



# CONSULTING CONNECT

Center for Career Development

## Notre Dame Case Book



UNIVERSITY OF  
NOTRE DAME

CENTER FOR CAREER DEVELOPMENT

# Acknowledgements

We hope this document results in more Notre Dame students reaching their employment goals. This book intends to provide insight and share must-knows about the interview process—from networking to casing. Our success has been in part the result of the support and guidance of people that went through the process before us, who helped us just as others helped them. This book is dedicated to our mentors with the intention to share what we know and what they taught us so others can too.

**The following individuals contributed their time and effort to the Notre Dame Consulting Connect Case Book and without them this would not have been possible.**

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# Overview of the Firms



# List of Consulting Firms

This list is quite exhaustive and just gives an overview of the many firms out there!  
 Click on any link to check out a company ; several are highlighted on ensuing slides

- [84.51](#)
- [Accenture](#)
- [Alvarez & Marsal](#)
- [Bain & Company](#)
- [Beghou Consulting](#)
- [Booz Allen Hamilton](#)
- [Boston Consulting Group \(BCG\)](#)
- [Capgemini](#)
- [Charles River Associates](#)
- [CIL Management Consultants](#)
- [Claro Healthcare](#)
- [Cornerstone Research](#)
- [Deloitte Consulting](#)
- [EY / Parthenon Group](#)
- [FTI Consulting](#)
- [GEP](#)
- [Guidehouse](#)
- [Huron Consulting Group](#)
- [Insight2Profit](#)
- [Kaufman Hall](#)
- [Kearney](#)
- [KPMG](#)
- [L.E.K. Consulting](#)
- [McKinsey & Company](#)
- [Mercer](#)
- [Oliver Wyman](#)
- [Pariveda](#)
- [Protiviti](#)
- [PwC / Strategy&](#)
- [Roland Berger](#)
- [SAP](#)
- [Stax](#)
- [West Monroe Partners](#)
- [ZS Associates](#)

# Types of Consulting Firms

MBB  
“The Big 3”

McKinsey, Bain, BCG

The Big 4  
Accounting Firms

EY, Deloitte, PwC, and KPMG

Boutique /  
Industry Specific  
Firms

Healthcare: Huron, Claro  
Financial & Legal: FTI, Cornerstone  
Data Analytics: 84.51, Pariveda  
Public Sector: Booz Allen, Guidehouse

Other National  
Consulting Firms

Oliver Wyman, Accenture, L.E.K., West Monroe,  
Protiviti, Roland Berger, Mercer, Kearney

# MBB “The Big 3”



## Bain



- Fastest growing of the Big 3 Consulting Firms, expertise across all sectors and industry-leading Private Equity consulting practice
- Bain redefined the boundaries of traditional strategy consulting in working with Bain Capital, BridgeSpan, and other groups
- Generalist model with regional-based office staffing
- Strong emphasis on cultural fit due to local-staffing model – has the youngest demographic of the Big 3 firms
- Interviewee-led case interviews

### Visa Sponsorship: Yes

#### Career Path:

- \* (Senior) Associate Consultant (AC) – 3 years
- \* Consultant – 2 years
- \* CTL/Manager – 3 years
- \* Principal – 2 years
- \* Partner/Director

## BCG



- One of the Big 3 Consulting Firms, expertise across all major industries and functions
- Known as a champion of thought-leadership and has a national staffing model
- Emphasis on a generalist career – consultants not required to specialize until becoming a principal
- BCG recruits less at ND than the other two Big 3 firms so fit is especially important – candidates should develop networking relationships as early as possible
- Interviewee-led case interviews

### Visa Sponsorship: Yes

#### Career Path:

- \* Associate – 2 years
- \* Consultant – 2 years
- \* Project Leader (PL) – 2 years
- \* Principal – 2 years
- \* Partner/Managing Director

## McKinsey



- Largest of the Big 3 Consulting Firms, and oldest pure strategy consulting firm, with expertise across all sectors
- Generalist model with national-based project staffing
- Encourages active discussion as consultants have an “obligation to dissent”
- Strongest Big 3 presence with governments and large institutions
- Interviewer-led case interviews, signature behavioral Personal Experience Interviews (PEI)

### Visa Sponsorship: Yes

#### Career Path:

- \* Business Analyst (BA) - 2 years
- \* Senior BA – 1 year
- \* Engagement Manager (EM) - 2 years
- \* Associate Partner – 2 years
- \* Partner/Senior Partner

# The Big 4

Deloitte

**Deloitte.**

- The largest professional services firm in the world in terms of revenue and one of the Big 4 Accounting firms
- Within Deloitte Consulting, they have both a Technology practice and a Strategy & Operations practice
- Has leading digital practice in Deloitte Digital and a national staffing model
- Built Deloitte University, a leadership development center and hosts annual case competition on campus at Notre Dame

**Visa Sponsorship: Yes**

KPMG



**KPMG**

- Smallest of the Big 4, with services in tax, audit, and advisory services, the firm's consulting practice
- 16 different industry sectors spanning from capital markets to technology and TMT
- Recently developed the KPMG Lakehouse, the firm's professional learning, development, and innovation center
- The Global Internship Program (GIP) gives students the opportunity to work abroad during undergrad

**Visa Sponsorship: Yes**

EY



**EY Parthenon**

- 2<sup>nd</sup> largest professional services firm in the world with services spanning tax, audit, and consulting
- Acquired Parthenon in 2014 to serve as its pure strategy arm
- Within EY LLP, Advisory was rebranded to Consulting. Within consulting, there is both a Technology Consulting Program (TCP) and Business Consulting Program (BCP)
- Has industry-leading Financial Services Organization (FSO) and staffing is national

**Visa Sponsorship: Yes**

PwC



**pwc** strategy&

- One of the largest professional service firms in the world with core Accounting and Consulting services
- Acquired Strategy& in 2014 to serve as its pure strategy arm
- Within PwC, Advisory was rebranded as Consulting, with focuses on tech consulting and business consulting
- Established "The New Equation" in 2021 and pledged to hire 100,000 people over the next 5 years to forward ESG goals

**Visa Sponsorship: Yes**

# Boutique Consulting Sectors



## Healthcare



The Huron Consulting Group mainly serves clients in the healthcare, higher education, life sciences, and commercial sectors, and is headquartered in Chicago, IL

Claro is a pure Healthcare Consulting firm, with projects focused on revenue cycle, hospital operations, medical technology, and comprehensive CDI. HQ is in Chicago

## Financial & Legal



CORNERSTONE RESEARCH

FTI Consulting one of the largest global financial consulting companies. They help companies manage and mitigate financial, legal, operational, political & regulatory, reputational, and transactional risks

Cornerstone Research occupies a rare niche in the consulting world as a firm that specializes in economic and financial analysis for law firm clients. They specialize in commercial testimony and related project work

## Data Analytics

**84.51°**



84.51 is a retail data science, insights and media company. They help the Kroger Company, consumer packaged goods companies, agencies, publishers and affiliated partners create value

Pariveda Solutions is a leading technology consulting firm specializing in improving our clients' performance with strategic services and information technology solutions

## Public Sector

Booz | Allen | Hamilton



Booz Allen performs work in consulting, analytics, digital solutions, engineering, and cyber, mainly for government contracts and related government institutions

Guidehouse has a strong Public Sector presence across industries such as Defense, Energy, Financial Services, Health, National Security, and State & Local Government

# Other National Consulting Firms



- Accenture works at the intersection of business and technology to help clients improve performance and create sustainable value for stakeholders. The firm focuses strongly on technology and innovation
- Accenture strategy is the firm's separate strategy arm

Visa: Yes



- Founded in London in 1983 by 3 Bain Partners, L.E.K. Consulting is a global managing consultancy with clients ranging from small startups to major private equity firms.
- Strongest industries are Private Equity and Healthcare, but expertise ranges across all industries

Visa: Only MBA



- Part of the Marsh & McLennan Companies, OW is a global strategy consulting firm founded in 1984
- Entrepreneurial, non-hierarchical culture where talent people work alongside one another on complex, high-visibility client engagements
- Expertise across all industries

Visa: Case-by-case



- Protiviti is a global consulting firm that was formed following a spin-off of Arthur Andersen
- The firm brings that expertise in internal audit and business and technology risk consulting to their clients
- Partner with 70% of Fortune 100

Visa: Case-by-case



- West Monroe is a national consulting firm born in technology, hyper focused on Digital Consulting and digitally focused projects
- Headquartered in Chicago, with industry expertise including consumer products, energy, high tech & software, healthcare, finance, and retail

Visa: Case-by-case

# Recruiting Basics



# Why Network?

- Career Discernment
  - Consulting vs. Other Careers
  - Different Types of Consulting
    - Strategy, Operations, Restructuring, HR, Tech, Implementation, Advisory, etc.
  - Different Firms
- Career Preparation
  - Hear Career Paths of People whose shoes you want to be in
  - Advice on recruiting process
- Career Enhancement
  - Helps them get to know you and you to know them
  - Shows investment in firm and context for cover letters, interviews, etc.
  - Helps firm differentiate and put face to name
  - Mitigate downside risk
  - Networking is a lifelong skill; continues when you are in the industry
- Note: Consulting Networking is not Finance Networking
  - Don't network to network
  - Emphasis on Quality over Quantity

# Types of Networking



- Formal Recruiting/Career Fair Events
  - Sponsored through ND or firm initiatives
  - Important to attend ... helps learn about firm and shows interest
  - Great to make first impressions and find people to build relationships
  - Ask thoughtful, relevant questions
  - Low risk, all it takes is to signup and listen in!
- Small Group/Coffee Chats
  - Sponsored by firm
    - EX: Coffee chats, small group sessions, case preps
  - Act early ... these opportunities aren't often and fill fast
  - Great chance to build personal relationship
- Informational Interviews/1 on 1 Networking
  - You have to go out and get ; you initiating
  - Platform to really build relationships
- All serve a purpose ... each can be helpful at different points

- Career Shift
  - ND has paid for subscription for all students... create account with ND email
  - Great way to find email after you identify person you want to connect with
  - Contacts --> Search --> Type name and company and should find emails
- MyNotreDame
  - Able to use okta login to access
  - Find emails for ND Alumni
- IrishCompass
  - ND version of LinkedIn ... still reach out via email
  - Can indicate a higher likeliness to connect
  - Great filtering (dorms, majors, activities, firms, etc.)
- LinkedIn
  - Best way to find large group of consultants and with filtering
  - For ND alums: Search Notre Dame --> Alumni Tab --> Search Company (Can filter by City)
  - While LinkedIn is great to find people, we recommend initiating via email unless in same group or specific prompting
- Firsthands
  - ND has paid for subscription for all students
  - Great way to learn more about firms and expand firm list
- Typical Company Emails
  - See attached slide for some major ND firm examples

# Follow-up Email



This list serves as a sample outline on how to write an email while recruiting. It should be edited according to the level of connection previously established with the recipient, if any. i.e. the guide is design for contacting someone for the first time; if this is a follow-up to reconnect, (4) could be ignored.

## Subject line:

- Address an specific request. e.g. “Call at 2:45 PM Friday”, “Interest to talk next week”

## Name:

- Use the recipient first name. e.g. “Joe,”

## First Line:

- “I am a [class year denomination e.g. junior] majoring in [major] at Notre Dame with experience in [work] with a passion in [interest with professional appeal]. A couple ”

## “Fun facts”:

- State 3 things you have done; maybe one in the classroom, one in the workplace, and the third of some outside activity you performed. The purpose is to show variety in activities and highlight your pros.

## Specific Ask

- “I am going to apply...”. State you have questions about their office, about specific points of their experience or application process.

## Closing

- “Can we get a 15 minute call the...? - [Name]”

## “Any questions for me?”



This list represents a non-exhaustive sample. Think of it as a good way to practice talking about your stories and experiences.

- Why did you choose the [city] office?
- What do you like the most about the [city] office?
- How was the last project you were in? What was something great about it?
- Tell me about a mentor you have?
- What was your favorite project at [firm]? Why?
- What was the hardest part about transitioning into [firm]? How did [firm] help you?
- If it's a partner or senior employee: Why did you choose to specialize in [area of expertise]?
- If it's a junior level employee: Do you know where you might want to specialize in the future?
- If you're interested in working abroad: Does [firm] offer opportunities to work internationally? If so have you taken advantage of any?
- Does [firm] sponsor any socially-focused initiatives or pro-bono consulting?

# Behavioral Interview Guide

**This list represents a non-exhaustive sample of how to model your 30 second introduction.**

## **Personal Roots:**

- Name something interesting about your background e.g. "I started...", "I grew up in (a family...)", "I am..."

## **Education:**

- Highlight important parts of your education e.g. "I'm studying (majors) and came to Notre Dame because..."

## **Experience:**

- Shortly lay out interests you have, work or projects you have done.

## **What's next:**

- Tell your expectations e.g. "I'm looking for a role that will enable me to..."

# **“Walk me Through Your Resume”**

## **“Tell Me About Yourself”**



- Essentially your elevator pitch!
  - Most common type of interview question
  - 2 minutes 30 seconds at the absolute maximum
  - You can always ask your interviewer if they want the short or the long version if you aren't sure
- Most important thing is to **tell a story** leading to why you want to do consulting and **why you are interested and qualified for this specific job**
  - Bonus points if you can also share why you are interested in this **specific company you are interviewing with**
  - The more you share succinctly in these opening minutes, the less questions they will have to ask later on
    - Opens the door for more interesting conversation at the end of the fit interview
- A good “walk me through your resume” pitch can easily set the tone for the rest of the interview
  - Feel free to make occasional lighthearted comments – it can show confidence
- **Practice Practice Practice!** Although you shouldn't memorize most questions before the interview, this is one you should

# **“Walk me Through Your Resume”**

## **“Tell Me About Yourself”**



### **2 Minute Version (Long)**

- Notre Dame Intro (Name, Hometown, Major)
- Can start off with why you chose Notre Dame
- Share how you became interested in consulting and any changes in career interests that you had along the way
- As you share your interest in consulting, provide quick summaries of examples/experiences you had that got you to that point
- Bonus points if you can weave in a specific encounter with the company you are interviewing with
- End with how your experiences and college journey have brought you to this point, interviewing with this specific company for this specific role
  - Be sure to point out that you are really looking forward to the rest of the interview
  - Remark that you're happy to answer any questions they have about your background

### **30 Second Version (Short)**

- Notre Dame Intro (Name, Hometown, Major)
- Quickly summarize why you're interested in consulting and this company/role specifically

# Common Behavioral Questions (1/3)

**This list represents a non-exhaustive sample. Think of it as a good way to practice talking about your stories and experiences.**

- What do you consider to be your greatest accomplishment so far and why?
- Tell me about a time when you had to work with a difficult client or team member. How did you handle the situation?
- Talk to me about how you built credibility in your first job
- Tell me about a time you were part of a team and things did not go smoothly, what did you do? What lessons did you learn?
- Please tell me about a time that you had to deliver difficult news in a professional environment.
- What was your favorite class at ND and why?
- Tell me about a time where you had to make a decision with limited information. What was your approach?
- Tell me about a time where you leveraged data to make a decision.
- Tell me about a time where you had to convince others to see something your way.
- Tell me about a time when you were part of a high performing team. What was your role in achieving success?
- If I talked to your last boss, what is the one best thing they would tell me about you?
- Tell me about a time you had to motivate a teammate to do something he/she didn't want to do.
- Tell me about a time when you went beyond your responsibilities to achieve a goal.
- Tell me about a time you've failed as a leader.
- What would your team tell me about you?

# Common Behavioral Questions (2/3)

- What do you want to get out of a consulting experience?
- Tell me about an ethical dilemma you have faced.
- Did you like your previous job? Why or why not?
- Tell me about a time where you made a mistake. What lessons did you learn?
- What are three words your team would use to describe you?
- Tell me about a time when you failed.
- Share me a time when you faced a difficult situation in a team and how you solved this .
- Describe your most rewarding business school experience.
- How competitive are you? What are the downsides of that?
- What sort of things irritate you and get you the most down?
- Tell me about a recent positive team experience
- How would you describe your learning ability? In what situations do you learn fast or slow?
- Describe the last time you “put your foot in your mouth”
- Name a time when you caved under pressure. How did you recover?
- Describe a time when you disagreed with a superior
- How do you keep up with current events?
- What is the single most important detail in your resume?
- What is the least important detail on your resume?
- Why is the lifestyle of this job right for you?

# Common Behavioral Questions (3/3)



- How would you describe your problem-solving skills?
- Do you consider yourself a more visionary or pragmatic thinker?
- What did you like least about your last job?
- What do you see as the most challenging aspect of this job?
- Tell me about your written communication skills
- What are some of the best and worst decisions you've made in the last year?
- What do you read?
- What is the most important issue facing the industry of your last job?
- What do you do for fun?
- What did you contribute to your last job that made a difference in the organization?
- Outside of school & work, what is your greatest personal accomplishment?
- Tell me about a time you had to adjust a project schedule because you didn't have all the resources you needed?
- Describe a time you had to change your communication style to convince a group of different stakeholders.
- What skills can you bring to this position?
- Give me an example of a business problem your company faced and tell me how you solved it?
- Tell me about a challenge you set for yourself and then accomplished.

# PEI (Personal Experience Interview)



The PEI is McKinsey's behavioral interview which consists of a 15 minute one-question interview focused in a particular experienced. It is given prior to the start of every case. You should not repeat the same story within the same interview round

Types of questions

- A challenge within a certain timeline or group of people
- A problem you overcame with a team (outside conflict) or team member (inside conflict)
- A time you convinced someone of something

Key values to focus on:

- Personal Impact
- Entrepreneurial Drive
- Leadership Abilities
- Problem Solving Skills

Key aspects to look for:

- Defining moments
- Authenticity
- Clear impact
- Clear Lesson learned

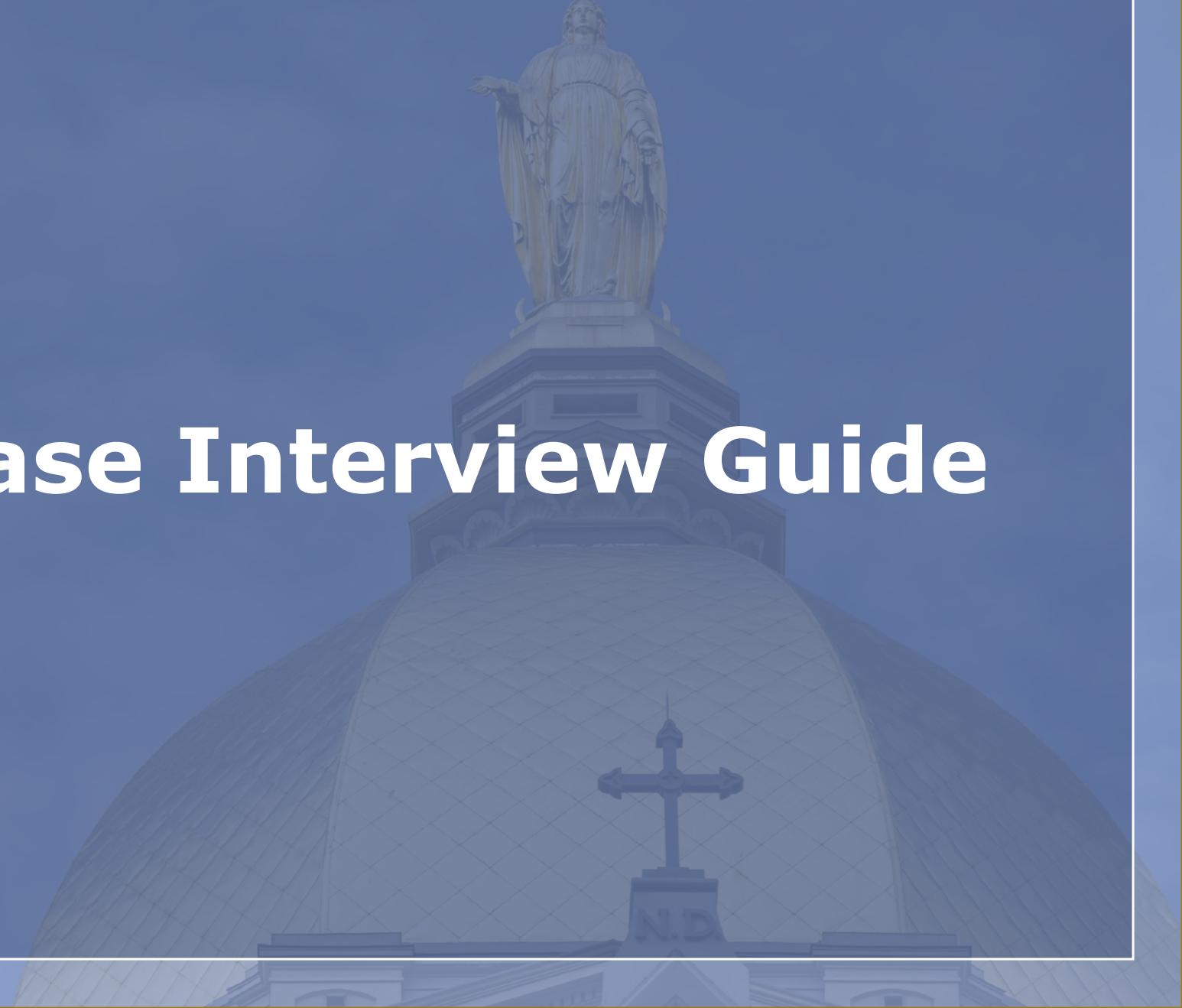
Key questions to ask yourself:

- How did the problem turned out?
- What did I took away?
- What did I learned?
- What is the "so what" of me telling this story

How to think about it:

- Focus on your specific role, e.g. "My impact..."
- Speak in first person, e.g. "I said...", "I did...", "I thought"
- Make it conversational

# Case Interview Guide



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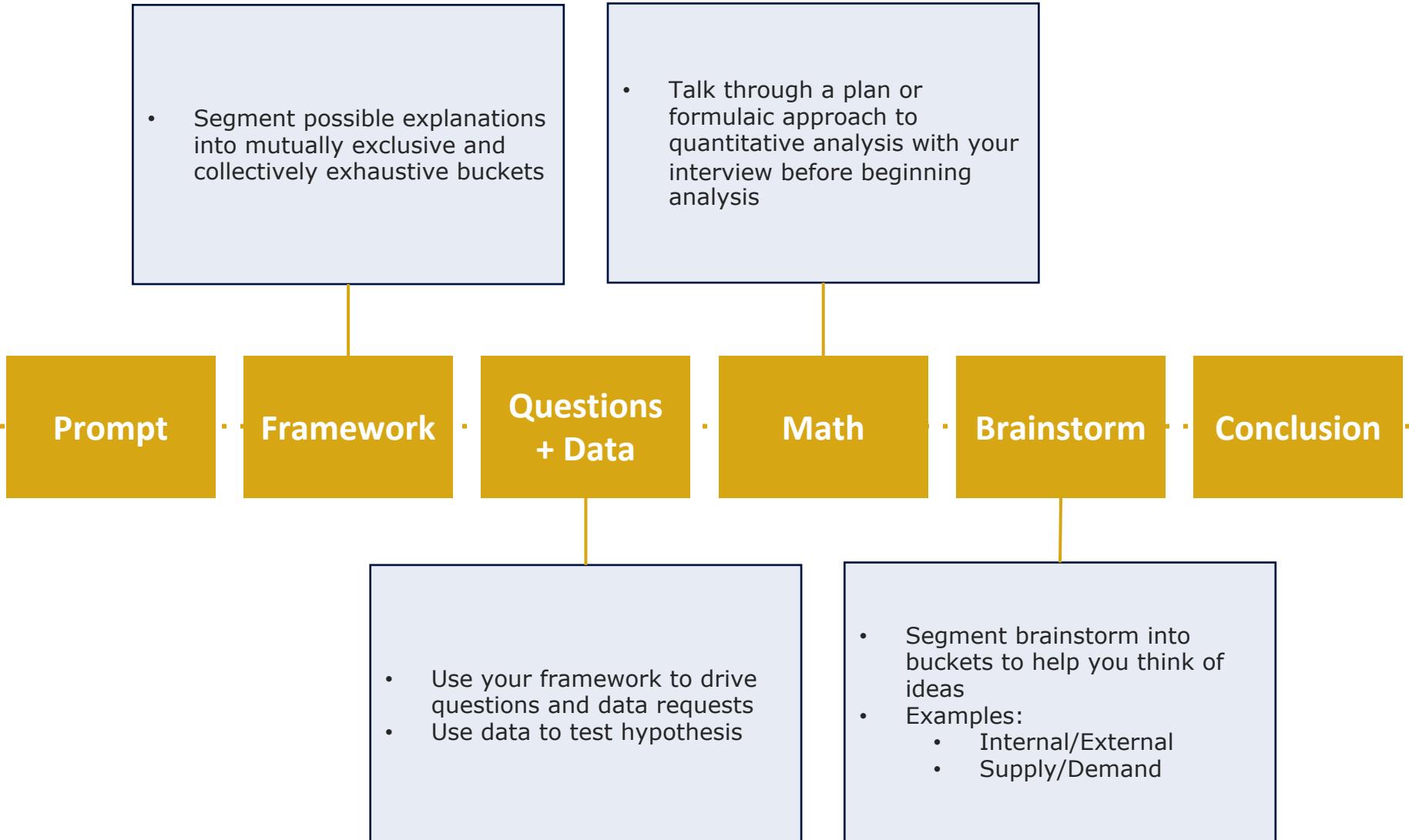
7

How to Approach a Case

8

How to Give a Case

# Structuring Across Case Timeline



# Unstructured Approach



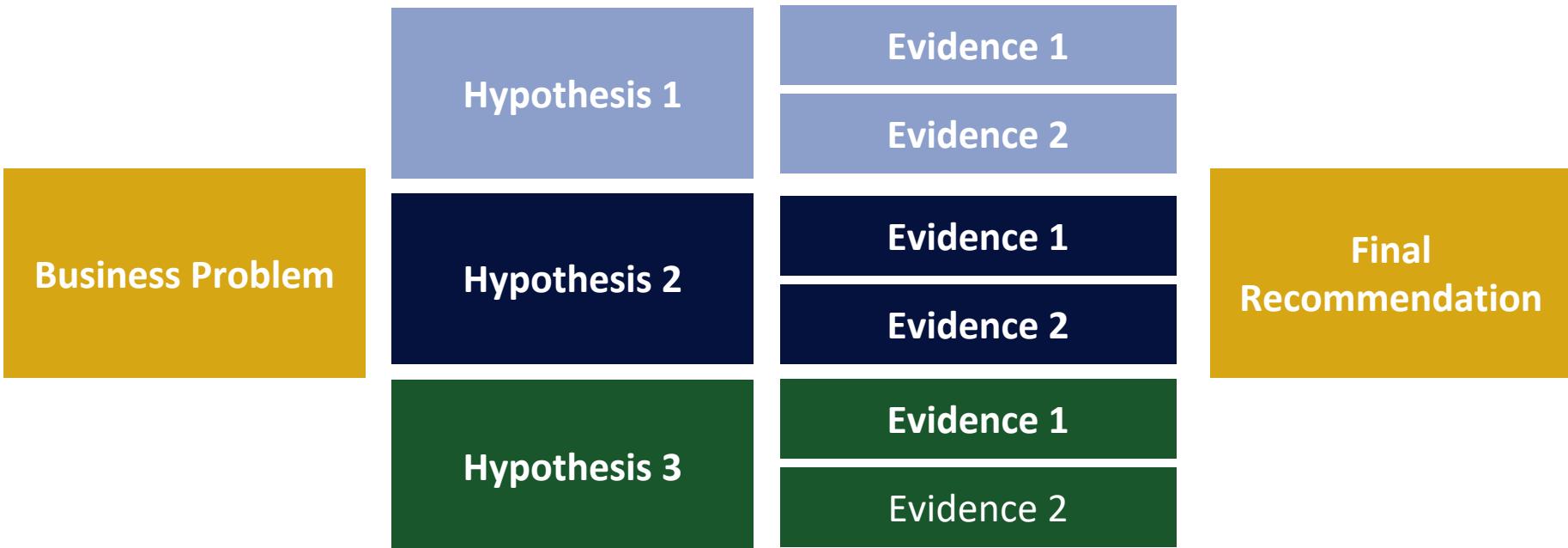
Business Problem

Potential Explanations & Areas to Explore

Final Recommendation

- Unstructured explanations are difficult to parse through. This will make your approach to this case appear disorganized.
- Instead, be systematic in how you proceed through the case.

# Structured Approach



- If you structure possible recommendations to answer the case prompt into hypotheses, you can drive the case to discover evidence that will support and contradict your hypothesis.
- If you reject your hypothesis, you can move on to the next one and test it.
- This method allows you to approach the case efficiently by ruling out potential outcomes until you reach an explanation that makes sense.

# Structured Approach Example



- If you approach the case with this structure, you can ask for information to support or reject each hypothesis.
- If you ask about pricing data, and prices haven't changed, then you know prices aren't driving the decline. Then, move onto the next hypothesis.

# Common Types of Cases

**Case interviews will typically follow similar patterns. As you prepare for your interviews, it will be helpful to recognize what “type” each case is to help form your framework and drive the case forward. Typical case types include:**

**Market Size**

**Growth**

**Profitability**

**M&A**

**Market Entry**

**Unconventional**

# Case Prompt Examples



Case Type	Example Prompt
<b>Market Size</b>	<ul style="list-style-type: none"><li>Beverage Co is interested in the healthy energy drink market but lacks substantial knowledge of the space. How would you estimate the size of the opportunity?</li></ul>
<b>Growth</b>	<ul style="list-style-type: none"><li>Tech Co has approached your firm with an aggressive target of doubling revenue within three years. How would you help them achieve their goal?</li></ul>
<b>Profitability</b>	<ul style="list-style-type: none"><li>Despite growing revenues over the last three years, Manufacturing Co has been struggling with declining profits. How can you help them turn things around?</li></ul>
<b>M&amp;A</b>	<ul style="list-style-type: none"><li>You client, a large CPG company, is considering acquiring a new upstart CPG company. What factors should they consider?</li></ul>
<b>Market Entry</b>	<ul style="list-style-type: none"><li>Food Co has been operating in North America for the last 30 years. They're considering a launch in the European market. Should they do it?</li></ul>
<b>Unconventional</b>	<ul style="list-style-type: none"><li>The city of Dallas has been having a big problem with stray dogs in the city. You have been hired to provide solutions for how to fix the problem while preserving animal welfare.</li></ul>

- Your framework is how you structure your approach to the problem at the beginning of the case. It's a way to segment possible solutions into mutually exclusive and collectively exhaustive components. As you drive the case forward, refer back to your framework to identify potential directions to take the case.
- The following slides show example frameworks. While you will likely see a case where a typical framework is suitable, many firms will intentionally give you cases in which a stock framework is not suitable. When you structure, try to make your framework your own and tailor it to the case as best as possible.

## Characteristics of Great Frameworks

- MECE (Mutually Exclusive, Collectively Exhaustive)
- Detailed but not lost in the weeds
- Includes multiple hypotheses
- Includes

## Framework Myths

- There is one perfect framework for every case
- There is a finite number of possible frameworks that will provide answers to every case
- Frameworks are not that important to the overall interview

# Sample Framework: Profitability



## Revenue

- Price
  - Brand
  - Elasticity
  - Product Mix
- Quantity
  - Distributions & Production Capacity
  - Drivers of change

## Costs

- Fixed
  - Overhead
  - SG&A
  - PP&E
  - R&D
  - Marketing
- Variable
  - COGS
  - Labor

## Market

- Trends
- Competition
- Consumers
  - Segments
  - Needs / Gaps
- Regulation

# Sample Framework: Business Situation

## Customer

- Customer segments
- Needs & Wants
- Pricing
- Distribution channel preferences
- Customer concentration and bargaining power

## Company

- Capabilities and expertise
- Distribution channels
- Cost structure (fixed v. variable)
- Investment cost
- Intangibles (brand and brand loyalty)
- Financial situation

## Product

- Nature of Product (why someone would buy it)
- Commodity good or differentiated?
- Any complementary goods?
- Substitute goods
- Product's life cycle
- Packaging and bundles

## Competition

- Competitor concentration & structure
- Competitor behavior (target customer segments, pricing, distribution channels, brand loyalty)
- Barriers to entry
- Supplier concentration & bargaining power
- Industry regulation
- Life-cycle of industry

# Useful Case Facts (Benchmark Figures)

## U.S. Based

### Keep in mind all figures can be rounded

- U.S. Population: 330M
- Average GDP Growth/Year: 2%
- NYC Population: 8.4M
- LA Population: 4M
- Chicago Population: 2.7M
- Life Expectancy: 80 Years
- Median Household Income: \$68,000
- 2020 GDP: \$20.5T
- Corporate Tax Rate: 21%
- Smartphone Penetration Rate: 80%
- Percent with Bachelor's Degree: 36%
- Percent Married Adults: 48%
- Percent Under 18: 24%
- Percent Over 65: 16.5%
- Days/Year: 365 Days (350 simplified)
- Days/3 Years: 1000 D
- Weeks/Year: 50 Weeks
- Hours/Week: 168 Hours
- Seconds/Hour: 3600 Seconds
- Know Fraction Percent and decimal equivalents 1/4<sup>th</sup> up to 1/20<sup>th</sup>

## Global

### Keep in mind all figures can be rounded

- World Population: 7.7B
- Asia Population: 4.4B
- Africa Pop: 1.3B
- Latin America Population: 626M
- China Population: 1.4B
- India Population: 1.3B
- Europe Population: 740M
- Brazil Pop: 210M | Russia Pop: 145M
- Japan Pop: 130M | Mexico Pop: 128M
- Germany Pop: 83M | UK Pop: 67M
- World Life Expectancy: 71 Years
- Japan Life Expectancy: 84 Years
- 2020 World GDP: \$85.8T
- China GDP: \$15T
- India GDP: \$3T
- Japan GDP: \$5.8T
- Africa GDP: \$2.6T
- Germany GDP: \$4.5T
- U.K. GDP: \$2.8T
- Mexico GDP: \$1.2T
- Smartphone Penetration Rate: 45%

# Useful Formulas

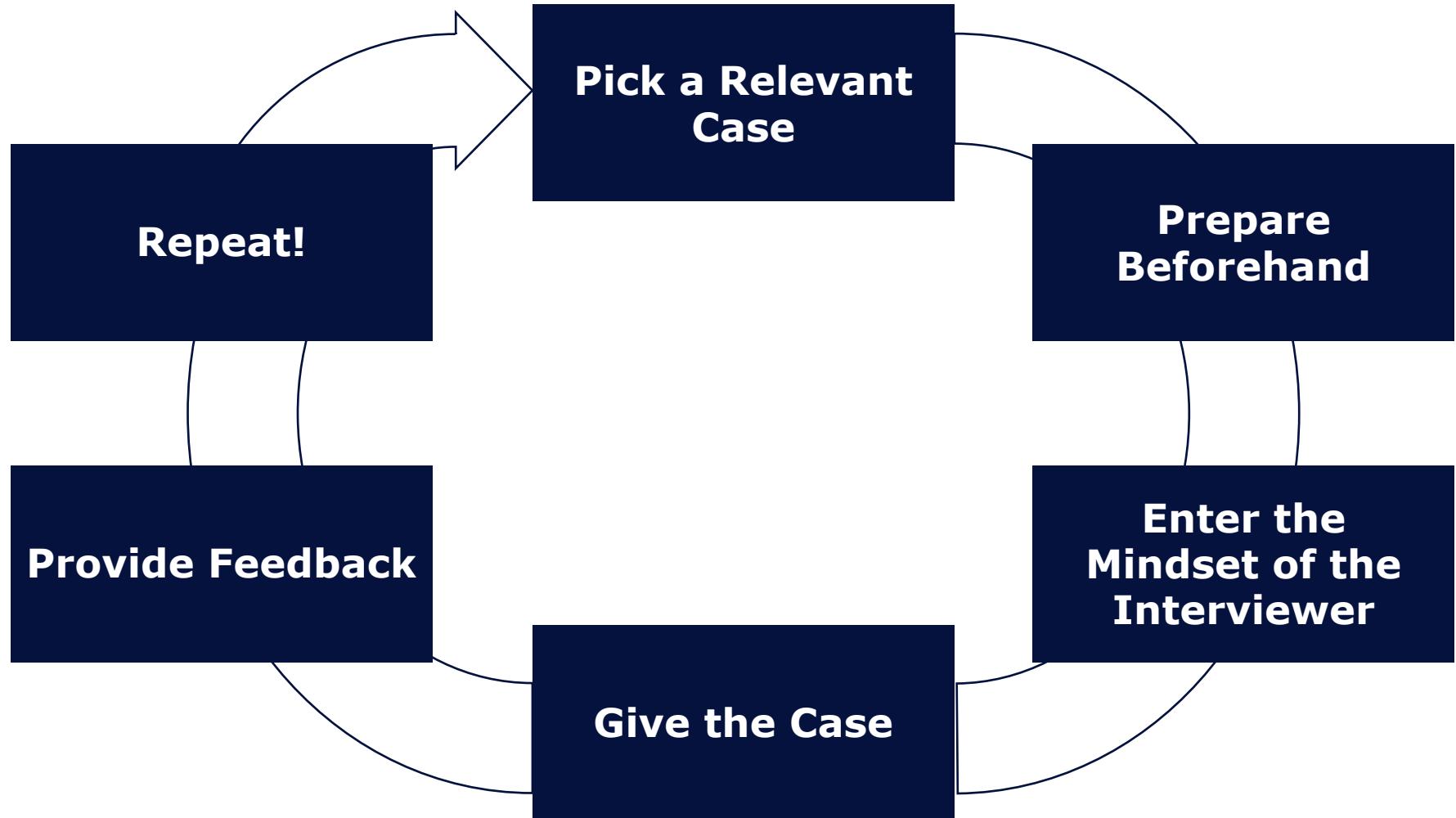
Useful Formulas	Example Prompt
<b>Profit</b>	REVENUE - COST
<b>Profit Margin</b>	$\frac{\text{REVENUE} - \text{COST}}{\text{REVENUE}}$
<b>Gross Profit Margin</b>	$\frac{\text{SALES} - \text{COST OF GOODS SOLD}}{\text{SALES}} = \frac{\text{PROFIT}}{\text{SALES}}$
<b>Return on Investment (ROI)</b>	$\frac{\text{GAIN FROM INVESTMENT} - \text{COST INVESTMENT}}{\text{COST OF INVESTMENT}}$
<b>Time for Investment to Double</b>	$\frac{72}{\text{RATE OF RETURN}}$
<b>Market Share</b>	$\frac{\text{COMPANY'S REVENUE}}{\text{ENTIRE MARKET'S REVENUE}}$
<b>Breakeven</b>	$\frac{\text{FIXED COST}}{\text{PRICE} - \text{VARIABLE COST}}$

# Useful Concepts

Sample Concepts	Example Prompt
<b>Breakeven</b>	<ul style="list-style-type: none"><li>Point of balance where the company is making neither profit nor loss—cost of production equal revenues</li></ul>
<b>Synergies</b>	<ul style="list-style-type: none"><li>The value and performance of two companies will be greater than the sum of each separately.</li><li>Common for Mergers &amp; Acquisitions (M&amp;A)</li></ul>
<b>Competitive Analysis: 3Cs</b>	<ul style="list-style-type: none"><li>Company, Customer, Competition</li></ul>
<b>Marketing Strategy: 4Ps</b>	<ul style="list-style-type: none"><li>Product, Price, Place, Promotion</li></ul>

# How to Give a Case Interview

## Overview



# How to Give a Case Interview



## Pick a Relevant Case

- Know who you're casing and how much casing experience they have
- Discern whether they're looking for a general case or for a specific firm case (MBB, Big 4, Boutique), specific practice area case (strategy, tech, healthcare), and/or specific interview style case (interviewer-led vs. interviewee-led)
- Choose from the ND Repository, from a sample company's available case practice, or from another school's book if you find a good case

## Prepare Beforehand

- Read through the case in its entirety (more than once if necessary)
- Play out the case in your mind and how it will go
- Take time to understand the quantitative component and any calculated values
- Understand all subsections of the case that must be covered on a high level before concluding

## Enter the Mindset of the Interviewer

- Maintain eye contact and an engaged tone
- Be evaluative of candidates performance in the way an interviewer would instead of a peer
- Take notes throughout the case while the candidate works through questions
- As a general rule of thumb, you should be talking less than the candidate

# How to Give a Case Interview



## Give the Case

### General Rules

1. Allow adequate time for structuring
2. Don't give the person you're interviewing the answer right away – reveal case data gradually
3. If a candidate is struggling with the quantitative portion, first attempt to guide them in the right direction, and if they remain lost, simply move forward with the case
4. Always save some time for final conclusion

### For Interviewer-led Cases:

- Wait for candidates to give hypotheses throughout the case, but ultimately you drive the case from question to question in a timely manner
- Try to jump naturally between questions but feel free to pivot sharply if case is getting away from the end goal

### For Interviewee-led Cases:

- The candidate must be the one to drive the case and its direction!
- After giving the initial prompt, you mostly speak when spoken to (if you are asked a question, to verify information, or for specific additional data) unless the candidate becomes truly lost

## Provide Feedback

- Provide both positives and critiques of the candidate's performance. Giving only critiques can be discouraging, while giving only positives isn't helpful for a candidate trying to improve his or her ability
- Be nitpicky, even if it seems annoying! The little callouts go a long way

## Repeat!

- Repeat the case giving process several times to develop a handful of cases that you feel comfortable with and enjoy giving

Giving a case for the first time is always awkward! Just keep practicing with others and you'll quickly become more comfortable

# How to Approach a Case



- 1. Relax!** One of the most important things in any case interview is to show comfortability with the case material. Make sure to pace yourself during the case and take deep breaths
- 2. Ask Questions from the Start.** Every case will involve you asking questions to unlock new relevant pieces of information, some more than others. A critical time for asking questions is right after the prompt is given.
- 3. Engage your Interviewer.** The last thing you want to do is act like the case is purely a test instead of a conversation. It's just as important to many interviewees for candidates to be conversational during the case as it is to solve the case. Don't overlook this hidden fit component of case interviews
- 4. Structure, Structure, Structure.** Be sure to review all relevant frameworks and structures provided in this repository and look to apply what you think is the structure of best fit to your case. However, also make sure to tailor each structure that you do use to your specific case! Cookie cutter frameworks can be boring to interviewers.

# How to Approach a Case



**5. Recognize Case Archetypes.** There really are only a handful of cases that you can get. They include **entering a new market, developing a new product, acquiring a company, pricing strategies, growth strategies, starting a new business, and increasing profitability.** This goes hand in hand with structuring -- once you recognize a case archetype, you can pick a relevant structure for that type of case

**6. Practice Your Numbers.** In pretty much every case, you will be asked to do mental math in front of your interviewer. This can be a pretty daunting task, but with a few tips and tricks you can conquer the challenge. [This video pretty accurately sums up various mental math techniques to employ.](#) Once you learn the techniques, practice practice practice! Lastly, make sure to talk your interviewer through your calculations as you do them -- this is vital to keep communication flowing

**7. Don't be Afraid to Ask for Time.** Undoubtedly there will come a time in the case where you just need a few seconds, even a minute, to think about a problem, brainstorm, or do mental math. That's ok! Just remember to ask your interviewer if you can have that time instead of immediately going mute.

**8. Keep up with Industries.** This point, while less important, can still be good for gaining background knowledge. Subscribe to some morning newsletters (highly recommend Morning Brew) and pick up little things here and there.

# Case Etiquette

## OPENING

- 1. Stall!** When starting a case, give yourself time to think your approach while showing excitement! Smile, show enthusiasm.
- 2. Playback!** Ask if you can playback the information to make sure you have everything correctly
- 3. Make one or two important questions.** If necessary, ask if you can make a few general questions (e.g. What's the goal? Is there a time frame? Geography?) Make sure to make them broad questions, don't dive deep yet!

## STRUCTURING

- 1. Ask for a moment to organize your thoughts!** Write your framework on your paper
- 2. "I came up with # areas"** Walk your interviewer through your ideas in an organized way. Remember, be MECE, measurable, and add personal experience to personalize.
- 3. Try finishing up with a hypothesis of where you would start exploring!**

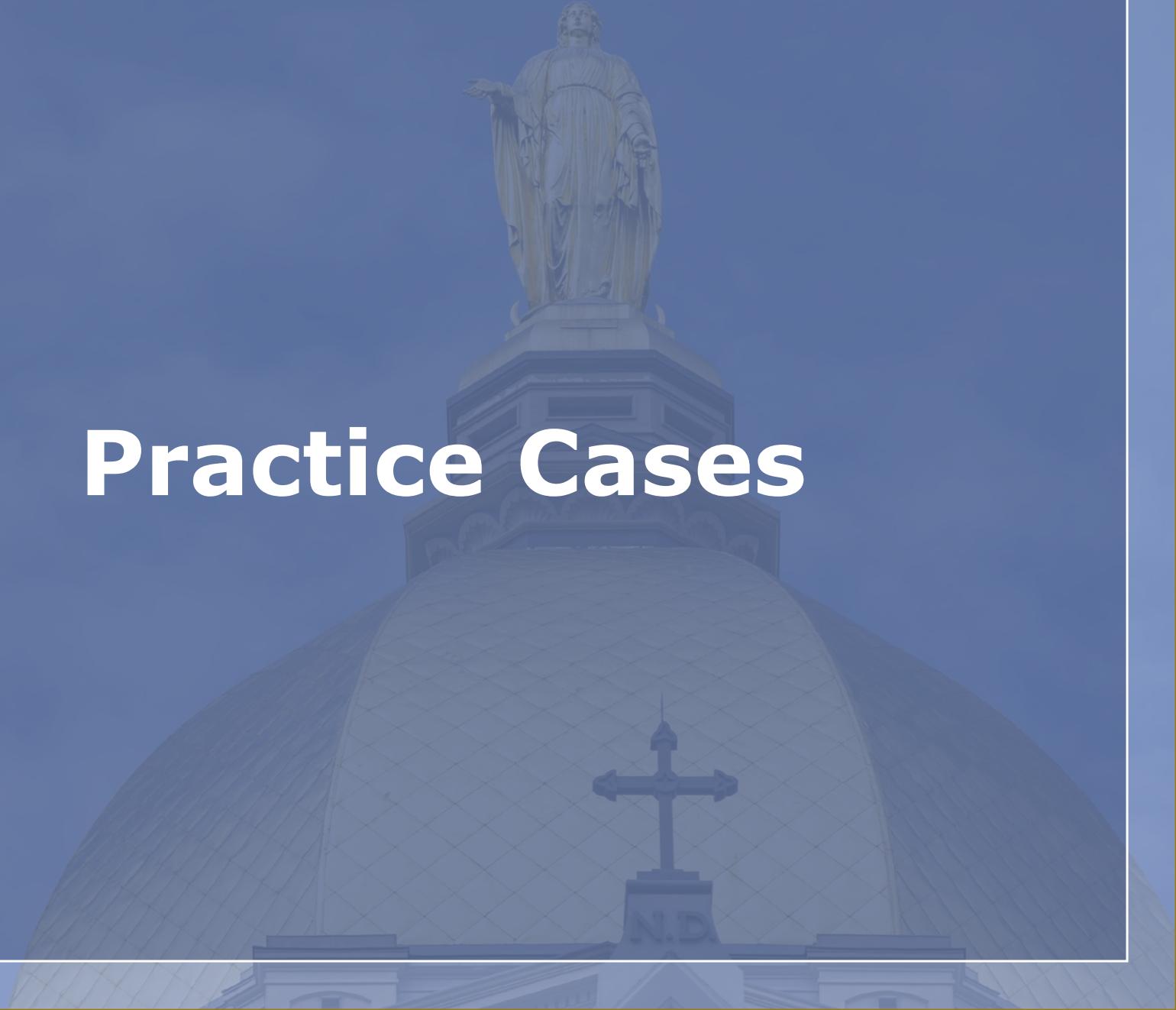
## DATA

- 1. You can ask for a few seconds if you need them!**
- 2. Interpret the data.** Read outloud what you are seeing (graphs, tables, etc). Make sure you understand them. Make sure to check the units (dollars or euros? lbs or kilos?)
- 3. Most of the time, something is missing! Ask for it**
- 4. Walk your interviewer through your math!**
5. Got an answer? What is its "**So What?**." Explain what does it mean, what do you think, what is what you initially expected?.

## CLOSING

1. Keep the initial information and goal in mind. **Give a recommendation!** Give 3 reasons why, make them measurable. Add next steps or possible risks you would dig into if you had more time!

# Practice Cases



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# **Interviewer-led: Easy**

# **Town Mayor**

**Round 1 | Easy | Financial Services**

# Town Mayor

## Round 1 | Easy | Financial Services

### Prompt:

The client has just been elected to be the Mayor of a town of 500,000 people in the United States. The town has experienced some hard economic times and there has been a slight decline in the population. The Mayor's election platform was centered on a message of economic revival with a plan to be launched in the first 100-days. The Mayor has hired you to help develop the plan.

### Question 1: What could've caused the population/economic decrease?

# Sample Response Framework

## Location

- Geography
- Taxes
- History
- Infrastructure
- Surrounding cities

## Industry

- Major industries? Expanding or declining
- Wages
- Skill level

## Government Role

- Involvement of government in the economy
- Tax incentives or infrastructure support
- Time before reelection

## Population

- Birth rates?
- Migration
  - Natural disasters
  - Unemployment
  - Violence
  - Close cities with better opportunities

# Question2 Interviewer Guidance



**Question for Interviewee; Unemployment is currently 8% and the Mayor would like to increase the population by 5% and decrease unemployment to 5%. How many new companies will they need?**

- **Information upon request:**
  - 60% of the population is in the labor force
  - Each company provides 500 jobs on average
- **Current state of town:**
  - Population: 500,000
  - %Eligible to Work: 60%
  - Possible Workers: 300,000
  - Current Unemployment: 8%
- **Current Goal:**
  - Employed 276,000
    - $300,000 * 1.05 * .95 = 299,250$
  - Unemployed 24,000
    - $300,000 * 1.05 * .05 = 15,750$

This required creating 23,250 new jobs

At 500 jobs per company, this is ~50 new companies/plants

# Question 2-3 Interviewer Guidance



## **Question for Interviewee: What could be done to get the ~50 companies/plants?**

- Current companies could expand locally
- Offer to build roads to and from the plants
- Tax incentives
- Lobby other governors of “at-capacity” cities to suggest your city
- Lobby federal government for more federal jobs
- Active marketing of the city as a destination spot

## **Question for Interviewee: The state is looking to build a new university and is considering this city. Is that a good thing? Should the Mayor support this?**

- Towns population age
- Geographic location
- Funding? Cities role in it?
- Time frame (Progress before next election?)
- Demand?

# Wrap Up: Interviewer Guide



## **Sample Summary:**

The town mayor has his work cut out for him to please the demands of his citizens. At the current goals of 5% population growth and 5% unemployment, 50 new companies will be needed. Perhaps the mayor could target unemployment first, which might prompt organic population growth. So far, we have looked at building a university, but I would like to explore further options as well.

# **Fantastic Water**

**Oliver Wyman | Round 1 | Easy | Retail**

# Fantastic Water



Oliver Wyman | Round 1 | Retail | Medium

## Prompt: INTERVIEWER-LED

Your friend is thinking about starting a flavored water company called Fantastic Water. This water would be clear and not carbonated (so a bit different from Gatorade or La Croix). She has asked you to figure out if she should start Fantastic Water or not.

## Clarifying Information (Only Provide if Asked):

- **Where will this be sold?** She thinks she will sell it mainly at grocery stores.
- **How would the product be packaged?** Single portion sizes, not liter bottles

# Sample Response Framework

## Initial investment

- Cost to start this company?
- Equipment?
- Can she rent the equipment or will she enter long-term contracts or purchase equipment?
- Does she have the cash she needs to make this initial investment?

## Ongoing profitability

- Pricing the product?
- Quantity expected to sell?
- Costs associated with this product?
- Scale needed to produce for the product to be profitable?

## Personal Factors

- What else is she doing right now?
- Does she want to devote a lot of time to this company?
- Does she have the relationships she needs to get production started?
- Opportunity cost of founding this company?

## Competition

- Demand compared to other products on the market?
- Available channels to purchase product?
- Trends in the space? Is demand increasing or decreasing?
- Few main players or lots of little players?
- New products in this space recently?

# Exhibit 1 Interviewer Guidance



## Question for Interviewee:

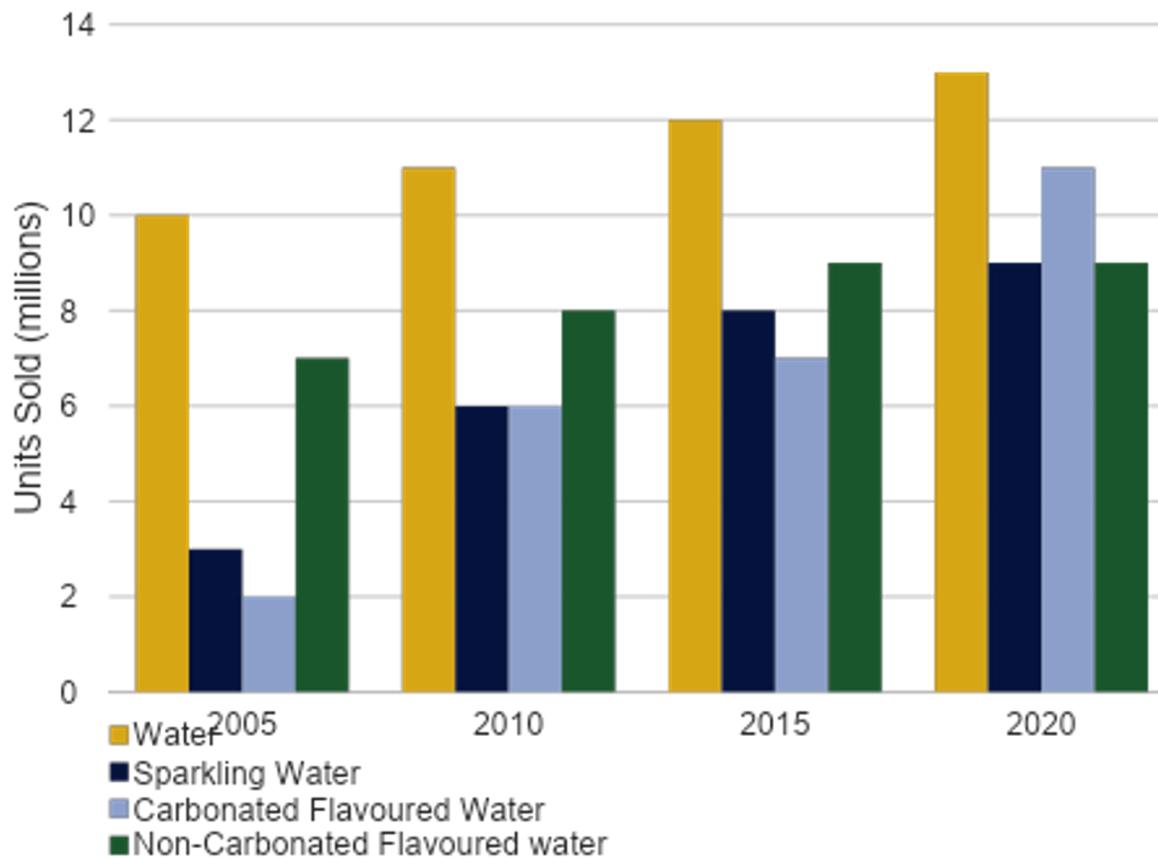
Your friend found some data on water sales in the market she's planning on selling her product in. What does this data tell you?

## Sample Answer:

- Demand for water in the target market has been growing overall.
- Focus should be on the non-carbonated flavored water space. That market seems to be growing very slowly compared to other areas of the water market (such as carbonated flavored water and sparkling water).
- Would want to see if recent market entrants have been able to enter it or if existing players have been getting most of the little growth there is in this market.
- Could also look at expected future trends to see if the market should grow rapidly in the next few years

# Exhibit 1

## Water in Target Market



# Question 3 Interviewer Guide



## Question 3:

The market is expected to grow by 250,000 units next year and will then remain constant for several years. Fantastic Water can sell each product for \$3, and each unit will cost \$2.25 to produce. What percentage of the growth in the market (i.e. of the 250,000) does Fantastic Water need to break even in the first two years?

## Information to be given upon request:

- **Are there any initial costs for the investment?** It will cost \$50,000 of one-time cost to get the business started.
- **Is there any overhead cost?** There will be \$30,000 of overhead cost each year for the first two years at least.

## Sample Answer:

$$2[X \text{ quantity} * (\$3 \text{ revenue} - \$2.25 \text{ cost}) - \$30,000 \text{ overhead}] - \$50,000 \text{ one-time cost} = \$0$$

$$1.5x - 110,000 = 0$$

$$X = \text{about } 73,000 \text{ units}$$

$$73,000 \text{ units} / 250,000 \text{ market growth} = \text{about } 30\%$$

- Each year for the first two years, Fantastic Water will need to sell 73,000 units of its product.
- In total over the two years, it will need to sell 146,000 units
- It will need to capture 30% of the new market growth for the first two years

The strongest candidates will give some meaning to this number. If the founder HAS to at least break even in the first two years, needing 30% of the market growth might be aggressive if the market is made of much more established players.

# Question 4 Interviewer Guide



## Question 4:

What would be some ways to make sure Fantastic Water gets the right market share?

## Sample Answer:

### ***Distribution***

- Is it in the right stores?
- Could it be placed in a better spot in the store?
- Is it also available online? Will customers want that?

### ***Pricing***

- Is the product priced correctly?
- Would there be ways to offer discounts to entice first-time customers?

### ***Marketing***

- Could we do an advertising campaign?
- Do we have social media accounts?
- Are you using targeted advertising to the right people?

### ***Partnerships***

- Could you partner with a local event or company to get more sales?
- Could you get endorsements from key people in the market?

# Wrap Up: Interviewer Guide



What would you tell your friend to do about Fantastic Water?

## **Recommendation Sample Answer:**

- We were asked to evaluate whether Fantastic Water would be a good idea in the target market. Based on the information presented, I think it might be difficult to enter the market, but the founder could go ahead with it if she is passionate about the idea and thinks she could disrupt the market.
- The market may not be a desirable one to enter since it does not appear to be growing very quickly over recent years.
- We would also need to capture about 30% of this new market growth to break even in the next two years.
- We came up with a few ideas for how to ensure the product gets proper market share.
- For next steps, we could explore some of those ideas a bit more. I would also want to look at data on the market players to see how feasible it would be for us to capture the necessary market share. Based on the information we learn from this, I might revise my recommendation on whether she should start Fantastic Water.

# DigiBooks Inc.

Mckinsey| Round 1 | Easy | Tech/Telecom

# DigiBooks Inc.

McKinsey | Round 1 | Tech/Telecom | Easy

## Prompt:

Our client, DigiBooks, is a manufacturer and seller of electronic book readers (tablets). DigiBooks also distributes e-books for the tablets through their website. The tablet is only compatible with books sold through the DigiBooks site. DigiBooks is planning the launch of its tablets in a country where no electronic book readers are currently sold. Only 1% of the population has ever used an electronic book reader, though 50% is aware of the concept. The Chief Marketing Officer of DigiBooks has come to you to help determine: "How should DigiBooks launch and market DigiBook tablets in this new country?"

## Clarifying Information (Only Provide if Asked):

- **Industry Definitions:** Electronic book readers refers to a software, hardware and network platform that utilized wireless connectivity to enable users to shop for, download, browse, and read e-books, newspapers, magazines, blogs, and other digital media
- **Client Characteristics:** DigiBook's Tablets use an e-link electronic paper display that features 16 shades of grey. This allows for a 12 hour long battery and easy readability. DigiBook has never sold a product outside of the U.S.
- **Competitive Dynamics:** No competitors in the e-book or tablet space plan to enter this country<sup>3</sup>
- **Market Characteristics:** Total population of the country 76MM, high literacy level

# Sample Response Framework

## Customer

- Customer segments
- Needs & Wants
- Pricing
- Distribution channel preferences
- Customer concentration and bargaining power

## Company

- Capabilities and expertise
- Distribution channels
- Cost structure (fixed v. variable)
- Investment cost
- Intangibles (brand and brand loyalty)
- Financial situation

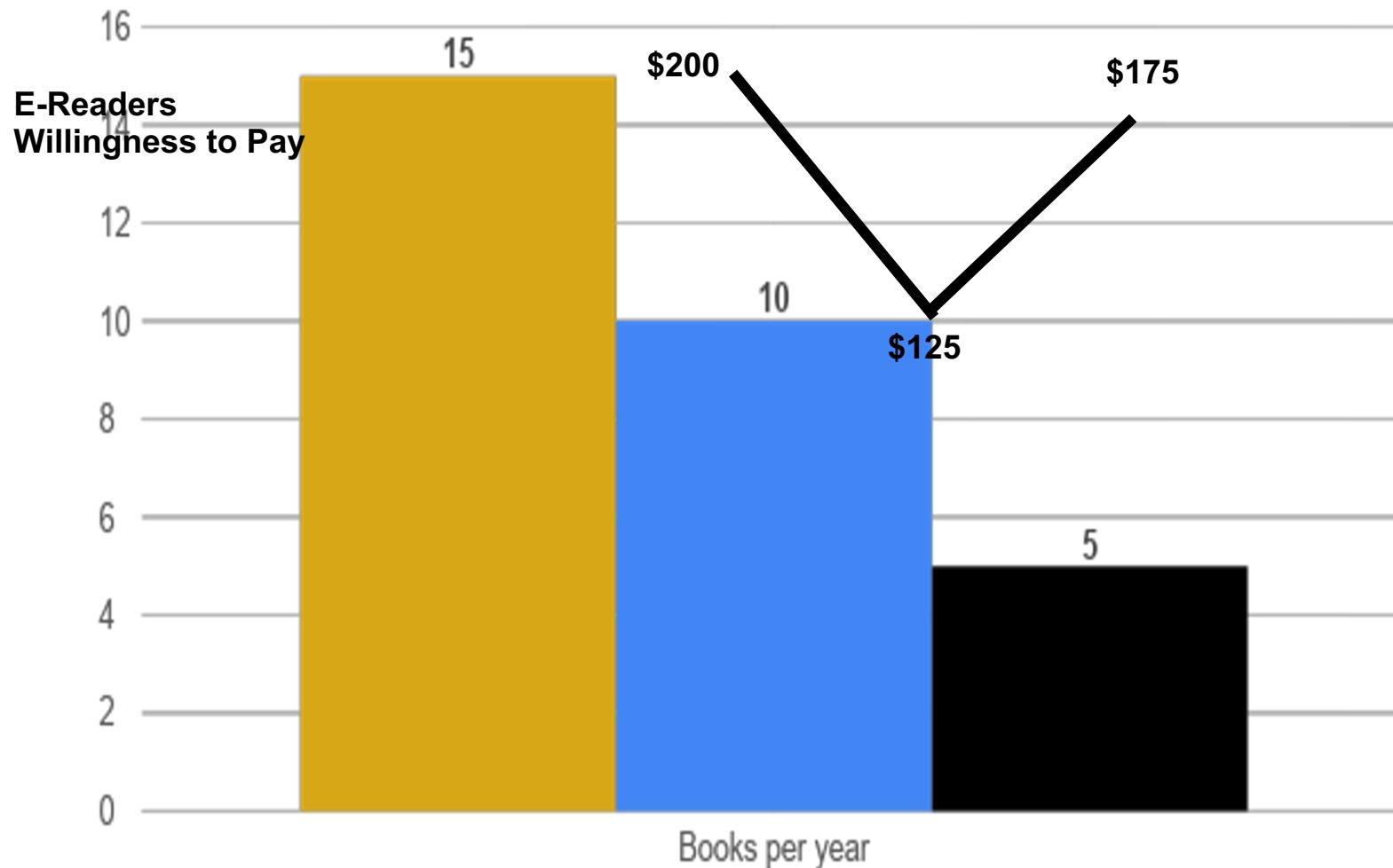
## Product

- Nature of Product (why someone would buy it)
- Commodity good or differentiated?
- Any complementary goods?
- Substitute goods
- Product's life cycle
- Packaging and bundles

## Competition

- Competitor concentration & structure
- Competitor behavior (target customer segments, pricing, distribution channels, brand loyalty)
- Barriers to entry
- Supplier concentration & bargaining power
- Industry regulation
- Life-cycle of industry

# Exhibit 1: Market Segments



# Exhibit 1 Interviewer Guidance



**Question for Interviewee: Through research, we found several segments (Hand out Exhibit1). We are only able to target one segment with our product.  
Using a 3-year projection, which segment should DigiBook target?**

- If unclear, the interviewee should answer based on Revenue Potential (i.e. ignore probability of purchase) assuming all tablet sales happen immediately (ignore TVM).
- **Missing Data:** Average price of an e-book is \$10, for each of the segments. E-book and tablets have the same margin.

## Sample Calculation:

- SR Revenue =  $[(15 \text{ books} \times \$10 \times 3 \text{ years}) + (\$200 \times 1 \text{ tablet})] \times 8 \text{ M People} = \$5.2B$
- OR Revenue =  $[(10 \text{ books} \times \$10 \times 3 \text{ years}) + (\$125 \times 1 \text{ tablet})] \times 20 \text{ M People} = \$8.5B$
- RR Revenue =  $[(5 \text{ books} \times \$10 \times 3 \text{ years}) + (\$175 \times 1 \text{ tablet})] \times 10 \text{ M People} = \$3.25B$
- **ANSWER: Segment to be targeted = occasional readers (OR) with Revenue potential of \$8.5B**

# Question Interviewer Guidance



**Question for Interviewee:** DigiBooks is now considering how it should sell its e-books readers: through retail stores or through the internet.  
**How would you go about evaluating this decision?**

## Retail Channel Sample Responses:

- CONS:
  - Lower margin due to value chain expansion
  - Will take time and money to set up, adding training costs
- PROS:
  - Should encourage Trial of the product
  - Retailers can help with joint marketing campaigns
  - Retailers can help with customer service, returns

## Internet Channel Sample Responses:

- PROS: Likely cheaper to establish, will result in higher margins
- CONS: Harder to encourage trial

# Exhibit 2: Channel decisions

Channel	Percent of Total potential market	E-book Gross Margin%	E-reader Gross Margin%	Penetration	Initial Investment
<b>Retail</b>	50%	50%	30%	40%	\$20M
<b>Internet</b>	50%	50%	60%	10%	\$10M

# Exhibit 2 Interviewer Guidance



**Question for Interviewee: Based on revised market estimates, we decided to price the e-reader at \$100 and target the Occasional Reader segment.**

Using this information and Exhibit 2, **can you estimate the profit potential of each of these sales channels? Which should we choose?**

**What segment would you recommend to your client?**

The interviewer should answer this with a 1-year Gross Profitability calculation for each of the Sales Channels and back out the Upfront Investment. They should ignore all other costs such as SG&A.

**There is no missing data, however, the Market Size (20 M people) in the OR segment from Exhibit 1 and the price per e-book (\$10) is needed.**

**Sample Calculation:**

- Retail Profit = [(10 Books x \$10/book x 50%GM) + (\$100/tablet x 30%GM)] x (10 M People x 40%Penetration) = \$320M - \$20M = \$300 M
- Internet Profit = [(10 Books x \$10/book x 50%GM) + (\$100/tablet x 60%GM)] x (10M People x 10%Penetration) = \$110M - \$10M = \$100M

**ANSWER: Sales Channel to Use = Retail with a profit of \$300 M**

# Wrap Up: Interviewer Guide



## **Solution & Recommendation:**

Ask the interviewee to wrap up the case. The candidate's answer should include the segment for which DigiBooks should launch the e-books (Occasional Reader) and the through which channel (Retail Sales).

A good candidate will include quantitative data such as the expected earn \$300MM return on initial investment of \$20MM.

## **To consider::**

A great candidate should include further steps such as to consider what advertising mechanisms they could use? If the company should set up manufacturing facilities in the country or source the products from our current manufacturing facilities? Are there prospects of competitors entering the market?

## **Bonus:**

An even better interviewee notices key nuances in the case such as: Time Value of Money impacts on Exhibit 1 and Probability of Purchase or Penetration.

An excellent interviewee will detail various elements of marketing strategy of a new product launch.

# **Food Bank**

**McKinsey| Round 2 | Easy/Medium |  
Social Sector**

## McKinsey | Round 2 | Easy/Medium| Social Sector

### **Prompt: INTERVIEWER-LED**

Our client is a food bank in a major metropolitan area. The food bank has seen a decrease in donations recently and is worried about having enough food to meet their commitments to food pantries and other hunger-relief organizations in the area. They have hired your firm to help them with this problem.

### **Clarifying Information (Only Provide if Asked):**

- **What is a food bank?** A nonprofit that collects and distributes food to different charities that deal with relieving hunger. They often give their food to food pantries where people can go to get food for free.
- **Where does the food bank get its donations?** Mainly companies in the food industry (Restaurants & Grocery stores). It also receives money from individuals and non-food companies and can use those funds to buy food.
- **Do individuals and non-food companies also donate food? (e.g. through a can drive?)** Companies outside the food industry and individuals only give money. Companies in the food industry only give food .

# Sample Response Framework



## Question 1:

What factors would you consider when diagnosing this problem?

### Food Bank Factors

- Breakdown of where the donations come from in terms of food donations and money
- Has there been a decrease in perception of the food bank?
- Decrease in advertising?
- Decrease in outreach to food companies?

### Industry Factors

- Are local food banks in the region or across the country experiencing a similar problem?
- Is this “industry” no longer top of mind for charitable giving?
- Has perception of the industry decreased?
- Have food companies had an increase in demand from their customers?
- Have food companies seen a decrease in production?

### Macro Factors

- Are donations across nonprofits down?
- Is the economy in a recession?
- Are people not donating as much generally?
- Are people spending more money on themselves or saving it more?
- Are there political policy changes that have made charitable giving less desirable?

# Question 2 Interviewer Guide



## Question 2:

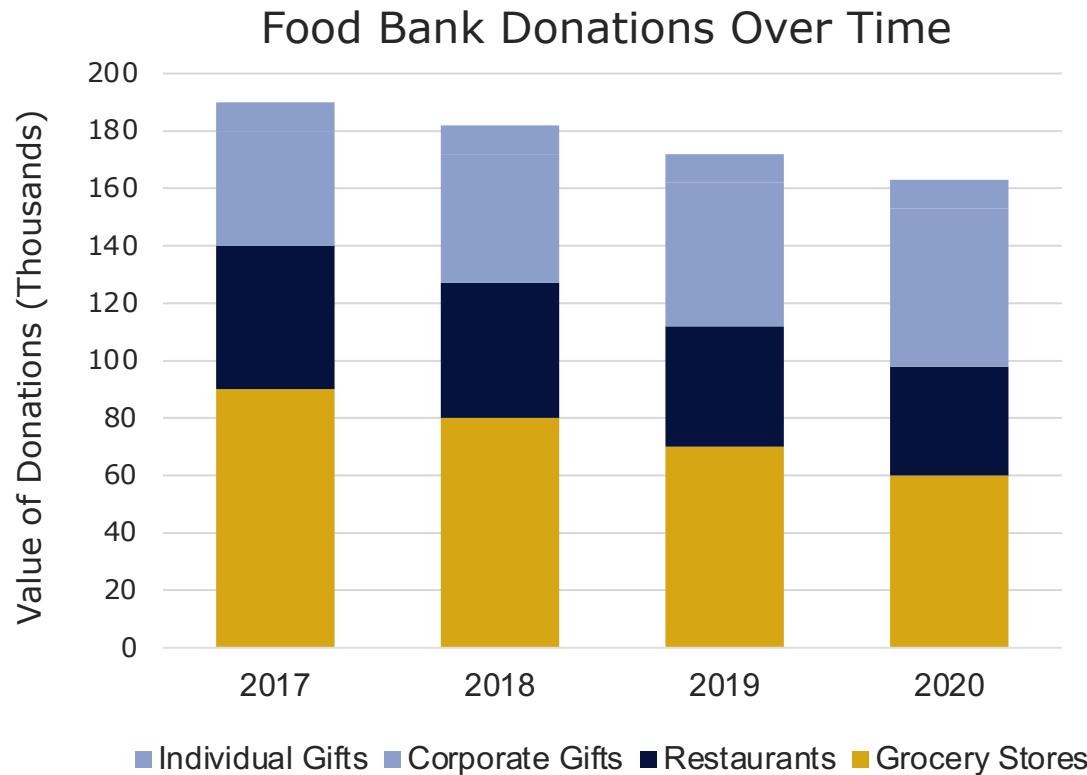
The food bank receives donations of food and money. Food typically comes from companies in the food industry who donate it for free. Money comes from companies outside the industry or from individuals, and the food bank can use it to purchase food **at a discounted price** from food companies.

We have a chart of the value of the donations the food bank has received over the past few years from several sources. What can you tell us from this information?

## Sample Answer:

- Donations have been decreasing over time as was stated before.
- Individual gifts have been staying constant.
- Corporate gifts have been increasing slightly.
- Donations from restaurants have been decreasing slightly.
- Donations from grocery stores have been decreasing the most.
- *Overall, donations have been decreasing. While donations from individuals have been increasing, it is not enough to make up for the decrease in food donations from grocery stores and food distributors*

# Exhibit 1



# Question 3 Interviewer Guide



## Question 3:

As you have identified, the decrease in donations appears to come from the donations from companies in the food industry. What do you think could be some causes for this?

## Sample Answer:

- It is too expensive for the food companies to donate. Perhaps it is much cheaper for them to throw the food away than to give it to the food bank.
- Food companies are giving their excess food to someone else.
- Management does not see the importance of donating to food banks anymore.
- Food companies have seen an increase in demand for their food. They no longer are able to give as much of their surplus since it is being bought.
- Food companies have developed much better systems over the years so they can better estimate their demand. They do not have as much food to give away since they purchase more accurate quantities to what they sell.
- Food companies have not been able to get as much food from their suppliers as a result of macro trends in the agriculture or food production industry.
- Food companies usually donate damaged food and there have been innovations in shipping and manufacturing over the years so that less food is damaged

# Question 4 Interviewer Guide



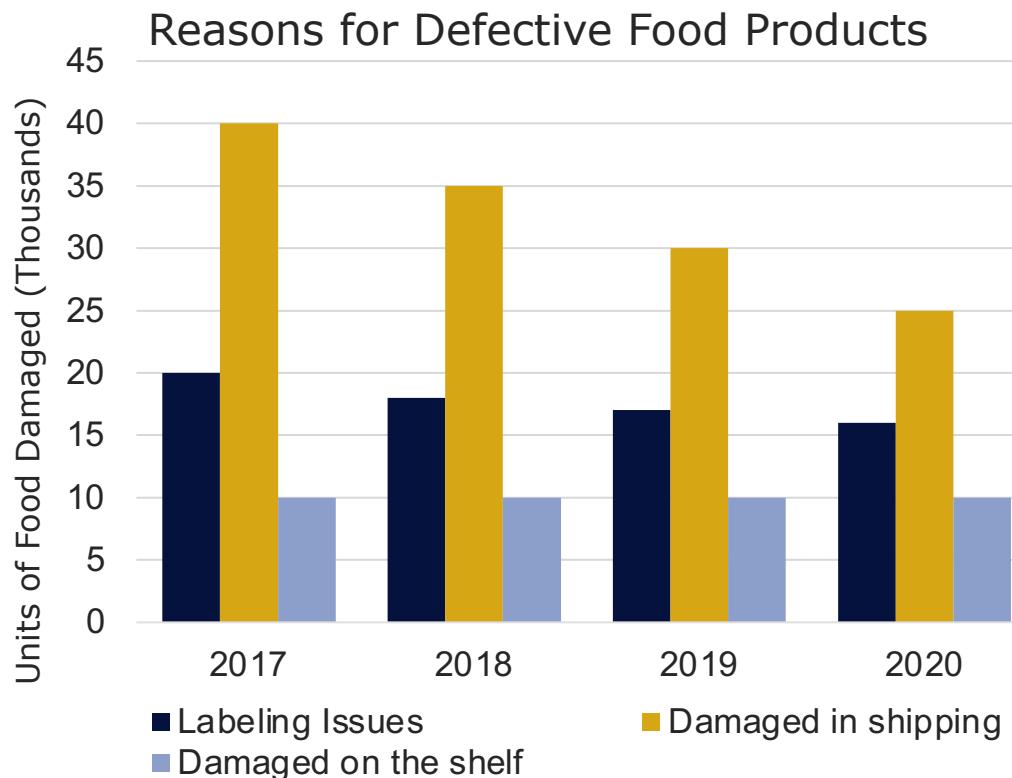
## Question 4:

The team would like to investigate some recent trends in the food industry. What can you tell from the information in the chart below?

## Sample Answer:

- A relatively constant amount of products are damaged on the store shelf.
- There is a slight decrease in mislabeling of products.
- There is a substantial decrease in damages in food for shipping and packaging.
  
- Key insight: If grocery stores and food companies are only giving from food that is damaged in some way, then a decrease in the amount of food that has been damaged, especially in the shipping process, could be the primary reason behind the decrease in donations. Perhaps by getting grocery stores to give some of their non-damaged food, we could increase donations.

# Exhibit 2



# Question 5 Interviewer Guide



## Question 5:

- Switching focuses a little bit, the team also wanted to explore what increase in monetary donations they might need to see to make up for the decrease in food donations from grocery stores. Based on the value of the food by stores (The cost of the food to the grocery stores), grocery stores will donate \$10,000 less of food next year. How much money would the food bank need to raise to buy an equivalent amount of food at their discounted price?

## Additional Information to be given upon request

- When a food bank buys food, it is not at the same cost to the store (so they will need more than \$10,000 to buy an equivalent amount of food since the \$10,000 given in the problem is the cost of food to the grocery store).
- The average item costs \$1.25 for a grocery store to buy. (That's the cost of the product to the grocery store.)
- Grocery stores typically have a 6% markup on the cost of their products. (This is extraneous information but give it if requested.)
- The average discounted price for an item of food (i.e. the price the food bank pays) is \$1.30.

## Answer

- Note that this is all incremental – you don't need to calculate anything based off the previous chart given.
- \$10,000 at cost for grocery stores / \$1.25 average cost of food item for grocery stores = 8,000 units less of food will be donated
- 8,000 fewer units x \$1.30 cost of food bank to buy = \$10,400 needed to make up for the loss
- The strongest candidates will compare this information to what they were previously given. If donations must increase by \$10,400 to make up for the decrease in food, this is more than the increase in donations historically, which has been about \$5,000 per year based on the chart.

# Question 6 Interviewer Guide



## Question 6:

What are some ideas for how the food bank could raise this money from donors?

## Sample Answer:

- Go to existing corporate donors and ask them to increase their donations.
- Try to solicit new corporate donors to see if they will donate.
- Target wealthy donors to try to increase individual donations.
- Target new individual donors. If you can get lots of donors to give very small amounts, you could increase individual donations.
- You could host an event to try to raise the money.
- You could offer to add sponsors to a website or in a newsletter.
- You could sell ad space in a newsletter or on the website.
- You could try to negotiate with grocery stores to get a lower cost of food so you don't have to raise as much money.

# Wrap Up: Interviewer Guide



You need to deliver a report to the CEO of the food bank. What will you tell them about the work you've done?

## **Recommendation Sample Answer:**

- Donations from the food industry have decreased significantly over the past few years. While monetary donations have increased, they are not enough to make up for the decrease from food donations.
- Some of the decrease in donations appears to come from the fact that there have been fewer shipping damages with products over the past few years.
- To make up for the decrease in food donations, we would need to substantially increase the amount of corporate and individual monetary gifts we receive. This would require significant changes in marketing or fundraising.
- As next steps, we might want to look into other ways to get food companies and grocery stores to donate non-damaged products.
- Another next step could be to further explore the best ways to raise money from donors to close the gap.

# Interviewer-led: Medium



# **Maxicure**

**McKinsey | Round 1 | Easy/Medium | Manufacturing**

# Maxicure - Prompt



## McKinsey | Round 1 | Medium | Manufacturing

### Prompt:

Your client, Maxicure, manufacturers and sells an over-the-counter cough and cold medicine. Their sole plant in Kentucky is ageing, and its increasing maintenance costs are leading to low margins on their products.

### Question 1:

What options does Maxicure have for purposes of tackling this problem, and what factors would you consider in deciding which options to choose?

### Clarifying Information (Only Provide if Asked):

- **What is the competitive landscape?** There are 2-3 larger players in this over-the-counter business who have distribution across the country. Maxicure is one of them.
- **Where does Maxicure sell?** Maxicure sells all of its products in the US.
- **Does Maxicure have a specific goal?** Maxicure's objective is to reduce production costs while maintaining product quality (cost, quality, and brand image all matter to customers).

# Maxicure – Question 1 & Sample Framework



## Existing Plant

- Process
- Fixed Costs
- Variable Costs
- CapEx & Refurbishment Costs

## Other Production Options

### New Plant

- Cost to build or buy a newer plant
- Switching costs involved
- Production capacity

### Outsource

- Cost of outsourcing
- Production capacity
- Competitive risk

## Cough & Cold Market

- Market Size
- Projected demand
- Threat of substitutes
- Consumer preferences
- Competitor's production strategy

## Maxicure

- Company goals
- Access to capital
- Risk appetite
- Time horizon

# Maxicure – Question 2

## **Question for Interviewee:**

Maxicure has narrowed down its decision to two options: (1) build a new facility next to the old plant or (2) outsource the manufacturing to a competitor. How many bottles of medicine would Maxicure need to sell for the in-house option to be more profitable than the outsourcing option?

## **Data to Be Provided When Interviewee Asks:**

- Price per bottle: \$4.50

In-house

- Initial Investment: \$50M
- Total Cost per Bottle: \$2.00

Outsource

- Total Cost per Bottle (first 20M bottles, regardless of total order size): \$2.25
- Total Cost per Bottle (after 20M, regardless of total order size): \$2.50

# Maxicure – Question 2 Guidance



## Contribution Margin:

- Contribution Margin in-house =  $\$4.50 - \$2.00 = \$2.50$
- Contribution Margin outsourced =  $(\$4.50 - \$2.25)$  when  $<20M$  &  $(\$4.50 - \$2.25)$  when  $>20M$   
 $= \$2.25$  when production  $<20M$  &  $\$2.00$  when production  $> 20 M$

## Let $x$ = production quantity:

- Net Margin in-house =  $2.5x - 50M$
- Outsource margin =  $(x - 20M)*2 + 2.25*20M$
- Set the profits equal to each other:  $2.5x - 50M = ((x - 20M)*2) + (2.25*20M)$
- $x = 110M$  units

Interviewer Guidance: after the calculation, push the interviewee to select an options and give reasons why.

# Maxicure – Question 3



## Question for Interviewee:

Maxicure decided to build a new production facility, but it wants to build the plant in Indiana instead of closer to a major distribution center. How should it convince the governor of Indiana to offer Maxicure the necessary tax breaks to make the move more profitable for the firm?

## Question 3 Guidance:

- More tax collection for the state, stimulates the economy
- More job creation
- Good press for the governor
- Attract other manufacturers to the state
- Suggestions to conduct community-building initiatives like building schools, parks, etc

# Maxicure – Wrap Up



## Question for Interviewee:

Maxicure's CEO just walked into the room and wants to know your final recommendation. What would you say to her?

## Wrap Up Guidance:

- Summary: Today we looked at options for improving profitability that was declining from your aging plant.
- Recap: We examined the cost structure of building a new plant verses outsourcing and determined the new plant is more profitable at production volumes exceeding 110M units.
- Decision: Our recommendation is to build a new plant in Indiana.
- Risks: Execution, speed
- Next Steps: Approach Indiana governor for tax breaks, examine options for selling or repurposing old plant

# National Park Service

BCG | Round 1 | Medium | Public Service

## BCG | Round 1 | Public Service | Medium

### Prompt:

Our client is the United States Department of the Interior, which is responsible for the National Park Service ("NPS"). The NPS employs park rangers across all federally owned parks, ranging from Yellowstone and the Grand Canyon to the Statue of Liberty and Lincoln Memorial. National Parks employ four different classifications of rangers: Law Enforcement, Education, Maintenance, and Administrative. The focus of this case is on the Law Enforcement rangers, who have similar responsibilities to police and firefighters. They are trained in areas that include wilderness medicine and search and rescue. The client is concerned that job retention is low among the Law Enforcement rangers. They would like you to explore how big the problem is and think about ways to improve it.

### Question 1:

Intro/Framework: What are some of the costs to the National Parks Service of rangers leaving?

# Sample Response Framework

## Sample Response:

There are costs relating to People and Operations which can be categorized as either "direct" (tangible - relate to an actual dollar amount) or "indirect."

	<b>Direct Costs</b>	<b>Indirect Costs</b>
People Costs	<ul style="list-style-type: none"> <li>• Sunk costs of recruiting and training rangers; severance</li> </ul>	<ul style="list-style-type: none"> <li>• Decline in morale; reputation of park's department</li> </ul>
Operational Costs	<ul style="list-style-type: none"> <li>• Higher maintenance/operational costs due to inflow of new inexperienced employees</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of knowledge of park operations</li> </ul>

**Note to Interviewer:** "Great" response should have a structure and include 4-5 ideas about potential costs. If interviewee only comes up with 1-3 ideas, keep pushing them by asking "what else?"

# Question 2: Math

## Question 2:

What is the cost associated with each type of ranger leaving? (1 of 2)

**Prompt to read:** We have some figures on what the retention problem looks like across the four different types of rangers nationally and what the associated costs are. Please calculate what percent of each type of ranger left in 2016 and what the total costs were per group.

	Law Enforcement	Education	Maintenance	Administrative
# left in 2016	98	175	215	251
Total rangers in 2016	2100	3750	8615	9143
Cost per lost ranger (\$)	\$35,300	\$6,200	\$3,500	\$3,500

# Question 2: Math (Answer)

## Question 2:

What is the cost associated with each type of ranger leaving? (2 of 2)

**Table with answers:**

	Law Enforcement	Education	Maintenance	Administrative
<b># left in 2016</b>	98	175	215	251
<b>Total rangers in 2016</b>	2100	3750	8615	9143
<b>Cost per lost ranger (\$)</b>	\$35,300	\$6,200	\$3,500	\$3,500
<b>% left</b>	4.67%	4.67%	2.50%	2.75%
<b>Total cost (\$)</b>	\$3,459,400	\$1,085,000	\$752,500	\$878,500

**Note to Interviewer:** Recommended for interviewee to round figures for easier calculation. A “great” response will include a “so what” about these figures. Some insights include: lowest overall number of rangers are leaving from Law Enforcement, but these impose by far the highest cost and thus should be prioritized in the solution. While the same % of education rangers leave, they impose roughly 30% of the same total cost. Maintenance and Administrative rangers should be deprioritized in the solution.

# Question 3: Brainstorming

## Question 3:

The government conducted a survey among Law Enforcement Rangers and found that their pain points exist across three areas. Family Friendliness, Effective Senior Leadership, and Performance-Based Rewards. Can you brainstorm some solutions to retention within these areas?

**Note to Interviewer:** Below find descriptions of each category. Only read if asked for definitions of interviewee:

- 1) "Family Friendliness": Degree to which the organization is family friendly (ex. some rangers are sometimes expected to move across the country to middle of nowhere, might not have access to schooling)
- 2) Effective Senior Leadership: Degree to which park Superintendents have the proper background and experience to lead. Note that most superintendents have a background as Education rangers.
- 3) Performance-Based Rewards: Degree to which rangers receive the right level and mix of benefits (note: while rangers are not primarily motivated by money, they noticed that pay is higher at other government organizations and these organizations also pay overtime, which the NPS rangers don't receive).

# Question 3: Brainstorming (Answer)

## Question 3:

The government conducted a survey among Law Enforcement Rangers and found that their pain points exist across three areas. Family Friendliness, Effective Senior Leadership, and Performance-Based Rewards. Can you brainstorm some solutions to retention within these areas?

## Sample Response:

### Family-Friendliness

- Better matching between rangers and assignments
- Institute matching based on performance of rangers
- Source rangers from local areas rather than require them to move/travel
- Online tutoring for children of rangers

### Effective Senior Leadership

- New leadership tracks to escalate law enforcement rangers to leadership positions
- Mentorship opportunities to link leaders and rangers
- Training superintendents (e.g. ride-alongs with rangers to understand local reality)

### Performance-Based Rewards

- Improve benefits: salary, travel, health insurance, etc.
- Implement overtime

## Note to Interviewer:

A "good" response will be structured into the buckets given and will include at least 2-3 ideas per bucket. A "great" response will include a high-level discussion/acknowledgement of the costs associated with these solutions and will include a hypothesis of what the best solutions would be.

# Question 4: Recommendation



## Question 4:

The Director of the National Parks Service just stepped into the room and would like you to summarize what we've discussed.

### Note to Interviewer:

A “great” response will primarily address the main question of retention among Law Enforcement rangers (rather than get off topic). It will explain the problem (high costs associated with lost Law Enforcement Rangers), include a potential solution (1-2 ideas to explore), and discuss next steps (e.g. look into associated costs of potential solutions).

# **Loonilever PLC**

**McKinsey| Round 1 | Medium-Hard | CPG**

## McKinsey | Round 1 | CPG | Medium-Hard

### Prompt:

Our client (Loonilever) is a major consumer products company with operations in over 80 countries. Loonilever operates across all categories in the consumer products space – personal wash, hair care, oral care, laundry, household cleaning, skincare etc. Over the last decade or so, it has been losing share to its key competitors, particularly to B&G. Loonilever is very keen on regaining/building share in key categories, especially in traditional B&G strongholds. Skincare is the most profitable category for the large consumer products players, with gross margins of ~75% (vs. 30% for laundry). Loonilever is now evaluating an entry into China's skincare market, a market that B&G has enjoyed market leadership in for over a decade. Though Loonilever is the market leader in China's laundry segment, it does not currently operate in the Skincare segment. Loonilever has hired McKinsey to help them determine what their potential entry strategy into the Chinese skincare market should be.

### Clarifying Information (Only Provide if Asked):

- The question to be answered is deliberately worded vaguely, to encourage the interviewee to ask clarifying questions at this stage.
- What Loonilever is actually interested in is:
  - Can Loonilever achieve (a) revenue of \$100 million in two years time (b) in a market that displays significant potential for future growth? Provide this information if the interviewee asks for it.
- If the interviewee does not ask clarifying questions at this stage, wait to see if s/he gets to this questions after drawing out the issue tree. If s/he does not, then deduct points from overall case performance and redirect the focus of the discussion.

# Sample Response Framework

**Can Loonilever achieve a revenue target of \$100M in two years in a market that offers a significant upside?**

## Industry/Market

- Size of market
- Segmentation of market
- Key players and their share
- Consumer/market trends within each segment

## Revenue

- Volume projections
- Pricing
- Price \* Quantity

## Other Factors

- Gateway to other markets (SE Asia)
- Potential global manufacturing hub
- Bonus points: By challenging established competitors in the skincare space, can destabilize competitors' business model (by making them bleed)

## Guidance for Interviewer

- Most candidates are likely to start with Industry. Bonus points if the interviewee addresses all four sub-issues upfront
- Negative points if the candidate draws a Cost bucket. The question is about revenue, not profit.
- The last bucket gives the interviewee a chance to demonstrate business intuition
  - For example, are there reasons why Loonilever should enter even if they don't achieve the \$100M target?
- Bonus points if the candidate ends the issue tree presentation with a hypothesis
  - "I'd like to start with Industry since that will likely provide insight into the most attractive revenue generating opportunities"

# Loonilever – Math Question 1



## Question for Interviewee:

What is B&G's current market share? If it maintains the status quo (same marketing expenditures, no dramatic new product launches etc.), will its market share go up, go down or stay constant in two years time?

## Information to Be Provided When Interviewee Asks:

Show Exhibit 1 (proactively) and ask the question listed above - Show Exhibit 2 (only if asked for) - Show Exhibit 3 (only if asked for ): This is not crucial to the solution anyway, but can really impress an interviewer

## Approach and Solution

- A strong candidate's first reaction will be:
  - China's skincare market is large and growing
  - Given B&G's high market share, it could be a challenging market to break into given B&G's deep pockets and the skincare category's high profitability. B&G will probably guard their share very aggressively.
- Answer to Math Question 1: See solution on later slide (**CANDIDATE SHOULD ROUND INTELLIGENTLY!!**)
  - Approach Part 1: B&G Current market share = B&G revenue/current market size
  - Part 2: Project market revenue, B&G revenue, and overall B&G share over two years using growth rates.
- Key insight: B&G's overall share declines because it has the largest share of a slow-growing market. The contribution of the sub-segments will change in two years, and therefore, so will B&G's overall share
- **Conclusion:** Loonilever should enter the Anti-ageing segment because:
  - a) It satisfies the \$100M criteria
  - b) The AA segment offers a significant upside because it's growing at 20%
  - c) The sub-segment also has the highest margins (85%), a clear plus point for Loonilever.

# Exhibits 1&2

## Exhibit 1: China's skincare market construct

Market segment	Current market size (in \$ millions)	B&G share	Annual growth projection (over next 2 years)
Skin Lightening	1000	50%	5%
Anti Ageing	700	20%	20%
Moisturizing	300	30%	10%
<b>Total</b>	<b>2000</b>		

## Exhibit 2: Loonilever test market results

Market segment	Projected Market Share in 2 years
Skin Lightening Anti Ageing Moisturizing	5% 10% 20%

# Exhibits 3

## Exhibit 3: Overall Segment Margins

Market segment	Segment Contribution*	Gross Margin	Weighted Margin
Skin Lightening	50%	75%	38%
Anti Ageing	35%	85%	30%
Moisturizing	15%	50%	8%
<b>Total</b>			<b>74.8%</b>

\*Segment Size/Overall Market Size (from Exhibit 1)

# Math Question 1 - Solutions

**Solution to Q1 - What is B&G's current share and share two years down the line?**

Market segment	Current Market Size	Current B&G Rev.	Year 1 Market Size	Year 1 B&G Rev.	Year 2 Market Size	Year 2 B&G Rev.
Skin Lightening	1000	500	1050	525	1102.5	551.3
Anti Ageing	700	140	840	168	1008	201.6
Moisturizing	300	90	330	99	363	108.9
<b>Total</b>	<b>2000</b>	<b>730</b>	<b>2220</b>	<b>792</b>	<b>2473.5</b>	<b>861.8</b>
		<b>36.50%</b>				<b>34.84%</b>

**Solution to Q1 - What does this mean for Loonilever's entry strategy?**

Market segment	Year 2 Market Size	Expected Year 2 Loonilever Share	Year 2 Loonilever Revenue (\$MM)
Skin Lightening	1102.5	5%	55
Anti Ageing	1008	10%	101
Moisturizing	363	20%	73
<b>Total</b>	<b>2473.5</b>		

# Loonilever – Math Question 2



## Question for Interviewee:

What's the average price point in the Anti-Ageing (AA) market? What do you think is the ideal AA price point that Loonilever should enter at? (Assume all other information from the earlier question still holds)

## Information to Be Provided When Interviewee Asks:

Show Exhibit 4: After interviewee has a chance to digest the information, inform them that the price-point space in between is largely unoccupied

## Approach and Solution

The candidate should hopefully walk through the different pricing options and provide logic for why each of them would/wouldn't work

- Solution 1: Take on the MNCs at the top end (@ \$25/100gm)
  - Solution 2: Compete with 1000+ local brands (@\$5/100gm)
  - **Solution 3:** Operate in the middle by being the “bridge” that upgrades mass-market consumers to the top-end of the market (@\$10-20/100gms)
- Conclusion: The first two answers are good enough responses if well-argued. If not, probe for underlying logic. Bonus points for those interviewees who identify solution 3**

# Exhibit 4

## Exhibit 4: China's Anti Ageing Market

	Number of brands	Share of Rev.	Gross Margin	Avg. Price Point*
Large Multinational Brands	4	70%	93%	25
Local Chinese Brands	1000+	30%	65%	5
<b>Total</b>				

\*\$/100 gms

# Math Question 2 - Solution

## Solution to Q2: Ideal Price Point

	Share of Rev.	Gross Margin	Avg. Margin	Price Point*	Avg. Price Point
Large Multinational Brands	70%	93%	65%	25	17.5
Local Chinese Brands	30%	65%	20%	5	1.5
<b>Total</b>			<b>85%</b>		<b>19</b>

\*\$/100 gms

# Loonilever - Wrap Up



## Sample Recommendation:

1. Loonilever should enter the Chinese skincare market in the Anti-Ageing segment since it can meet the \$100M threshold target that Loonilever had set itself. Moreover, it's a fast-growing market.
2. Loonilever should enter the Anti-Ageing segment at the bottom/top/middle of the market because: (reasons from previous page depending on which option the interviewee goes with)

## Sample Risks & Consideration

- We have not considered the impact/nature of a competitive response from the major multinational players.
- Bonus points: They are unlikely to allow Loonilever a free run of the market irrespective of which option they choose

## Sample Remaining Questions & Next Steps:

1. Conduct a sensitivity analysis for these revenue projections based on different competitor responses
2. Bonus points: "Now that we've proven that the revenue potential does exist, we'd like to understand the cost side of the business, and do a break-even analysis to identify whether China's Anti Ageing market can be a profitable business for Loonilever in the long-run"

A large, white statue of Jesus Christ stands on a multi-tiered, light-colored stone pedestal. He is depicted in a traditional manner, wearing a long robe and holding a book in one hand while his right arm is extended towards the sky. The statue is positioned behind a large, light-colored dome, likely made of stone or tile, which features a cross at its very top. The entire scene is set against a solid blue background.

# Interviewer-led: Hard

# **ClearSounds Mobile**

**Round 2 | Hard | Telecom**

## Round 2 | Telecom | Hard

### Prompt:

With the US mobile telecom market completely saturated, ClearSounds Mobile (a North American mobile telecom company) is looking to other potential sources for gaining customers. Their current market share in the US is respectable but the market is highly competitive and subject to significant regulations, so the upside looks limited. The Latin American market has been proposed as an area for potential growth. The population is starting to have more disposable income and the current infrastructure is reasonably well developed. Should ClearSounds enter the Latin American mobile telecom market?

### Clarifying Information (Only Provide if Asked):

- **What is the goal for ClearSounds entrance?** ClearSounds is looking to reach new markets and establish itself as a player
- **Are there synergies created?** Revenue and cost synergies would be created from this venture
- **Has ClearSounds considered alternatives?** ClearSounds believes they cannot achieve the same benefits from either a joint venture or strategic alliance
- **Are there any concerns with management or culture?** Management would be able to handle any change and a culture fit would be achieved

# Sample Response Framework



## Reason for Acquisition

- Are there synergies created?
- Which areas of the business are being acquired?
- How does this work towards ClearSounds goals?

## Price

- How much would it cost?
- How would a fair price be determined? (profit multiple, revenue multiple, NPVs and cash flows)
- How long would it take to breakeven?
- How will it be financed?
- (All addressed in question 2)

## Market Conditions

- Current economic landscape?
- Are government regulations involved?
- Any cultural barriers to entry?
- Is the market dominated by a few players or filled by many smaller players?

## Ways to Enter

- Joint venture, strategic alliance not viable
- Possible acquisition targets?
- Any significant differences in offerings among players?
- Any concerns with culture fit or integration with the acquisition?

# Brainstorm 1

## Question for Interviewee:

What are the potential entry strategies into the Latin American telecom market and what are the pros and cons of each?

## Sample Answer:

Interviewee should start a structured brainstorm

Examples of entry strategies include:

1. Organic Growth
  - **Pros:** Maybe less capital intensive, more control over labor force and management
  - **Cons:** Slower market penetration, have to develop new relationships in new countries
2. Joint Venture
  - **Pros:** Established market partner helps to grow the business, quick financial gains
  - **Cons:** Profit sharing details must be agreed upon, have to find a willing venture partner
3. Acquisition
  - **Pros:** Quick market penetration, grows revenue base quickly
  - **Cons:** Expensive, cultural integration, IT integration, most often requires a willing acquisition target

# Math Question 1

## Question for Interviewee:

ClearSounds would like to evaluate their acquisition possibilities. They are considering acquiring TeleNovo; can they afford the acquisition? (Provide Exhibit 1 and Table 1)

## Key Assumptions:

1. Assume an all-cash transaction – all of ClearSounds cash could be used for the acquisition
2. ClearSounds is one of two firms who would be bidding on TeleNovo

## Sample Calculation:

### Step 1: Calculate the 2014 gross profit of ClearSounds to determine how much cash they have

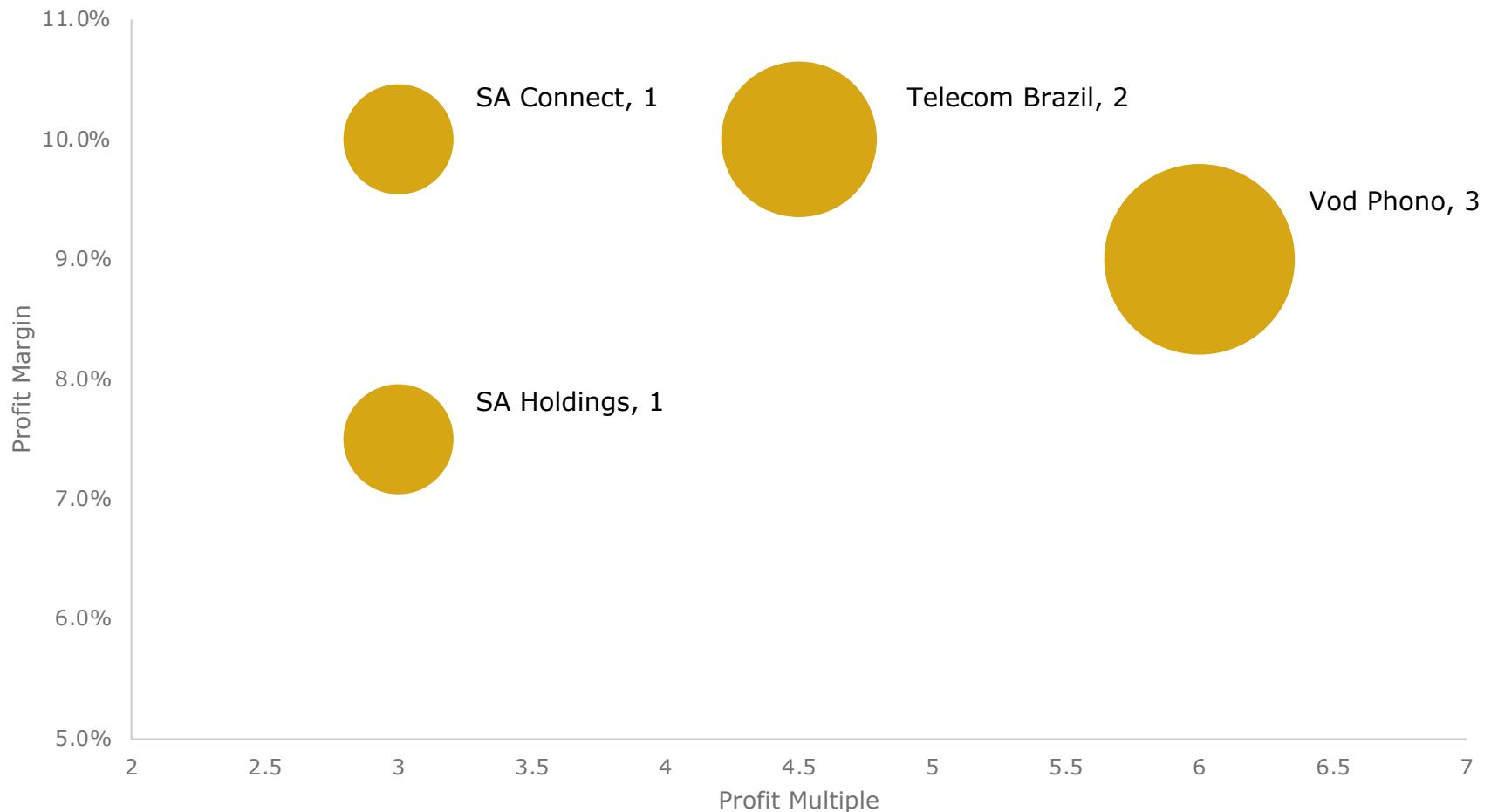
- $\text{Profit}_{\text{CS}} = \text{Subscriptions} + \text{Phone Sales} - (\text{PPE} + \text{SGA} + \text{COGS}) = \$45B + \$5B - (\$18.5B + \$4B + \$20B) = \$7.5B$
- $\text{Cash-On-Hands}_{\text{CS}} = 2 * \text{Profit}_{\text{CS}} = 2 * \$7.5B = \$15B$

### Step 2: Determine the cost of the acquisition - The cost will be determined by the 2014 profit of TeleNovo and the profit multiple used to calculate the price

- $\text{Acquisition Cost}_{\text{TN}} = \text{Profit Multiple}_{\text{TN}} * \text{Profit}_{\text{CS}}$
- $\text{Profit}_{\text{TN}} = \text{Subscriptions} + \text{Phone Sales} - (\text{PPE} + \text{SGA} + \text{COGS}) = \$30B + \$2B - (\$13B + \$2.3B + \$14.7B) = \$2B$
- Profit Multiple<sub>TN</sub> = The EE should notice that the profit multiple is determined by the number of firms bidding and not the current profitability of the firm. ClearSounds is one of two firms bidding so the profit multiple that should be used is 4.5
- $\text{Acquisition Cost}_{\text{TN}} = \text{Profit Multiple}_{\text{TN}} * \text{Profit}_{\text{CS}} = 4.5 * \$2B = \$9B$

**Yes, ClearSounds can afford the acquisition. They have \$22.5B of cash on hand and the acquisition should cost approximately \$9B**

# Exhibit 1: Historical LATM Acquisitions



\*Label Format: Name of acquired firm, # of companies who bid to acquire

# Table 1: Financials

## ClearSounds Mobile 2014 Fiscal Statement (MM's)

	Revenue	Costs
Subscriptions	\$45,000	
Phone Sales	\$5,000	
Plants, Property, Equipment		(\$18,500)
COGS		(\$4,000)
SG&A		<u>(\$20,000)</u>

## TeleNovo 2014 Fiscal Statement (MM's)

	Revenue	Costs
Subscriptions	\$30,000	
Phone Sales	\$2,000	
Plants, Property, Equipment		(\$13,000)
COGS		(\$2,300)
SG&A		<u>(\$14,700)</u>

\*ClearSounds has 2x their 2014 Gross Profit in cash-on-hand at the start of 2014

# Brainstorm 2

## Question for Interviewee:

What risks or considerations should be addressed before moving ahead with the acquisition? How can they address them?

## Sample Answer:

Interviewee should start a structured brainstorm

Examples of risks include:

1. Cultural and People
  - The cultures of the two companies may differ greatly
  - Management of the two companies may disagree on strategy, causing inefficiencies in integration
2. IT
  - IT systems may be difficult and expensive to reconcile or convert to one platform
  - Training for employees on new or different IT platforms could be expensive and errors could occur
3. Brand
  - Must decide whether to keep brand or rebrand

# Math Question 2

## Question for Interviewee:

How long before the ClearSounds acquisition breaks even?

## Key Assumptions:

1. 2015 is the first year that ClearSounds will earn profits from TeleNovo
2. Assume that cost synergies will be achieved through the acquisition and the profit margin for TeleNovo will be the same as the current Profit Margin used for ClearSounds moving forward
3. Assume TeleNovo's Revenue is growing at 10%/year

## Sample Calculation:

### Step 1: Calculate profit margin of ClearSounds

- Profit Margin<sub>CS</sub> = Profit/Sales = \$7.5B/\$50B = 15% Profit Margin

### Step 2: Determine the profit from 2015 onwards using a yearly revenue growth at 10%

- 2015 Profit<sub>CS</sub> = Revenue<sub>2015</sub> \* Growth Rate \* Profit Margin = \$32B \* 1.1 \* 15% = \$5.28B
- If the profit margin remains fixed and revenue grows, profit grows at the same rate
- 2015 Profit<sub>CS</sub> = \$5.28B \* 1.1 = \$5.88B

**The TeleNovo acquisition will pay for itself in less than two years**

# Wrap Up: Interviewer Guide



## Final Recommendation:

What strategy would you propose?

## Final Recommendation Sample Answer:

ClearSounds Mobile should acquire TeleNovo. The acquisition price is reasonable, and it allows them to gain ground quickly in South America. TeleNovo also has a higher cost structure than ClearSounds which is attractive for an acquisition if ClearSounds believes they can bring cost synergies to the acquired company (that is true in this case). These cost synergies could not be gained as easily with a partnership

## Next Steps:

- Determine how to best finance the acquisition
- Evaluate whether to keep the TeleNovo brand or rebrand
- Outline the likely competitive response and build a response plan

## Risks:

- Cultural fit may be problematic
- May not be received either in Wall-Street or in South America
- Expected cost synergies may not materialize

# **Insurance for the Underserved**

**McKinsey| Round 2 | Hard | Insurance**

# Insurance for the Underserved



## McKinsey | Round 2 | Insurance | Hard

### Prompt:

The Indian insurance market is heavily underpenetrated. The majority of insurable, adult population either is not insured and this has serious consequences – when financial adversity strikes, such as when the main breadwinner of a family dies, or if there is a drought or a flood, people either find it hard to survive or in some cases also commit suicide. When we say insurance, we think of both life insurance and non-life insurance such as health, crop, etc.

The government of India is thinking of using the Indian postal network as a creative way of reaching the underserved insurance population. The infrastructure already exists and this can be leveraged for distributing much-needed insurance products. The objective would be to provide a safety net to as many people as possible in the underserved markets.

### Clarifying Information (Only Provide if Asked):

- **Is profitability an objective? Or is it only reaching the people?** Main objective is reaching people. Profitability is a secondary priority
- **Are we focusing on a specific type of Insurance?** The distinction between life and non-life insurance is not a factor for the purposes of our case.

# Question 1: Brainstorm

## Question 1: Brainstorm

What considerations should the government think about when considering whether to partner with the postal service?

### Sample Framework

#### Market Size of Underserved Population

- What are the customer segments for the insurance market
- Income brackets for underserved population
- Number of households in the underserved group
- Willingness to spend on insurance products

#### Profitability

- Are there any profit objectives with this project?
- Revenue?
  - Premiums
  - Number of willing customers
- What are the costs associated?
  - Agent salaries
  - Overhead

#### Marketing and Promotion

- Availability and skill-level of sales agents
- Capabilities of Indian Postal Network
- What population can be reached through IPN?
- What other Outreach channels are available?

# Question 2: Exhibit 1 Analysis



## Question for Interviewee:

What is the size of the underserved insurance market?

## Sample Calculation:

The underserved population is defined as the aspirers and the strugglers

Average annual income for aspirers is 7,500K and strugglers is 2,000K

Solution:

### Market Size for Aspirers + Market Size for Strugglers

(Income x Households x Insurance Percent for Aspirers) + (Income x Households x Insurance Percent for Strugglers)

Aspirers:  $7500 * 55m * 1.5\% = 6.188\text{bn}$

Strugglers:  $2000 * 33m * 2\% = 1.32\text{bn}$

**Rounded Market Size ~ \$7.5 billion**

# Exhibit 1

Segment	Annual Household Income	Number of Households (MM)	% of income willing to spend on insurance
Globals	>USD 30K	2	1.0%
Consumers	USD 10K - 30K	10	1.5%
Aspirers	USD 5K - 10K	55	1.5%
Strugglers	<USD 5K	33	2.0%

# Question 3: Penetration

## Guidance for Interviewee:

What percent of the overall market can the Indian Postal Network cover?

### Additional Information:

Assume what you calculated in the previous questions represents 100% of the insurance market.

- The dollar value represents the premium amount in USD.
- There are about 150,000 post offices in the country, of which the government thinks 1/3 will be able to provide insurance in the first year of launch to aspirers and strugglers. Assume there is 1 agent per branch and each agent can sell insurance to 10 aspiring households and 5 struggling households every month.

### Sample Calculation:

Serviceable Post Offices ( $1/3 \times 150,000$ )	50 000
Total Number of Agents	50 000
Annual Premiums Sales to Aspiring ( $10 \times 12 \times \text{Income for Aspirers} \times \% \text{ of income willing to spend on insurance}$ )	675 000 000
Annual Premiums Sales to Strugglers ( $10 \times 12 \times \text{Income for Aspirers} \times \% \text{ of income willing to spend on insurance}$ )	120 000 000
Total Premium Sales	795 000 000
Total Market Size	7, 507, 500,000
<b>% share (Sales / Market Size)</b>	<b>10.5%</b>

# Question 4: Profitability

## Guidance for Interviewee:

How much profit will the postal network make in the first year of launch?

## Additional Information:

Assume that the government needs to pay-out 85% of the premium money in claims every year.

- Also assume that 10 percent of premiums (or revenues) is paid as commissions to the agents.
- In addition, they get USD 100 per month as a base salary.
- Finally assume that the cost of operating the branches and travel expenses for agents, etc. is an additional USD 100 per month.

## Sample Calculation:

Total Premium Sales	795 000 000
Claims cost (85% of Premium)	675 750 000
Commission cost (10% Commission)	79 500 000
Salary costs (USD 100 x 12 mos x 50k agents)	60 000 000
Other costs (USD 100 x 12 mos x 50k branches)	60 000 000
Total Costs	875 250 000
<b>Profit (Sales - Costs)</b>	<b>(80 250 000) – LOSS</b>

# Wrap Up

## **Question for Interviewee:**

Given the economics, should the government pursue with the insurance through Indian Postal Network?

## **Exhibit 2 Recommendation Sample Answer:**

No. Using the Postal Service only reaches 10% of the potential market AND incurs a significant loss

## **Follow up / Brainstorm Sample Answer:**

That said, government can think about ways to increase reach and improve profits

- Increase agents at each postal station
- Try to reach more households
- Use more branches

# **After School Programming**

**McKinsey| Round 2 | Hard | Non-Profit**

# After School Programming



## McKinsey | Round 2 | Non-Profit | Hard

### Prompt:

It is 2003, and our client offers after school programming focused on supporting at-risk youth through high school, enabling them to enter and succeed in college.

The client is trying to identify the best approach to meet its target growth. The client's goals for expansion are to most efficiently serve students and 7 new sites, while raising their national profile. We have been hired to help them vet potential sites to maximize their social and financial impact.

### Clarifying Information (Only Provide if Asked):

- What constitutes "at-risk" youths?** "At-risk" youths are those who, due to behavior or grades, are at risk of dropping out of high school or have already done so.
- How does the program work?** The client operates local centers attached to high schools with full time staff. The client offers tutoring and test prep support to the youth with whom it works, as well as connecting youth to internships and career opportunities. School districts and state agencies reimburse the client for activities.
- How many centers does the client operate?** The client operates 8 sites with 2500 youths served.
- Where are the centers located?** All centers are in Massachusetts or southern New Hampshire. The client has a high national profile and has received calls from high school systems in Florida and California offering to pay for the client to establish centers in their districts; the client declined these offers to this date.

# Question 1: Organizational Changes



## Question 1: Organizational Changes

What are the client's options for locating and for opening new sites, and what are some considerations the client should consider in selecting amongst these options?

### Sample Framework

#### Geographic Options for Sites

- Adjacent to existing sites (middle schools, neighboring high schools)
- New sites in existing states, separate from existing sites
- New states neighboring existing states
- New states that have contacted the client

#### Methods for Opening New Sites

- Partnerships
- Branching/Licensing
- Wholly-owned sites

#### Selection Criteria

##### **Mission Related:**

- Number of at-risk youth
- Presence of other youth service organizations
- Potential to work with high school
- Knowledge of target market

##### **Finance / Operations Related:**

- Potential to attract funding
- Ability to leverage relationships and engage in political advocacy
- Ability to leverage existing infrastructure
- Ability to recruit talent

## Exhibit 1 / Question 2: Additional Central Costs from Expansion



	Current	Additional Costs
Staff	\$750K	\$600K
IT	\$110K	\$80K
Operating Expenses	\$115K	No Change
Training and Support	\$25K	\$55K
<b>Total Central Office Costs</b>	?	?
<b>Cost per Site</b>	?	?

# Question 2 & Exhibit 1 Interviewer Guidance



## Question 2: Capacity Expansion

Let's look at the financial considerations, particularly at the effect of additional sites on central costs. The client allocates central office costs to each wholly owned site on a uniform basis, i.e., total central office costs / 8 = allocation per site. The client wants to understand how expanding sites will affect the per wholly owned site allocation of central costs. For this analysis, assume that central costs don't vary depending on the method selected for expansion. (**Show Exhibit 1**)

## Notes to Interviewer:

- A good interviewee will quickly point out that the 74% increase in costs is less than the 88% increase in the number of sites, and that central office cost allocation per site should decrease.
- Interviewees should quantify the impacts of growth on costs per site (see next slide for answers)
- **Note:** From the prompt, the number of current sites is 8 and the future number of sites is 15 (8 + 7 additional sites).

## Exhibit 1 / Question 2 : Math Solution



	Current	Additional Costs
Staff	\$750K	\$600K
IT	\$110K	\$80K
Operating Expenses	\$115K	No Change
Training and Support	\$25K	\$55K
<b>Total Central Office Costs</b>	<b>\$1,000K</b>	<b>\$735k</b>
<b>Cost per Site</b>	$\$1,000K / 8 = \$125K$	$\$1,735k / 15 = \$115.67K$

## Exhibit 2 / Question 3: Representative Data on at-risk youth



	Average Enrollment, HS	Annual % Change in at risk youth, 2003	# high schools	HS completion rate, class of 2002	2002, % of enrolled students with GPA of D or lower
Worcester, MA	1000	-10%	3	70%	30%
Nashua, NH	800	-5%	2	75%	25%
Barrington, CT	800	10%	1	75%	20%
San Mateo, CA	1300	1%	4	85%	20%

# Question 2 & Exhibit 1 Interviewer Guidance



## Question 3: Customer Strategy

From a mission perspective, our client thinks that serving areas with a high density of at-risk youth will best deliver its mission as well as raise its national profile. As such, it would like to determine which geographic areas show the most promise for mission fulfillment. They provided some data from representative school districts for an initial analysis: **(Show Exhibit 2)**

### Notes to Interviewer:

- Worcester, MA neighbors on existing site for the client. Nashua, NH does not have a site
- This is a tough problem to solve. Work actively with the interviewee to get to the answer. Assume that class sizes, dropout rates and GPA averages are uniform across all grades.
- Math solution on following page

## Exhibit 2 / Question 3: Math Solution

Column	A	B	C	D	E
	Average enrollment, HS	Annual % change in at risk youth, 2003	#high schools	HS completion rate, class of 2002	2002 % of enrolled students with GPA of D or lower
Worcester, MA	1,000	-10%	3	70%	30%
Nashua, NH	800	-5%	2	75%	25%
Barrington, CT	800	10%	1	75%	20%
San Mateo, CA	1,300	1%	4	85%	20%

Column	F	G	H	I	J	K	L	M
Formula	$A*C$	$F/4 * (1-D)$	$G*3$	$G+H$	$F-I*E$	$I+J$	$K * (1 + B)$	$L/F$
	Total enrollment	Dropouts, class of 2002	Dropouts, other classes in 2002	Total dropouts, 2002	Low GPA students, 2002	Total at risk, 2002	Total at risk, 2003	Total at risk % of enrolled students
Worcester, MA	3000	225	675	900	630	1530	1377	45.90%
Nashua, NH	1600	100	300	400	300	700	665	41.60%
Barrington, CT	800	50	150	200	120	320	352	44.00%
San Mateo, CA	5200	195	585	780	884	1664	1681	32.30%

# Question 4: Market Strategy

## Question 4: Marketing Strategy

Earlier, you listed some additional factors that might help the client screen new locations. What do you think are the pros and cons of these additional factors in each geographic area? How might this influence the client's choice of target geographies?

### Sample Response:

	Neighboring Fit	New Site in Existing Site	Neighboring State	New State
Mission Fit	Pro: knowledge of local youth; relationships with policy makers and school admins  Con: might not spread model		Pro: would spread model  Con: need new relationships, regulations could differ and affect operations	
Financial Fit	Pro: model already approved for funding, ability to move staff / hire easily  Con: might hit funding limits		Pro: access to new sources of funding, higher national profile  Con: districts / states might not fund model	

### Note to Interviewer:

Good interviewees will draw a table matching geographic options against the screening criteria they listed in question one, then will give a quick summary of the pros and cons of each criteria in each geography. The interviewer can help the interviewee set the chart up but should let the interviewee take the lead on walking through the analysis. This question is highly qualitative and intended to test the interviewees' judgment and communication skills.

# Question 5: Recommendation



## Question 5 : Recommendation

Let's wrap up with a summary of your findings of your findings and recommendation to the client

### Solution and Recommendation:

- The case is designed to indicate that the client should focus on existing states, and perhaps on neighboring states. The client should not consider expanding outside its existing geographic footprint in New England.
- The interviewee should note that the client benefits financially from scale, but that a financial analysis does not indicate a geographic area for expansion. From a mission perspective, existing and neighboring geographies provide the highest density of at-risk youth. New geographies in existing states are also promising from a mission perspective. Thinking further about non-financial benefits from scale, as should be done in question 4, should also indicates that growing within existing states or in neighboring states poses fewer risks for the client.



# Interviewer-led: Creative

# Diconsa

McKinsey | Round 1 | Creative

# Diconsa Prompt

## McKinsey | Round 1 | Creative

### **Client Goal:**

The Gates Foundation is a private organization with vast ambitions; one of its goals is to reduce extreme poverty worldwide. The foundation asked McKinsey to design a basic financial-services offering for inhabitants of remote communities in Mexico.

### **Prompt:**

The majority of Mexico's rural inhabitants are relatively poor, relying in part on government benefits for their livelihood. As they tend not to have bank accounts, they usually collect government benefits in cash from a limited number of state-bank branches. These branches are often a long way from where the recipients live, so it can take a lot of time and effort for them to collect their benefits. In addition, traveling to the branches can sometimes expose benefit recipients to crime along the way.

The Mexican government also owns and operates a chain of 22,000 stores, throughout Mexico, called Diconsa, which provide basic food, clothes, and other essential goods to the rural population. These stores are supplied via a network of central and regional warehouses and several thousand delivery trucks.

### **McKinsey Study:**

McKinsey has been asked to investigate and assess the possibility of using the Diconsa network to provide a basic set of financial services to supplement the limited number of state-bank branches. The offer would start with dispensing government-benefit payments and move progressively to include savings accounts, bill payment, insurance, credit, and other financial products.

# Question 1: Brainstorm

## Question 1: Brainstorm

What should the team investigate to determine whether the Diconsa network could and should be leveraged to provide a range of basic financial services to Mexico's rural population?

### Sample Response:

#### "Benefits for the Mexican rural population"

- How much time, effort, and expense would the benefit recipient save through the Diconsa network (for example, through shorter travel time)?
- Beyond what was stated in the summary, what would be the benefits to the rural population of access to a broader range of financial services? (for example, better security for their money)?

#### "Benefits for the government, state bank, and Diconsa network"

- Would there be benefits for the government in terms of increased compliance/collection of benefits (for example lower administrative costs)?
- Would these financial services result in better financial management among the rural population (for example, more business for Diconsa stores)?
- Would this alternative model reduce pressure and increase efficiency for the bank branches that are currently distributing benefit payments?

#### "Risks that could occur from the venture"

- Does the Diconsa network have the capacity or ability to deal with financial payments and products?
- Does the state bank have the capacity to operate financial services across a much greater network of outlets?
- Is there a greater risk of fraud or theft due to less centralized control of benefit payments?

# Question 2: Math

## Question for Interviewee:

The team has estimated that it currently costs a family 50 pesos per month in transportation and food to make the journey to collect their benefit payments. The team also estimates that if benefits were available for collection at local Diconsa stores, the cost would be reduced by 30 percent. Also:

- Twenty percent of Mexico's population is rural, and of this number half currently receive state benefits.
- You can assume that Mexico has a population of 100 million.
- You can also assume that families in Mexico have four members, on average, and that this does not differ by region.

If all families could receive state benefits at their local Diconsa stores, how much in total per year would be saved across all Mexican rural families receiving state benefits?

## Example Approach and Solution (Not the only way)

There are 5 million families in rural Mexico ( $100\text{m population} \times 20\% \text{ rural} \div 4 \text{ per family}$ )

There are 2.5 million families receiving benefits ( $50\% \text{ on benefits} \times 5 \text{ million families}$ )

Using Diconsa would save each family 180 pesos per year ( $50 \text{ pesos per month} * 30\% \text{ cost reduction} \times 12 \text{ months}$ )

**450 million pesos saved in total per year** ( $180 \text{ pesos per family saved} * 2.5 \text{ million benefit-receiving families}$ )

# Question 3: Exhibit 1 Analysis

## Question for Interviewee:

The team conducted a survey on a sample of the rural population in three different regions of Mexico. These populations were given a number of statements about the concept of collecting their benefits at the nearest Diconsa store and asked how much they agreed with each statement. The average response to some of the questions by region is shown in Exhibit 1 (next slide). What are your observations about this information, and how would you explain these trends?

## Sample Observations:

- There are significant differences by region on how interested people are in collecting their benefits at their nearest Diconsa.
- All people have a security concern about collecting their benefits at a Diconsa, but this is particularly the case in Region B.
- People are not so concerned about whether they will receive their benefits, except in Region B.
- **Region B is the least convinced that the Diconsa initiative will be a positive one.**
- Not everyone is completely convinced that it will cost them less to collect benefits from their nearest Diconsa, despite the fact that they all agree it will save them time.
- **Broadly speaking, security, trust and cost effectiveness all seem to influence whether someone is interested in collecting their benefits at a Diconsa.** People's perception of these seem to differ by region, with Region B being a particular issue. One potential explanation for the results of Region B is that this region has significantly greater levels of crime and corruption, which means that people are less convinced that they will receive their benefits or that they can keep them secure once received.

# Exhibit 1

## Results of rural population survey on concept of using *Diconsa* stores for dispensing benefit payments

1=Strongly disagree 3=Neutral 5=Strongly agree



# Question 4: Risks & Mitigation

## Question for Interviewee:

In a meeting with representatives of the state bank, they express concern about how challenging it will be to offer basic financial products to the rural population. One of the representatives mentions that these are regions where people are poorly educated and unfamiliar with banking products, and where there is a high degree of crime and fraud. He asks for the team's thoughts about how the bank could sell these services effectively to this population given the challenges.

## Sample Observations:

*Suggestions for how to overcome the lack of education and familiarity with banking products, for example:*

- Pilot some products in certain regions where the population might be more receptive, so that less receptive people can see that they are already being used by others in similar situations.
- Arrange in-store talks and demonstrations, focusing on educating people on what the products are and how they can be used, and dispelling common causes of distrust.
- Partner with brands or organizations that are already well known and trusted by the rural poor.
- Advertise using individuals who have benefited from similar products, for example, people who have made successful insurance claims, or who managed to save money for a specific need.
- Motivate Diconsa employees to encourage take-up of the products.
- Offer promotions to encourage initial take-up, for example, pay 50 pesos when the first savings deposit is made.

*Suggestions to overcome crime and fraud could include the following:*

- Increase security in Diconsa stores.
- Impose daily or weekly limits on transactions.
- Introduce technology such as chip cards to reduce fraudulent activity and to discourage crime through less use of cash.

# Wrap Up: Interviewer Guide



The head of the State Bank wants to have a meeting discussing what you have learned from the study of Mexican rural populations and the Diconsa Initiative, as well as what should be done next

## **Recommendation Sample Answer Should Include:**

- Overall recommendation to move forward with using Diconsa (unless the candidate has a good argument against moving forward with the initiative)
- Pesos saved per year total by rural families if Diconsa is called upon as evidence
- Attitudes around using Diconsa from the different rural regions as evidence
- Discussion into risks around Diconsa and mitigations
- Quick ideas on next steps McKinsey can take to aid the bank in rolling out the Diconsa program

# **Wellington Equestrian Festival**

**McKinsey | Round 1 | Creative | Hospitality**

## McKinsey | Round 1 | Hospitality | Creative

### **Prompt:**

Your client is Mark Bellisimo, a Harvard Business School educated executive who has taken on a new role as CEO of Wellington Equestrian Partners (WEP). Mark has no prior experience in the equestrian industry aside from watching his daughter's horse back riding lessons. As of now, Mark has succeeded in creating an incredible competition circuit in FL (called the Winter Equestrian Festival) and is seeking an investment from a reputable investment firm. In order to do so, he needs your help.

### **Question 1:**

How would you assess the total economic impact the festival has on the community each year?

### **Clarifying Information (Only Provide if Asked):**

- **What is economic impact?** Think of this as the total spending amount at the festival and around the city due to the festival
- **What is the Winter Equestrian Festival?** The WEF is the largest and longest-running event in horse sports, lasting 12 weeks annually from January to April.
- **Who participates in the tournament?** The WEF is used as a qualifier for the U.S. Equestrian Team. In addition to Olympic caliber competition, the WEF hosts the nation's premier competition for juniors, children, adults, and amateurs

# Sample Response Framework



## Competitors

- Entry Fees
- Training Costs
- Equipment
- Travel Costs

## Vendors

- Number of vendors
- Average unit sales
- Average price
- Revenue share w/ WEF?
- Fees to WEF?

## Tourists

- Number of Tourists
- Transportation Costs
- Ticket Costs

## Town

- Hotels
- Restaurants
- Bars

# WEP - Question 1 Interviewer Guidance



## After Candidate Presents their framework:

Provide the candidate the following information and have them calculate the total. Note it's important to remember the competition lasts 12 weeks or 3 months.

Category	Sub-Category	Quantity	Price	Total
Competition	Stabling & Care Fees	3,000 horses	\$3,000 horses / month	\$27,000,000
	Entry Fees	5 entries / horse / week	\$75 / entry	\$13,500,000
	Veterinary Fees	1 vet / horse	\$2000 / horse / 3 months	\$6,000,000
Vendors	Misc. Vendor Fees	15,0000 vendors	\$1,000 / exhibitor / 3 months	\$15,000,000
	Vendor Training Fees	1 trainer / vendor	\$1,000 / vendor / 3 months	\$15,000,000
Tourists	Tourists	200,000 people	\$15 ticket	\$3,000,000
Town	Hotel Bookings	120,000 nights	\$150 / night	\$18,000,000
	Restaurants & Shopping	200,000 people	\$100 / visit	\$20,000,000
				\$117,500,000

# WEP – Question 2 (Brainstorm)



## Question for Interviewee:

Wellington realized a key piece of their pitch to investors is potential growth opportunities. What ideas do you have for them?

## Sample Answer:

### Expand Current Operation

- Increase tournament length (>12 weeks)
- Increase number of vendors
- Increase tourist attendance (marketing campaign, promotion)

### New Revenue Streams

- Gambling
- Revenue share w/ vendors
- Use facilities for other events (concerts, Polo, other sports)
- Sell broadcast rights or streaming service
- Acquire / start other horse shows in another geography

# WEP - Conclusion and Wrap-up



**Question: CEO Mark Bellisimo has walked into the room and would like to know how he should pitch his business to the investors.**

- . Mention risks such as competition from other websites, retaliation by retailers, etc.

## **Sample Conclusion:**

Today, we examined Wellington Equestrian Partner's economic impact and growth opportunities. We determined they create over \$117 million in economic value within their city, primarily from contests, tourists, vendors, and spending in the city. WEP can grow by expanding their current operation, possibly by extending the competition, and they can grow by adding new revenue streams, such as hosting a music festival in the competition grounds or selling broadcast rights. Risks to expansion include compromising the existing business and brands and expanding to something outside our core competency. As a next step, we could further research growth opportunities.

# Rubber Bumper Co.

McKinsey | Hard/Creative | Manufacturing

## McKinsey | Round 1 | Manufacturing | Creative

### Prompt:

Rubber Bumper Co is a small family-owned producer of rubber products. It prides itself on producing a limited range of products but producing the highest quality on the market. In general, new products are introduced after much deliberation and careful market study. The company has recently appointed a new President who noticed decreasing profits over the last couple of years.

### Clarifying Information (only to be given if the candidate asks):

#### **What type of products do they sell?**

The company only sells two products; rubber bands and condoms

#### **Is the company seeing similar declines in topline sales?**

Topline sales have remained relatively stable over the last 3 years

#### **What is Rubber Bumper's market position?**

Rubber Bumper is the market leader in both of their product industries

# Question 1 and Framework

## Question 1:

Rubber Bumper Co has hired our firm to fix the decline in profits. What are all of the areas that need to be examined in order to identify any major issues that should be a priority?

## Framework Guidance

### How to Move Forward:

*To get to the next portion of the case, the interviewee should ask to explore:*

**Expected Analysis:** There are a number of possible frameworks for this question. A good answer will cover all areas you'd expect within reason:

- **Industry trends**
- **Margins**
- **Product mix**
- **Competitors**

**Generic frameworks are inappropriate.**

# Question 2: Exhibit 1 Analysis

## Question 2:

The team decided to look at the product mix and their industry wide positions. The company only has two products: rubber bands and condoms. The analysts on our team compiled these two tables. (Display Ex. 1). What does this tell you?

## Expected Candidate Response:

1. The rubber band market is flat whereas the condom market is showing strong growth in the United States
2. The dominant player in the rubber band industry is gaining more and more market share
3. While the condom industry is growing (30% from 2005 to 2011) the major competitors are not growing as fast (~15% each).
4. The condom industry is more fragmented than the rubber band industry, and the smaller players are getting a larger proportion of the market

## Commentary:

The candidate should ultimately start to see that the rubber band industry is becoming less attractive and the condom industry is showing growth and the major market players are not keeping up with the growth. A great response will automatically want to see why Rubber Bumper's condom growth has tapered off while the industry keeps expanding. If they do not get to that issue, prod them until they do.

# Exhibit 1

Rubber bands sold each year (millions of pounds of rubber)							
	2011	2012	2013	2014	2015	2016	2017
Rubber Bumper	4	3	3	2.5	2.5	2.5	2
Max Rubber	17	19	21	21	22	23	24
Other Firms (8)	9	9	8	7.5	6.5	4.5	5
<b>Total</b>	<b>30</b>	<b>31</b>	<b>32</b>	<b>31</b>	<b>31</b>	<b>30</b>	<b>31</b>

Condoms sold each year (millions of condoms)							
	2011	2012	2013	2014	2015	2016	2017
Rubber Bumper	1	2	5	10	10	10	10
Spartan	100	110	108	115	117	115	115
Durable	150	155	152	158	159	165	170
Other Firms (15)	99	93	105	107	119	130	155
<b>Total</b>	<b>350</b>	<b>360</b>	<b>370</b>	<b>390</b>	<b>405</b>	<b>420</b>	<b>450</b>

# Question 3: Math

## Question 3:

Rubber Bumper Co has two factories, each producing one of their two products. They essentially do not share any fixed costs and for the most part are run as separate P&L's. The team would like you to put together a quick summary and compare the financial profitability of each of the two factories for the most recent year.

### **Rubber Band Factory (Info provided to candidate):**

- They make boxes of 500 rubber bands that they sell to retailers for \$20 a box
- 1 pound of rubber makes approximately 125 rubber bands
- They should already have the amount of rubber they used from the exhibit
- The rubber band factory has an inclusive \$4MM in annual overhead
- **[ONLY PROVIDE WHEN ASKED]** It costs \$1 to turn a pound of rubber into a pound of rubber bands (assume no waste)

### **Condom Factory (Info provided to candidate):**

- They sell 4 packs of condoms to retailers for \$3 a pack
- Their factory is smaller than the rubber band factory and only costs \$2 MM in annual overhead, inclusive of everything
- **[ONLY PROVIDE WHEN ASKED]** Each condom costs \$0.10 to make

# Question 3: Math (Answer)

## Expected Calculations:

Students may get tripped up because one table in exhibit 1 starts with the number of condoms, and the other starts with the amount of pure rubber:

2MM lbs of rubber x 125 rubber bands/lb = 250 MM rubber bands

250MM rubber bands / 500 rubber bands/box = 500K boxes x \$20 box = \$10MM in Revenue

2MM lbs of rubber x \$1 = \$2MM in variable costs

**Rubber Band Profit = \$10M revenue - \$2M variable costs - \$4M fixed costs = \$4MM in profit**

10 MM condoms / 4 pack = 2.5 MM packs x \$3 = \$7.5MM in Revenue

10MM condoms x \$0.10 = \$1MM in variable costs

**Condom Profit = \$7.5M revenue - \$1 variable costs -\$2 fixed costs = \$4.5MM in profit**

## Commentary:

A good answer will arrive at the math and note that the two profits are comparable. A great answer will also note that the margin on the condoms is significantly higher (4.5 MM in profit for 3 MM in costs, rather than 4MM in profit for 6 MM in costs). Also, a great answer will question why the overhead for the condom factory is small compared with the rubber band

# Question 4: Math 2

## Question 3:

Rubber Bumper Co has two factories, each producing one of their two products. They essentially do not share any fixed costs and for the most part are run as separate P&L's. The team would like you to put together a quick summary and compare the financial profitability of each of the two factories for the most recent year. What would you need to know?

## **Supplementary Info (Give out ONLY WHEN REQUESTED or if candidate gets completely stuck):**

- It will cost \$2MM dollars to refurbish the new plant and take 1 year to complete during which time the factory will be off line. (If asked, assume there are no tax benefits from depreciating the CapEx and no cost of capital)
- Overhead would remain the same
- During this time, we won't be able to make any rubber bands
- The bigger plant can produce twice the volume of condoms as the smaller plant.
- Rubber Bumper Co's payback period for such projects is 4 years.
- Assume that Rubber Bumpers rubber band demand has stabilized at 2MM lbs per year.
- **Should be using cost-benefit analysis and payback period to determine project viability**

# Question 4: Math 2 (Answer)

A bad answer will simply look at 4.5MM in profit and 4.0MM and say that Rubber Bumper should make more condoms. A great answer will look into the costs, the opportunity costs, and the payback period to evaluate whether this should go forward. Also a great interviewee will recognize the timing of the payments, and while we don't have a cost of capital there is a timeline such investments must prove profitable.

## Incremental Project Cost:

- 1 year offline they are losing  $(10\text{MM} - 2\text{MM}) = \$8\text{MM}$  in contribution
- Capital Expenditures = \$2MM
- **Total Cost of Project = \$8M + \$2M = \$10MM**

\* Note: we assume that overhead will be paid while the factory is offline, but it should not count as an additional cost, since we would pay that anyways.

## Incremental Project Benefit:

- The benefit is the difference in profitability between the two products.
- The bigger factory can produce twice as many condoms;  $6.5\text{MM} \times 2 = 13\text{MM}$
- The bigger factory is currently producing 8MM in contribution (because we are looking for the difference, the \$4MM of overhead is a wash)
- **Switching will create an additional  $13 - 8 = 5\text{MM}$  in profit.**

The interviewee should draw a conclusion towards the end noting that under these assumptions **the project will repay itself in year 3 (1 year offline + 2 years of operation) and that it is within the required time frame.** Additional second level insights are encouraged.

# Question 5: Brainstorm

## Question 5:

What are some of the risks involved with this project?

**NOTE:** This is a “what else” question. Bad answers will stop at 1-2 ideas, good ones will include 3-4. Great one will include 5-7. After the candidate answers initially, be sure to ask them “what else” to see how they think on the fly

## Key Risks Examples:

- Assumes that Rubber Bumper can sell 3x the number of condoms it sells today, immediately.
- Assumes that rubber band demand won’t rebound. The bigger plant is equally profitable because it is being underutilized
- Political parties could kill sex ed.
- Less diversification in products exposes them to increased market risk
- Condoms are not as generic of a product as rubber bands and may require a larger investment in advertising to compete on a higher level
- Potentially more legal risk in selling contraception than rubber bands
- Employees may not want to make condoms.

# Final Recommendation



## Prompt:

The President is walking in the board room and expects a summary. Please summarize your findings.

## Expected Analysis

The summary should start with a recommendation. "You should convert the plant" and then back track into the reasoning: industry trends and financial justification. Finally, it should mention which of the risks are the most problematic and how he would mitigate it. The interviewer should feel free to challenge any part of the conclusion and expect a well worded response. The standard framework for any recommendation should be:

1. Recommendation
2. Risks
3. Next Steps

All delivered in under 1 minute maximum

# Interviewee-led: Easy



# **Coffee Shop Co.**

**Bain | Round 1 | Easy | New Market Entry**

## Bain | Round 1 | Easy | New Market Entry

### Prompt: INTERVIEWEE LED

You're having lunch with an old friend from university, and she's looking for some business advice. She is thinking of opening a coffee shop in Cambridge, England, a large university city an hour and a half away from London.

She sees potential in this business but wants your help in determining whether opening a coffee shop is a good idea. **What do you think?**

### Clarifying Information (Only Provide if Asked):

- **What is your friend trying to sell?** Strictly coffee. She hasn't ruled out selling other products in the future but wants to focus on Coffee production for now.
- **What is your friend's background?** We don't know this information, but you can assume she hasn't owned or operated a Coffeeshop before and needs sound business advice from you
- **What is the market size of Cambridge?** The population of Cambridge is approximately 100,000 people, but you will likely need to estimate the market size later in the case.
- **What is competition like in the local market?** We don't know this for sure, but for the sake of this case you can assume no competition.

# Coffee Shop - Sample Framework



$$\text{Profit} = \text{Revenue} - \text{Costs}$$

$$\text{Revenues} = \text{Quantity} * \text{Price}$$

## Quantity (Q)

- How many coffee cups sold per day?
- How many cups or customers per year?

## Price (P)

- What is the price of one cup of coffee?
- Does the price change?
- How would do price maximization?

## Other revenue streams?

$$\text{Costs} = \text{Fixed Cost} + (\text{Variable Cost} * \text{Quantity})$$

## Fixed Cost (FC)

- Cost to build/buy storefront location?
- Cost of electric, equipment?

## Variable Cost (VC)

- What components go into making coffee?
- How much do these components cost?

## Other revenue streams?

## External Factors

- Market Size
- Market Trends
- Market Growth Rate
- Competition
- Impact of Digitization

# Coffee Shop – Market Sizing



## Question for Interviewee:

How do you estimate the size of the market? Assume the market is in Cambridge and each person has an average of 1 cup of Coffee a day

## Market Sizing Exercise

\*Note: there is no right or wrong answer! Market sizing is always an assumption\*

### Top-Down:

100,000 people live in Cambridge

- $100,000 * 80\% \text{ adult pop. Rate} = 80,000$
- $80,000 * 50\% \text{ of adult coffee drinkers} = 40,000 \text{ people}$
- $40,000 \text{ people} * 1 \text{ cup per day} = 40,000 \text{ cups per day}$
- $40,000 \text{ cups} * 50\% \text{ made at home} = 20,000 \text{ cups per day bought at coffeeshops}$
- $20,000 \text{ cups per day} * 350 \text{ days/ year} = 7,000,000 \text{ cups of coffee per year}$

**Total Market Size Approx. 7,000,000 cups/year**

## Information to give if asked:

- Market Location = Cambridge, England
- Market Size = Approx. 100,000
- Percent of Adults in Population = 80%
- Percent of Coffee Drinkers = 50%
- Average cups of coffee per day = 1
- Percent of coffee brewed at home = 50%
- Days in a year = Approx. 350

**Question for interviewee: How much coffee does your friend need to sell to break even in the first year?**

**Additional Information (provided if asked):**

- Price per coffee = £3 (£ = pounds)
- Cost to open shop = £245,610
- Cost to run shop each year = £163,740
- Cost per cup of coffee = £1

### **Breakeven Calculation (Units)**

- $(\text{Price} * \text{Quantity}) - (\text{Fixed Costs} + (\text{Variable Costs} * \text{Quantity})) = \text{\textsterling}0$
- $(3*Q) - (163,740 + 245,610 + (1 * Q)) = 0$
- $2Q - 409,350 = 0$
- $Q = 204,675$  cups to breakeven

### **Alternative Approach**

- $\text{FC} / \text{Gross Margin}$  (Gross Margin = Price – variable cost)
- $(163,740+245,610) / (\text{\textsterling}3 - \text{\textsterling}1)$
- $Q = 204,675$  cups to breakeven

# Coffee Shop - Wrap Up



## Sample Recommendation:

- Our friend should definitely move forward with opening her coffee shop in Cambridge! Because there are 7,000,000 cups sold in Cambridge each year and the break-even point is 204,675, which is approximately 3% of total market share, breaking even is very achievable

## Sample Risks & Consideration

- Underestimating the competitive threats in the area
- Residual effect of COVID-19 pandemic and making coffee more frequently at home
- We would want to understand our friend's investment timeline. Depending on how many years she plans to run the store, it may be difficult to recover the cost of opening

## Sample Remaining Questions & Next Steps:

- Understand our friend's investment and owner timeline
- Explore go-to-market strategies for CoffeeCo.
- Define how the organization will differentiate itself among its competitors
- Understand if competitors are smaller or larger players and how competitive dynamics will work
- Understand if our friend has any interest in expanding beyond just her first shop

# New York Taxi Driver

## Round 1 | Easy

# New York Taxi Driver

## Round 1 | Easy

**Prompt:**

You are a New York City taxi driver. You have just dropped off a passenger at LaGuardia Airport, 12 miles from downtown Manhattan. You are now faced with a choice of returning to Manhattan with an empty cab or waiting in a two-hour line to pick up a passenger at the airport.

**Initial Question: How would you decide between your options?:**

- Framework should include financial and qualitative factors

# Sample Response Framework

**Back to  
Manhattan**

**Time**

- Traffic
- Time to get new client

**Cost**

- Fares

**2 Hr Line**

**Time**

- Toll
- Opportunity Cost

**Cost**

- Drop off place?

**External  
Considerations**

- Weather
- Commitments

# Question 1 Interviewer Guidance



**Question for Interviewee: Your cab collects \$2 for the first mile and \$1 for each additional mile. When you think about the additional costs and revenues of each option, which option is better financially?**

## **Information available upon request:**

- La Guardia fare data
  - Average tip 10% of fare (rounded up to full dollar)
  - Cost of cab 50% of meter revenue
  - Bridge toll \$3.50 (paid by driver if cab is empty)
  - Fuel/gallon \$3
  - Cab's fuel efficiency 24 MPG
- Manhattan fare data
  - Average wait time to find a fare: 20 minutes
  - Average distance to find a fare: 2 miles
  - Average time of a fare: 10 minutes
  - Average distance of a fare: 2 miles
  - Average tip per fare: \$2

# Question 1 Calculations



## Solution Walkthrough:

- Staying at La Guardia
  - Revenue = Fare \$13 + Toll \$3.50 + Tip \$2 = \$18.50
  - Cost: Gas \$1.50 (12 miles at 24 MPG =  $\frac{1}{2}$  gallon \* \$3/gallon) + Toll \$3.50 + Car \$6.50 (\$13 fare \* 50%) = \$11.50
  - Profit = \$18.50 revenue - \$11.50 cost = \$7
- Leaving for Manhattan with an empty cab
  - Revenue once in Manhattan = Fare \$3 (average of 2 miles = \$2 for first miles + \$1 for second mile) + Tip \$2 (average tip in Manhattan) = \$5
  - Costs = Gas \$0.50 (4 miles at 24 MPG =  $\frac{1}{6}$  gallon \* \$3/gal) + Car \$1.50 (\$3 fare \* 50%) = \$2
  - Profit = \$4 revenue = \$2 costs = \$3
  - Total Profit \$12 (it takes 20 mins to find passenger +10 minutes per ride = 30 minutes) for the 4 taxi rides in Manhattan
  - Include the gas and toll cost to get from La Guardia to Manhattan with an empty cab = Toll \$3.50 + Gas \$1.50 = \$5.00
  - Therefore, total profit = \$12 - \$5 = \$7

The amount of expected profit from the two alternatives is the same.

# Question 1 Interviewer Guidance



**Question for Interviewee: So how would you decide between staying at LaGuardia and driving to Manhattan?**

**Top Answer::**

- The decision comes down largely to non-financial factors.
- Hypothesis for non-financial factors that might affect a driver's decision?
  - La Guardia
    - Sitting in the car listening to the radio or a podcast
    - Calling important people in your life
    - Fewer customers
    - Day-trading or other revenue streams?
  - Manhattan
  - More exciting
  - More customers

# Wrap Up: Interviewer Guide



**Follow-up: Given what you would do, what does this mean for people who need taxis in Manhattan and at LaGuardia? What might you change?**

**Creativity question.**

No need to summarize, unless the candidate diverged too much.

# **Styrofoam Situation**

**BCG | Round 2 | Easy | Manufacturing**

# Styrofoam Situation

**BCG | Round 2 | Easy | Manufacturing**

## Prompt:

Your client is the CEO of Cup Co, a national supplier of Styrofoam cups to restaurants. While profit has been steady, she is worried about the influx of cheaper products from China by a new competitor (Chalice Inc) and has called you in to determine how threatening the situation is and to give a recommendation on how to ensure continued profitability.

## Clarifying Information (Only Provide if Asked):

- **Who are Cup Co's customers?** Cup Co's customer base consists only of restaurant chains in the US (McDonald's, etc)
- **What is Cup Co's product makeup?** For the purpose of this case, assume Cup Co only has one product
- **Where does Cup Co manufacture and sell its products?** Cup Co manufactures and sells its product in the US
- **Additional information on Chalice Inc?** Chalice Inc is Chinese based company with no other product in the US

# Sample Framework



**Note: All items should be framed relative to Cup Co. and Chalice Inc. (could be in a table)**

## Financial Considerations

- Revenue - Number of customers, Average unit sold to customers
- Cost - Fixed cost of production, variable cost of production, overhead (shipping, etc.)

## Non-Financial Considerations

- Customers - What matters to them?
- Competition - both new and old

# Exhibit 1

	Cup Co. (Cents)	Chalice Inc. (Cents)
Price	10	7
Cost		
Manufacturing	4	4
Shipping	3	3
Distribution	-	2

# Exhibit 1 Interviewer Guidance



## Exhibit Guidance:

*The interviewee should notice and verbally acknowledge the following in Exhibit 1:*

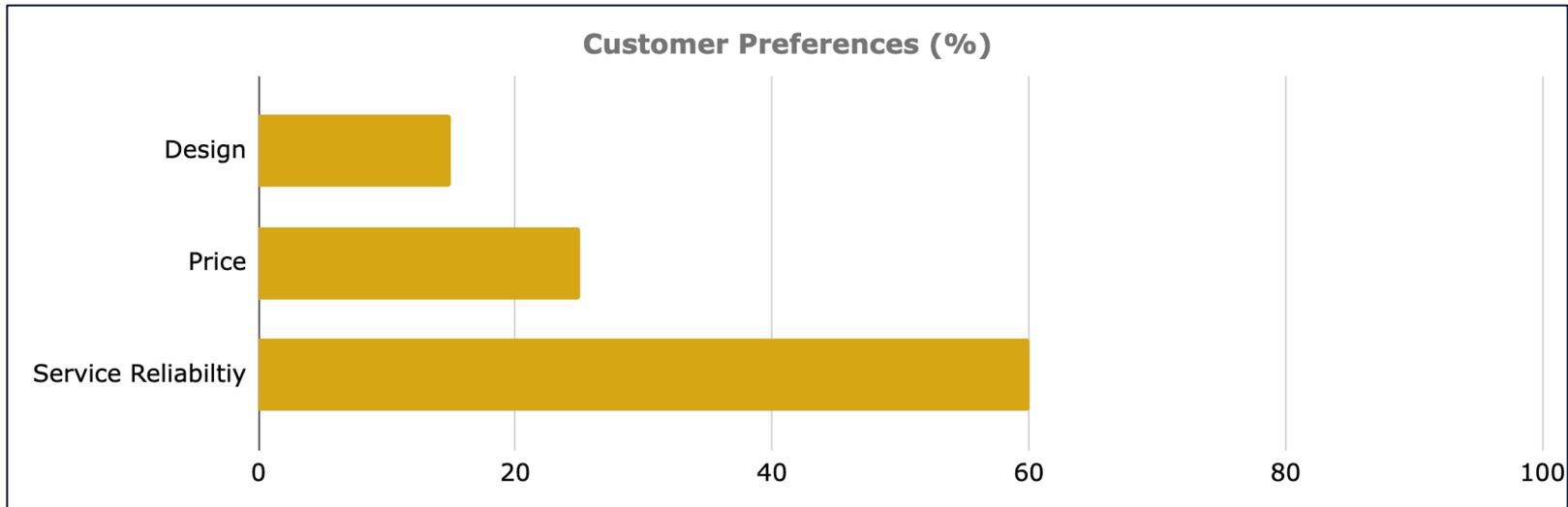
- Calculate the profitability per unit for both Cup Co and Chalice Inc
- Quickly notice that Cup Co's net margin is 30% (which is good), while Chalice Inc is running at a loss
- All of Cup Co's profit will be eroded if they try to match Chalice Inc's price

## How to Move Forward:

*To get to the next portion the case, the interviewee should ask to explore:*

- Good interviewees will move to brainstorming why Chalice Inc is willing to sell at a low price even though they are losing money (possible ideas include lower price to gain market share or US market knowledge for other product launches)
- Next, the interviewee should begin to explore options available to Cup Co. Provide Exhibit 2 when the interviewee asks for it

# Exhibit 2



# Exhibit 2 Interviewer Guidance



## Exhibit Guidance:

*The interviewee should notice and verbally acknowledge the following in Exhibit 2:*

- The most important metric to customers is reliability of service and Cup Co ranks a lot higher than Chalice Inc
- Good interviewee might point out the fact that important products from China adds additional logistics problems which may be impacting their service reliability score

## How to Move Forward:

*To get to the next portion the case, the interviewee should ask to explore:*

- At this point in the case, the interviewee should move on to brainstorm Cup Co's possible responses

# Follow-up Brainstorming Question



**Question: Cup Co is currently in a good position relative to Chalice Inc. What are possible strategies to reinforce this position?**

*Note: This is just one possible set of categories and answers. Many more are possible, and interviewees should assess both the volume and relevance of answers.*

## **Offensive Strategies:**

- Lower prices a little to send a message to customers
- Negotiate contracts with customers to lock them in
- Improve design (candidates should realize that while this isn't very important, it is worth exploring)

## **Defensive Strategies:**

- Further identify ways to improve service reliability e.g. optimizing delivery routes

*Note: Good interviewees will identify which of the strategies identified above they want to explore first. There are no right or wrong answers as long as the interviewee justifies their thinking*

# Conclusion

To conclude, the interviewee should provide the following:

**Summary:**

- Cup Co is better positioned in the market than Chalice Inc. Price is not the customers' pain point, hence Chalice Inc does not currently present too much risks

**Recommendation:**

- Cup Co should not lower its prices
- It should defend and possibly improve its rating in high service reliability

**Risks:**

- Price may become a pain point e.g. if the economy experiences a downturn

**Next Steps:**

- Explore ways to improve service reliability e.g. delivery route optimization

# **National Logistics**

**Bain | Round 1 | Easy | Transportation**

## Bain | Round 1 | Transportation | Easy

### Prompt:

Your client is National Logistics; a large transportation and logistics company that delivers freight to all areas of North America. Over the last five years, the company has experienced rising costs due to increases in wages resulting from a shortage of truckers. The client is now looking to reduce operational costs in the business. How would you advise the client?

### Clarifying Information (Only Provide if Asked):

- **What is the client's primary goal?** National express is looking to boost profitability by any means
- **Are other competitors facing the same issue?** Yes, the entire transportation industry is feeling the wage pressure
- **Does the client have a profitability target?** No, the client just wants to improve profitability from their current state
- **Are there other costs that have been influencing profitability?** Yes, steadily rising fuel prices have also been hampering the company's profits
- **Is the company running at full capacity?** Yes, the only thing limiting the company's revenue growth is finding drivers to drive their trucks
- **Has revenue also been in decline?** No, revenue has been rising steadily over the last 5 years but is only capped by lack of drivers to fulfill deliveries

# Sample Response Framework

## Profitability

### Revenue:

- Prices: Can we raise them?
- Delivery Mix: Prioritize more expensive freight?
- Use double trailers per delivery instead of single trailers

### Costs:

- Fuel: What are fuel prices? Can we hedge?
- Depreciation: What are the depreciation life-span on trucks?
- Overhead: Can we reduce admin staff?
- Outsource: Contract labor
- Load per Truck: How full are the loads per delivery?

## Investments

- Buy new fuel efficient trucks
- Add energy saving technology e.g. spoilers, speed limiters, drag resistant wheels, etc.
- Purchase a low cost-leader transportation company

## Innovate

- Develop drone delivery capabilities
- Explore autonomous trucks

## Other

- Explore other high margin markets e.g. airfreight, shipping, railways, etc.

**How to Move Forward:** The candidate should mention “more fuel efficient trucks” (or something similar) in his/her framework. If they don’t, press them until they mention it. Once included in the framework, mention that: the client was interested in exploring that option. Move on to question 1.

# Question 1 Interviewer Guidance



## Question for Interviewee:

The client is interested in purchasing more fuel efficient hybrid truck fleets that use both batteries and diesel fuel. What are some of the cost considerations the client should be aware of in making this decision?

## Sample Answer:

The candidate can list any number of factors to consider, but it is crucial for the candidate to list these five cost considerations below. Press

the candidate if he / she is missing any of the following five factors.

1. Price/cost of truck
2. Maintenance
3. Insurance
4. (Fuel usage) miles per gallon (MPG)
5. Depreciation

## Bonus Question:

What costs do you believe would increase if National Express were to use hybrid trucks?

Guidance: This question tests a candidate's business judgement. The price of the truck, maintenance, and insurance are good answers because the hybrid models have more technology and are more complex than a standard truck. Hand the candidate Exhibit 1.

# Exhibit 1: Cost of Operating Each Semi



Financial Metrics	Standard Truck	Hybrid Truck
Purchase Price	\$100,000	\$150,000
Maintenance/year	\$5,000	\$8,000
Insurance/year	\$2,000	\$3,000
Avg. Miles Driven/year	60,000	60,000
MPG	10	20
Vehicle Lifespan	10 years	10 years

\*National Express pays an average \$3.00 per gallon for fuel

# Question 2 Interviewer Guidance



## Question for Interviewee:

We ran two cost scenarios for the client to compare the cost of operating a hybrid truck vs. a standard diesel truck.

What are the potential cost savings (if any) from switching to a hybrid truck?

Candidate should ask about the depreciation schedule: Answer –National express uses straight-line depreciation for all of their trucks. All trucks will have a \$0 salvage value at the end of their lifespan.

## Sample Answer:

Standard Semi:

Maintenance + Insurance = \$7,000; Depreciation =  $\$100k / 10 \text{ years} = \$10,000$ ; Fuel =  $60,000 \text{ Miles} / 10 \text{ MPG} = 6,000 \times \$3.00 \text{ per gallon}$

$$= \$7,000 + \$10,000 + \$18,000 = \$35,000 \text{ Annually per truck}$$

Hybrid Semi:

Maintenance + Insurance = \$11,000; Depreciation =  $\$150k / 10 \text{ years} = \$15,000$ ; Fuel =  $60,000 \text{ Miles} / 20 \text{ MPG} = 3,000 \times \$3.00 \text{ per gallon}$

$$= \$11,000 + \$15,000 + \$9,000 = \$35,000 \text{ Annually per truck}$$

# Question 3 Interviewer Guidance



## Question for Interviewee:

Given the results of the analysis, would you recommend for National Logistics to invest in hybrid trucks? Why or why not?

## Sample Answer:

There is no right or wrong answer (except "I don't know"). This question is meant to judge how well a candidate can make a decision and justify their decision during moments of ambiguity.

Possible answers could include:

**Yes.** Possible rationales: The savings can be even more if gas prices continue to rise; the company can extend the useful life of the hybrid trucks to reduce depreciation expense; the company can explore negotiating maintenance costs down; Hybrid trucks are better for the environment and may have tax reduction implications; Switch insurance providers or negotiate on costs

**No.** Possible Rationales: Gas prices may fall, this making the standard trucks cheaper to operate; the purchase doesn't meet the company's primary goal of reducing costs; tying up resources in new trucks creates an opportunity cost against more potentially profitable projects

Many more sound rationales can be used to explain the candidate's choice. It is up to the interviewer to judge whether the candidate's judgement is sound

# Brainstorm

## Question for Interviewee:

The client also wants to get our thoughts on how they can reduce their shortage of truckers. Brainstorm some ways National Logistics can reduce their shortage.

## Sample Answer:

### Internal:

Pay & Benefits (call out that these reduce profitability)

- Offer starting bonuses
- Increase salaries
- Offer more vacation
- More Flexible hours
- Better healthcare coverage

Reduce employment restrictions

- Lower education restrictions
- Low work experience

Get help internally

- Have overhead employees drive during peak seasons

### External:

- Hire contract drivers part-time during peak seasons
- Sponsor international drivers with visas
- Invest in autonomous truck technology
- Form delivery partnerships with competitors
- Look into heavy duty drones for short routes

# Conclusion



**To conclude, the interviewee should provide the following:**

Recommendation:

- Should National Logistics invest in new trucks? (Yes/ No) and why?
- (If not) what other cost saving initiatives can they explore (from framework)?

Risks:

- Fuel prices will impact savings
- Maintenance costs may vary
- Driver wages may continue to rise in strong economy

Next Steps:

- Explore other cost savings alternatives like... (refer to framework)
- Look for ways to reduce hybrid truck insurance or maintenance costs, etc..

# Interviewee-led: Medium



# **Penn & Teller**

**BCG | Round 1 | Medium | Hospitality & Leisure**

## BCG | Round 1 | Medium | Hospitality & Leisure

### **Prompt:**

Our client is Caesars, one of the largest gaming and resort companies in the world. Penn and Teller have been the headlining show at the Rio Hotel since 2001, and they are currently the longest-running headlining show in Vegas history. Caesars, who owns the Rio Hotel where the duo performs in the 1500 seat P&T Theater, is wondering if their act has become stale. Penn & Teller's annual contract is about to expire, before Caesars has a meeting with the duo they have asked our company's advice on whether or not to resign the act for another year. What recommendation do you have for Caesars?

### **Clarifying Information (Only Provide if Asked):**

- **What goal does Caesars have?** As one of the largest entertainment companies on the Strip and around the world, Caesars solely cares about the company's total bottom-line profitability.
- **How long is a contract for Penn & Teller?** As is Vegas standard, all contracts are for a one-year time period.
- **Why does Caesars think the show is stale?** The show has plateaued, with no change in bottom line profitability in the past five years.
- **Who is Caesars/Penn & Teller's biggest competitors?** Caesar's biggest competitor is MGM Resorts, which operates about 33% of the Strip. P&T compete against a whole bevy of nighttime entertainment, such as other shows, nightclubs, and gaming.

# Penn & Teller - Sample Framework



## Revenues

### Price

- Tier Pricing
- Bundles

### Unit Ticket Sales

- Ticket Tiers
- Theatre Capacity + Occupancy

## Costs

### Fixed

- Marketing
- SG&A
- Annual Contracts
- Insurance

### Variable

- Props / Show Supplies
- Utilities
- Stage Crew

## Alternative Revenue Sources

- Hotel Stays
- Dining
- Casino / Gaming
- Drinks
- Souvenirs
- Concessions

# Penn & Teller – Additional Info



**Note: Provide following information only when asked.**

Question	Information
<b>How many seats are in the theatre?</b>	The theatre has 1500 seats in three categories: A, B & C. There are 300 category A seats (best seats in the house), 800 Category B seats, and 400 Category C seats (cheap seats).
<b>Do the seats always sell out?</b>	On average, 100% of A, 80% of B, and 50% of C are sold.
<b>How much do seats cost?</b>	Category A costs \$120, Category B costs \$75, Category C costs \$55.
<b>How many shows does P&amp;T perform?</b>	They perform the Vegas standard 6 shows per week, 40 weeks per year (they have 1 day off per week, and three months per year when they are working on TV endeavors).
<b>How has revenue changed?</b>	These numbers have been static over the past 5+ years.

# Penn & Teller – Revenue Calc



Note: Candidate should now calculate total revenue.

Category	# of Seats	% Sold	Attendance per Show	Price per Ticker	Revenue
A	300	100%	300	\$120	\$36,000
B	800	80%	640	\$75	\$48,000
C	400	50%	200	\$55	\$11,000
				<b>Total Revenue per Show:</b>	<b>\$95,000</b>
				Shows per Week	6
				Weeks per Year	40
				<b>Annual Revenue:</b>	<b>= \$95,000 x 6 x 40 = \$22.8 M</b>

# Penn & Teller – Cost Info



**Note: Provide following information only when asked.**

Question	Information
<b>What costs are involved?</b>	<p><b>Costs are broken into six main buckets:</b></p> <ol style="list-style-type: none"><li>1. Both Penn &amp; Teller make \$2M each</li><li>2. The Crew (stagehands, ushers, etc) in total cost \$2k per show</li><li>3. Housekeeping costs \$1000 per week</li><li>4. Props cost \$200 per show</li><li>5. Utilities (lighting, etc) cost \$52,000 each year</li><li>6. SG&amp;A (marketing, box office, etc) cost \$15k per month</li></ol>
<b>Does housekeeping clean year round?</b>	No, only the 40 weeks.
<b>Is SG&amp;A paid year round?</b>	Yes, it is a 12-month expense.
<b>Have costs changed?</b>	These costs have been static over the last 5+ years.

# Penn & Teller – Cost Calc



Note: Candidate should now calculate total revenue.

Cost Item	Cost	Timeline	Annualized
<b>Penn &amp; Teller</b>	\$2,000,000	Per Person Per Year	\$4,000,000
<b>Crew</b>	\$2,000	Per Show	\$480,000
<b>Housekeeping</b>	\$1,000	Per Week	\$40,000
<b>Props</b>	\$200	Per Show	\$48,000
<b>Utilities</b>	\$52,000	Per Year	\$52,000
<b>SG&amp;A + Marketing</b>	\$15,000	Per Month	\$180,000
		<b>Total Annual Cost:</b>	<b>\$4,800,000</b>

Annual Revenue = \$22.8 M  
Annual Costs = \$4.8 M  
Annual Profit = \$18 M  
Margin ~ 80%

# Penn & Teller – Brainstorm



## Question for Interviewee:

What can Caesars do to make the current show more profitable?

## Sample Answer:

### Revenue:

- Increase Ticket Price
- Increase Unit Sales  Switch some B seats to As, Cs to Bs; offer bundle discounts; advertising campaign
- Other  Concessions, gift shop, shorten the show so viewers gamble more

### Costs

- Revisit contract with P&T
- Check union v. non-union labor

# Penn & Teller – AGT Question



## Question for Interviewee:

Caesars has the opportunity to switch the P&T show for one featuring the recent winner of America's Got Talent. Should they make the switch?

## Sample Clarifying Q&A:

- **What goals does Caesars have?** Total bottom-line profit.
- **How long is the contract with the AGT winner?** As Vegas standard, 1 year.
- **Are there switching costs?** Putting in a new show will require a reconfiguration and a one-time marketing blitz. This would cost \$2.4M to do and would occur before the first show.
- **What are the revenues of the new show?** The new show would bring in \$90k in ticket sales per show.
- **What are the costs of the new show?** The new show would cost less than P&T at \$3M per year.

**Incremental Profits:**

$$\Delta\text{Revenue} = \$90k - \$95k = -\$5k$$

$$\Delta\text{Annual Revenue} = -\$5k * 6 * 40 = -\$1.2 \text{ M}$$

$$\Delta\text{Annual Costs} = (\$3\text{M}) - (\$4.8\text{M}) = \$1.8 \text{ M}$$

$$\Delta\text{Annual Profit} = \$600k$$

$$\text{Payback Period} = \$2.4\text{M} / \$600k = 4 \text{ years}$$

**Yes - Change**

- P&T is stale, AGT is fresh and exciting
- AGT is \$600k more profitable

**No – Don't Change**

- 4 year payback is a long-time in a competitive market
- AGT may not have long-lasting appeal

# **Organic Pizza Crust**

**Bain | Round 1 | Medium | New Product Dev.**

# Organic Pizza Crust

## Bain | Round 1 | Medium | New Product Development

### Prompt:

Our client is a natural foods company that has annual sales of \$35M. It makes and sells a variety of organic bread mixes and is thinking about expanding its product line to include an organic pizza crust mix. The CEO has engaged our consulting firm to build the case on whether this is a good idea or not.

### INTERVIEWEE LED

#### Information to be Provided Upon Request:

- **Estimated Demand:** Have candidate size the market.
- **Growth Rate:** Organic food market growing at 25%
- 10% of the food market is organic
- **Competition:** We would be the first to enter the organic pizza crust mix market. Client would compete with regular pizza crust products in the grocery channel market though.
- Organic market is highly fragmented.
- **Price:** it is like the current products that the client sells....\$3.50
- **Variable Costs:** \$1.20 ingredients, \$1.50 sales and marketing, \$0.30 labor
- **Upfront Investment Cost for New Equipment:** \$30,000
- Customers seem to be demanding more organic products and more products for their home bread machines.
- Client has all the value chain capabilities in place
- **Product:** it's a pizza crust mix that customers can bake in their home ovens.
- **Distribution:** thinking about selling to gourmet, natural foods, and/or grocery channels.
- Gourmet and natural foods channels will have higher margins and less competition
- **Target Market:** U.S. Population

# Organic Pizza Crust- Sample Framework



## Market

- Size
- Growth Rate
- Penetration Rate
- Price or expected margins
- Costs: Investment and variable

## Customer

- Customer segments
- Needs & Wants
- Pricing
- Distribution channel preferences
- Customer concentration and bargaining power

## Competition

- Market share
- Number of players
- Size of players: small or large
- Products and substitutes

## Capabilities

- Product Capabilities
- Distribution Capabilities
- Financial
- Marketing and sales
- Management and organization

## External Environment

- Relationship and access to suppliers
- Cannibalization of products
- Other considerations

# Organic Pizza Crust– Market Sizing

Candidate should work to estimate the demand for Organic Pizza crust in the U.S.

## Market Sizing Exercise

\*Note: there is no right or wrong answer! Market sizing is always an assumption\*

- 300M people in the U.S. / 3 people per household = 100M households in the U.S.
- 2 pizzas a month per household \* 12 months = 24 pizza a year
- Approx. 10% of all pizzas made by household a year  $\square$  24 \* 10% = ~2 pizzas made per household per year
- 2 pizzas per household \* 100M households = 200M pizzas made per year in U.S.
- 10% organic market \* 200M pizzas made = **20M organic pizzas per year**

## Assumptions (Guide, do not give unless candidate stuck):

- U.S. Population – 300M (Can also use 350M)
- Avg 3 People Per Household
- Number of pizzas consumed a year per house = 24
- 2 Pizzas made per household a year
- 10% of the market is organic

# Pizza Crust – Breakeven Calculation



**Candidate should next work to estimate the breakeven of selling organic pizza crust**

**Additional Information (provided if asked at beginning of case, make candidate brainstorm potential cost components before giving them):**

- Price per pizza = \$3.5
- Variable costs = \$1.20 ingredients, \$1.50 sales & marketing, and \$0.30 labor
- Upfront Investment in New Equipment = \$30,000

## **Breakeven Calculation – Contribution Margin Approach (Units)**

- Fixed Costs / Gross Margin -- (Gross Margin = Price – Variable Cost)
- $\$30,000 / (\$3.50 - \$1.20 - \$1.50 - \$0.30)$
- $\$30,000 / \$0.50 = 60,000$
- **Breakeven = 60,000 organic pizzas**

## **Possible Follow-Up & Additional Analysis**

- 20M pizza \* \$3.50 price per pizza = \$70M organic pizza crust market
- Client only needs to sell 60,000 units to break even in a market with 20M units of demand = 3% of the market (very attainable)
- No known competition in the area

# Organic Pizza Crust - Wrap Up



## Sample Recommendation:

- Our client should move forward with launching the new organic pizza crust product line . The organic foods market is growing at a healthy 25% rate, no competition exists in the sector for the time being, and the client only needs to sell 60,000 units to break-even, which represents a very manageable 3% of the 20M demand market. The client is fully capable of bringing this product to market with its existing capabilities an thus all signs point to a go.

## Sample Risks & Consideration

- Underestimating the competitive threats in the area, especially in the long term once more players enter the market
- Opportunity cost of not taking on other new products as a result of pursuing the introduction of organic pizza crust
- Difficulty finding relevant suppliers that would be willing to sell organic pizza crust

## Sample Remaining Questions & Next Steps:

- Look into how well our brand would play out in the pizza crust market as well as what kind of shelf space our product would get
- Consider launching first in the gourmet or natural food channels where competition is lower and margins higher.
- Explore go-to-market strategies for Organic Pizza Crust.
- Define how the organization will differentiate itself among its future competitors

# **The Coffee Grind**

**Bain| Round 1 | Medium | Retail**

# The Coffee Grind

Bain | Round 1 | Retail | Medium

## Prompt:

The CEO of a major has requested a short-term study examining a small part of the client's product portfolio. The company has a small division that manufactures automatic drip coffeemakers for the U.S. and Canadian market. The division has been steadily producing the coffeemaker division, and annual volumes have been steady. Recently, however, the coffeemaker division's profits have been declining. The CEO wants to understand what is going on.

What **broader insights** would you want to explore first to answer the CEO's question?

The point here is to push the interviewee to develop a framework beyond the standard profitability setup.

## Clarifying Information (Only Provide if Asked):

- **Regarding changes in fixed or variable cost:** the production lines and facilities are mature, the business has been steady, overall production is rather efficient given the advantages of a long-term steady state. No major changes to fixed or variable cost inputs have occurred.
- **Production:** All production occurs at a facility in Michigan. The plant is operating at about 90-95% capacity/
- **Volume:** Relatively constant
- **Product Mix:** The division produces 4-cup, 10-cup, and 12-cup coffeemakers. The overall mix between these categories has been fairly consistent.

# Sample Response Framework

## Market

- Performance
- Competitors
- New substitutes?
- Technological developments?
- Prices relative to competitors

## Customer

- Changing preferences?
- Product mix?
- Price sensitive change?
- Concentration of customers?
- Customers shopping in new channels?

## Channel

- Change distribution?
- Change retail outlets
- How are prices established

X

- X

# Exhibit 1

## Number of coffeemakers Sold (in thousands of units) by Retailer Category

	2010				2009				2008				2007				
	4-cup	10-cup	12-cup	Total	4-cup	10-cup	12-cup	Total	4-cup	10-cup	12-cup	Total	Total	Total	Total	Total	Total
<b>National Chains</b>																	
Best Buy	10	12	12	34	9	12	12	33	9	12	12	33	33	32	32	31	30
Target	29	38	17	84	28	38	17	83	28	38	17	83	84	82	80	78	79
Walgreens	1	1	1	3	1	2	2	5	1	2	2	5	5	5	5	5	5
Sears	1	6	7	14	1	6	7	14	1	6	7	14	15	15	16	18	36
Office Max	6	10	10	16	6	10	10	16	6	10	10	16	17	17	18	19	20
Kohl's	1	3	2	6	1	3	2	6	1	3	2	6	7	7	7	7	8
Bed, Bath, & Beyond	8	8	7	23	9	9	8	26	10	9	8	27	29	30	32	33	34
Costco	15	16	19	50	17	16	19	52	17	17	21	55	59	62	67	69	25
BJ's	12	14	47	73	11	13	42	66	10	12	38	60	57	52	48	44	20
Walmart	41	76	71	188	34	65	68	167	28	54	60	142	125	110	93	83	99
<b>Total National</b>	<b>118</b>	<b>180</b>	<b>193</b>	<b>491</b>	<b>111</b>	<b>170</b>	<b>187</b>	<b>468</b>	<b>105</b>	<b>159</b>	<b>177</b>	<b>441</b>	<b>431</b>	<b>412</b>	<b>398</b>	<b>387</b>	<b>356</b>
Memo: Percent of Sales	15%	23%	25%	63%	15%	22%	25%	61%	13%	20%	23%	57%	52%	52%	50%	46%	46%
<b>Non-National Retailers</b>																	
Grocery	19	25	36	80	23	30	37	90	26	32	39	97	116	109	110	120	104
Medium Retailers	36	24	25	85	45	25	20	90	45	31	33	109	101	109	120	114	102
Smaller Retailers	38	21	15	74	10	24	19	53	16	25	20	61	100	91	95	112	106
Other	10	20	21	51	12	24	25	61	12	29	29	70	76	70	75	104	101
<b>Total Other</b>	<b>103</b>	<b>90</b>	<b>97</b>	<b>290</b>	<b>90</b>	<b>103</b>	<b>101</b>	<b>294</b>	<b>99</b>	<b>117</b>	<b>121</b>	<b>337</b>	<b>393</b>	<b>379</b>	<b>400</b>	<b>450</b>	<b>413</b>
Memo: Percent Sales	13%	12%	12%	37%	12%	14%	13%	39%	13%	15%	16%	43%	48%	48%	50%	54%	54%
<b>Total Sales</b>	<b>221</b>	<b>270</b>	<b>290</b>	<b>781</b>	<b>201</b>	<b>273</b>	<b>288</b>	<b>762</b>	<b>204</b>	<b>276</b>	<b>298</b>	<b>778</b>	<b>824</b>	<b>791</b>	<b>798</b>	<b>837</b>	<b>769</b>
Memo: Percent of Sales	28%	35%	37%	100%	26%	36%	38%	100%	26%	35%	38%	100%	100%	100%	100%	100%	100%

# Exhibit 1: Questions

## **Question 1: What conclusions can you make from this data?**

- The candidate should identify that National chains increasingly make up a greater share of the client's sales  
A strong candidate would be able to note that one retailer, Wal-Mart, buys 25% of their coffeemakers

## **Question 2: What are implications for this shift towards National retailers?**

- Large chains have more bargaining power, and are putting more pressure on the division to provide discounts on its products based on volume, which is squeezing the company's margins

## **What Percent of the market do you think the client has?**

- The candidate needs to start by estimating the number of coffeemakers sold in the U.S. and Canada annually:
  - Any logical approach is acceptable. A recommended approach would be to start with population in U.S. and Canada, divide it by households, estimate the percentage that have electric coffeemakers (it's about 65%), and that coffeemakers are replaced about every 5-10 years (can use an average).
  - A strong candidate would add other places (offices, hotels, ect) and explain all its assumptions.
  - At the end, the candidate should estimate around 10-15 million coffeemakers sold annually. Therefore, the client has about 5-8% market share, and is a relatively small player, so the company has little bargaining leverage with retailers.

# Follow-up Questions

**Question:** During a brief meeting with the CEO, you shared your early insights. He states that the dishwashers and cooking appliances divisions recently launched a website to sell its products. He wants to know if a website would also work for coffeemakers. Do you think it will work?

Any answer is acceptable if the candidate can provide a logically structure argument to support his or her answer, although the candidate should at a minimum identify a couple of risks. Additionally, the candidate should want to know more about the possible profitability of a website.

**Possible reasons or a website:**

**Profitability:** allows client to capture the margin that presently goes to the retailers.

**Channel:** reduces client's dependency on national retailers, could add additional value.

**Company:** the company has a website already so capabilities may exist

**Possible reasons against a website:**

**Profitability:** need to understand fixed costs

**Customer:** coffeemakers are more of an immediate purchase decision than dishwashers or ovens, customers may not want to wait for shipping times

**Competition:** may face increased competition online from websites such as Amazon

**Channel:** risk of retailers retaliating by pulling products from their shelves

**Company:** the division may not have the expertise or skill needed for online marketing, shipping, sales, etc

# Math Question #2

**Question: Given the following information we've collected, what percent of the company's sales would the client need to achieve for the website to break-even?**

The interviewer should tell the candidate the following:

- Annual website costs: \$500k
- Additional marketing costs: \$300k
- Average retail price of coffee makers: \$60
- An additional \$4 per coffee maker will be required for handling sales through the website
- The customer pays for the cost of the shipping

The interviewee should only provide the following when asked:

- The Margin on the coffee makers is 40%

## Answer

With a margin of 40%, the cost of producing the coffee maker is \$36 ( $40\% = (\$60 - COGS)/\$60$ )

THEREFORE THE PROFIT PER COFFEE MAKER IS \$24 BEFORE THE \$4 extra handling cost, and \$20 after the extra cost is included.

The total cost of the website is \$800k/

Breakeven volume =  $\$800,000/\$20 = 40,000$  coffee makers

The client sells approximately 800k coffee makers annually, so about 5% of the clients volume

# Conclusion and Wrap-up

**Question:** The CEO really appreciated all of work you've done so far on identifying the issue with national retailers squeezing margins and the breakeven analysis on the website. He would also like your insight on other possible ideas. What other solutions might you suggest?

Anything is acceptable as long as it is reasonable. The idea is to push the candidate's creativity. After the candidate has provided a few options, continue to ask "What else" until the candidate cannot produce any more ideas.

Sample answers:

- Investigate selling the division to another coffeemaker
- Move production overseas to increase margins
- Investigate purchasing other coffee maker manufacturers to gain leverage with retailers
- Consider exclusive retailing rights to one distributor
- Increase marketing efforts to create a pull-strategy from customers to increase leverage with suppliers
- Seek other channels (Starbucks, hotel chains, etc...)
- Consider international expansion or producing overseas
- Increasing focus and attention on small to medium retailers
- Consider raising prices to offset margin loss (with investigation of customer price sensitivity)

**Final Question: Ask the candidate to wrap up the case**

The candidate should provide a recommendation, include points discussed before. Mention risks such as competition from other websites, retaliation by retailers, etc.

# Interviewee-led: Hard



# **Canyon Capital Partners**

**Bain | Round 1 | Hard | Financial Services**

## Bain | Round 1 | Hard | Financial Services

### Prompt:

Your client is Canyon Capital Partners (CCP). CCP is a long-established hedge fund headquartered in Hartford, CT. Hedge funds make money mainly out of management fees and carried interests. Over the past two years, CCP's profits have been declining. Its CEO and founder has hired you to help her understand why are profits trending down and what she do to restore the firm to a more profitable route.

### Clarifying Information (Only Provide if Asked):

- **What do hedge funds do?** Manage investors' money to yield above market returns. CCP only invests in US public stocks.
- **How much money does CCP manage?** Current assets under management (AUM) are \$1.9 B. In the past three years, the fund has not had any new in or outflows of investor money.
- **What are management fees?** Fixed fees paid on the average balance of AUM. CCP's management fees were 2.0% per year, but were reduced to 1.5% since 2016 due to competitive pressure.
- **What is carried interest?** Share of investment performance appropriated by the fund's managers as additional compensation. CCP takes 20% of all investment gains in excess of the 15% annual hurdle rate.

## Revenues

### Management Fees

- % of AUM
- AUM

### Carried Interest

- Share of profits
- Investment performance
- Hurdle rate

### Other revenue streams?

## Costs

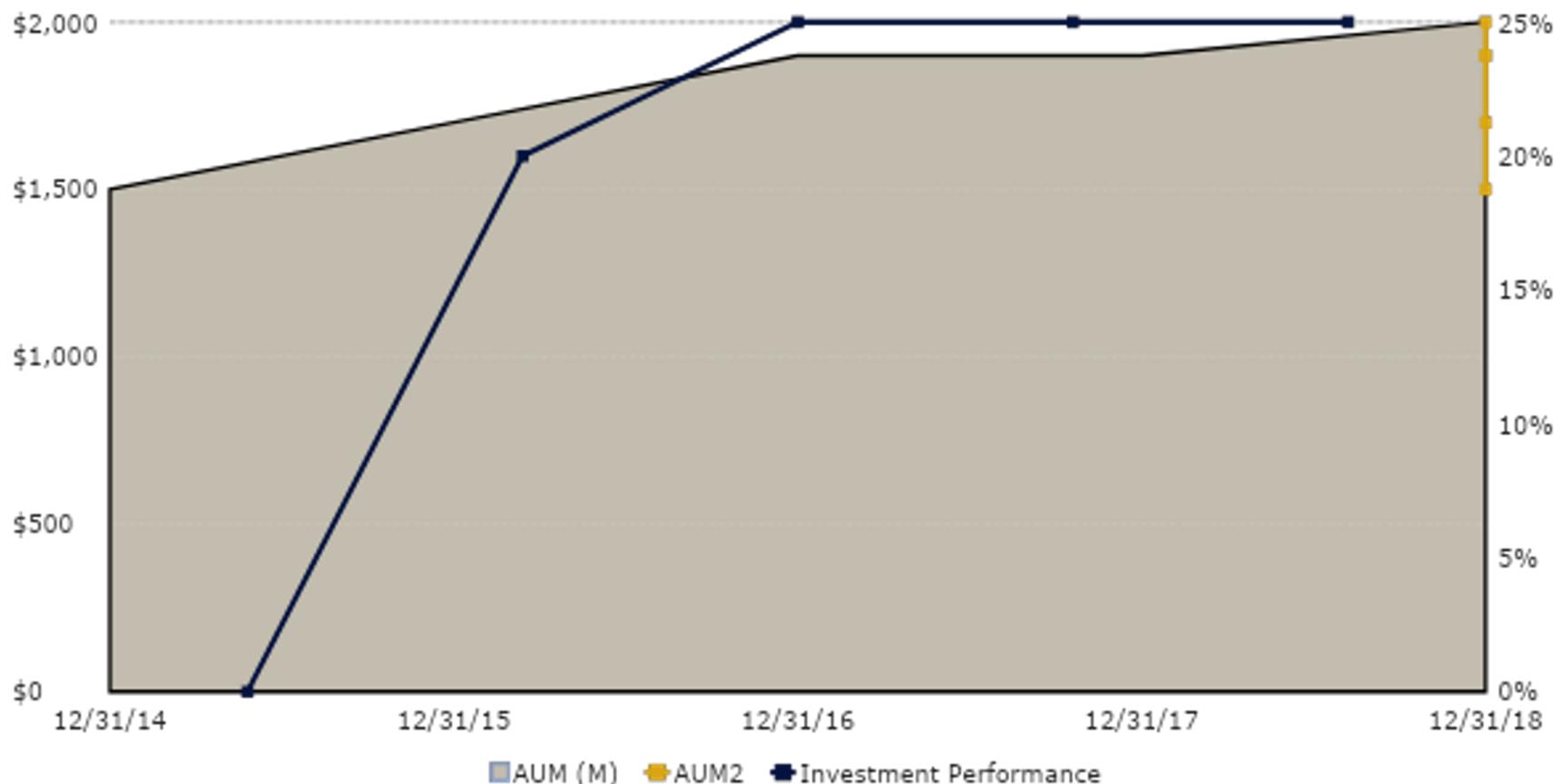
- Employee compensation
- Office rent
- Research materials
- Proprietary information

## External Factors

- Regulation
- Competition
- Market Trends

# CCP- Exhibit 1

## Canyon Capital Partner AUM & Investment Performance



# CCP - Exhibit 1 Interviewer Guidance



## Guidance to Provide Interviewee:

The interviewee should interpret AUM and investment performance from the chart to drive towards a revenue calculation. If they struggle to interpret it, coach them to find average AUM at year end ( $2014\ AUM + 2015\ AUM / 2 = \text{Average}\ 2015\ \text{year end}\ AUM$ ). Candidates should also remember investment performance is cumulative.

	2015	2016	2017
Average AUM	$= (1,500 + 1,700)/2$ $= 1,600$	$= (1,700 + 1,900)/2$ $= 1,800$	$= (1,900 + 1,900)/2$ $= 1,900$
Management Fee (%)	2.0%	1.5%	1.5%
<b>Management Fee Revenue</b>	<b>32.0</b>	<b>27.0</b>	<b>28.5</b>
Cumulative Performance	20%	25%	25%
Cumulative Hurdle Rate	15%	30%	45%
Excess Return	5%	0%	0%
<b>Carried Interest Revenue</b> = Excess Return * Initial AUM * Share of Profits	$= 5\% * 1,500 * 20\%$ $= 15.0$	0	0
<b>Total Revenue</b>	<b>47.0</b>	<b>27.0</b>	<b>28.5</b>

# CCP - Exhibit 2: Employee Headcount



	2015	2016	2017
<b>C-Suite</b>	3	3	3
<b>Portfolio Managers</b>	3	3	4
<b>Associates</b>	7	10	16
<b>Analysts</b>	13	11	9
<b>Traders</b>	3	3	3
<b>Support Staff</b>	7	8	9

# Exhibit 2 Interviewer Guidance



## Exhibit Guidance:

The candidate should notice the increasing headcount and how the number of associates has been increasing rapidly while the number of analysts has decreased in the same period.

- When asked about compensation structure, provide information from the salary column from the following table:
- Only C-Suite and Portfolio Managers receive variable compensation. It is directly tied to fund profitability, so it's not relevant to profitability analysis.

	Salary (\$)	2015	2016	2017
<b>C-Suite</b>	1,500,000	= 3 * 1,500,00 = 4,500,00	= 3 * 1,500,00 = 4,500,00	= 3 * 1,500,00 = 4,500,00
<b>Portfolio Managers</b>	500,000	=3*500,000 =1,500,00	3*500,000 =1,500,00	4*500,000 =2,00,000
<b>Associates</b>	250,000	=7*250,00 =1,750,000	=10*250,000 =2,500,00	=16*250,000 =4,000,000
<b>Analysts</b>	100,000	=13*100,000 =1,300,000	=11*100,000 =1,100,000	=9*100,00 =900,000
<b>Traders</b>	200,000	=3*200,000 =600,000	=3*200,000 =600,000	=3*200,000 =600,000
<b>Support Staff</b>	75,000	=7*75,000 =525,000	=8*75,000 =600,000	=9*75,000 =675,000
<b>Total Salary Cost (\$M)</b>		<b>10.175</b>	<b>10.8</b>	<b>12.675</b>

# CCP - Wrap Up



## Sample Conclusion:

CCP's revenues have trended down because of lower management fees and poor investment performance relative to its benchmark. Costs have been up because of increasing headcount, especially as the ratio of associates to analysts has increased.

## Sample Recommendation:

- Revenues: Increase management fee. Increase AUM. Explore new investment strategies. Launch new products (Crypto, Venture, etc)
- Costs: Promote employee turnover through meritocracy. Reduce number of associates and increase number of analysts

## Risks

- Increasing management fee could scare off investors
- Employee moral could be hurt by letting go of associates and fund performance could be stalled by decreasing headcount

## Next Steps:

- Create strategy for new round of fund raising
- Determine which associates to let go. Set rules for turnover and promotion.
- Explore new fund strategies

# **To Automate or Not to Automate**

**BCG | Round 2 | Hard | Operations**

## BCG | Round 2 | Hard | Operations

### Prompt:

After returning from a trade show, the CEO of a large grocery distribution center calls you. He enthusiastically describes a new technology which could be used to automate part of his company's process. He asks whether you think this would be a good idea for his business. Knowing this CEO is a tech-enthusiast who loves innovation for the novelty of it, you ponder the implications. How would you tackle this problem?

### Clarifying Information (Only Provide if Asked):

- **What does a grocery distribution center do?** The company's distribution centers receive and pack grocery items before shipping finished goods to roughly 50 grocery stores in the immediate area. The company does 1M shipments each year.
- **Does the company have a specific goal?** No specific goal. The CEO trusts our expertise and business judgement.
- **How much does it cost to automate?** (1) One-time outlay of \$4M, plus recurring overhead, training, and (2) additional maintenance costs totally \$1.0M annually (make candidate request both pieces of information).

## Revenues

- Effect of technology on production capacity
- Ability to charge higher prices through higher quality service

## Costs

### Existing

- Fixed Costs: Rent, mortgage, lease, overhead, salaries
- Variable Costs: Hourly employees, repairs & maintenance, inventory, holding, shipping

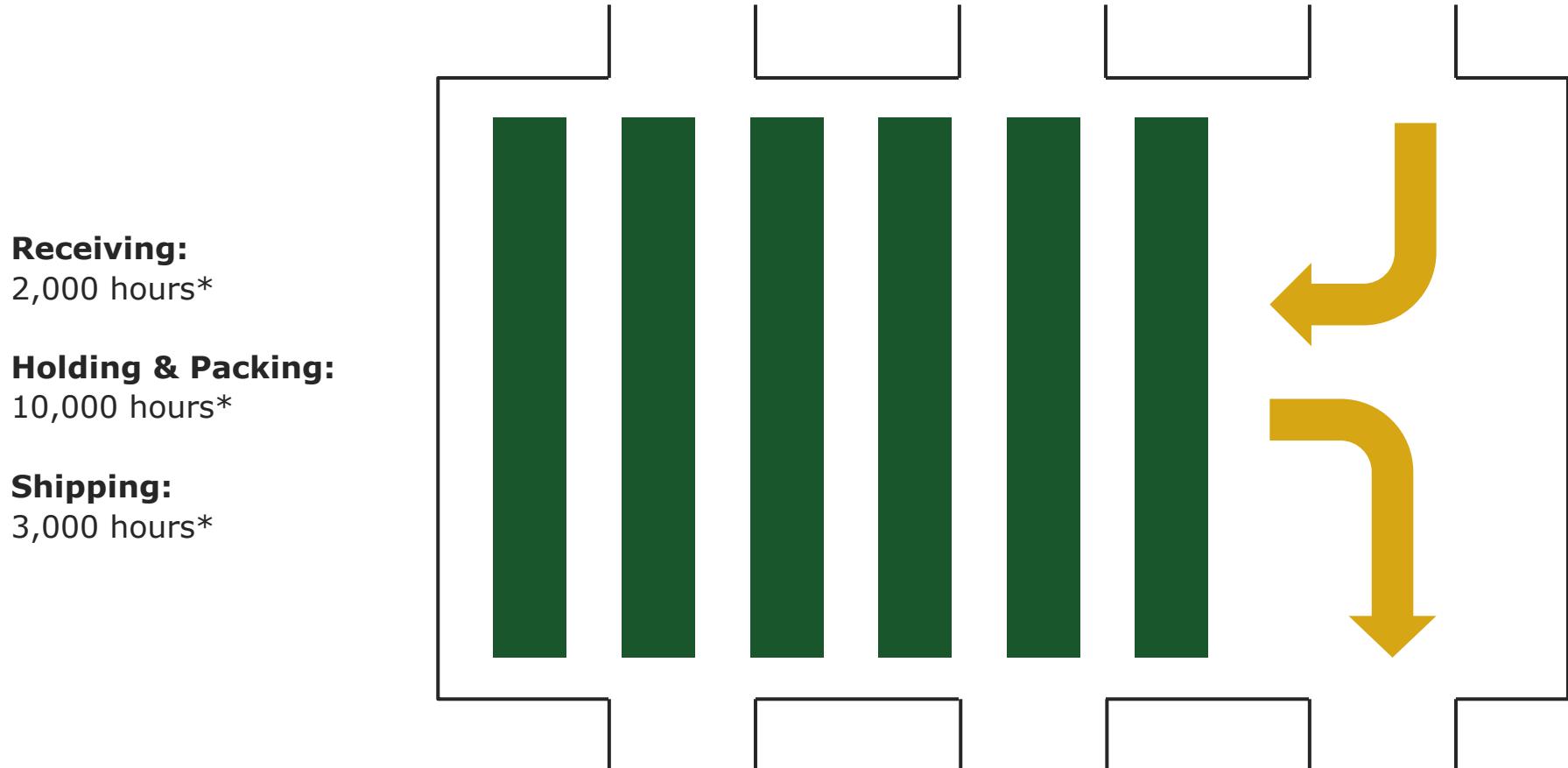
### Incremental

- One-time: initial investment costs
- Recurring: Savings from efficiency, new servicing / repair costs

## External Factors

- Competitors' technical capabilities
- Customer preferences
- Other new technologies

# To Automate or Not to Automate – Exhibit 1



# To Automate or Not to Automate – Exhibit 1 Guidance



## Guidance for Interviewee:

- Help the interviewee visualize the process flow of goods entering the center, being processed, and leaving to be shipped out
- Candidates should convert the hours of time into total cost in dollars

## Info to provide upon request:

- Each employee works 40 hours per week
- Employee pay = \$12/hr for Receiving; \$17/hr for Holding & packing; \$14/hr for Shipping

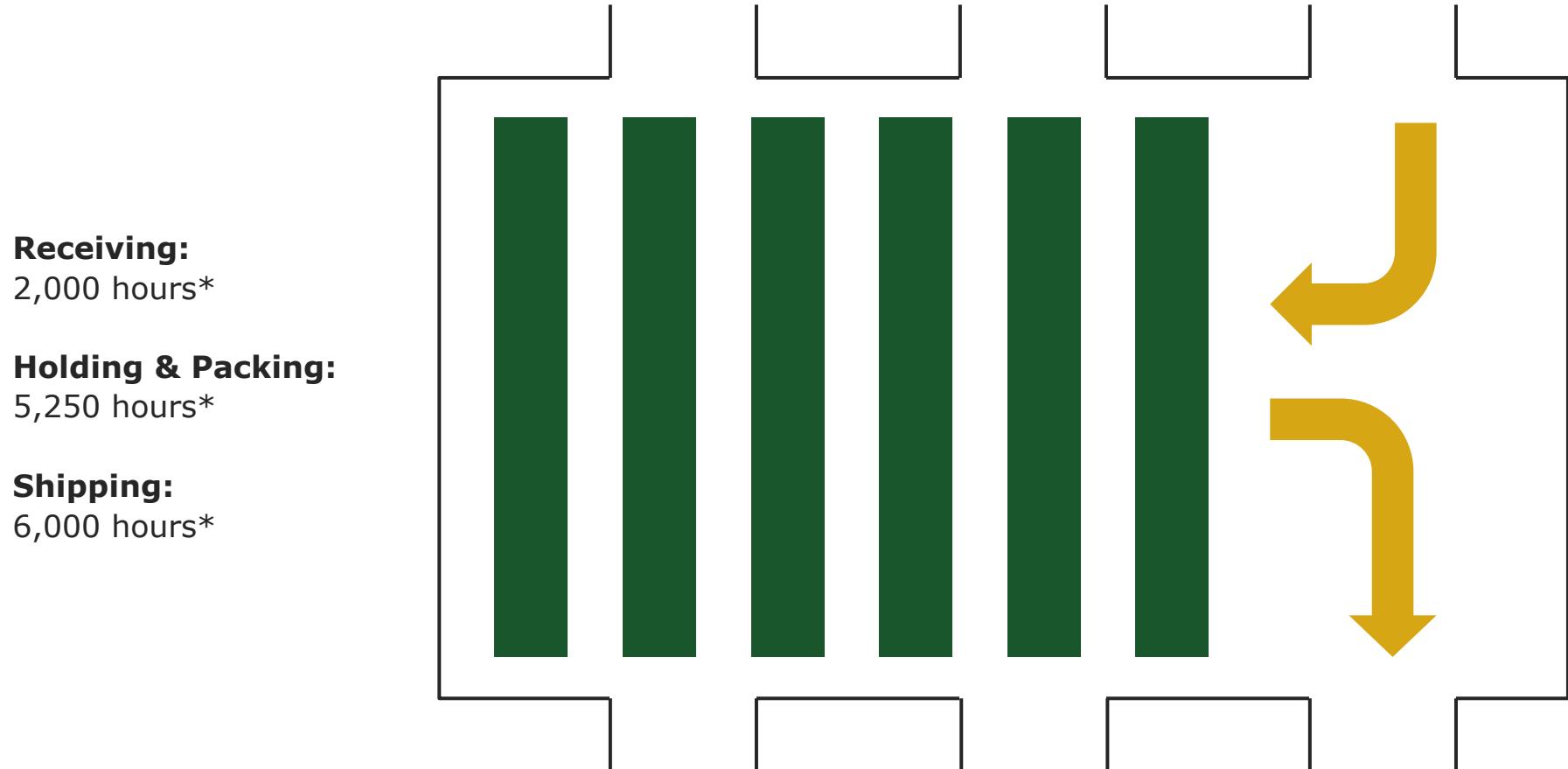
Once information is provided, ask candidate to calculate total number of employees required in each function and the annual cost of labor.

## Sample Calculation:

Process	Total Hours	Employees Required	Cost per Hour	Cost per Week	Annualized
Receiving	2,000	=2,000 / 40 = 50	\$12	= \$12 x 2,000 = \$24,000	
Holding & Packing	10,000	=10,000 / 40 = 250	\$17	= \$17 x 10,000 = \$170,000	
Shipping	3,000	=3,000 / 40 = 75	\$14	= \$14 x 3,000 = \$42,000	
<b>Total</b>				<b>\$236,000</b>	<b>= \$236,000 x 52 = \$12,272,000</b>

Provide Exhibit 2 when candidates ask to compare current costs to the effect of the new technology

# To Automate or Not to Automate – Exhibit 2



# To Automate or Not to Automate – Exhibit 2 Guidance



## Guidance for Interviewee:

- Ask the candidate to calculate the change in # of employees required in each function and the change in annual labor cost

Process	Total Hours	Employees Required	Cost per Hour	Cost per Week	Annualized
Receiving	2,000	=2,000 / 40 = 50	\$12	= \$12 x 2,000 = \$24,000	
Holding & Packing	5,250	= 5,250 / 40 = 131	\$17	= \$17 x 5,250 = \$84,000	
Shipping	6,000	=6,000 / 40 = 150	\$14	= \$14 x 6,000 = \$84,000	
<b>Total</b>				<b>\$197,250</b>	<b>= \$197,250 x 52 = \$10,257,000</b>

Process	Change in Employees
Receiving	= 50 - 50 = 0
Holding & Packing	= 250 - 131 = 119
Shipping	= 15 - 150 = -75
<b>Total Employee Reduction</b>	<b>44</b>

Process	Annual Cost
Existing	\$12,272,000
With New Technology	\$10,257,000
<b>Total Cost Saving</b>	<b>\$2,015,000</b>

# To Automate or Not to Automate – Question 3



## Question for Interviewee:

- Strong candidates should drive the case towards a breakeven calculation.
- Ask the interviewee to calculate a breakeven period in years for this investment.

## Additional Information to be Given Upon Request:

- Up-front cost of implanting technology = \$4.0M
- Recurring annual costs of technology = \$1.0<

Annual Savings	\$2,015,000
Annual Incremental Costs	<u>\$1,000,000</u>
Annual Incremental Margin	\$1,015,000
Upfront Cost	<u>\$4,000,000</u>
<b>Breakeven Period (Years)</b>	<b>3.9</b>

- Ask the candidate if a 5 year breakeven period is attractive
- Note: there's no correct answer and the company does not have a specific period they look for.

# To Automate or Not to Automate – Wrap Up



## Question for Interviewee:

Tech-Enthusiast CEO just walked into the room and wants to know your final recommendation. What would you say to him?

## Wrap Up Guidance:

- Summary
- Recap
- Decision
- Risks
- Next Steps

# **A+ Airline Co.**

**Bain | Round 1 | Hard | Airlines**

## Bain | Round 1 | Airlines | Hard

### Prompt:

Our client is A+ Airline Co., the third largest airline in the United States by passengers carried. This week, we have been flying on our primary competitor, Gamma airline, and we noticed something interesting; they stopped accepting cash for in-flight food and beverage services and they now only accept major credit cards.

*The CEO of A+ Airline Co. wants to know, why did Gamma Airline switch from a Cash & Card system to a credit card only system, and should we follow them?*

### Clarifying Information (Only Provide if Asked):

#### Industry Characteristics/Market Economics

- *Card Use:* Roughly 99% of all consumers purchase their airline tickets using a credit card, i.e. all consumers on an airplane have a credit card available to them

#### Client Characteristics

- *Items Sold:* Only food and alcoholic beverages are sold on A+ Airline flights
- *Locations:* This is a US Domestic decision only. Ignore international

#### Competitive Dynamics

- Gamma is the only airline that has made the switch; however, all other airlines are evaluating the switch
- For the purposes of this case, Gamma and A+ Airline should be considered to be exactly the same in all regards

# Sample Response Framework

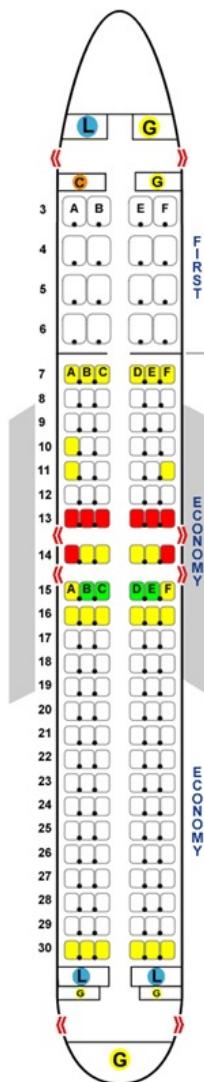
## Sample Response:

The interviewee should focus on the change from before to after the switch from CASH & CARD to CARD ONLY

	Firm Revenues	Firm Costs	TVM and Working Capital
Before	<ul style="list-style-type: none"> <li>• Current breakdown of customers who pay cash vs card</li> <li>• Current capture on food and drink for passengers</li> </ul>	<ul style="list-style-type: none"> <li>• Current transaction process and associated workers</li> <li>• Storage, transportation of cash/credit info, labor</li> </ul>	<ul style="list-style-type: none"> <li>• Percentage of income that cannot be accessed until deposited</li> <li>• Hassle of payment options for customers and flight attendants</li> </ul>
After	<ul style="list-style-type: none"> <li>• Loss of Cash Only customers</li> <li>• Increase in Credit Card customers</li> </ul>	<ul style="list-style-type: none"> <li>• Benefits of Cash Management Costs Removed</li> <li>• Incremental Fee of Credit Card</li> </ul>	<ul style="list-style-type: none"> <li>• Interest and Time Value of Money</li> <li>• Working Capital increase due to an increase in collection speed</li> </ul>

**Next Steps:** The interviewee should initially ask questions about consumer purchase behavior and subsequent financial data associated with it. Once you feel they have identified the need for market sizing, show Exhibit 1.

# Exhibit 1: An Average Flight



A+ Airline Boeing 737-800 Vers. 2 (738)

Total Seats

200

First Class  
Economy

	% of Seats	Load Factor	% Business	% Leisure
First Class	25.0%	100%	100%	0%
Economy	75.0%	80%	50%	50%

Business  
Leisure

% that Purchase

Avg. Spend

Business	75.0%	\$10
Leisure	25.0%	\$5

\*Note: First Class Passengers Receive Free Food & Beverage

Cash  
Card

	% of In-flight Purchases
Cash	20%
Card	80%

# Exhibit 1 Interviewer Guidance



## Question for Interviewee:

Determine the Total Market Size in (\$) for food and beverage purchases of an average flight.

## Exhibit 1 Calculation:

The interviewee should calculate the CURRENT allocation of purchases (Cash vs Card) for an average flight:

Total Number of Passengers per Plane

	Seats	Occupants	Business	Leisure
First Class	50	50	50	0
Economy	150	120	60	60
<b>TOTAL</b>	<b>200</b>	<b>170</b>	<b>110</b>	<b>60</b>

Total Number that Purchase & Total Spend (\$)

# that Purchase      Total Purchase \$

Business	45	\$450
Leisure	15	\$75
<b>TOTAL</b>	<b>60</b>	<b>\$525</b>

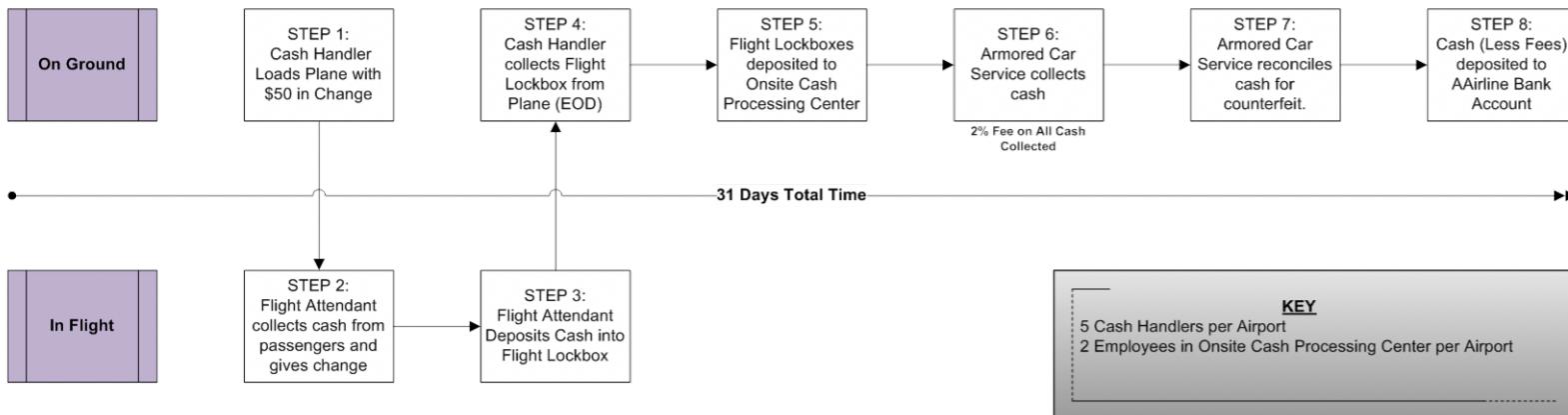
The Interviewee should identify that they will lose some Cash customers. **Tell them we will lose 1/3**

Cash vs Card Spend + LOSS

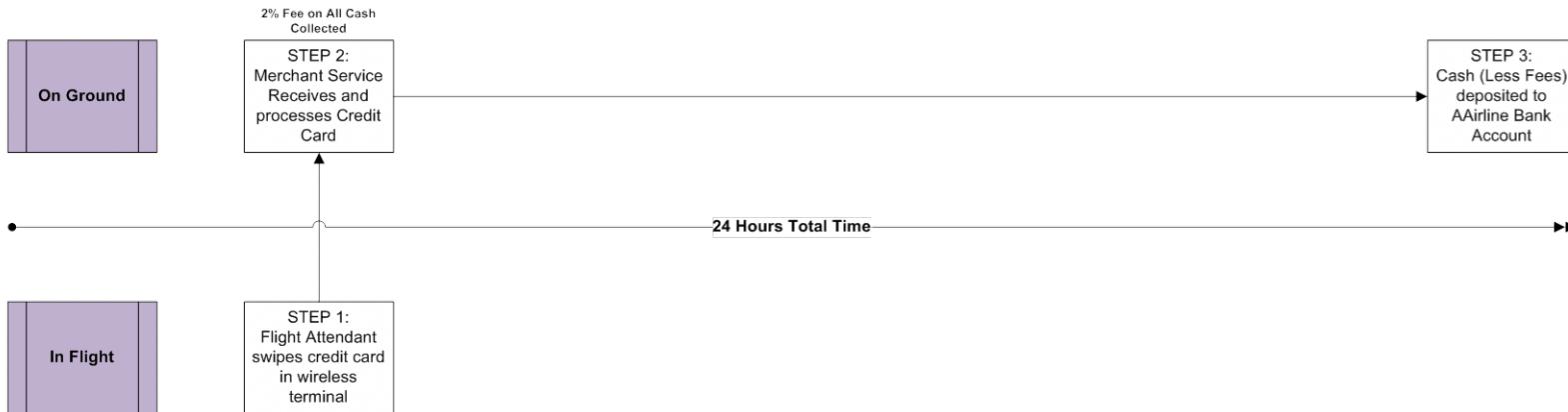
	Cash	Card	Total
Inflight \$	\$105	\$420	\$525
	#	\$	New Total
Business	3	(\$30)	\$420
Leisure	1	(\$5)	\$70

# Exhibit 2: Cash and Card Operations

## AAirline Cash Management Process



## AAirline Credit Card Process



# Exhibit 2 Interviewer Guidance



## Question for Interviewee:

1. Ask the interviewee to detail the types of costs that might be involved before handing out Exhibit 2
2. ask the interviewee to qualitatively explain the impact this time savings will have once Exhibit 2 is analyzed

## Sample Answer:

Question 1:

The interviewee should notice the following information:

- Cash Management and Card Management both have 2% fees associated, so this is a “wash” in terms of savings
- Cash Management requires additional overhead, 7 total employees per airport, that could be eliminated for further savings

When asked, explain that the total, per flight savings from eliminating overhead due to Cash Management Operations is **\$35/flight**

**Interviewee should notice that the \$35 savings offsets the \$35 loss in Revenue**

Question 2:

The interviewee should qualitatively mention that there are benefits to eliminating the longer cash management process

- *Time Value of Money:* A+ Airline will receive their money 30 days sooner, and this money could be used to invest in interest, pay off suppliers, or pay down lines of credit faster
- *Working Capital Improvement:* \$50 per flight in change can be eliminated, thus freeing up cash flow. Additionally,. There will be a reduction in loss of cash due to theft and damage
- *Happier Customers:* The majority of customers will be able to place and receive their order faster on the plane which will also increase sales

# Wrap Up: Interviewer Guide



## Solution and Recommendation:

Overall, our client, A+ Airline, should switch to a Credit Card only system for in-flight food and beverage because:

- *Quantitative Benefits:* We calculated that there would be a loss of 3 business customers and 1 economy customer per flight which amounted to a Revenue loss of \$35. We also found that we could save \$35 in overhead expenses by eliminating the Cash Management process. In sum, the decision to switch is in favor because the savings are to the bottom line and the revenue losses are to the top line
- *Qualitative Benefits:* We also found that we will receive payment 30 days sooner by only accepting credit cards. This improves our cash flow and could allow us to earn interest, pay down creditors, or invest in projects. Additionally, by reducing cash losses and eliminating "Change" tied up on airplanes, we can improve our Working Capital and also put this money to work for us. Finally It appears as though customers, in general, might actually be happier because the speed of transactions on the airplane will improve

## Bonus/Guide to an Excellent Case:

An excellent interviewee will note:

- Due to the increased transaction speed, probability of purchase for both Business and Economy passengers in the AFTER state should go up due to a reduction in frustration. The people on the back of the airplane often abandon a purchase if it takes too long to place an order. Making change takes a lot of time!
- Average purchase amount should also increase. There is a proven psychological phenomenon that shows how consumers who do not carry cash purchase less when a cash option is offered because they feel guilty using their card. A card-only option eliminates this guilt and consumers don't mind using the card.
- *Business Acumen:* The fact that Gamma Airline has already switched is a clear indication that this is a logical idea.

# Interviewee-led: Creative



# **Jamaican Land Investment**

**BCG | Round 1 | Creative | Industry**

# Jamaican Land Investment

**BCG | Round 1 | Industry | Creative**

## Prompt:

Our client is thinking about buying a piece of land in Jamaica for \$3000 and has asked us to determine whether or not this is a good idea.

## Clarifying Information (Only Provide if Asked):

- Total Acreage: 10 acres
- Financial Target: \$4,500 profit within first 2 years, excluding \$3000 purchase price

When prompted about use of land, ask candidate to brainstorm possibilities before giving him/her the answer: real estate development (factory, building, hotel), farming, hold and sell it once it appreciates, etc)

- Land will be used for agriculture
  - Trees, Shrubs, Fruit, Exotic Flowers

Cannot mix products (trees and shrubs) on same acre. Only one type of plant allowed per acre.

- Price per plant: Tree \$50, Shrub \$35, Fruit \$15, Exotic \$25
- Variable Cost per plant: Tree \$30, Shrub \$25, Fruit \$11, Exotic \$17

# Clarifying info (if asked) cont'd



- Fixed Cost: \$500 initial set up (first year only), \$350 per year for salaried labor
- Market Demand per year: 5000 Trees, 1000 shrubs, 1000 fruit, 2500 exotic flowers
- Penetration rate: competitors cannot meet current demand.
  - Competitors have 60% tree share, 20% shrub share, 85% fruit share, 90% exotic flower share... the remaining share can be captured by our client.
- **How many plants can fit on an acre?** When asked about how much of each can fit onto an acre, throw the question back and ask: "which plants do you think would have less of per acre?" (Answer: trees and shrubs because they take up a lot of room)
  - 10 Trees/acre
  - 25 Shrubs/acre
  - 75 Fruit/acre
  - 50 Exotic Flowers/acre

# Candidate may propose analysis in:

## Market Size/Est Demand:

- $500 \text{ trees} \times 40\% = 2000 \text{ units}$
- $1000 \text{ shrubs} \times 80\% = 800 \text{ units}$
- $1000 \text{ fruit} \times 15\% = 150 \text{ units}$
- $2500 \text{ exotic} \times 10\% = 250 \text{ units}$

**Supply:** Client's capacity to meet estimated demand is dependent on the number of acre it has (10 acres)

## Margins Per Unit:

- $\$50 - \$30 = \$20 \text{ per Tree}$
- $\$35 - \$25 = \$10 \text{ per Shrub}$
- $\$15 - \$11 = \$4 \text{ per Fruit}$
- $\$25 - \$17 = \$8 \text{ per Exotic}$

## Profitability per Acre:

- $10 \text{ trees per acre} \times \$20 = \$200/\text{acre}$
- $25 \text{ shrubs per acre} \times \$10 = \$250/\text{acre}$
- $75 \text{ fruit per acre} \times \$4 = \$300/\text{acre}$
- $50 \text{ exotic flowers per acre} \times \$8 = \$400/\text{acre}$

## Possible follow-up:

- Exotic Flowers:  $250 \text{ units demanded} / 50 \text{ units per acre} = 5 \text{ acres used for EF}$
- Fruit =  $150 \text{ demanded} / 75 \text{ per acre} = 2 \text{ acres per F}$
- Shrubs:  $800 \text{ units demanded} / 25 \text{ units acre} = \text{all remaining acre (3 acres for S)}$

## Possible Follow-up:

- $5 \text{ acres of EF} \times \$400/\text{acre} = \$2000$
  - $2 \text{ acres of F} \times \$300 = \$600$
  - $3 \text{ acres of S} \times \$250 = \$750$
- Y1:  $\$3,350 - 500 - 350 = \$2,500$  (do not include \$3,000 investment)  
Y2:  $\$3,350 - \$350 = 3000$

**Total Profit first 2 years: \$5,500**

## Possible Follow-up:

### To make the case more challenging:

- How would you price each unit? (cost based pricing, look at competitors prices, price by segment i.e. premium supermarkets vs fruit stands, ect)
- If demand was there, would you use all 10 acres for EF? Why or why not? (important to diversify)

# Wrap Up: Interviewer Guide



## **Ask the interviewee to wrap-up the case:**

Interviewee should talk about the profitability of the land and determine if the investment would meet client's financial target.

## **Sample Recommendation:**

"My recommendation to our client is to invest in the Jamaican property. My calculations show that we would achieve \$5,500 in profit within the first two years, exceeding our client's financial target by \$1,000"

**Risks:** "Before making a final decision, however, I would look into the growth rate and expected demand for these agricultural products, and any risks from natural disasters such as hurricanes, drought, plant diseases, etc"

**Next Steps:** "At this point in time though, given my calculations, investing in this land looks like a great idea"

# Zootopia

## Round 1 | Creative

# Zootopia

## Round 1 | Creative

### Prompt:

Your client is the National Zoo in Washington, D.C. The Zoo is part of the Smithsonian Institute and thus funded by the federal government. The zoo has been thinking about getting a panda bear. Should they?

### Key Insights (unprompted is best):

1. Two or more panda bears that can procreate is a longer-term solution, and aligns better with the “endangered species” theme.
2. Profitability is not a concern, because this is government. The key driver of success for our client is foot traffic.
3. Greater foot traffic is possible due to panda bears.
4. Marketing will be essential to the success of adding panda bears.
5. Something Creative (example): There are spillover effects that could be generated such as a better U.S.-China relationship.

# Sample Response Framework

**Question: What would you like to investigate?**

## Reasons/Goals of Investment

### Attendance

- Pandas increase visitor traffic? (attendance is down slightly)
- Compare with engagement with other animals

("A few years back the zoo added flamingos and saw higher traffic. If pandas had the same effect, the zoo would meet its goals, yet a panda is a bigger deal")

### Profits

- Affordability?
  - Zoo has free admission
  - Cost of living
  - Cost of transportation

(Yes, Zoo can Afford it)

### Conditions

- Endangered species
  - Right climate
  - Room for exhibit
  - Training on taking care of a panda
  - Proper food
  - Survival rate

(Yes, zoo can take care of it)

# Exhibit 1 Interviewer Guidance



**Move on to logistics, let the interviewee ask questions.**

**A good interviewee should ask:**

**1. Where is the zoo getting the panda?**

The panda would come from China through government negotiation. The zoo believes negotiations would be successful.

**1. What is the lifespan of a panda? Or Why just one panda?**

Giant pandas live between 14 and 20 years in the wild and up to 35 years in captivity. The particular pandas we would purchase are 25-30 years old.

A good candidate should notice that the lifespan of a panda is not long and suggest we should get multiple pandas.

# Wrap Up: Interviewer Guide



**"The Zoo agreed and set up a contract with the Chinese government that they could have both 1 male and 1 female panda. Baby pandas will go back to China"**

Ask for ideas on marketing so that the zoo achieves its goals of higher traffic (and less so endangered species awareness). Push for multiple ideas.

1. Newspaper ads and billboards
2. Direct mail to the zoo's donors and subscribers
3. Email marketing or direct text message marketing
4. Social media
5. Live video feed of the panda
6. "Sign up for updates on the panda's path from China to the U.S."
7. Social media posts on what pandas need to stay healthy in the zoo, which trainers can film as they prepare them
8. Panda blog