Consulting Career Handbook
Best Practices & Resources
Third Edition

Purdue University Consulting Club
2013 – 2014
INTRODUCTION

The 2013-14 leadership board of the Purdue University Consulting Club presents the third edition of the Consulting Career Handbook. A significant amount of effort has been invested in creating this book and the board would greatly appreciate any feedback you may have on how to make it more useful and effective.

This book provides a brief overview of the consulting interview process along with the tools needed to prepare for fit and case interviews. It also provides links to other resources that will be helpful as you prepare for a career in consulting.

How to use this book: This book is set up similar to a web page. The links on the left menu bar work so navigation is easy and effective. The in-page links to outside resources also work to provide a simple and enjoyable user experience. The grey bars located by the light bulb at the bottom of some pages indicate an important takeaway to remember.

Our goal is to help students develop as professionals and consultants

2013-14 PUCC Leadership Board
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The consulting industry is an exciting place but there are a few general points to consider as you get started:

- Consultants typically work long hours but enjoy many perks such as travel rewards and liberal expense accounts.
- Firms are segmented according to their size and focus, and most firms recruit both core and non-core schools.
- Recruiting differs between these schools so be aware that as a non-target student you may face higher barriers to entry.
- Global strategy firms, such as McKinsey, BCG, Bain & Company, and A.T. Kearney hire MBAs and their roles are generally to advise top executives about general management topics.
- Specialty firms typically recruit by their focus area and each area has its own recruiting team and target schools.

The next page shows some differences between general management consulting firms and specialty firms.
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<th>Generalist Firms</th>
<th>Specialized Firms</th>
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<tr>
<td>• Whole range of consulting services (Strategy, Operations, Marketing, Finance, Organizational Development, Sourcing, etc.)</td>
<td>• Structured around in-depth expertise in specific domain (horizontal or vertical)</td>
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<td>• Multi-region presence with footprint in most sectors</td>
<td>• Typically smaller firms founded by ex-partners of larger firms</td>
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<td>• Large in size and typically hire MBAs directly from school</td>
<td>• Smaller size sometimes hinders periodic resource requirements</td>
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<td>• Many generalist firms are internally restructuring into this model</td>
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The consulting industry has a very interesting value proposition for a recent MBA graduate: the outlook for the industry is good and looks stable, salaries and bonuses are highly competitive, and the work is interesting, diverse and enriching. In recent times, there have been some crucial changes to the type of work in consulting. Clients require specialists, therefore many firms are restructuring their firms accordingly and looking for specialized talent. For most firms, the days are gone where a consultant’s job was to give high-level recommendations general management problems. Clients now demand a more hands-on and practical implementation plan. In some cases, consulting firms help the client implement as well. Consulting firms have been working hard to improve their own intellectual capital; therefore a strong candidate should have a strong interest to learn and should demonstrate a personal brand and eminence in some area.

### Typical Career Path

Most consulting firms follow the career paths shown below. Promotions are driven by demonstrating superior performance, strong networking, and developing client relationships. Most MBAs are hired at the Senior Consultant level.
CONSULTING FIRMS

A - B

Industry

Firms

Careers

Preparation

Interviews

Tools

Frameworks

Cases

Networking

Resources

Accenture
- Global Consulting firm known for offering end to end solutions, including technology and outsourcing
- Compete primarily with IBM for Technology Implementation services
- Three major areas (Business consulting, systems integration and technology)
- Regional staffing model
- Recently acquired Acquity Group to expand Digital Services consulting capabilities

A.T. Kearney
- One of the leading management consulting firms with global expertise
- Renowned for procurement and analytic groups but very strong across all management consulting practice areas including digital business, innovation, marketing and sales, mergers and acquisitions, operations, organizational transformation, strategic IT, strategy, and sustainability
- On campus first round (1 30 minutes behavioral) and on site final rounds (Skills test, 3 behavioral interviews and 1 case presentation)
- Collaborative culture
- Global staffing model

Bain & Company
- One of the top four strategy consulting firms with vast expertise and global presence
- Office centric work model
- Collegial or fraternity culture
- First round of phone interviews and Final round on site all day interviews including multiple case interviews
CONSULTING FIRMS

Booz & Company (acquired by PwC in 2013)
- One of the top management consulting firms
- 8 functional areas and 16 industry groups with 4000 consultants
- First round phone (60 min fit & case) and final round (45 min interviews) on site all day

Boston Consulting Group
- One of the industry leaders in management consulting
- Known for its intellectual approach and diverse workforce
- Friendly employees and huge presence in core strategy consulting
- General first round interviews and rigorous case interviews in the final round

Cognizant Business Consulting
- Extremely new in the management consulting arena where partners/principles from other firms are being hired to quickly build a strong practice
- Previously focused on technology oriented end to end solutions but quickly broadening services

Deloitte
- Leading global management consulting firm with specialization in Tax, IT and Advisory Services
- Strategy & Operations is most popular for MBAs
- Regional staffing model due to the nature of the firm structure worldwide
- S&O: 2 first round interviews (one case and one behavioral) and one 60 minute case interview onsite for final rounds
- BTM: 2 first round interviews (case and behavioral) and all day final round onsite interviews (group case, behavioral and others)
EY (formerly Ernst & Young)

- Also one of the big four accounting firms but is a little behind on rebuilding the advisory practice - catching up fast with aggressive hiring in the end to end strategy plus execution model
- EY procurement and Tax Effective Supply Chain groups are doing breakthrough work and thereby is a good choice for new MBAs
- 2 rounds of initial fit and case interviews followed by a 'Writing Exercise' and a 'super day' at an office (3 45 minute behavioral interviews, 1 case interview and one group case presentation)

Gallup Consulting

- Inherently different in approach and is a niche player in the consulting industry
- Several rounds of interviews but hardly any cases. All interviews are fit / behavioral
- Candidates are advised to be cognizant of their typical resource matching process and several publications and books are available for purchase that will give a good outlook on what to expect

L.E.K Consulting

- One of the top small firms in the industry, known for its analytical rigor
- 1000 consultants in 6 functional areas
- Provides immediate managerial responsibilities. Interviews are intense with analytical portions
- Unlike other firms there are few 'fit' questions and valuation/financial modeling cases are likely
Arguably the industry leader in management consulting, known for developing leaders and strong culture
90 plus offices in 55 countries with 9000 consultants, it has a giant reputation in 7 practice areas and 18 industry groups
2-3 rounds of interviews with cases handled differently than any other firms. Fit interviews stress on nitty-gritties of the candidate stories and is supposed to drain out brain power.
Intense interview process that requires significant practice
CAREER OPPORTUNITIES
Firms that gave members offers this year

Industry
Firms
Careers
Preparation
Interviews
Tools
Frameworks
Cases
Networking
Resources
Consulting, as an industry, is appealing because of its perks, prestige, networking opportunities, and intellectual demands. But it is important to assess your individual fit because the work can be intense and the motivation can fade very quickly. Every student aiming to be a consultant should figure out the reasons for pursuing such a career.

The items on the next page may help in that assessment.

Know why you want to be a consultant.
INTERVIEW PREPERATION
Clarify your objectives

**Assess yourself**

Your Objective

Is consulting what you want to do?
What type of consulting suits you best?
What are the firms you want to work for?

Resources

Connect the dots (Pre-MBA to MBA to career goals)
Firm websites/Vault/Wetfeet/Purdue Library

**Network and Decide**

Does the firm recruit on campus?
If not, find your sponsor in the firm
Understand what transferable skills you bring to the table

Resources

Use LinkedIn extensively to find people in the target companies
Leverage the strong alumni network
Utilize speaker sessions, workshops

**Apply**

If on campus recruiting, apply via CCO/CMA. If off campus, apart from applying online, get a current employee (pref. Manager or above) to refer you

Resources

Must attend the information session
For off-campus recruiting, LinkedIn and emails are the best resources to find a sponsor in the firm

**Fit Interview**

Demonstrate all necessary characteristics of a consultant: Leadership, Team player, Well rounded, Ability to deal with ambiguity.

Resources

Prepare fit questions thoroughly.
Practice with peers, KPDC and second years. Learn to appreciate feedback and use them judiciously.

**Case Interview**

Ace the case: Method and structure are more important than the final result. Numbers and communication can prove decisive

Resources

Practice 50-100 cases before the first live case interview. It can come in many formats and channels, like phone, in person or group.
Fit Interviews:
• Why do you want to be a consultant?
• Are you a good fit for the firm?
• Can you be left at the client without supervision?
• Can you handle the client?

Case Interviews:
• Can you solve the client’s problems?
• Will you effectively communicate with the client?
• Will you make the firm look good?

Try to answer the unasked questions
FIT INTERVIEWS
Basics

Why you should care
• Almost every single interview involves at least some behavioral type questions
• Applicants have been turned down from the top-consulting firms for not having cleared the fit portions of interviews
• Very basic steps go a long way
  – Smile
  – Maintain eye contact
  – Be honest and heartfelt
  – Have a succinct story
• Practice can make perfect
  – InterviewStream
  – Mock fit interviews (often career services will provide this)

Do
• Establish common ground (geography, family, interests, sports, etc.)
• Ask the interviewer friendly questions
• Be confident in your answers
• Talk about something other than your qualifications (you’re interesting, so talk about it)

Don’t
• Discuss something controversial
• Complain about anything
• Make up elaborate questions you know the answer to
• Repeat company slogans, mottos, tag-lines, etc.
• Focus only on your business qualifications and experience

A list of possible fit interview questions is listed on the following pages
FIT INTERVIEWS
Possible questions

Career motivation:
• Why do you want to work for us?
• Why do you want to work in the service line that you have chosen?

Responsibility:
• Do you like having many responsibilities?
• Are you a responsible person? How have you demonstrated this?

Commercial awareness:
• Tell me about a recent business issue?
• Tell me about a successful company. Why have they been successful?
• What role does this consultancy play in the industry?

Commitment to career:
• What will you be doing in your first year at the firm?
• Where do you imagine you might be in 5 years?

Teamwork:
• Have you ever been successful in getting people to work together?
• How do you deal with a difficult team member? What do you do to resolve a conflict?
• Do you change your style to suit other people in a team?
• Tell me about a time where you have helped out a team member by giving them advice.
• Describe a time when you have been unsuccessful in a team. What could you have done better?

Decision making:
• Have you ever had to make an important decision? Why was it so difficult?
• How do you arrive at a decision? Do you like making decisions?
• Have you made a decision that has affected other people?
• Have you ever made an incorrect decision?

Communication:
• Describe a situation when you dealt with a sensitive situation requiring extensive communication.
• Have you ever had to deal with a difficult customer or colleague?

Problem solving:
• What problem have you faced in the past, either as part of a team or as an individual?
• What happens if you cannot solve a problem?

Ethics and belief structures:
• Have you ever lied to get something?
• Would you lie if your job depended on it?
FIT INTERVIEWS
Possible questions continued

- When have you built something for the customer?
- When have you had to manage multiple, competing priorities simultaneously?
- When have you had a lot of autonomy?
- When have you had to convince someone to do something they didn’t want to do?
- What is your biggest barrier to leadership and how do you surmount it?
- What is the most difficult critique that you have ever received? How did you handle it?
- Tell me about a time when you made a mistake at work, and how you handled it. How did you learn?
- What would you do if your boss told you to do something that was against standard procedure?
- Describe yourself and capabilities to someone who cannot see you.
- Tell me about a time you had to mentor someone and it did not turn out well.
- When did you lead a team through an obstacle?
- When have you had to analyze a lot of data and what tools did you use?
- When have I failed?
- When were you on a team that had a difficulty?
- What is something I am proud of?
- When did you work with senior people and how did you deal with that?
- When have you presented your work to senior people?
- When have you been behind a deadline and how have you dealt with that?
- When have you managed change on a team?
- When have you been a mentor?
- When were you mentored?
- When did you take initiative?
- When did you break the rules?
- When have you used something from class in the workplace?
- When were you on a team that failed?
- When have you worked on something conceptual?
- What are your top 3 strengths?
- What are your top three weaknesses?
- When did you have a stressful task or assignment?
- When have you been on multiple projects with conflicting deadlines?
- When have you had to influence someone to do something inconvenient?
- When have you had to reprimand an employee for poor performance?
- When have you had to get cooperation between several people?
What is a case?

- A *business issue* company is facing in a few sentences
- Has *limited data* which is usually provided if asked for
- *Approach* is more important than the final solution

There are two common case interview methods:

- ‘Go with the flow’ cases (typical of most firms) – You determine which areas to explore and lead the discussion, i.e. drive the case
- Command and control (typical of Deloitte, McKinsey et al) – Interviewer guides the discussion and case has heavy brainstorming components and quantitative work

**Common case types** (not a comprehensive list):

- Profitability, Market Entry, Acquisition, Organization
- Industry Analysis (incl. non-profit), Market Sizing, Capacity Expansion (incl. outsourcing)
CASE INTERVIEWS
Flow of a case

Understand the Case
- Listen and ask clarifying questions
- Organize and formulate hypotheses

Analysis
- Ask probing questions but stay within scope
- Present plan of attack and high impact areas
- Always work out the numbers until asked not to do so

Conclusion
- Constantly test and reevaluate hypotheses with data
- Answer question and take a definitive stance
- Do not forget to mention risks and further info requirement
CASE INTERVIEWS
Tips on how to stand out

Communication
- Explain your thought-process when presenting your plan
- Make hypotheses when asking questions/requesting information
- Go beyond verbal communication
- Be engaging - enjoy the case problem and work together to solve it
- Body language (eye contact, gestures, posture, smiling)
- Facial expressions (Maintain composure at all times)

Notes
- Write legibly, angle it such that the case-giver can see your work
- Use a new page for each theme you are exploring
- Circle/box insights for use in recommendations

Math
- Draw math out clearly (especially for market sizing)
- Explain any assumptions (be reasonable with assumptions)
- Walk through your logic aloud and tie the result to the case
- When doing math, relate the numbers qualitatively to the case
- When presenting recommendation – take a position! Be concise and top-down in your recommendation (i.e. recommendation first with supporting arguments, tie in numbers if possible). Then, mention the risks that invalidate your reasoning!
CASE INTERVIEWS

Key points

Act like a Consultant: not a candidate

Always:
- Ask thought-provoking questions
- Analyze data to discover new insights
- Develop data-supported conclusions

Never:
- Offend the client
- Give unsupported conclusions
CASE INTERVIEWS
How to distinguish yourself

1. Ability to follow a structured, analytical problem-solving process
2. Ability to reach correct conclusions using this process

Always Synthesize and Communicate
COMMON CASE PITFALLS

1. Using a memorized framework
2. Not stating a hypothesis
COMMON CASE PITFALLS

Typical Mistakes

- Talking way too much
- Misunderstanding the question
- Talking instead of conversing
- Digressing
- Speaking about what you don’t know
- Asking open-ended questions
- Being silent
CASE INTERVIEW TIPS
Answering the client question

Given the client’s main objective, what key information is needed to answer their question?

- Don’t “boil the ocean”:
  - If it is worth it for client to enter market if they generate at least $200M, and you prove it will be worth $500M, stop your analysis immediately and present the conclusion

- Never answer without factual justification
- If you don’t have the answer, say so
- Present in a client-friendly way
- Present linearly: A→B, B→C, and so on

Clients accept factually supported recommendations that they can understand
Use a logical approach

- Use a logical, critical-reasoning approach
- Verify Qualitative Information Qualitatively
- Use Graph Paper

**Always** think about and ask yourself:
1. What is my hypothesis?
2. What data do I need to disprove it?

**Never** try this:
- Placing emphasis on using a framework
- Use the issue tree or framework without hypothesis
CASE INTERVIEW TIPS
Use good communication techniques

- **80/20 Rule:** Find the minimum data needed to test hypothesis
- **Take notes using diagrams**
- **Involve the interviewer during the process**
- **Synthesize along the way**
  - Use a top-down approach for senior executives
  - Perfection here will distinguish you

Symptoms ➔ Problems ➔ Root Causes
CASE INTERVIEW TIPS
Be careful with numbers

- Always compare metrics or findings:
  - With previous period of time
  - The rest of the industry
- Totals and Averages are misleading
- Focus on:
  - Most Important Factors
  - Key Issues
  - Primary Drivers
ESTIMATION QUESTIONS
Some general guidelines

• Best-Case-Revenue if things go perfectly:
  – What % of existing customers are prospective buyers
  – What % would realistically buy?
  – What is max price you could realistically charge?

• Market Sizing:
  – Use a Proxy (often US Population, but not always)
  – Also may want to consider potential Market Share
GUESTIMATIONS
List of possible questions

• Imagine you are working in a company that sells soda. Your Manager wants you to estimate the number of sodas that will be sold over an upcoming basketball game day. How will you do it? (A.T. Kearney)
• How many gallons of paint would you require to paint this room?
• Walk me through how you would advise a client who is looking to make a water bottle cheaper (A.T. Kearney)
• How many golf balls would fit into a 747?
• Estimate the size of the bubble gum market in the United States
• Estimate the number of gallons of gasoline the typical gas station pumps in a given weekday
• How many light bulbs are in this building?

There are many more potential questions – you can not practice everyone, but instead should know how to make assumptions and take a logical approach to solving the problem
PROBLEM SOLVING TOOLS
Key tools to solve the case

- Hypothesis
- Issue Tree (Frameworks)
  - Logical structure to test the hypothesis
- Drill-down analysis
- Synthesis

Clients don’t want consultants’ opinions – they want proof about their own opinions
THE CORRECT APPROACH

Take a logical problem solving approach

Creative Thinking

Impact-driven  Focused  Factual

Impact
PROBLEM SOLVING CYCLE

Follow a logical process

Define the problem
Structure the problem
Prioritize issues
Drill-down Analysis
Synthesis
Recommendation
Communication
Hypothesis
Issue Tree

Key Tools

Industry
Firms
Careers
Preparation
Interviews
Tools
Frameworks
Cases
Networking
Resources
PROBLEM DEFINITION

Use a SMART definition

The problem statement:
- **Specific**
- **Measurable**
- **Action-oriented**
- **Relevant**
- **Time-bound**

Important Considerations:
1. Background / context
2. What will success look like?
3. Who are the stakeholders
4. What are potential challenges
5. What information do I need?

- Use a SMART problem statement
- Don’t just restate facts
- Don’t be too general
- Statement must be disputable

Important Considerations:
1. Background / context
2. What will success look like?
3. Who are the stakeholders
4. What are potential challenges
5. What information do I need?
PROBLEM STRUCTURE

Use a Hypothesis

IF (cond#1 AND cond#2 AND cond#3) THEN Hypothesis = TRUE
PROBLEM STRUCTURE
Using Issue (logic) Trees

**Reason to use**
- Breaks a problem into manageable chunks
- Show concrete solutions

**Requirements**
- Meet the 80/20 rule
- Must be Mutually Exclusive Collectively Exhaustive (MECE)

**Idea 1**
- Sub-idea
- Sub-idea

**Idea 2**
- Sub-idea
- Sub-idea

**Idea 3**
- Sub-idea
- Sub-idea

**CE:** These statements together completely describe the idea or answer the question

**80/20 Rule:**

**ME:** Content does not overlap

**Benefit**
- 100%
- 80%

Efficient

**Effort**
- 20%
- 100%
How could you reduce your personal expenses each year?

Buy fewer things

Pay less for same amount of items

- Dining out
- Designer clothes
- Movies
- Ski trips
- Buy lower-quality
- Use Groupon
- Buy in bulk
PRIORITIZE ISSUES
Use judgment and ask questions

- Are there limited resources?
- Are there time constraints?
- What is most important to the client?
- Be practical
- Use judgment or make assumptions
DRILL DOWN EACH PATH

Be organized and talk to your interviewer

Start with each issue and drill down until you confirm or disprove hypothesis then come back out and start a new path.

Data Collection Buckets:
Once hypotheses are formed and an issue tree created, the following buckets are useful to collect data. This approach not only is an impressive way of organizing data in consultant style but also effective so as to not miss any crucial data points and helps to prioritize issues.

Example Buckets:
ALWAYS SYNTHESIZE

Communicate Recommendations

- Be **concise**
- Integrate detailed **analysis** in view of big picture
- Be **action oriented**
- **Summarize** what the client should do based on the supporting facts

- Tell client what you discovered and what it means
- Tell the client what to do
- Couch recommendations in the context of the overall business, not just the specific decision you assessed

**Recommendation**
- Effect/support A
- Effect/support B

Restate “Recommendation is for these reasons”

These consider relevant issues. The Synthesis should connect the dots, add clarity, and show confidence.
USING THE TOOLS
Putting it all together

**Hypothesis**: Must be clearly stated
1. Form it early
2. Ask Background Information if needed
3. State it early (don’t wait and forget)

**Issue Tree**: don’t force a framework
- Use a logical issue tree for hypothesis (Logical Test)
- MECE (don’t overlap, cover everything)
- Conclusiveness Test

**Synthesis**: What the client should do (action-oriented)
- Why the client should do it (Fact #1)
- Why the client should do it (Fact #2)
- *Have at most 3 supporting facts*
OTHER TOOLS
Some of these may be helpful

Other Strategic Tools:
1. Porter’s 5 forces for industry scenario
2. ADKAR (Awareness, Desire, Knowledge, Action, Reinforcement) for change management
3. GDPEST for macro-economic conditions
4. BCG matrix
5. NPV
6. IRR and payback period for financial analysis
The economic equation is given by:

\[ \text{Profit} = \text{Revenue} - \text{Costs} \]

- **Revenue** can be broken down into two components:
  - **Price per Unit**
  - **Number of Units**

- **Cost** can also be broken down into:
  - **Fixed Cost per Unit**
  - **Variable Cost per Unit**
  - **Number of Units**

- **Don't forget**: If margins are constant, Costs will decrease when Revenue decreases.
- **Fixed Cost**: Doesn't change when units change.
You can memorize a long list of specific frameworks for many situations – or you can use a hypothesis approach and a general issue tree framework for any situation.

For more frameworks read Case In Point (Cosenino)
FRAMEWORKS
Mergers and Acquisitions

- Run Business Situation Framework for each company
  - Then analyze the combined results

- Client Goals:
  - Add Strategic Value
  - Cost Savings
NOTES ON FRAMEWORKS

Points to consider

- Multiple frameworks could be used to solve cases - please see the other resources section in this book for details about frameworks. But at the end of the day, you should be prepared to use your own framework and the only way to come up with your own frameworks is to PRACTICE!

- There should not be a single framework that one should learn, and the frameworks alone will not take you far. The key to use frameworks is to use them as a guide and guide only.

Following are a couple examples to get you started but refer to other resources and come up with your own if required.
These cases will ask either to increase profitability, reduce costs alone or increase revenues alone. In most cases, profitability frameworks come in handy.

While generating ideas, several areas can be explored that will aid data gathering. But a solid set of hypotheses will make sure that the structure and methodologies are in tact.
For example sales volume can be increased in roughly the four ways depicted by the matrix. For Prices per unit, Market Competition, product differentiation, product life cycle and price discriminations can be used.
PRACTICE CASES

Table of Contents

1. Oil Tanker Value (Booz & Company)
2. Hardware Store (EY)
3. Organic Baby Food (Bain)
4. Auto Headlights (A.T. Kearney)
5. Hair Styling Parlor (Bain)
6. Chemical Brothers (A.T. Kearney)
7. Cellphone Lease (Bain)
OIL TANKER VALUE
Booz & Company - Round 1

Case Prompt
My grandfather has just died and left me an oil tanker. I need a valuation for tax purposes, and I have hired you to tell me what it is worth. For your information, there are 3 types of tankers in the world: small, medium, and large. Within these three classes, each tanker is identical to every other. I have just inherited a medium tanker.

Guidance to Interviewer and information to be provided only if asked

Supply-side information

<table>
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<th>Medium</th>
<th>Large</th>
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</thead>
<tbody>
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</tr>
<tr>
<td>Capacity</td>
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<td>2 Units</td>
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<tr>
<td>Number of trips per year</td>
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<td>1</td>
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</tr>
<tr>
<td>Operating Cost</td>
<td>$50,000/trip</td>
<td>$75,000/trip</td>
<td>$100,000/trip</td>
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Demand-side information

Scenario I: fixed demand for 500 units of capacity per year (transport costs are a negligible part of total oil-cost structure, and demand is completely inelastic for purposes of this analysis).

Scenario II: fixed demand for 650 units of capacity per year (note: change demand-side scenario to this only if student correctly determines value of tanker under first scenario and if time permits).

The market is highly fragmented and therefore competitive. The discount rate is 10%.
Because the market is competitive, the market price will be the lowest price sufficient to cause enough capacity to enter the industry to serve the fixed demand, and the marginal unit will earn revenue just sufficient to cover its costs. Clearly, the large tankers have the lowest cost structure, followed by the medium tankers and finally the small tankers. The large tankers can supply 400 units of oil transportation services, the medium tankers 200 units, and the small tankers 100 units.

If demand is fixed at 500 units, then medium tankers will be the marginal capacity, and we can say directly that the market-clearing price will be just sufficient to cover the costs of operating such tankers. So my tanker has no value (or, alternatively, scrap value only).

For completeness, the market-clearing price will be $37,500 per unit. Large tankers, all of which will be employed, will earn profits of $50,000 per year and be worth $500,000. Half of medium tankers will be employed at rates that just cover their costs, while the other half sit idle. Finally, small tankers will not have costs low enough to enter the market and will also be worth zero or scrap value only.

If demand is instead fixed at 650 units, the small tankers will be the marginal capacity and medium tankers will earn profits and have positive value. The equilibrium price will now rise to $50,000 per unit. Medium tankers will earn $25,000 per year and be worth $250,000; large tankers will earn $100,000 per year and be worth $1,000,000.

This case is a business problem that at its core is a relatively simple problem in microeconomics. Students need not get all the way to a numerical answer for the value of the tanker, and few should be expected to give both answers depending on demand assumptions. Nevertheless, students should first demonstrate a good conceptual framework for determining the tanker's value, and be reasonably creative about asking for the right kind of data to get at least part way to the solution. Note that both the revenue and cost side of the problem need to be understood in order to reach a valuation.
Hammerjack is a regional chain of "local hardware stores" located in numerous neighborhood strip malls and shopping centers. They had enjoyed excellent performance for the past 15 years but have experienced declining profits in the past two years. They are concerned about their profitability and have hired you to explain their situation and provide recommendations to get them back on track.
Competitive issues: We are losing customers and based on the heavy decrease in dollar amount purchased, we are losing high spending customers. (There must be substantially different customer segments)

Question: What do we know about our customer segments?

Answer: 3 segments (as follows):

<table>
<thead>
<tr>
<th></th>
<th>Maintenance People</th>
<th>Do It Yourself-ers</th>
<th>Contractors</th>
</tr>
</thead>
<tbody>
<tr>
<td># of visits</td>
<td>1</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>$ spent/visit</td>
<td>$100</td>
<td>$1,000</td>
<td>$10,000</td>
</tr>
<tr>
<td># of people/segment</td>
<td>100 million</td>
<td>10 million</td>
<td>10,000</td>
</tr>
</tbody>
</table>

Assumptions

Hammerjack is losing customers and dollar revenue, there is a strong possibility of increased competition. **Answer:** Yes, Home Depot and other huge "warehouse" hardware stores have entered Hammerjack regional locations.

Assumptions about Warehouse Stores

Lower prices due to buying power (economies of scale). **Answer:** Yes

Provide additional services such as training courses, information, tips. **Answer:** Yes

Stealing contractors due to substantially lower costs and DIY's due to price and help. **Answer:** Yes
HARDWARE STORE
Ernst & Young - Round 2

Solution

Analyze drivers of profitability: Profit = Revenue - Costs.

Based on the above information, you can determine which segments are most valuable to Hammerjack.

<table>
<thead>
<tr>
<th></th>
<th>Maintenance People</th>
<th>Do It Yourself-ers</th>
<th>Contractors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total segment worth:</td>
<td>$10 Billion</td>
<td>$100 Billion</td>
<td>$10 Billion</td>
</tr>
</tbody>
</table>

You determine that the "Do It Yourself-ers" are the most important category.

Issues:
Maintenance segment is still loyal because they only shop once a year and for a lower dollar amount. We probably can't keep the contractor segment due to price. How do we keep the DIY's?

Potential Solutions:
Offer the training courses with an emphasis on the local knowledge of the neighborhood.
Anticipate the products needed by DIY's and offer competitive prices on those items.
Acquire or align with other local chains to gain buying power.
A close friend of mine is thinking about starting an organic baby food company in Lafayette Area. He already has the equipment. How much of the market should he acquire in order to make a living out of this?

Guidance to Interviewer and information to be provided only if asked student:

- He thinks he can live with 100k a year.
- Lafayette Area includes Lafayette and West Lafayette.
- No additional information provided, the interviewee is required to make assumptions of information needed.

It is key for the interviewee to remember the question specifies how much of the market should be acquired. This refers to a percentage of the total market of organic baby food in Lafayette Area.
ORGANIC BABY FOOD
Bain & Company - Round 1

Notes
Case Prompt

You have a meeting with the Mayor of Los Angeles, the President of Los Angeles Chamber of Commerce, and a member of the Olympic Committee. They have asked you to state the advantages and disadvantages of hosting the 2020 Olympics in the city of Los Angeles.

Guidance to Interviewer and information to be provided only if asked student

No additional information given.

The interviewer will then ask the interviewee to quantify the possible revenues from ticket sales only. Will the revenue increase more if you raise stadium capacity by 10% or if you increase ticket price 10%?
OLYMPICS 2020
Bain & Company – Round 1

Solution

The interviewee must come up with tangible and intangible advantages and disadvantages. For example:

**TANGIBLE**

**Advantages:**
- City growth
- Revenues
- Tourism

**Disadvantages:**
- Costs
- Effort
- Impact

**INTANGIBLE**

**Advantages:**
- Recognition
- Image

**Disadvantages:**
- Crime
- Failures
- Traffic

**TICKET REVENUES**

Assume number of stadiums with different capacity.

Ex. Olympic Stadium: 50k, Swimming pool: 20k, Gymnastics: 30k, Basketball: 40k, Olympic Village: 50k

Set average price for ticket = $50 for stadium and $20 for village.

Total Revenue from Tickets: $8M

The revenue increases the same since you are multiplying the capacity and the price to come up with revenue.
Case Prompt

The CEO of a mid-sized EU based car headlight manufacturer has asked you to estimate the size of car headlight market in South America. Also, assess how good is this market to invest aggressively.

Guidance to Interviewer and information to be provided only if asked student

- No additional information to be provided during the market-sizing portion. The interviewee should come up with a strong robust model to forecast the market size.
- During the second part, a qualitative discussion led by the interviewee should open the floodgates.
- If the interviewee is stuck with estimation of market dynamics, they can choose the US market as a benchmark and proceed.
- Final outcome of the discussion must have a competitive strategy with overall macroeconomic analysis and company strength/weaknesses.
- Interviewer must notice if the candidate touched upon the firm goals and current state in order to forecast future performance.

It is key for the interviewee to remember the question specifies how much of the market should be acquired. This refers to a percentage of the total market of organic baby food in Lafayette Area.
Solution

Market Size = Avg. price X Number of bulbs
‘Number of bulbs’ has 2 drivers
(#1) Installation in New cars, and
(#2) Replacements due to “age” of the bulbs

** People forget one more driver (#3) replacement for bulbs damaged in accidents, which has a big impact in the market size estimation.

*Market size estimation is the key in this question. It carries about 70-75% of the weightage.*

The second part is to judge the candidate’s overall understanding of business and how they can apply their business knowledge to a certain situation.

If a step-by-step approach is taken where each part in the discussion is succinct and to the point, full marks can be awarded.
A renowned hair styling parlor is looking to drive traffic through into their stores. They have recently taken out coupons and tried a new strategy. They have given a free haircut to every person that goes to the store with their son/daughter. Is this a good approach?

- In August, the store sold $1BN
- One month long promotion
- 1000 stores in the U.S.
- Only 700 stores have salons
- Every item is on average $15
- An average transaction is $50
- There were 1M haircuts
- 1/3 customers actually buy something
HAIR STYLING PARLOR
Bain & Company – Final Rounds

Solution

The interviewee must quantify the extra revenues and costs of this strategy and decide if it was worth it. Remember the ultimate goal is to drive traffic through the store, not increase revenue. Think of it as an advertising campaign.

Revenue from campaign:
1M customers * 1/3 who purchase * $50 average transaction = $16.5M
Say they have an average markup of 30% in the items, profit from sales: $5.5M.

Costs: Assume cost of products. (May be assumed free from negotiating with suppliers.)
Extra labor needed in the salons: 1M Haircuts in 700 stores = 1400 haircuts per store every month.
1400/30 = 50 haircuts every day.
Assume there are already 2 stylists at the store and every stylist can make 10 haircuts per day. Extra labor needed = 3 stylists.
3 stylists * $15/hour * 8 hours/day * 30 days * 700 stores = 7.5M

Total profit: -$2M.

If this were a proposal to generate profits, it would be a poor strategy. However it did drive 1M people into the store. On average it cost the store $2 per new customer attracted by the promotion. It is a good marketing deal and it did generate the results expected.
Your client Chemical Brothers International (CHEMBRO), is a major chemical producer, has retained your firm’s services to evaluate the feasibility of acquiring another major player in the industry, Plastics of America (POA). Both companies are bulk commodity chemical producers. Your task is to analyze the future prospects of POA’s major product line, a chemical used in the production of plastics. Should CHEMBRO acquire POA?

There are two issues in this case that should be addressed separately in the suggested order:

1. What issues need to be addressed in evaluating an M&A proposal? Qualitative
2. What is the valuation? Quantitative
The candidate’s framework should cover the following buckets. Allow the candidate to ask for information about the major categories before giving the information. If the candidate is missing one of the buckets, prompt them with a question to get them on track.

**Market Analysis**
End-users come primarily from the automotive industry
Market size has been slowly declining over the last five years
Within the last couple of years, prices have declined rapidly

**Competition / Industry Analysis**
There are 10 major producers; the largest one with a 35% share; number two has 25%, and POA is third with 20%; the remaining share is divided amongst others
The two largest competitors earn a small return; POA is slightly above break-even; the rest are operating at break-even or at a loss
Relative capacity utilization in the industry is 60 to 70% and has been so for the last 3 years.
POA is also currently working at 75% of capacity
The two largest competitors are highly diversified with this particular product line representing no more than 20% of their revenues
Highly regulated industry with expensive pollution control equipment
High barriers to entry because of the low profits and high investments required

**Product value proposition / brand portfolio**
The price has been driven by self-destructive cuts from the leaders to gain temporary share points
We do not foresee the development of any significant byproducts.
Other possible uses: None.
Complementary Assets: 50% of POA’s sales are to the automobile industry
Finance and Operations
Cost is based on size/efficiency/age of plant, etc. Within the industry, POA is in an above average position. There are several operational improvements that could be implemented, and management has not been aggressive in its pursuit of quality and cost controls.
Great economies of scale exist in marketing and transportation. (Not quantifiable)
Operational synergies could represent an additional $30 million in profits

After discussing the above-mentioned qualitative aspects in some detail, provide the candidate with Exhibit 1 when the conversation shifts to the topic of valuation. Ask candidate to compute the present value of acquisition. You may allow the candidate to use 10% rate of return and not 9% (12% Return on Capital – 3% Growth Rate) if requested. However ask him the effect on NPV of a higher vs. lower discount rate, to gauge his understanding of the concept. Answer: Higher discount rate means lower valuation. NPV analysis: Based on the information from Exhibit A, the net present value of the target company is = $90M / (10%) = $900 million (assume perpetuity), which is less than the purchase price tag of $950 million. Industry Attractiveness: not particularly attractive, unless the larger competitor can use economies of scale and dominant position for economic gain.
A strong candidate will recognize that this case deals with internal factors (synergies and economies of scale) as well as some external factors (opportunity costs and industry attractiveness). The candidate should include some of the following elements in his framework:

- Market Attractiveness / Industry Potential
- Operational Analysis (Synergies/Economies of Scale)
- Organizational and cultural compatibility
- Capability to enact acquisition: Financial, legal, and perceptual barriers

**Exhibit 1**

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Price</td>
<td>$950 M</td>
</tr>
<tr>
<td>Annual operating income</td>
<td>$90 M</td>
</tr>
<tr>
<td>before tax</td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$30 M</td>
</tr>
<tr>
<td>No. of employees</td>
<td>2000</td>
</tr>
<tr>
<td>Return of capital</td>
<td>12%</td>
</tr>
<tr>
<td>Market risk premium</td>
<td>7%</td>
</tr>
<tr>
<td>Growth rate</td>
<td>3%</td>
</tr>
<tr>
<td>Tax rate</td>
<td>40%</td>
</tr>
</tbody>
</table>

**Performance Evaluation**

**Expected:** Candidate identifies that the purchase price is higher than the NPV. Recommendation wrap-up should clearly include a —go / no go— decision followed by quantitative (valuation) and qualitative (industry and compatibility analysis) facts.

**Good:** A strong candidate will recognize that this case deals with internal factors (synergies and economies of scale) as well as some external factors (opportunity costs and industry attractiveness).

**Excellent:** An excellent candidate will include some of the following additional insights.

A more comprehensive NPV would include the new cash flow from synergies, as well as the previously calculated NPV. Therefore the $900 million + [Synergies 30M/(12%-3%) = 333M] = $1,233M value of target > 950 price tag.
The U.S. cell-phone market is completely saturated. There are more phones than people in the U.S. For this reason, it is very hard for companies to grow in this area of business. A U.S. cell-phone company is looking at a model used in the U.K. for leasing a cell-phone through a one-year lease. The customer will get a new phone, use it and return it after a year. Should the company implement this new contract?

The current contract model lasts two years and the customer keeps the phone. The interviewee must compare the different business models. He can disregard operating costs, service costs and others by assuming it is the same in both models.
## CELLPHONES LEASE
### Bain & Company – Final Rounds

### Solution

<table>
<thead>
<tr>
<th>LEASE:</th>
<th>REGULAR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues:</strong></td>
<td></td>
</tr>
<tr>
<td>Service: $70/ month</td>
<td>Service: $60/ month service</td>
</tr>
<tr>
<td>Salvage phone value: $100</td>
<td>Insurance &amp; maintenance: $5/month</td>
</tr>
<tr>
<td>Smartphone upgrade average fee: $80</td>
<td>Smartphone upgrade average fee: $80 every 2 years</td>
</tr>
<tr>
<td><strong>Costs:</strong></td>
<td></td>
</tr>
<tr>
<td>Phone: $400</td>
<td>Phone: $400 / 2 year phone.</td>
</tr>
<tr>
<td><strong>Profits:</strong></td>
<td></td>
</tr>
<tr>
<td>$620 / year  = $1240/ 2 years</td>
<td>$680 / year = $1360 / 2 years</td>
</tr>
</tbody>
</table>

### SOLUTION

Even though the regular business model is more profitable, the company may be interested in implementing the new business model since they will attract a certain area of consumers that want to keep up with technology and would like to change their phones every year. The company should adopt this model.

**Question:**
The CEO of the company asks you why haven’t other companies adopted this model? You have one minute to answer since he has to catch a plane.

**Answer:**
We may have assumed incorrectly that people would return their phone after one year. We could collect data to prove this.

Suppliers may not be very happy if we begin to sell their one-year-old smart-phones at a very cheap $100 price. There could be some contractual issue.
For both internship and full time job search in the consulting industry, networking plays a huge role. Also, the momentum and lessons learned during networking for internship search should not be lost after an internship is secured, so that one is already ahead of the pack during full time recruitment. In general, late spring to late summer is the best time for effective networking since the recruiters are not that busy and only a handful of people actually realize the impact of networking at that early stage.

Here are a few ideas that can take you a long way:

• Start early and know yourself
  • Assess your fit and strengths carefully and envision yourself in a consultant role. Then start your own research about the industry, firms and typical profiles of current consultants in those firms. Wetfeet, Vault, Glassdoor and LinkedIn are few of the best resources available for this purpose. Sometimes maintaining a spreadsheet/documentation of all research proves beneficial.
  • After thorough research and self-assessment is done, candidate must reach out to recruiters. The contacts could be found from KPDC alumni database or LinkedIn. ‘Cold-LinkedIn’ requests to build up your own network also work if used strategically but many view this as a negative approach so use caution and professionalism. For this purpose, a custom message (in the connection request) stating the reason for invitation and genuine interest in the firm/individual, and relevant information in the candidate’s profile are must. Email messages also need to be succinct yet informative.
  • Informational Interviews: In the informational interview, one needs to make sure of the following:
    – Keep it short (20-30 minutes at most)
    – Make a list of questions to ask about the firm/individual/projects/industry
    – Figure out the skills to acquire for being the perfect fit for the role
    – Send your resume to the contact well in advance
    – DO NOT ask for a job. Everyone knows why this conversation is taking place!
    – One should send a follow up note thanking the interviewee for their time
  • Other channels: LinkedIn provides some metrics such as key skills of people in respective firms and company insights that can prove beneficial. Networking dinners hosted by KPDC, and consulting club as well as alumni networks are critical sources of making connections. An ideal candidate looks for networking opportunity and that can come in any form at any place (pregame tailgates and KGSA unofficial socials included!).
  • Key takeaway: Simply turning and saying ‘hello’ to a person next to you at an event may connect you to some highly influential people in the industry. That is really how you would make connections as a consultant in your post-MBA career. Also, don't forget to carry your Purdue business cards in your wallet/purse and exchange when possible.
DATA SOURCES

References used in this book

- www.Add-Resources.com
- www.vault.com
- www.WetFeet.com
- www.Accenture.com
- www.ATKearney.com
- www.ADLittle.com
- www.bain.com
- www.booz.com
- www.bcg.com
- www.ey.com
- www.marakon.com
- www.mckinsey.com
- www.oliverwyman.com
- www.rolandberger.us
- www.Deloitte.com
- www.PwC.com
- www.Gallup.com
- www.KPMG.com
- www.glassdoor.com
USEFUL RESOURCES

Purdue and Krannert

Purdue Libraries
- Consulting Casebooks, Strategy Journals, Newsletters from McKinsey, BCG Perspectives

KPDC/CCO
- Market Sizing questions, fit questions, basic case interview books and of course lot of guidance.

Courses offered at Krannert
- Other classes having pertinent topics on consulting issues are:
  - **Marketing**: This course perhaps has the most important concepts for case interviews. Four P’s, four C’s and pricing strategies feature quite often in cases.
  - **Finance**: Basic financial modeling and NPV analysis are important but other concepts are not emphasized in case interviews. In most cases, an NPV/Valuation will lead to strategic choices.
  - **Operations**: Be familiar with concepts such as bottlenecks, capacity, lead-time, flexibility, and inventory. Process mapping and ways to improve each of the above mentioned could be vital.
  - **Supply chain and logistics**: Outsourcing vs offshoring, value chain for manufacturing and distribution for various industries, and supply-demand dynamics must be fully understood for acing case interviews. Apart from core courses, various electives are offered in Krannert for learning these concepts in-depth.

Google
USEFUL RESOURCES
Case books from other schools

- McCombs Case Book (2008)
- Haas Case Book (2006)
- Columbia Case Book (2007)
- Chicago Casebook (2001)
- Duke Case Book (2010)
- Wharton Casebook (2008)
- Goizueta Interview Book
- HBS Case Interview Guide
- MIT Sloan Case and Interview Guide (2001)
USEFUL RESOURCES
Consulting Firms I

- **Management Consulting**
  - ABeam Consulting
  - A.T. Kearney
  - AlixPartners
  - Bain & Company
  - Booz & Company
  - Boston Consulting Group
  - Cognizant Business Consulting
  - Deloitte
  - Ernst & Young
  - L.E.K. Consulting
  - McKinsey & Company
  - IBM Global Business Services
  - Oliver Wyman
  - Roland Berger Strategy Consultants
  - Computer Sciences Corporation

- **Innovation Consulting**
  - Altran Group
  - Arthur D. Little

- **Other Consulting**
  - Avasant
  - Corporate Executive Board

- **Legal Consulting**
  - BDO Consulting
  - Berkeley Research Group, LLC

- **Financial Consulting**
  - Capco

- **Operations Consulting**
  - Collinson Grant

- **Accounting and Tax Advisory Services**
  - KPMG
  - PricewaterhouseCoopers
USEFUL RESOURCES
Consulting Firms II

- Detica
- FTI Consulting
- Grant Thornton
- Greenwich Associates
- Hay Group
- HCL Axon
- Hewitt Associates
- Hitachi Consulting
- Horváth & Partners
- HP Enterprise Services
- Huron Consulting Group
- Ikon Marketing Consultants
- Imdad logistics
- IPL Information Processing Limited
- The IQ Business Group
- ITN Consulting
- Kurt Salmon
- Logica
- Marsh & McLennan Companies
- Matrix Knowledge Group
- McGladrey
- Mercer (consulting firm)
- Monitor Group
- Mott MacDonald
- Navigant Consulting
- Novantas LLC
- OC&C Strategy Consultants
- PA Consulting Group
- Protiviti
- PRTM
- Qedis Consulting Ltd
- QualPro
- The Saint Consulting Group
- Schlumberger Business Consulting
- SDG Group
- Simon-Kucher & Partners
- Slalom Consulting
- SM&A
- Tata Consultancy Services
- Tefen
- The Burke Group
- Towers Watson
- Value Partners Group
- Walter Rhodes
- WS Atkins PLC
- ZS Associates
<table>
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<th>USEFUL RESOURCES</th>
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<tr>
<td><strong>Case In Point</strong></td>
<td>(Cosentino)</td>
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<tr>
<td><strong>Case Interview Secrets</strong></td>
<td>(Cheng)</td>
</tr>
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<td><strong>Learning with Cases</strong></td>
<td>(Mauffette-Leenders, Erskine, Leenders)</td>
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<tr>
<td><strong>Vault Guide to the Case Interview</strong></td>
<td>(Asher)</td>
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THE CONSULTING CLUB
Utilize all of our free resources

Industry
http://web.ics.purdue.edu/~pucclub/

Firms
http://www.linkedin.com/groups

Careers
https://www.facebook.com/groups/purduecons/

Preparation
https://twitter.com/purdueconsultin

Interviews
https://krannertlife.purdue.edu/club-news/professional-clubs/consulting-club/

Tools
https://boilerlink.purdue.edu/organization/purdueconsultingclub

Frameworks

Cases

Networking

Resources
ACKNOWLEDGEMENTS

We also thank the 2012-13 Board, especially Debdeep Roy, for creating the first edition of this handbook.
Thank you for reading this book. Hopefully it has helped you develop in your career. If you have any feedback or suggestions on how to make this a more useful and effective resource, please contact me at atye@purdue.edu or use the contact form on our websites.

Andrew Tye