate the premium segment, allowing them to price at a premium

Super Jr. Baby Formula (2 of 10)

Bain & Company – Round 2

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Sample candidate response...

Market Considerations

- Market growth rate
- Company market share
- Company share growth
- Competition

Investment Considerations

- Profitability
  - Revenues (revenues, product mix, channel mix)
  - Expenses (fixed costs, variable costs (supplies, marketing))
- ROI
- Management Experience

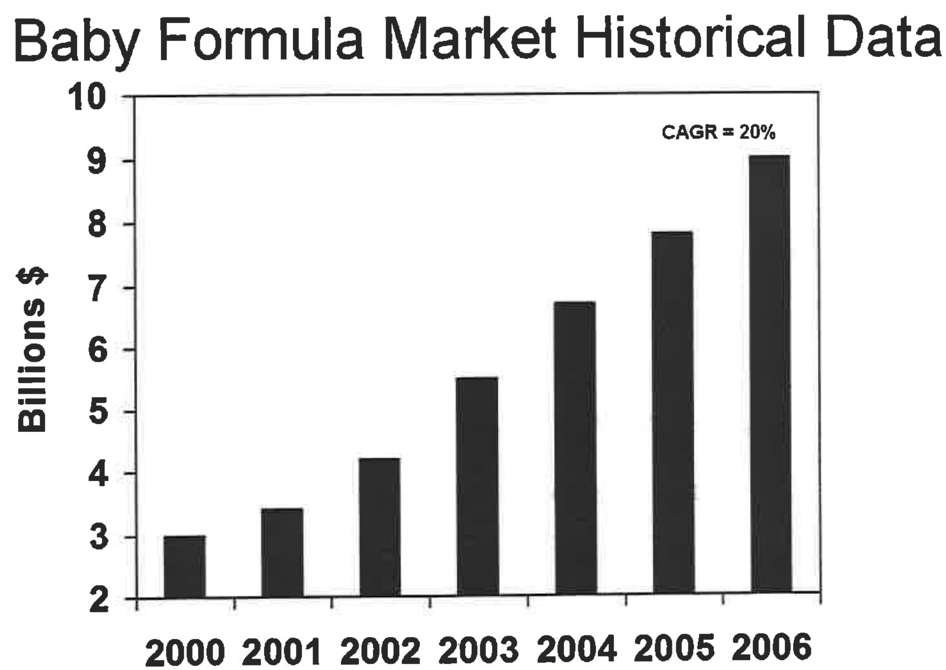
Company Considerations

- Brand image
- Company strategy
  - Niche
  - Premium
  - Low-cost
- Supplier sources
- Channel sources

Super Jr. Baby Formula (3 of 10)

Bain & Company – Round 2

Exhibit 1



- What does this graph tell you?
- Assuming the same CAGR from 2000 to 2006, what would be the market size be in 2012?

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Super Jr. Baby Formula (4 of 10)

Bain & Company – Round 2

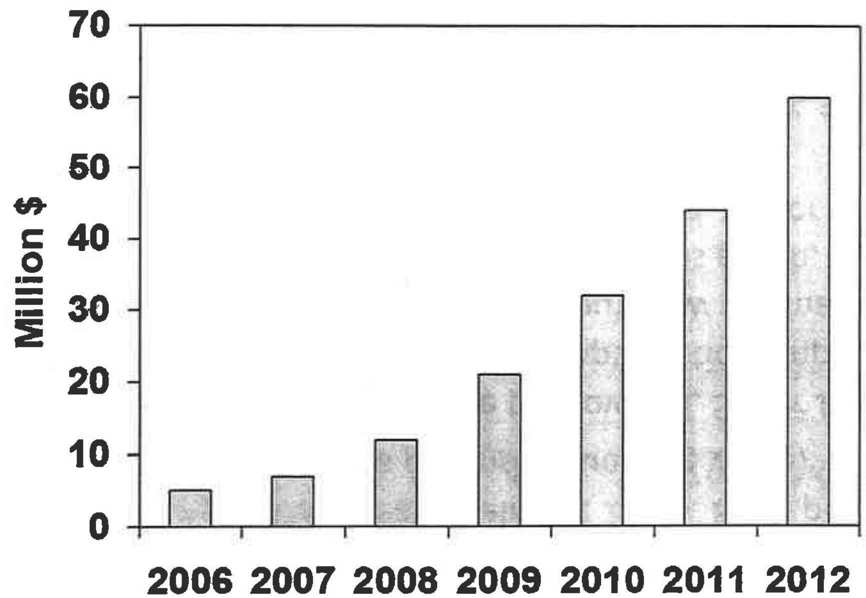
Slide 1 Sample candidate response...

- This graph shows that there has been steady growth annually at 20% a year. This is not bad for industries considering that annual GDP growth in fast-growing countries like China is around 9%.
- At 20% CAGR a year, by 2012, the market should be at (1+CAGR)^(# Years)*Initial Market Size
  - (1+.2)^6 * $9MM = $27MM
- Estimating, it should be greater than (growth amount per year * number of years) + Initial Market Size
  - (.2 * $9M * 6 years) + $9M = $19.8M or approximately $20M
  - Note that because it's a CAGR you round up to account for compounding

Super Jr. Baby Formula (5 of 10)

Bain & Company – Round 2

Projected Growth from Super Jr.



- What does this graph tell you?
- Calculate the average CAGR between 2006 and 2012
- Is the projection realistic?

Super Jr. Baby Formula (6 of 10)

Bain & Company – Round 2

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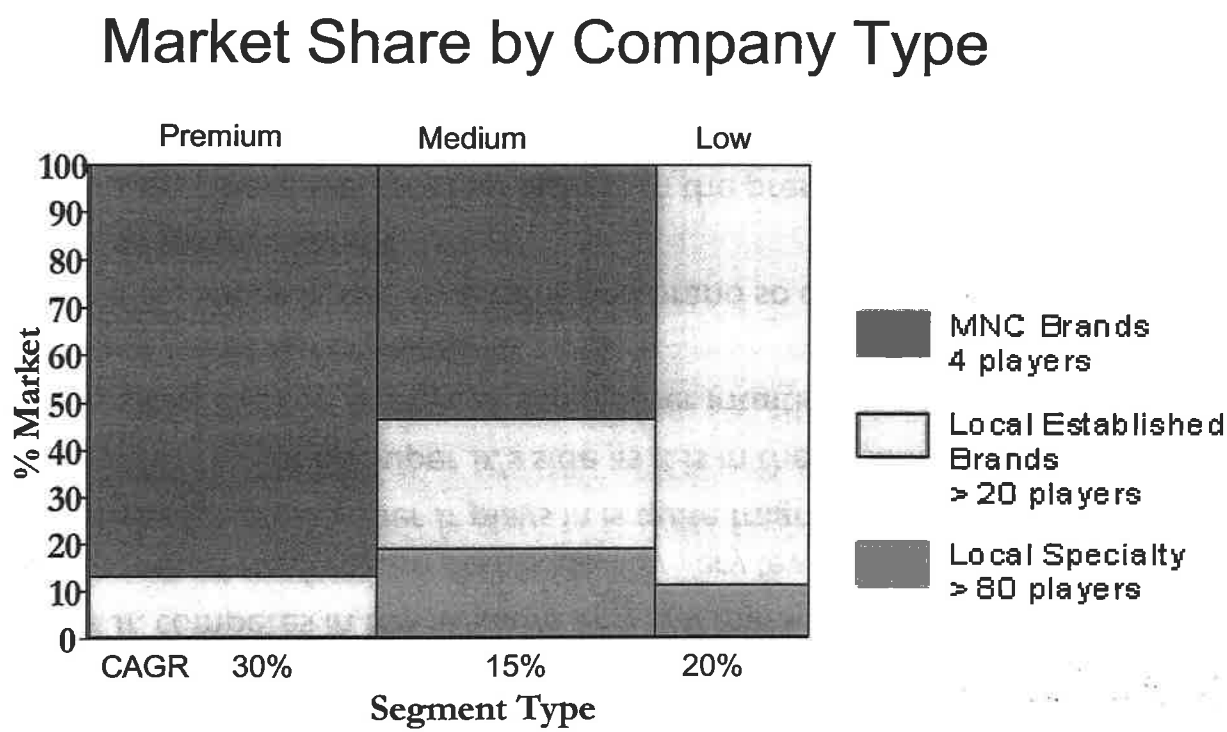
Slide 2 Sample candidate response…

- The chart indicates the Super Jr. is projected to grow from approximately $5MM to $60MM in the span of 6 years. From an estimation of CAGR, this is roughly (60-5)/6 = $9MM a year or almost 150%. Extra points if the candidate writes out the CAGR formula of (End Value/Beg Value)^(1/# years) – 1).
- The candidate should notice that overall, Super Jr. is projecting very rapid growth and their outlook is very optimistic compared to overall market growth. This means Super Jr. will have to outgrow the market by stealing share from competitors. How likely is this? From this graph, there is not enough information to tell. The candidate should ask for more information regarding to the following:
  - What are the core competencies of Super Jr. and how do they compare to competitors (sales, distribution, production)?
  - What particular segment does Super Jr. play in and is that segment easy to penetrate/steal shares?
  - What do customers demand? Does Super Jr. do anything that meets / exceeds customer expectations?
- The candidate should ask for more information about customer segments or competitive landscape. If so, give the next slide.

Super Jr. Baby Formula (7 of 10)

Bain & Company – Round 2

Exhibit 3



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Super Jr. Baby Formula (8 of 10)

Bain & Company – Round 2

Slide 3
Sample candidate response…

- Super Jr. competes in the medium and low market.
- The premium markets are dominated by very few players, whereas the local established market Super Jr plays in is quite fragmented.
- Momentum is not on Super Jr.'s side as it is in the premium segment
- In this slide, the candidate can use his/her intuition to argue for or against the future of Super Jr. For example:
  - Pro: Super Jr. has an established brand so can try to move upstream to premium market
  - Con: There are very few players in the premium market, it might be difficult for Super Jr. to compete in that segment

Super Jr. Baby Formula (9 of 10)

Bain & Company – Round 2

Exhibit 4

Key stats by Company Types

Factors	Multi-Nationals	Local Established Brands	Super Jr.
Retail Price	$125	$70	$110
Profit Margin	30%	15%	15%
Raw Materials	12%	27%	45%
Manufacturing	28%	43%	0%
Marketing	20%	10%	50%
SG&A	5%	5%	5%
R&D	35%	15%	0%

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Electric Utility (2 of 8)

McKinsey - Round 2

Sample candidate framework and guidance…

As the candidate goes through various parts of the framework, share the following information. Wait for the candidate to ask for this, but share the information even if the candidate does not explicitly ask:

Volume

- *GPE supplies electricity to over 1 M customers (a customer is a household or business) in deregulated markets through wholesalers*
- *Volume is generated by demand. The market is fragmented.*
- *The market is growing at about 3% per annum*

Price

- *This is a deregulated industry; price is set by competitive forces*
- *There is one price set per the entire yet*
- *As a simplification, assume the same price is charged to all customers*

→ Good candidates will deduce that since the market sets the price and this is a mature industry, currently the supply meets all the demands. i.e. there is not much opportunity in terms of volume and price.

Fixed Cost

- *GPE runs 10 plants around the US*
- *GPE pays a fixed cost to lease transmission lines to transmit the electricity produced*

Variable Cost

- *As a simplification, consider the main raw-material to be coal*

→ The candidate should consider looking deeper into the cost side (because it was already deduced that there aren't any opportunities in the revenue side).

Electric Utility (3 of 8)

McKinsey - Round 2

Additional Question

Lets explore the cost side in more detail. A simplified supply chain for electricity consists of 3 parts:

1. *Acquiring the coal*
2. *Generating the electricity*
3. *Transmitting the electricity*

What potential issues may lie in each of the above?

Guidance for Interviewer

Allow the candidate to brainstorm at least 3 potential issues for each of the above issues. Prompt the candidate to brainstorm more by persistently asking "What else?" after each response till the candidate provides at least 3 issues for each part of the supply chain.

Note that this case is about brainstorming and generating ideas and not about numbers. See the next slide for some possible responses that the candidate may provide.

Electric Utility (4 of 8)

McKinsey - Round 2

Sample candidate response...

1. Acquiring the coal:
   - The coal may have to be transported across some distance. This could be done through rail or road. There are potential savings here in optimizing the transport channel
   - The coal is received from several sources: GPE's own coal mines and 3rd-party mines. The quality of coal (its energy content) is likely to be different in different mines. Hence, processing different types of coal probably takes different processes and machines. This diversity could be a potential cost generator and this could be handled by sourcing for more similar coal varieties
   - The coal mines could be in a geographically separate region, subjecting GPE's coal supply to other regions' risks (for e.g., climatic factors such as hurricanes, political turmoil, etc.)
   - The coal mines are probably unionized, and that may add to volatility in our coal supply
2. Generating the electricity:
   - The electricity generators may be old and not functioning efficiently, inducing waste in the system
   - There are 10 different plants in the client's company. Differences in operations of these plants may induce volatility in the system
   - The availability of labor may have changed by the arrival of other industry or competitors nearby
   - Given that GPE generates electricity through coal, some new environmental laws may have come into force increasing the cost of electricity generation
3. Transmitting the electricity
   - Transmission could be streamlined by finding more customers closer to the electricity plants themselves
   - GPE could look into a bandwidth sharing contract so that their lease may be cheaper
   - GPE can look into checking the transmission lines for repairs, etc. that may be required so that there is less electricity loss in transmission

Electric Utility (5 of 8)

McKinsey - Round 2

Additional Question

GPE is primarily an electricity generating company. Do you think they should keep the coal mine?

Guidance for Interviewer

Here is some information that can be shared with the candidate if the candidate asks for it:

- *GPE gets a 30% cheaper rate on coal from its own coal mines than compared to 3rd-party coal mines*
- *There is a large market for coal. Coal customers are diverse, electricity producers are just one of many. As a simplification, assume that all coal customers pay the same market price for coal when they purchase coal from coal mines*

With the above, candidates may be tempted to deduce that GPE should keep the coal mine because they get coal cheaper from their own coal mine. If candidates say this, remind them that:

Yes, GPE is getting coal cheaper from their coal mines. But they can also sell the same coal to other customers and make the same profit. So what is the advantage of using the coal for their electricity generation operation?

See next slide for sample responses.

Electric Utility (8 of 8)

McKinsey - Round 2

Final Question

What would you recommendations would you make to GPE?

Guidance for Interviewer

Good candidates will request to take a minute to gather their thoughts. The initial question was about what might be causing the decline in profitability. Candidates should be able to point out that this is a cost issue. Specifically, candidates should talk briefly about the supply chain analysis, showing potential issues and cost saving opportunities. Candidates should also recommend continuing the use of GPE's coal mine and ignoring pressure to increase utilization to 90%.

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