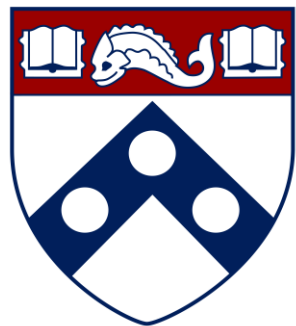




MasterTheCase.com

TOP CONSULTING INTERVIEW PREP

The University of Pennsylvania Consulting Preparation Guide



Penn
UNIVERSITY *of* PENNSYLVANIA

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Consulting Preparation Guide

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A Note on the Case Book

Maximizing Your Practice

- This case book contains many **tips, tricks, and discussion points throughout.**
- The **star rating signifies difficulty** with 5 stars being the most difficult. However, there are critical skills to be gained from every case regardless of the difficulty.
- Cases are designed to be **completed in 45 minutes** unless otherwise specified.
- The slides marked **“For Interviewee”** should be shown to the interviewee / candidate while working through the case. These slides contain critical information and should allow the interviewee to drive the case forward.
- The slides marked **“For Interviewer”** contain prompts to be given to the interviewee, answers to quantitative questions, example frameworks, and other guides to help facilitate the case.
- **After you have completed a case** as the interviewee you will likely find it helpful to **read through the entire case**, including the “For Interviewer” slides, to gain additional insights.

What is Consulting?

1

Is Consulting Right for Me?

The Industry and Your Role

What is Consulting?

- Consultants work with organizations to achieve strategic, operational or organizational goals
- Work closely with management to provide advice and solve mission-critical problems

What do they do?

- Consultancies often work across 5 broad buckets:
 - Strategy
 - Implementation
 - Finance
 - Research
 - Innovation & Design
- Consultancies often offer a mix of skills and specialties to best serve client needs

What would I do?

- You will largely be responsible for conducting research, building a variety of models, analyzing data, and collaborating with the team and clients to develop presentations and recommendations
- A passion for problem solving and analytical rigor coupled with a desire for a client facing role is critical

Consulting at UPenn

Facts and Figures

- 10% of rising seniors completed an internship in consulting
 - ~12% of College of Arts and Sciences and 19% of Wharton students chose consulting
- 16% of graduating seniors secured a post-graduate consulting role
 - 18% of College of Arts and Science and ~20% of Wharton students chose roles at a variety of firms

Illustrative Representation of Recent Recruiting Activity



Key Casing Concepts

2

Key Casing Concepts

The Building Blocks of Case Success

- A great case applies analytical thought and creative problem solving to a variety of real world business issues
- Good News! **You already have the building blocks to ace the case** interview through your broad liberal arts background!
- You will find these classes and so many more incredibly helpful!
- A basic understanding of Accounting, Finance, and Strategy will complement your existing skillset

Mathematics

English

Physics

Economics

Biology

Political Science

Communications

Social Sciences

Chemistry

Key Casing Concepts: Accounting

Accounting is the language of business

- **Key Line Items:**

- **Revenue / “Topline”:** Income generated from business activities
- **Cost of Goods Sold (COGS) / Direct Expenses:** The costs directly attributable to the production of a good or execution of a service
 - Can include both labor and materials costs; often variable costs
- **SG&A, Indirect Expenses:** Selling, General, and Administrative Expenses
 - Major non-production cost line items
 - Often examined as a % of Revenue
- **Overhead:** Non-Labor expenses needed to run the business
- **Maintenance Expense:** The cost to bring an asset back to working or earlier condition
- **Depreciation & Amortization:** the reduction of asset value as a result of use
- **Profit = Revenue – Costs**

Food for Thought: How these line items interact is crucial

- **Key Concepts:**

- Year over Year (YoY) Growth
- Margins
- Fixed vs. Variable Costs

Example: You invest in a new machine (capex). This may increase your D&A but could decrease your variable costs and potentially increase your output (quantity)

Key Casing Concepts: Accounting

A Closer Look: Types of Costs

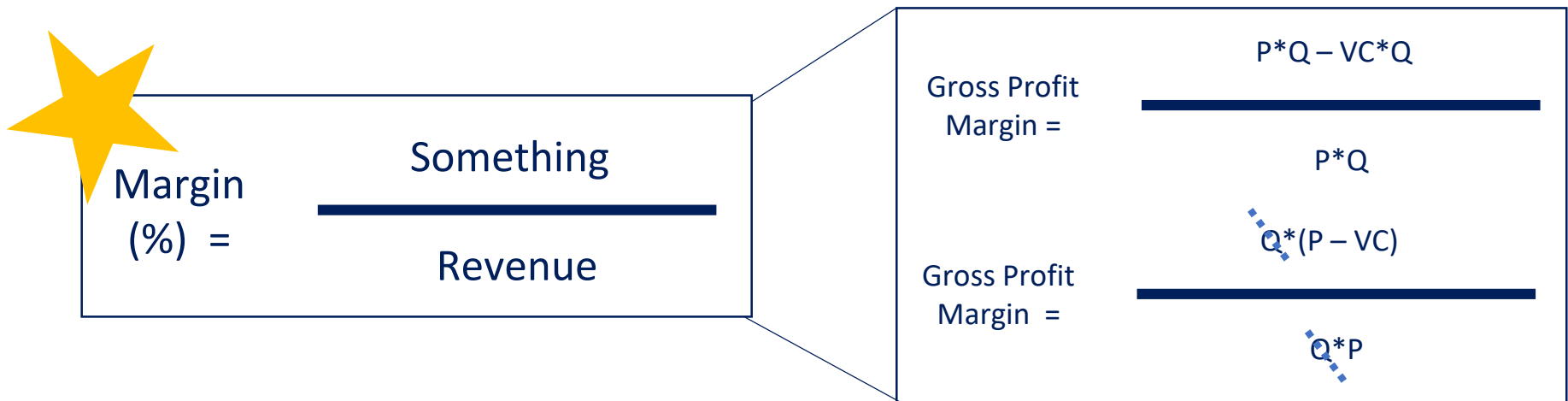
- **Fixed:**
 - Business costs that are **constant regardless of the quantity** of goods or services produced (subject to time horizon / production period)
 - Plant, Property, Equipment (PPE), Supervisor Salaries, Depreciation, Leases, Insurance, SG&A , contract/regulatory fees, R&D (if company is engineering/tech-heavy)
 - **Operating Leverage:** the proportion of fixed costs in a company's profit structure coupled with the impact of additional volumes on bottom-line profitability
 - **Food for Thought:** The ability to allocate fixed costs over a larger number of units results in a lower total cost per unit
- **Variable:**
 - Business **expenses that vary with the level of output**
 - Direct materials (raw materials, subcomponents), director labor (hour salary allocated per unit), utilities (some argue could be fixed or variable), freight/transportation to customers, tariffs/duties, maintenance/repair
- **Set up costs / changeover costs:** common for asset-heavy factory setting with multiple product lines
 - Case application: SKU management, manufacturing efficiency
- **One-time/special costs:** legal, regulatory, catastrophe-related, significant one time investments, one-time costs associated with a new product launch
 - **Case application:** breakeven analysis

Key Casing Concepts: Accounting

Understanding these calculations is critical to case success

Major Line Item and Margin Calculations

- 1 Revenue = Price x Quantity $\rightarrow (P*Q)$
- 2 Gross Profit = Revenue – Direct Costs
Gross Profit = Price * Quantity – Variable Cost * Quantity $\rightarrow P*Q - C*Q$
- 3 Profit = Revenue – Direct Costs – Indirect Costs – Other Costs



Key Casing Concepts: Accounting

★ Important Line Item

An Example Income Statement

- Tips and Tricks:
 - Look at YoY and 3 year trends
 - Calculate growth and margins to contextualize business trends
- Questions to consider:
 - What can you infer from a declining gross margin?
 - Are there any bright spots in this business?
 - Is a certain part of the business driving profit or growth challenges?
 - Is the business reinvesting enough to remain viable and continue to produce a quality good or service?
 - What are the critical performance drivers?

ShoeCo. Income Statement (\$ millions)

Revenue:	2015	2016	2017
Women's Shoes			
High Heels	1,000.0	750.0	500.0
Boots	500.0	550.0	610.0
Sandals	60.0	66.0	72.0
Men's Shoes			
Dress	1,125.0	1,125.0	1,125.0
Casual	500.0	550.0	605.0
Total Revenue	\$ 3,185.0	\$ 3,041.0	\$ 2,912.0
<i>YoY Growth</i>		-4.5%	-4.2%
Cost of Goods Sold (Variable / Direct Expenses)			
Materials	1,194.4	1,140.4	1,092.0
Labor	318.5	304.1	291.2
Shipping	79.6	76.0	72.8
Total COGS	1,592.5	1,520.5	1,456.0
Gross Profit	\$ 1,592.5	\$ 1,520.5	\$ 1,456.0
<i>Gross Margin %</i>	50.0%	50.0%	50.0%
Fixed Costs (Indirect Expenses)			
SG&A	500	500	500
D&A	300	330	360
Overhead	100	100	100
Maintenance	50	50	50
Total Fixed Costs	950	980	1010
Total Profit	\$ 642.5	\$ 540.5	\$ 446.0
<i>Margin %</i>	20.2%	17.8%	15.3%

Key Casing Concepts: Accounting

★ Important Line Item

Key Questions (Answers)

- Questions to consider (Answers):
 - What can you infer from a declining gross margin?
 - There could be a change in product mix – is it possible that a higher margin good is making up a smaller percentage of total volume sold?
 - Are the cost of inputs increasing faster than revenues?
 - Are there any bright spots in this business?
 - It appears that two product lines, Women’s Boots and Men’s Casual have experienced top line growth
 - Is a certain part of the business driving profit or growth challenges?
 - In addition to the product mentioned above it appears that Women’s high heels have been declining
 - Is the business reinvesting enough to remain viable and continue to produce a quality good or service?
 - Are we spending enough on Maintenance?
 - What are the critical performance drivers?
 - What do volumes look like? Gross profit margin trends?
 - Is SG&A as a % of Revenue fixed?

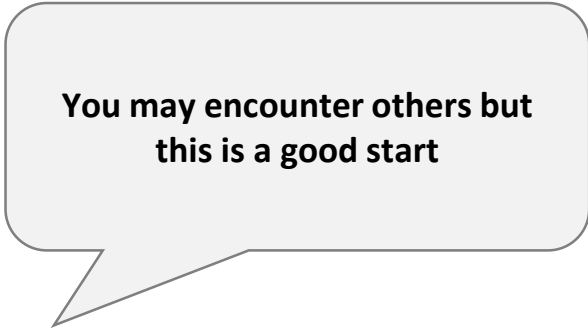
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Key Casing Concepts: Finance

A basic understanding will help you unlock new market entry and M&A cases

- A variety of financial calculations and vocabulary will appear in cases from New Market Entry to Private Equity Diligence
- Vocabulary:
 - M&A – Mergers and Acquisitions
 - Fund / Financial Sponsor / Private Equity Firm
 - Hurdle Rate
 - Hold Period
 - Organic vs. Inorganic growth
 - Leverage
 - Free Cash Flow
 - DCF
 - Greenfield
 - JV
 - Synergies (Revenue and Cost)



**You may encounter others but
this is a good start**

Key Casing Concepts: Finance

3 Key Calculations + Synergies

$$\text{Valuation} = \frac{\text{Free Cash Flows (Profit)}}{\text{Discount Rate}}$$

$$\text{Synergized Valuation} = \frac{\text{Free Cash Flows + Synergies}}{\text{Discount Rate}}$$

$$\text{Payback Period} = \frac{\text{Initial Investment}}{\text{Annual Cash Flow}}$$

What are Synergies?
The cost savings and / or revenue enhancement resulting from the combination of two companies or as the result of new ownership

$$\text{Return on Invested Capital} = \frac{\text{Value of Investment (@ Exit)}}{\text{Initial Investment}} - 1$$

Note to Candidate:
The valuation technique used in casing is simplified. You will not have to create a DCF in a consulting case interview.

Other Applications: The Breakeven Calculation

A consulting must

- Breakeven is critical in a number of cases and will be a powerful analytical tool in the case interview
- The inputs will vary but at the end of the day you are trying to figure out how long it takes to get your money back
- Examples:
 - Making an investment decision
 - Considering start-ups costs
 - Contemplating a large one-time cost

Example Calculations

$\frac{\text{Fixed Costs}}{\text{Revenue per Unit} - \text{Variable Costs per Unit}}$	$\frac{\text{One Time Start Up Costs}}{\text{Total Incremental Contribution}}$
---	--

Case Examples:

- The Philadelphia Zoo Buys a Panda
- You Buy a Coffee Maker
- Fabio's: Hair Salons and Headshots

Math Tips and Tricks

Utilize Short Cuts to enhance mental math speed and accuracy

1. You will often encounter large numbers with more than four zeros. **Utilize scientific notation** when performing calculations to ensure that you don't drop a zero

- $2,000,000 \times 300 \times 20 = 2 \times 10^6 \times 3 \times 10^2 \times 2 \times 10^1 = 12 \times 10^9$
- Remember: $10^6 = \text{million}$, $10^9 = \text{billion}$

2. **Use fractions and factoring** to simplify the calculation

$$55.5556\% \text{ of } 45,000 = \left(\frac{5}{9}\right) \times \left(\frac{5 \times 9 \times 10^3}{1}\right) = 25 \times 10^3$$

3. Know **your fractions to simplify percentages**

- You should know the decimal equivalent of $1/2$ through $1/16$
- Keep in mind that many of these fractions are fractions of other fractions

$$12.5\% \text{ of } 80 = \left(\frac{1}{8}\right) \times \left(\frac{8 \times 10^1}{1}\right) = 10^1$$

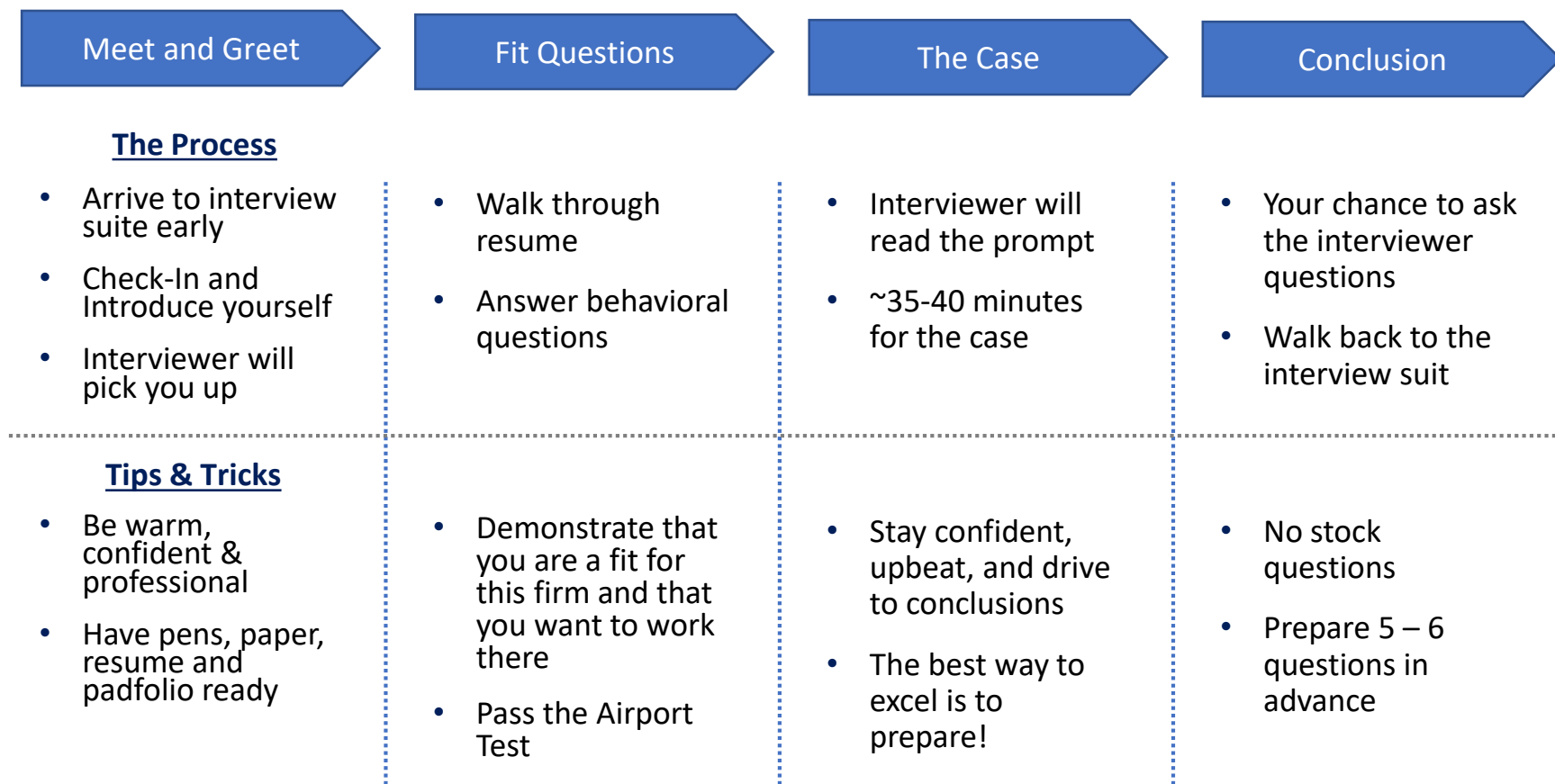
The Case Interview: Overview

3

The Case Interview: At a Glance

Unlike anything you have done in school

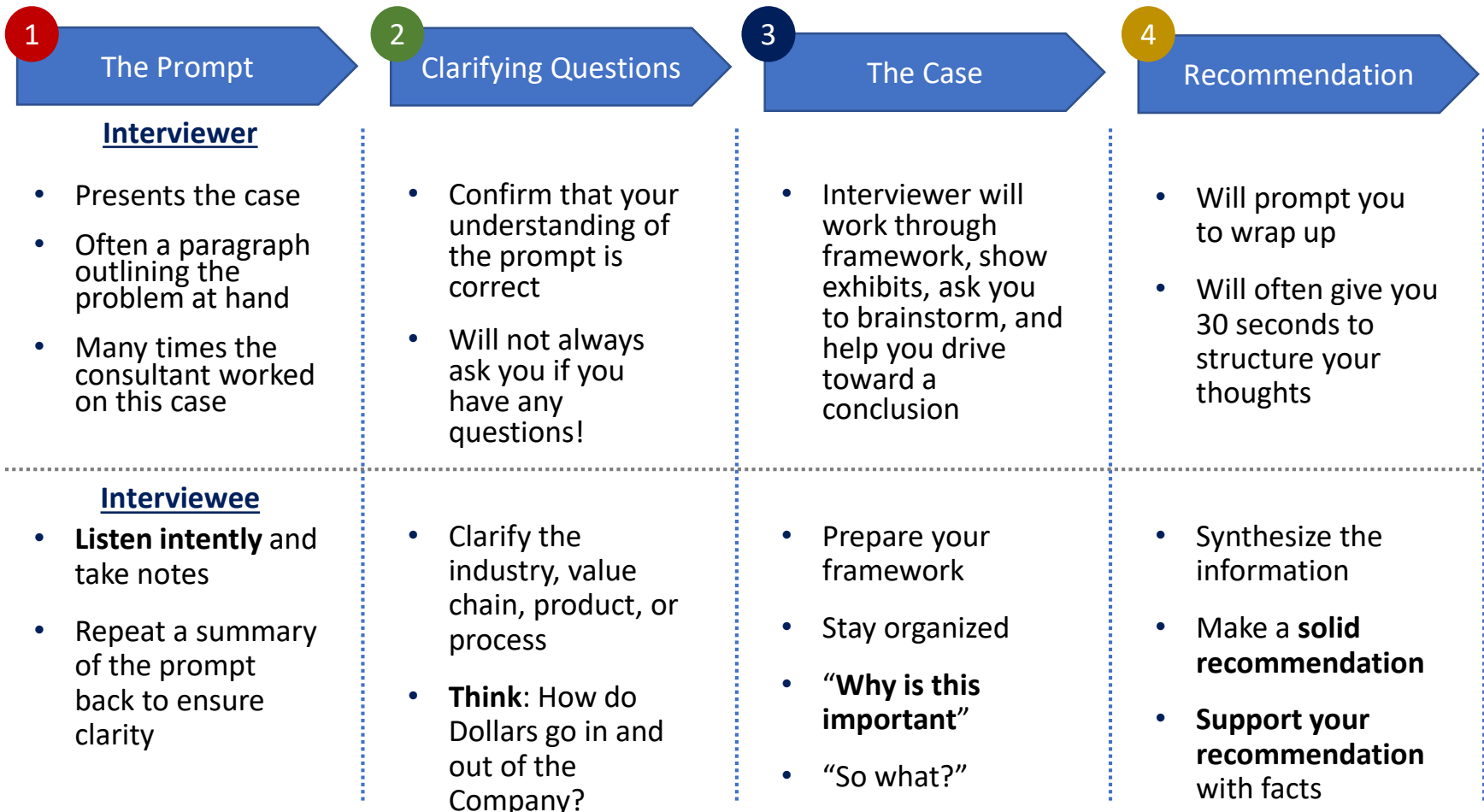
- A great case interview combines analytical rigor, creative problem solving, and interpersonal skills to “crack the case”



The Case Interview: Case Breakdown

Ace each part of the case

- The case is broken into four parts



The Case Interview: Preparation

Preparation is the cornerstone of success

- Casing is a **new way of thinking** that will require extensive, deliberate practice to be interview ready
- Focus should be on **developing a flexible, disciplined way of thinking** that can be adapted to any problem
- There is **no “magic number”** of cases
 - Some students do 10, others do 70
 - The most important thing is that YOU feel prepared
 - Don't do “reps” without targeted goals for improvement
- The **best practice** deliberately reinforces strengths and best practices while providing opportunities to target weakness for continuous improvement
- **Goal: seamlessly tackle any case in any industry**

Interviewer vs. Interviewee Led Cases

What to expect

- **Interviewer Led Cases**

- The interviewer often has a specific set of questions to address
- You may have created a spectacular framework but the interviewer may disregard it – Do not worry if this happens!
- Concentrate on tackling each question

- **Interviewee Led Cases**

- You must develop the structure and drive the case forward
- Emphasis on your initial framework as it will be the foundation of the interview
- These types of cases can arguably be harder

- **Similarities**

- Structure; problem solving; clear, concise communication; creativity; organization; and confidence will be important regardless of case type

Ander Ericsson's Theory of Deliberate Practice



Tracking Case Progress – Positive and Negative Feedback

Targeted practice creates results

- Each case you do should be done in a deliberate manner – quality practice is key
- After mock case, review the case later that day and do the case correctly all the way through
 - Examine the framework and understand how you could have improved
 - Glean every insight you can out of each graph and practice discussing your findings
 - Re-do any calculations you struggled with
 - Review terms that were unfamiliar
- Keep track of both the cases you complete and the areas for improvement
 - Some use a tracker, others keep a sticky note for each case
- Review points of improvement prior to tackling another case to ensure that you targeting weaknesses

Preparing for the Case – Interviewee and Interviewer

Deliberate Practice is key

For Interviewee

- Make sure you have 6 or more sheets of blank paper out and ready to go
- Have extra pens, pencils and highlighters out in the event you need a new one
- At the conclusion of the interview, take notes on how you can improve
- Review the case later that day - walk through the framework, calculations and conclusion correctly
- Maintain a log of errors and completed cases

For Interviewer

- Spend time reviewing the case prior to giving the case
- Walk through the clarifying questions, calculations, brainstorming and conclusion
- The better you know the case, the more the interviewee will benefit from the practice case
- Be prepared to give feedback in an organized manner - taking notes and sending comments in an email is a great way to stay organized!

A Closer Look: The Prompt & Clarifying Questions

4

The Prompt: An Example

Try the complete case later in the book!

Your interviewer will read this to you

Your client, Palm Beach Capital, is a private equity firm that specializes in the Travel and Tourism industry. They have recently asked you to help them evaluate the potential acquisition of a cruise line, CruiseLine Co. The Company expects a purchase price of no less than \$1.2 billion.

They would like to know what you think the cruise line is **worth** and if you believe they **should acquire** the target?



Note to Candidate / Interviewee:

At first, listening to the prompt, pulling out the important information, writing it down, and clarifying the prompt will be overwhelming. It will get easier with practice!

The Prompt: An Example

A clear understanding of the prompt sets you up for success

- Neat, organized notes will help you repeat the prompt back to the interviewer and refine your understanding

Organize your notes on the left side of the page. Bucket your notes to keep things organized.

Examples:

- Qualitative vs Quantitative
- PE Firm vs Portfolio Co.
- National vs. International

Notes

Palm Beach Cap
↳ PE Fund in
① T&T
Cruiseline Co.
② PP \geq \$1.2B

New 2 cruiseline
Hurdle @ 22%
↳ Carnival Cruises
Own boats
FARES

Question

① valuation (worth)
② Should they acquire?

H: ① > 1.2B
② Yes

Framework

① worth $\Rightarrow \pi$

$$R - \frac{C}{TT} = TT + \text{Synergies} \Rightarrow \text{valuation}$$

Revenue (R)

- # boats
- Fares
- passenger utilization
- # cabins?
- # cruises

Costs (C)

- Boats
 - Maintenance
 - House keeping
 - Food & Bev
 - Entertainment
 - Fuel
- Ancillary
 - entertainment
 - up sell
 - spa?
- O.H.
 - overhead/ Mgmt
 - Marketing
 - SG&A
 - Salaries
 - Misc?

Synergies

- \uparrow fill rate
- Δ pricing
- Δ cabin configuration
- consolidate ops
- out of line \leftarrow SG&A
- efficient trips

Other

- Captain crew
- other

② Should?

- ① Mgmt Team
 - expertise
 - ability to integrate
 - staying?
- ② execute deal
 - $\$ \Rightarrow$ D/E
 - Palm Beach track record w/ synergies
- ③ Other \leftarrow culture regulatory

Clearly write the question / problem you are tasked with solving at the top of the page

Clarifying Question

After the prompt is confirmed, you can ask clarifying questions

- These questions help you understand the world in which the case is taking place
- If needed, clarify the scope of the case and the question at hand
- These questions should not be specific and detailed – save those for the framework

The image shows an iceberg floating in the ocean. The tip of the iceberg is above the water line, and the much larger base is submerged below. A large red 'X' is placed over the submerged part of the iceberg. To the right of the iceberg, there are two columns of text. The top column contains several questions, and the bottom column contains more specific questions. A green checkmark is placed to the right of the top column of questions, and a speech bubble points to the bottom column of questions.

Is this an industry wide trend? Can we discuss the attributes of the product?
Can we clarify the value chain? product?
Rev or Profit Margins declining? What is the firm's objective?
Do they operate internationally?

What are the margins of the ABC business segment?
Is there a discount rate we should be mindful of?
What is the ROI on marketing spend?
How many different fabrics are they using to produce the product?

These questions are too specific

How do dollars go in and how do dollars go out?

The Prompt: Example Clarifying Questions

In this case, you should inquire about the Fund and the Target

Palm Beach Capital

- *Have they acquired a cruise line before?*
- *Investment rationale?*
- *Will this investment go into an existing fund?*
- *Are there any hurdle rates that we need to be aware of?*
- *Have they specified a hold period?*
- *Are there any other bidders?*

Target

- *Would like to create a comparison in my mind. Is Carnival Cruise line okay?*
- *Clarify value chain to confirm understanding of income statement*

“We don’t have that information.”

Clarifying Questions as an initial guide

- There will be times you ask for clarifying information and the interviewer does not have the information you are asking for
- **Do not view this as a set back!**
- If the interviewer does not have the information then it is not relevant to the case!
- Use this as an opportunity to focus on the information you are given as you work through your framework.

Frameworks

5

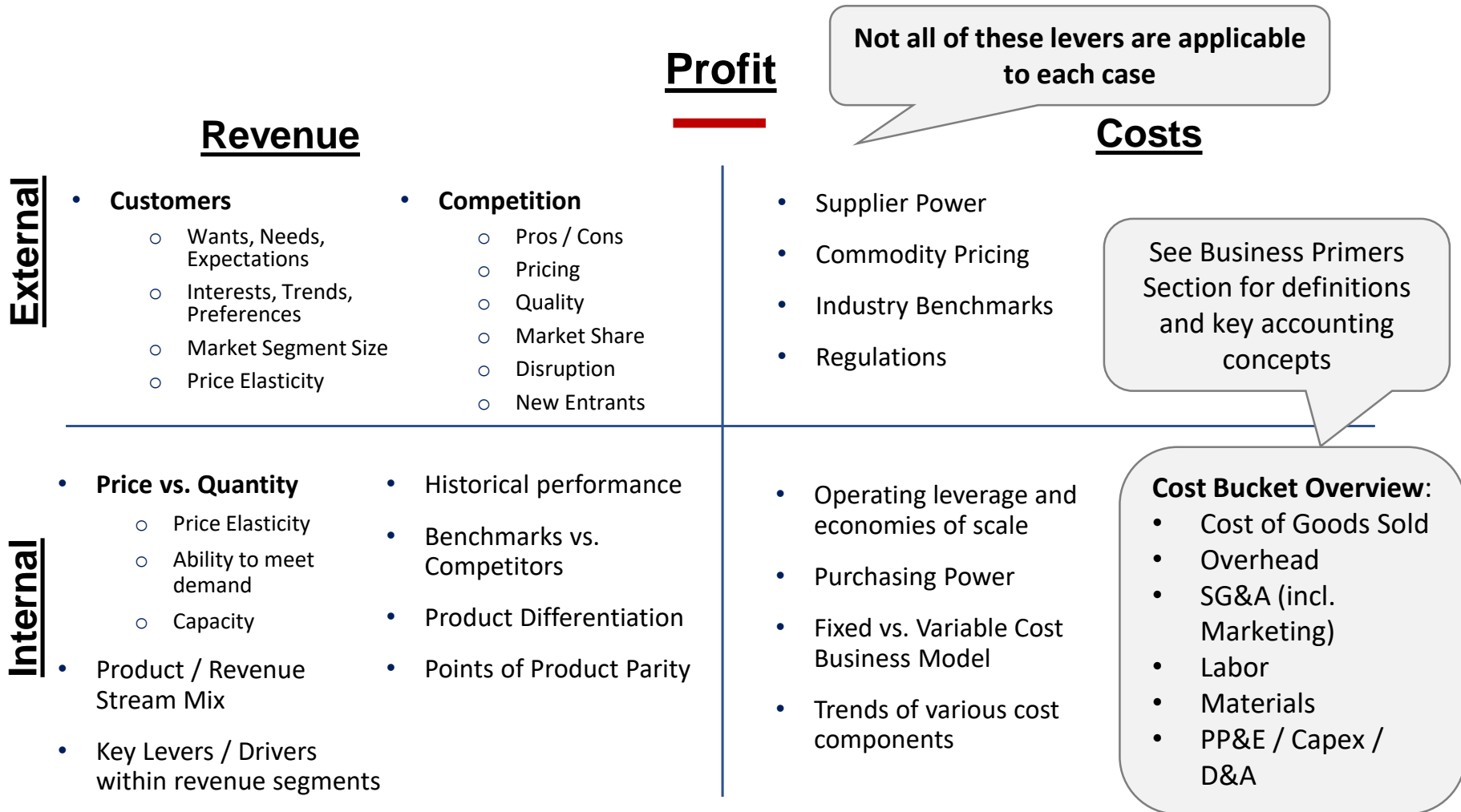
Frameworks: An Overview

Tips, Tricks, and Common Misconceptions

- A **framework** is a template that helps break down and solve problems in an organized and detailed manner
 - Ensure that a framework is **MECE** (mutually exclusive / collectively exhaustive)
- There are **many frameworks that can be applied successfully** for each case
- You have **1.5 – 2 minutes** to sketch out your framework
- **Do not memorize frameworks**, rather use those on the next page as a starting point as you design your own – understanding a few case types will take you a long way!
- David Orhvall’s “Crack the Case”, Mark Cosentino’s “Case in Point”, and Victor Cheng’s “Case Interview Secrets” are popular resources
- When presenting your framework, start with the most important buckets or levers first
- Understanding if this is a commodity or differentiated product or service could be helpful when thinking through critical levers

Frameworks: Change in Profits

Question: Your client's profits have declined and / or growth has stalled. What are your recommendations to increase profits?



Not all of these levers are applicable to each case

See Business Primers Section for definitions and key accounting concepts

Cost Bucket Overview:

- Cost of Goods Sold
- Overhead
- SG&A (incl. Marketing)
- Labor
- Materials
- PP&E / Capex / D&A

Frameworks: Change in Profits – a Different Approach

Question: *Your client’s profits have declined and / or growth has stalled. What are your recommendations to increase profits?*

Market	Revenues	Costs	Customer / Channel
<p><u>Industry</u></p> <ul style="list-style-type: none"> • Growth • Revenues • Profits • Headwinds <p><u>Competition</u></p> <ul style="list-style-type: none"> • Market share by competitor • Commodity vs Differentiated Good • Fragmented Market vs Defined Market Leaders • Threat of New Entrants 	<p><u>Product Mix</u></p> <ul style="list-style-type: none"> • Points of Product Parity vs. Competition • Changes in product mix • # of Product lines – Complexity? <p><u>Pricing</u></p> <ul style="list-style-type: none"> • Price elasticity • Parity in Pricing • Changes in Price <p><u>Volume</u></p> <ul style="list-style-type: none"> • Our market share • YoY Trends by product line • Does Capacity meet Demand? • Defect Rate? 	<p><u>Client Cost Structure</u></p> <ul style="list-style-type: none"> • Fixed vs. Variable • Cost of Goods Sold – Labor & Materials • SG&A • Marketing • IT / Systems • Specific expenses by industry <p><u>Benchmarks</u></p> <ul style="list-style-type: none"> • Client vs. Industry • YoY Changes in line items <p><u>Supplier Power</u></p> <ul style="list-style-type: none"> • Who has the leverage? 	<p><u>Customer Segments</u></p> <ul style="list-style-type: none"> • Which segment do we serve? With what product / service? • Which segment is the most profitable? How does this compare to our product mix? • Concentration <p><u>Channels</u></p> <ul style="list-style-type: none"> • Current sales mix? • Cost of Channels? • Do these channels attract the correct customers? • Incentive structures / performance

Not all of these levers are applicable to each case

Frameworks: New Market Entry / Investment in New Technology or Project

Question: Your client is considering entering a new market. Should they?

<p>Why / Strategic Reasoning</p>	<ul style="list-style-type: none"> • Why are they considering this? <ul style="list-style-type: none"> • Growth, Stagnant Market / Product Segment, Response to Competition • How are they going to do this? / Resources and Current Capabilities <ul style="list-style-type: none"> • What will make this successful? • Prior expertise, Brand, IP, Geographic Footprint, Adjacent Expertise etc.
<p>Economics of the Decision / Project</p>	<ul style="list-style-type: none"> • New Market Conditions <ul style="list-style-type: none"> • Competitive landscape, Market Size (#, Rev, Profit) • Economics <ul style="list-style-type: none"> • Investment required (One time investment) • <u>Payback period, profitability, ROIC, valuation</u> • Share of Revenues and Profits
<p>Risks / Other Considerations</p>	<ul style="list-style-type: none"> • Barriers to Entry / Challenges in Execution <ul style="list-style-type: none"> • Regulation, Access to Points of Sale, \$ available to invest • Cultural Differences • Risks <ul style="list-style-type: none"> • Political, currency, financing risk? • Macroeconomic Changes • Implementation → Experience and ability to execute

Tips & Tricks

Your thought process should be centered around three key points:

1. What is the project's probability of success based on external market conditions and Company capabilities?
2. How do I assess the risk of the project?
3. What metrics do I need to signify success?

Frameworks: M&A Transaction

Question: Your client is considering purchasing a company. Should they?

<p>Why / Strategic Reasoning</p>	<ul style="list-style-type: none"> • Investment Thesis <ul style="list-style-type: none"> • Fit with existing portfolio companies • New geographic reach or new capabilities • Synergies • Type of Deal <ul style="list-style-type: none"> • New Market Entry • Vertical or Horizontal integration • Industry diversification
<p>Economics of the Deal</p>	<ul style="list-style-type: none"> • Target Valuation <ul style="list-style-type: none"> • Profit = Revenue – Costs • Profit / Discount Rate = Valuation • Deal Price and Multiple • Synergies <ul style="list-style-type: none"> • Revenue and / or Cost Synergies • Pre Synergized Value < Synergized Value
<p>Risks / Other Considerations</p>	<ul style="list-style-type: none"> • Ability to Execute the Transaction <ul style="list-style-type: none"> • Has the Company done this before? • Will they be able to get financing? • Ability to capture synergies? • Cultural Fit and Risk of Integration <ul style="list-style-type: none"> • Will the two cultures work well together? • Other <ul style="list-style-type: none"> • Regulatory approval

Tips & Tricks
 You may also need to calculate ROIC and payback period in these types of cases

Frameworks: Outsourcing / Offshoring

Question: Your client is considering outsourcing a process. Should they?

<p>Why / Strategic Reasoning</p>	<ul style="list-style-type: none"> • Why is the Company doing this? <ul style="list-style-type: none"> • Cost savings, New capabilities, Competitor • What is affected? <ul style="list-style-type: none"> • Customers – needs? Segment? • Quality of product? • Availability and speed to market?
<p>Economics of the Deal</p>	<ul style="list-style-type: none"> • Current Costs <ul style="list-style-type: none"> • Understand value chain and process • Projected Outsourced Costs • Key changes in costs • Initial Investment <ul style="list-style-type: none"> • Breakeven, Payback period, ROIC • Net Cost Savings
<p>Risks / Other Considerations</p>	<ul style="list-style-type: none"> • Ability to Execute <ul style="list-style-type: none"> • Do they have the expertise? → Implementation risk • Where are they doing this? → Political Risk • How with currency affect this? → FX Risk • Regulatory Risk • Cultural integration • Partner Capabilities <ul style="list-style-type: none"> • Do they have the right technology? Access to the right labor pool? Capacity to handle demand? Satisfactory terms? • Stakeholder Management <ul style="list-style-type: none"> • How do you manage lost jobs? Messaging? Media?

Similar buckets to M&A and New Market Entry

Tips & Tricks

This can be a people intensive process. You must have great change management capabilities to manage changes across the company

Targeted Practice – Quant vs Qual

Strengthening case specific skills

- Quantitative practice
 - You must apply the math tips and tricks (scientific notation, fractions, and factoring) each time you practice a case
 - You will (likely) not have a calculator so you must be comfortable with these calculations
 - Use tools like Fast Math (<https://www.fastmath.net/ace-the-case/>) or Rocket Blocks (<https://www.rocketblocks.me/>) to practice drills
 - Practice heavily quantitative cases like CruiseLine Co. in this book
- Qualitative practice
 - A great candidate masters the quantitative and qualitative
 - Practice structured brainstorming – create your buckets, understand the levers that will have the biggest impact on the business
 - Understand critical non-quantitative factors and how they apply across industries
 - Practice presentation skills – the best case interviews feel like a conversation

Market Sizing

6

Market Sizing: Thinking like a Consultant

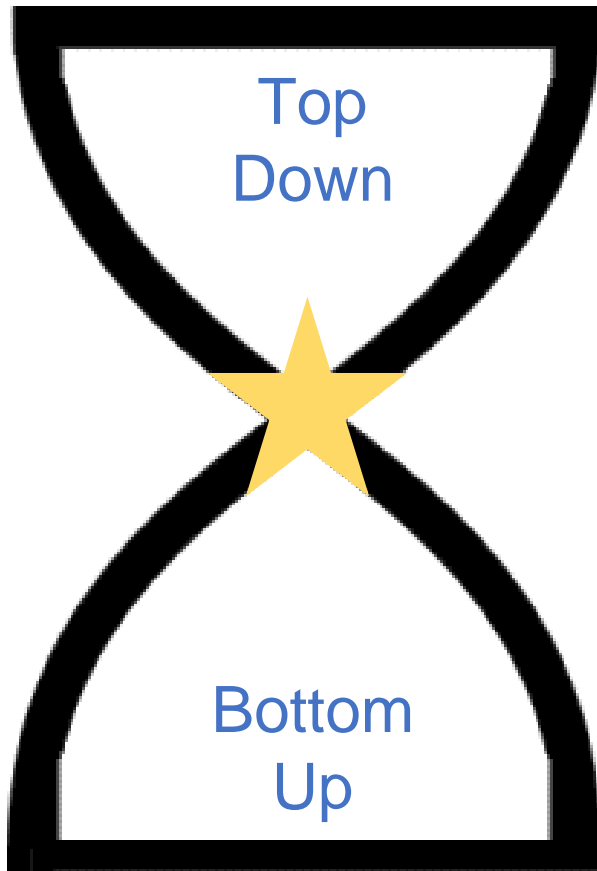
Opportunities to practice your consulting skillset are everywhere!

- **Market sizing is a critical consulting skill** and popular topic in many case interviews
- Market sizing can be an entire case or as part of a broader question like entering a new market or launching a new product
- Goal: Test your quantitative and logical reasoning skills
- The interviewer is less interested in your final answer compared to your methodology and approach in getting there
- **Your chance to demonstrate that you have strong quantitative skills, can handle ambiguity, and are able to support your assumptions**
- It is critical that you maintain a structured thought process and communicate your methodology

Chances to practice are everywhere

Two Approaches to Market Sizing

Top Down and Bottom Up



- Top Down
 - Think of this as a funnel
 - Start with your largest population and work to refine
 - Populations to know:
 - U.S. Population: 300M people
 - U.S. Families: 100M
 - It could be helpful to understand similar metrics for international offices
- Bottom Up
 - Start at the smallest unit and work your way up
 - Think of this like you are working your way up a pyramid

Lets Try!

Top Down and Bottom Up Market Sizing

- Some examples for you to try:
 - How many people are in Huntsman hall at 10:30 am?
 - How much money does Soul Cycle make nationally?
 - How many coffees does Starbucks sell globally?
 - How many cheeseburgers does McDonalds sell in the U.S.?

Huntsman Hall: Top Down

Top Down Market Sizing is like a funnel

Tip: Choose reasonable but easy to calculate numbers. Think through the calculation before you choose the assumption.

Metric	Undergrad	MBA	Faculty & Staff
Total Population	10,000	2,000	5,000
% Class @ 10:30	50.0%	75.0%	100.0%
Class @ 10:30	5,000	1,500	5,000
Class in Huntsman	50.0%	66.67%	10.0%
Total Students w. Class in Hutsman	2,500	1,000	500
Attendance	80.0%	50.0%	100.0%
Students in Huntsman @ 10:30	2,000	500	500
Total People in Huntsman			3,000

Tip: Visualize Huntsman as you work through this case

- Tips:
 - Think about the **calculation like you would a framework** – take a moment to collect your thoughts and plan your metrics / key drivers
 - Mental math is critical here – use **rational but easy to calculate percentages and numbers.**
 - Be ready to **discuss the logic and reasoning behind your assumptions** – the interviewer is interested in your ability to support your decisions

Huntsman Hall: Bottom Up

Think about your assumptions as building blocks

Piecemeal Estimation

Number of Class Rooms in Huntsman

# Floors	3
Classrooms per Floor	10
Total Class Rooms	30
% Have Class at 10:30	100.0%
Classrooms in Use	30
# Seats per Classroom	75
Average Attendance	80.0%

Total Student Attendance 1,800

Faculty and Staff in Huntsman

# of Office Floors	4
Offices Per Floor	25
Cubicles per Floor	75

Total Work Spaces 400

Attendance 100.0%

Total Faculty & Staff 400

MBA's in MBA Café

Number of Tables	10
People at a Table	10

Total at Tables 100

Total - Couches, Chairs, Outside

Numbers of Couches / Chairs, Outside 100

Other Potential Staff Members

Maintenance	10
Security	10
Pret	30

Total Other Staff Members 50

Total People in Huntsman at 10:30 am 2,450

Choose easy to calculate numbers!

Notes: It is completely fine that the two estimates are different!

- Tips and Tricks:

- It is critical that you stay case specific – imagine yourself walking through Huntsman
 - Where are the people? What do I need to be aware of?

Practice Cases

7

Guidelines for Using the Practice Cases



Simply reading through these sample cases will not be as useful as practicing with a partner.

- Before proceeding to the practice cases, please note:
 - Slides for the interviewer and the interviewee are intermixed
 - It's best to pair up or practice in a group
 - Decide for which sample cases you will be the interviewer, and for which you will be the interviewee
 - For the cases where you will be the interviewer, print the whole case, then familiarize yourself with the problem and the math
 - For the cases where you will be the interviewee, **DO NOT LOOK AT THE CASE.** Allow your partner to present the whole case to you during a mock interview setting

Note: Warm Up Cases can be completed in under 30 minutes

Warm Up Cases

7a



The Philadelphia Zoo Buys a Panda

Industry: Real Life

This case focuses on: Non-Traditional Case, New Market Entry

Quantitative Overview: Profitability, Breakeven

Qualitative Overview: Non-Traditional Case

Prompt

For Interviewer

The Philadelphia Zoo is considering buying a panda. Should they?

Clarifying Questions

For Interviewer – To be answered when asked

- **Does the Philadelphia Zoo already have a panda?** No this will be the Zoo's first panda
- **What is the Zoo's objective?** The Zoo would like to increase revenue and profitability. The Director believes that a panda would attract more patrons to the Zoo.
- **Does the Zoo have room for a Panda exhibit?** Yes, the Zoo recently underwent a renovation.
- **Will a Panda be happy in Philadelphia?** Yes, the Zoo will be able to recreate its natural habitat despite the winters here.
- **How long do Pandas typically live in captivity?** A panda typically lives 20 years in captivity.

Sample Framework

For Interviewer

	Market	Financial	Other
Internal	<ul style="list-style-type: none">• Customers – WTP, Panda Preferences	<ul style="list-style-type: none">• Initial Investment – Cost of Panda, Cost of new exhibit, transportation, marketing blitz• Incremental Costs – Zookeeper, Food• Incr. revenue	<ul style="list-style-type: none">• Capabilities – expertise needed?
External	<ul style="list-style-type: none">• Competition – Other Zoos, Alternative Entertainment		<ul style="list-style-type: none">• Regulatory risk• Animal Welfare

Commentary

This framework is essentially a new market entry / new product launch framework. In this case the new product will be a panda. Fairly standard three bucket framework with internal and external drivers broken out. Note areas of significant importance and suggest a starting point.

Exhibit 1: Potential Panda Patrons

For Interviewee

- The Zoo will acquire the Panda on January 1, 2020
- The Philadelphia Zoo expects the incremental number of panda patrons (those who visit the zoo to see the panda) to stabilize by 2022.
- Each panda patron pays a \$10 entrance fee at 100% contribution margin and is expected to contribute \$15 in profit from concessions and souvenirs

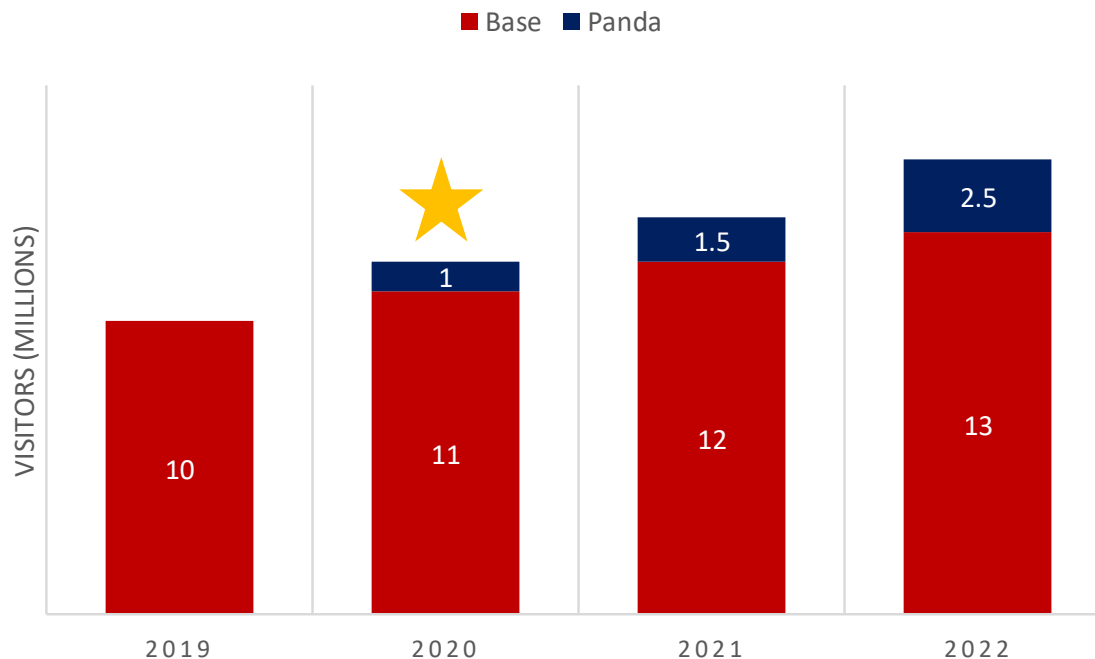
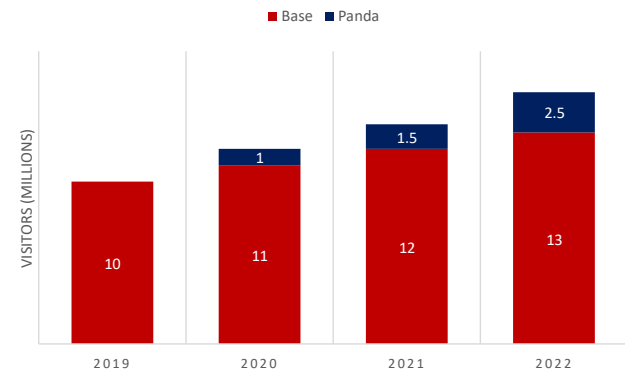


Exhibit 1: Potential Panda Patrons

For Interviewer

- The Philadelphia Zoo expects the incremental number of panda patrons (those who visit the zoo to see the panda) to stabilize by 2022
- Each panda patron pays a \$10 entrance fee at 100% contribution margin and is expected to contribute \$15 in profit from concessions and souvenirs



Observations

- It is clear that Panda patron growth is outpacing YoY base business growth
- It is important to understand that the number of incremental panda patrons maxes out at 2.5M. It can also be assumed that 2.5M will be a steady state for the breakeven calculation later in the case.
- The interviewee can easily calculate the YoY panda patron growth rate starting in 2021 (50% & 66.67% respectively).
- The candidate should attempt to quantify incremental profit in the first three years $(1+1.5+2.5)*25 = \$125M$

Additional Investment

Prompt for Interviewer

- It has come to the Zoo's attention that while the Zoo has been renovated and there is ample room for an enclosure, Zoo keepers estimate that there are significant start-up costs associated with customizing the enclosure, educating staff, purchasing the panda, and securing a one-time marketing blitz to advertise the Panda exhibit.
- The Zoo estimates that these costs will total \$250M
- **Should the Zoo buy a panda?**

Breakeven Calculation: \$250M Investment

For Interviewer

- The candidate should recognize that a breakeven calculation is necessary. What makes this breakeven different from a typical breakeven is that the annual profit grows and then plateaus, making this more difficult.
- Writing the cashflows out and understanding timing will be important here.
- It is important to note that number of patrons is expected to stabilize after 2020 per exhibit 1.
- The Zoo can expect to breakeven in 5 years

Breakeven Calculation

Year	1	2	3	4	5	
	2020	2021	2022	2023	2024	Total
Patrons	1	1.5	2.5	2.5	2.5	
\$ / Patron	25	25	25	25	25	
Profit Contribution	25	37.5	62.5	62.5	62.5	250

Conclusion

Prompt for Interviewer

- The Director of the Philadelphia Zoo is on the phone and would like an update on the Panda Project. What do you tell him?

Conclusion

Sample Conclusion for Interviewer

- The Philadelphia Zoo should purchase a panda.
- The Zoo can expect \$62.5M in YoY incremental profit by 2022 and will break even on its initial investment in 5 years. Given that Pandas live for 20 years, the Zoo has more than enough times to recoup these costs.
- In addition, the Zoo will have a unique exhibit as no other competing Zoos have a panda.
- The key risks in purchasing a panda include staff education to ensure animal welfare, projected panda patronage, and state legislation regarding the purchase of a panda.
- Next steps should include: develop an education plan for staff, perform market sizing and consumer survey to refine attendance projections, and understand regulatory hurdles in the panda purchasing process.



Purchasing Your Coffee Maker

Industry: Real Life, Retail

This case focuses on: creating initial frameworks, staying case specific, utilizing the breakeven calculation

Quantitative Overview: Breakeven

Qualitative Overview: Brainstorm

Buying a Coffee Maker

For Interviewer

You can think like a consultant in everyday life – it is important to build your skill set through real world examples

Prompt: Your friend, Matt, is considering buying a coffee maker. He has a \$200 maximum budget but as a new Penn grad, he would be happy to spend less than that. He has retained your consulting skills to help him make this decision.

Potential Clarifying Questions

For Interviewer: Candidate should stay “on top of the water”

Q: Why is Matt considering buying a coffee maker now?

A: Matt will be an investment banking analyst and has heard rumors of long hours and late nights. He feels that he will need the caffeine to get through the dreaded first year.

Q: What type of coffee maker is Matt considering?

A: Matt’s maximum budget is \$200. Thus, many of the fancy, barista style coffee makers are out of his budget.

Q: Does Matt have a favorite coffee drink?

A: Matt hopes to be able to make standard, drip cups of coffee with his coffee maker. He will occasionally order a Latte.

Example: Framework Slide

For Interviewer

Prompt notes organized by qualitative and quantitative information

Friend
Buy Coffee
Maker
IB Analyst – no
time
Drip Coffee

\$200 max
budget

Business application: We are thinking through an acquisition. In this case, it is a coffee maker, in a business it could be an investment in an expensive piece of equipment. You can also think about this in terms of make vs. buy coffee (insource vs outsource).

Q: How should Matt think about buying a coffee maker?

	Costs	Benefits	Risks
Make	<ul style="list-style-type: none"> Fixed Cost – Purchase Variable Cost – Coffee Breakeven vs. Buy 	<ul style="list-style-type: none"> Convenience Low Variable Cost Alternative Uses - Ramen 	<ul style="list-style-type: none"> Too much Coffee? Cleaning the maker? Quality? Variety?
Buy (DD, Sbux, Pret)	<ul style="list-style-type: none"> VC – Daily, high Add. costs – snacks, add-ons No WC 	<ul style="list-style-type: none"> Freshness Variety Study, Social Counterspace 	<ul style="list-style-type: none"> Health? Environment Lines / Time

Alternatives

Make vs. Buy – Cups to Indifference

Prompt for Interviewer

- Matt has decided that he does not want to drink Red Bull or any other coffee alternatives. Instead, he will continue to think through a make vs. buy decision.
- After graduation, Matt's mom gave him a coupon to Bed Bath & Beyond. Using her 20% off coupon, Matt could purchase a Keurig for \$100.
- **How long would it take to breakeven if Matt was to purchase a Starbucks coffee every morning?**

Breakeven Brainstorm

Prompt for Interviewer

- How would you calculate breakeven? What units would you use? What inputs do you need?

Coffee Break: Where is the point of indifference?

Information for Interviewer

- **Information to be given to interviewee after brainstorm:**
 - Cost of Keurig: \$100
 - Cost of Daily K-Cup, Milk & Splenda: \$1
 - Cost of Daily Starbucks Coffee: \$3
 - Matt drinks 5 coffees per week
- **Questions for the Interviewee:**
 - What is the breakeven number of coffees?
 - How many weeks will this take?
- **Answer:**
 - $\$3 * \text{Quantity} = \$2 * \text{Quantity} + \$100 \rightarrow \text{Quantity} = 50 \text{ cups or } 10 \text{ weeks}$

Brainstorm: Other Factors

For Interviewer

- Is there anything else we should know?
 - Notes: There are many things the interviewee could consider, however, in quantitatively making this decision, **warranty and useful life** are the most important.
- Answer: The coffee maker has a 1 year warranty but typically lasts more than two years

Example Conclusion & Wrap Up

For Interviewer: Final Prompt and Example

You are about to see Matt in class. What should Matt do?

- **Example:**
- Conclusion: Matt should utilize his mother's coupon and purchase a Keurig coffee maker.
 - Matt will breakeven versus alternatives in 10 weeks
 - Given the coffee maker's useful life, the 10 week breakeven seems more than attainable
- The risks to purchasing the coffee maker include:
 - Matt's inability to access the coffee maker while at work
 - A change in coffee drinking preferences
 - Ability to purchase K-Cups while working
- Matt could mitigate these issues by:
 - Understanding if the Bank provides free coffee
 - Investigating K-Cup Options – Swiss Miss, Lavazza, Chai
 - Utilizing a grocery deliver service or Amazon Prime for his K-Cup needs

Example Cases

7b



ShoeCo: Declining Profits and Challenging Growth

Industry: Retail

This case focuses on: Profit, Strategy, Merchandising

Quantitative Overview: Graphs, Income Statement

Qualitative Overview: Brainstorming

ShoeCo - Prompt

For Interviewer

Your client is a U.S. Shoe Company. ShoeCo is largely vertically integrated. While they do not manufacture their materials, they assemble their products across the U.S. and then distribute and sell their shoes through 3 key retailers. Recently, ShoeCo has been experiencing slowing growth.

You have been asked to understand what the cause of slowed growth and how they can fix it.

Clarifying Questions

For Interviewer: to be answered if interviewee asks for the information

- Q: Is the slowed growth top line or profit?
 - A: Recently, topline growth has declined which has led to a profit decline.
- Q: Is this an industry-wide or company specific issue?
 - A: This is a company specific issue. The industry is growing at 5% YoY (year over year) and is projected to do so for the foreseeable future
- Q: To better understand their market segment, where are ShoeCo shoes being sold?
 - A: The Company employs a narrow channel strategy in an effort to create strong relationships with retail partners. ShoeCo focuses on diversified, national retailers. ShoeCo's three largest retail channels are Kohl's, Macy's, and Target. The Company currently enjoys national distribution.
- Q: Can you walk me through the value chain at ShoeCo?
 - A: ShoeCo designs, manufactures, and ships shoes to retail partners. ShoeCo does not have any namesake retail outlets.

Sample Framework

For Interviewer Only

$$\pi = R - C$$

Profit

* Revenue = Price X Quantity *

Revenue

Costs

External

- **Customers**
 - Have tastes or expectations changed?
 - Brand loyal?
 - Price Elasticity – has their willingness to pay changed?
- **Competition**
 - Changes to competitive landscape?
 - Pricing? Promotions?
 - New entrant into existing channel
 - Change in Market Share
 - Substitute good?

- Changes to the cost of key inputs like rubber, leather, and cotton?
- Are suppliers reliable and able to meet their commitments at every part of the supply chain?
- Regulations such as sales tax increasing total price
- Any changes to shipping costs?

Internal

- Price, Volume, & Margin trends throughout our product mix
- Ability to meet demand & consistently meet Q
- Any differences in product Quality and/ or customer satisfaction
- Promotions
- Placement of our shoes in the stores / changes in store layout
- Sales volumes by geographic segment

- Changes in any key inputs – new materials, new designs?
- Complexity of manufacturing process; the number of available colors, patterns, and combinations
- Down time when converting from one product line to another
- Aging equipment and maintenance costs
- Rent or lease expense on factories
- Labor Costs – unionized? Level of skilled labor?
- Changes in marketing spend – Are our shoes less visible?

Exhibit 1: Revenue by Business and Product Segment

For Interviewee

ShoeCo. Income Statement (\$ millions)

Revenue:	2015	2016	2017
Women's Shoes			
High Heels	1,000.0	750.0	500.0
Boots	500.0	550.0	610.0
Sandals	60.0	66.0	72.0
Men's Shoes			
Dress	1,125.0	1,125.0	1,125.0
Casual	500.0	550.0	605.0
Total Revenue	\$ 3,185.0	\$ 3,041.0	\$ 2,912.0
<i>YoY Growth</i>		-4.5%	-4.2%

Exhibit 1: Revenue by Business and Product Segment

For Interviewer

- Key Observations:
 - YoY growth is declining at ~4% YoY
 - Key lever in declining growth – Women’s Shoes; driven by Women’s High Heels
 - Bright spots – Women’s boots and sandals are experiencing ~10% YoY growth respectively
 - Men’s shoe sales are relatively flat with the flagship category, dress, growing 0% YoY
 - Men’s casual shoes have also experienced 10% growth YoY

ShoeCo. Income Statement (\$ millions)

Revenue:	2015	2016	2017
Women's Shoes			
High Heels	1,000.0	750.0	500.0
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Total Revenue	\$ 3,185.0	\$ 3,041.0	\$ 2,912.0
<i>YoY Growth</i>		-4.5%	-4.2%

Tip & Tricks

Contextualizing data with trends will help you paint a stronger picture of business trends

Exhibit 2: Women's Shoes by Volume (Millions)

For Interviewee

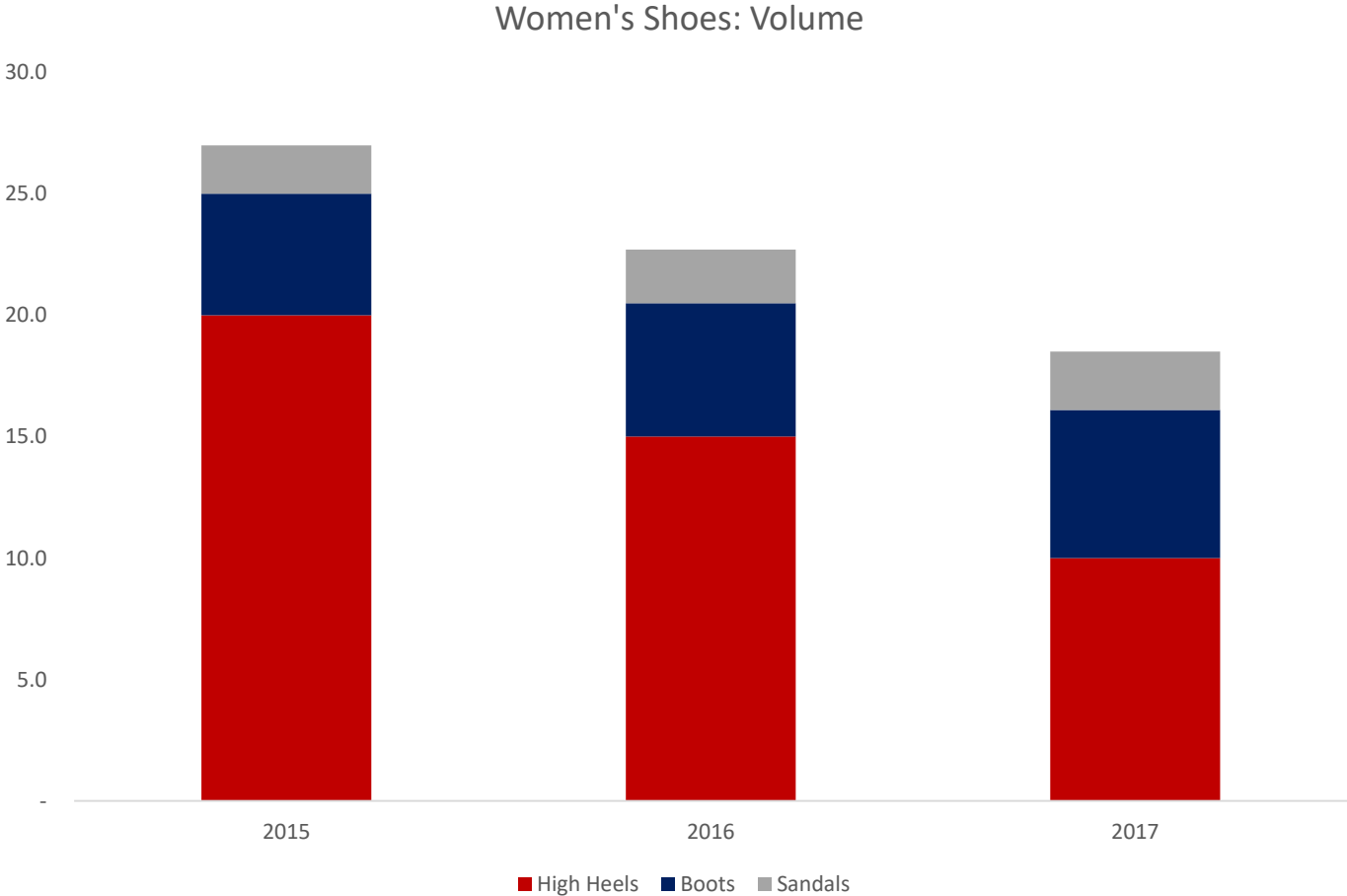
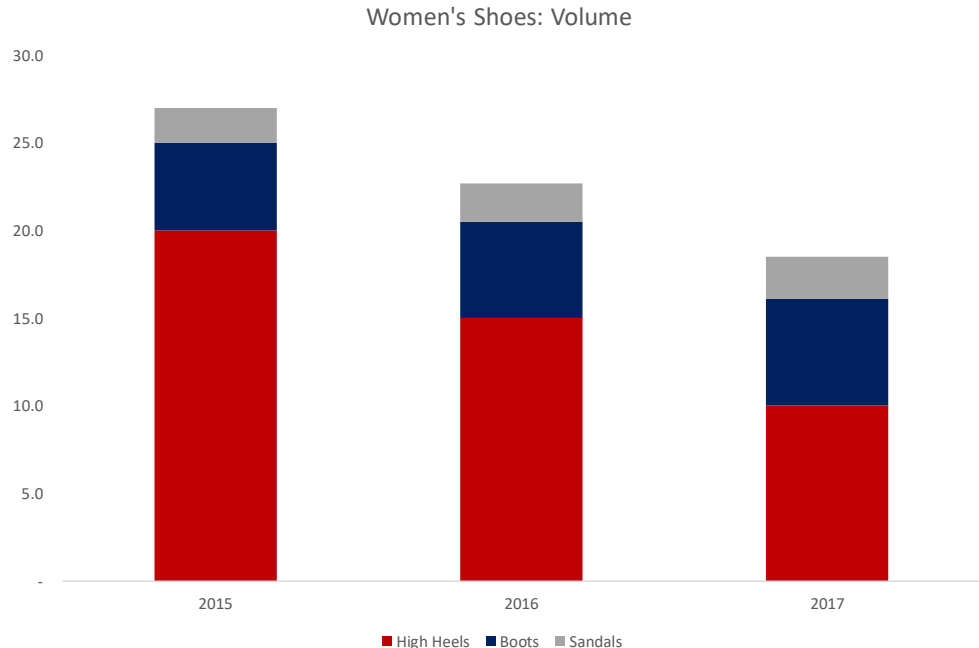


Exhibit 2: Women's Shoes by Volume (Millions)

For Interviewer

- Key Observations:

- **Approximating** quantity is fine
- It is clear that quantity is decreasing
- Total Volume ('15 –'17) is 27, 22.7, 18.5 which represents a ~20% decline YoY
- The high heel segment is currently seeing volume declines of 25% - 33% YoY.



- At this point the **interviewee should acknowledge that the key driver is a decline in the volume of Women's High Heels** as the other two female segments are growing

Question: Can you brainstorm the potential catalysts for the volume decline?

For Interviewer

- Tips: Brainstorms should take **no more than 30 seconds** but remain case specific and structured
- This case hinges on a **change in store layout** in one of their key distribution channels. If the interviewee does not touch upon **give them a few attempts to push the brainstorm further**

Example Brainstorm

External

- Change in customer preference?
- New Market Entrant?
- Local market challenges? Is this isolated to certain geographies?

Internal

- Ability to meet demand?
- **Change in store layout?**
- Ease of doing business with stores? Change is preferred suppliers?
- Pricing → Coupons?
- New designs?

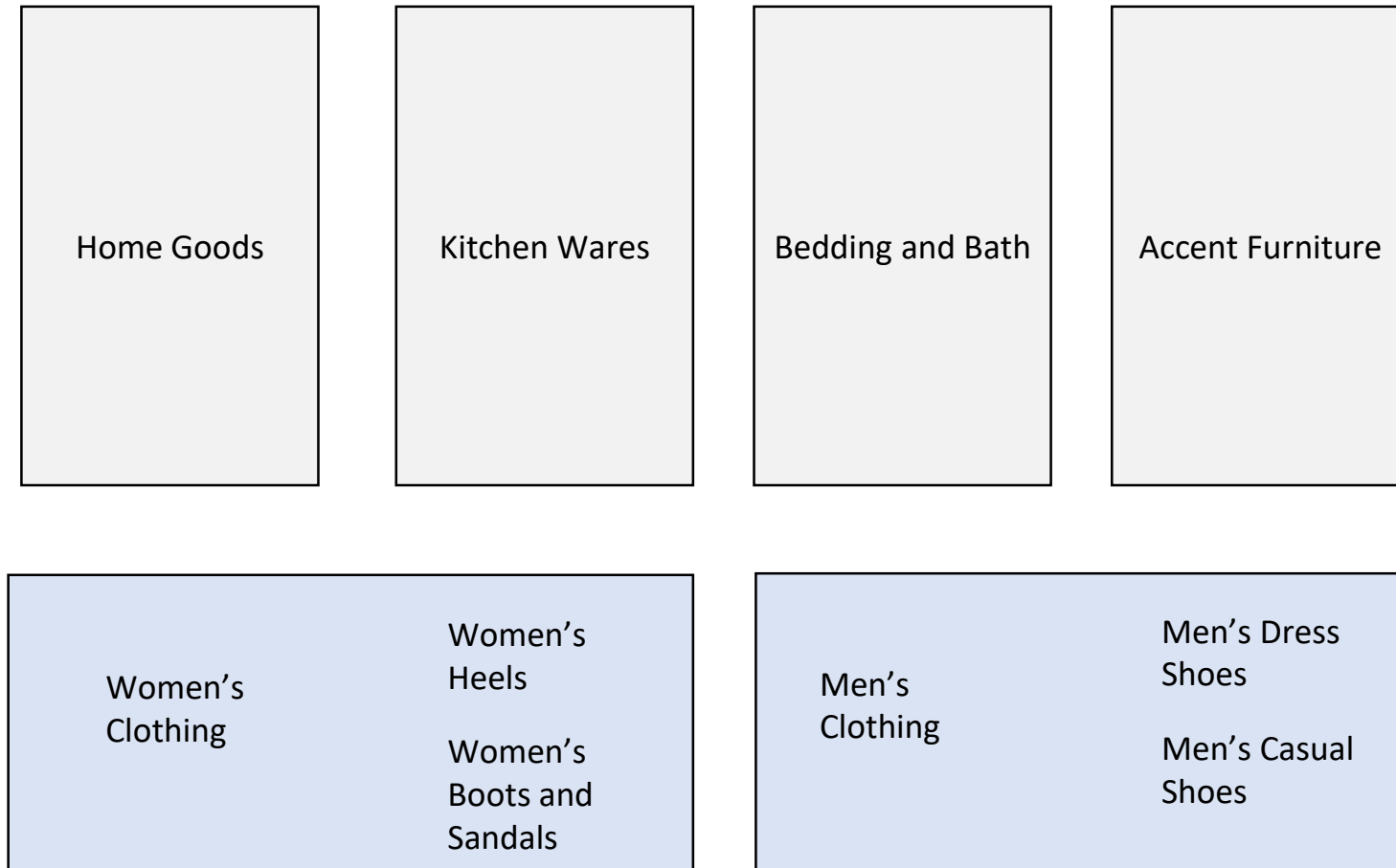
Prompt: Next Steps

For Interviewer

- Great insights. Our team sent consultants to a number of key retail locations and found that there were some changes made to store layout and product placement.
- Here is what we found...

Sample Store Layout - Before

For Interviewee



Sample Store Layout - After

For Interviewee



Prompt for next steps

For Interviewer

- If the interviewee doesn't provide insights and observations, ask them for their thoughts on the two diagrams

Question: Can you brainstorm ways to improve sales?

For Interviewer

- Tips: Brainstorms should take **no more than 30 seconds** but remain case specific and structured

Example Brainstorm

Channel

- Discuss placement with distribution channel. Create a preferred partnership resulting in better product placement.
- Discuss the potential for end-caps to draw attention to the products

Advertising

- Issue coupons for Men's and Women's shoes to draw customers to that area
- Create a promotion for complements (Suiting and Heels)
- Consider changes to instore marketing plan

Conclusion and Wrap Up

Prompt for Interviewer

- The Partner on the case enters the room. What do you tell him?
- (You may give the interviewee a few moments to organize his/her thoughts)

Sample Conclusion

For Interviewer

There are many different possible conclusions. It is important that **the conclusion is concise and answers the question the interviewee is tasked with**

- Situation: We were tasked with understanding why profits and growth have slowed at ShoeCo
- Result: After some analysis, it became clear that the key driver was a decline in the volume of women's high heels driven by a change in store layout.
- Recommendation: To remedy this situation, I would want to explore two sets of alternatives. First, we could discuss potential preferred partnerships with our channel providers that would give us access to optimal product placement. Second, we could issue promotions for complementary goods that would drive traffic to the high heel area.
- Risks: We would need to first understand why our channel partner changed their store layout and how they envision the store layout changing on a go-forward basis.
- Next Steps: Discuss store strategy with channel partner management



Hair Products: Private Equity Case

Industry: CPG

This case focuses on: Private Equity, Go / No-Go

Quantitative Overview: Graphs, Accounting

Qualitative Overview: Brainstorming

Prompt: Hair Products Company

For Interviewer

Our client, a consumer-focused private equity firm, is considering acquiring a mid-sized hair products company. The hair products the company makes includes shampoo, conditioner, and some other small product lines.

The private equity firm has looked to us to answer the question – should we acquire the company?

Clarifying Questions

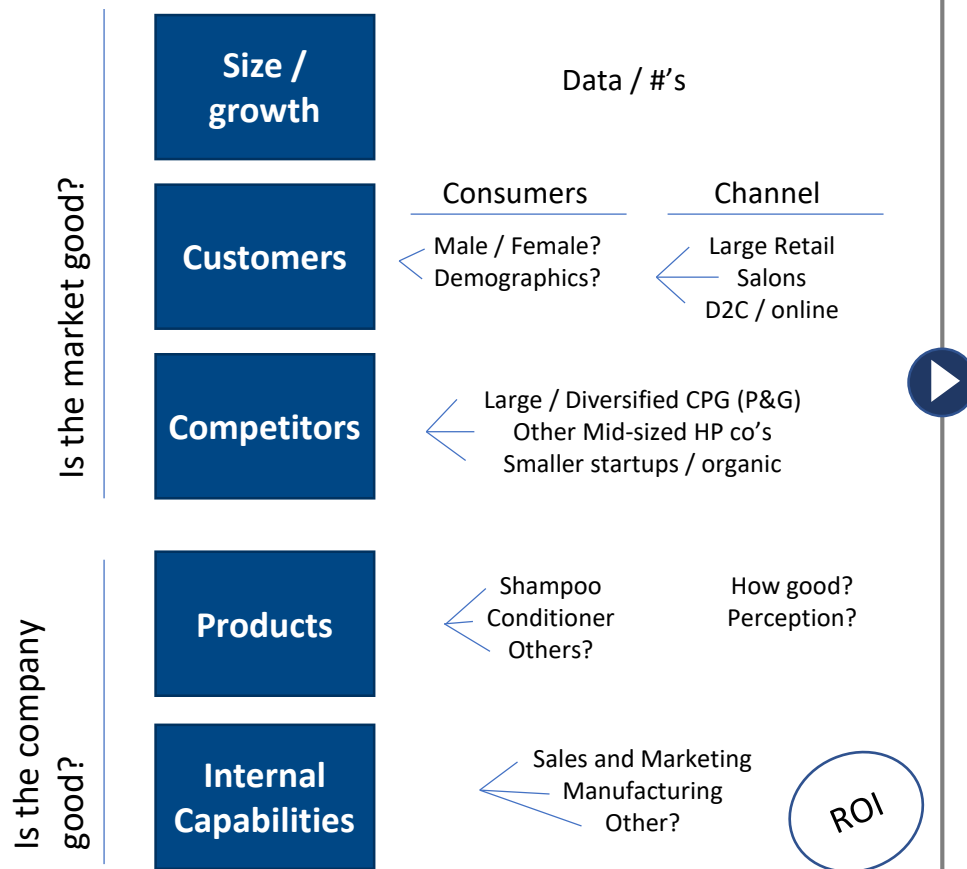
For Interviewer: Information to be provided when asked

- What is the private equity firm's main objective?
 - The PE firm wants to make a good return! As the consultant, they aren't looking to us to do any detailed financial calculations (no LBO / ROI / IRR, etc.). They want us to help them assess the strategy of the hair products company
 - Note: Try to guide the interviewee away from detailed financial calculations – this is a strategy case
- How does this fit with the PE firm's portfolio?
 - The firm will be buying this as a standalone company (ie, not combining it with an existing portco (aka portfolio company)). While the firm hasn't bought a hair products company before – this should be well within their expertise
- Does the hair products company make their own products?
 - Yes, they are a manufacturer
- Do you have any more product details?
 - No, we can get to that during the case – they primarily make shampoo and conditioner
- If they ask any other questions – just tell them that you'll get into that during the case

Example Framework

For Interviewer

My sample framework for solving this case borrows heavily from Victor Cheng



While many frameworks could work, there are some important elements

- Covers important “strategy” topics
 - A good framework for this case should include some details about the market, customers, and competitors
- Is NOT overly financial
 - This case is strategy focused
 - If the framework is a profit tree or is overly focused on details like ROI and purchase price, it will be harder to solve (though not impossible)
 - Common feedback for Wharton students, who often see problems through a finance-first lens
- Is detailed
 - Many frameworks are very generic (listing customers without detailing them, for example)

Additional information about Hair Products Company

For **interviewer**: Verbally give below information when prompted – important not to give breakdowns (eg, market size by channel) unless specifically prompted for them

	Information	So What? (overall message)
Market	<ul style="list-style-type: none"> Total size / growth: 4B / 5-10% Grocery: 2.5B / 5% Salon: 1.25B / 10% eCommerce: .25B / 10%+ 	<ul style="list-style-type: none"> Market is large and growing – good to invest in this space Tradeoff b/t growth and size in Grocery and Salon
Competitors	<ul style="list-style-type: none"> Big Diversified CPG companies market share: 20% Mid size and small players: 80% 	<ul style="list-style-type: none"> The large players do not dominate – this is good for mid-sized competitors (no need to unseat a giant like Coke / Pepsi)
Customers	<ul style="list-style-type: none"> Don't know anything about end consumers – get interviewee to think about channel (exhibit 1) 	<ul style="list-style-type: none"> On next slides (questions here should lead to exhibit 1)
Products	<ul style="list-style-type: none"> Primarily shampoo and conditioner Products command slight price premiums 	<ul style="list-style-type: none"> Products are solid Not crucial to this case
Capabilities	<ul style="list-style-type: none"> Good national sales team Solid marketing / branding Costs are lower than competition Good management 	<ul style="list-style-type: none"> Company has the capabilities to grow

Guide to additional information on previous slide

For interviewer

When to give out information

- If an interviewee asks for specific information in any of the previous categories
- Make sure their requests are specific enough (not “do you have any information about competitors?” but rather “do you have market share data on the biggest CPG companies in this space?”) – most interviewees are too generic in their data requests!

What if they ask for something not detailed?

- Give them a dismissive answer that suggests the data isn’t important, for example:
 - Do you have revenue data by geography? → Their revenue matches the geographic distribution of the market
 - Do you have revenue data by product? → it’s around 60% shampoo and 40% conditioner, but it matches the market

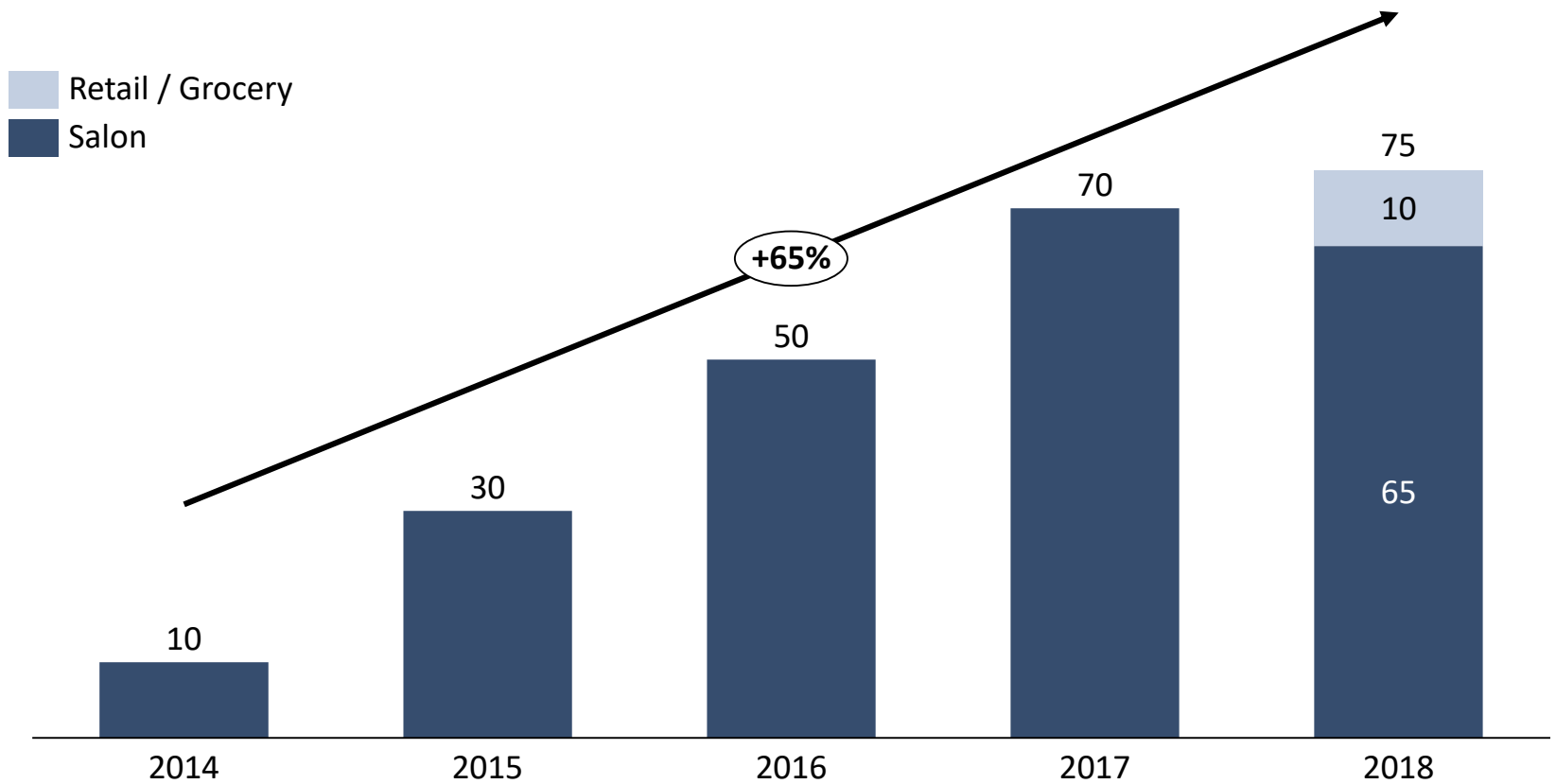
Assessment

- Candidates should quickly synthesize the high level information and drive to a takeaway
- Great candidates will realize they “solved” each category quickly, and guide the discussion to the next area of their framework (whereas bad candidates will debate and continue to ask for more details even after information is given)
- Note: this case is a simplified version of a Bain MBA case; many of the simplifications came in the areas on the previous slide (eg, the case included a lot of market size data and graphs). You can add more details and qualitative context to these areas if you prefer!

Exhibit 1: Annual revenue for hair products company

For interviewee

Revenue (\$M)



Guide to Exhibit 1: Annual revenue for hair products company

For interviewer

When to give out the chart

- Make sure the interviewee asks for this data specifically – they need to ask for revenue by customer or channel as opposed to just “revenue data”
- Most interviewees are too vague with data requests
- This chart gives substantial clues (the case is “about” channel) – you CANNOT give them the chart unless they ask for it specifically!

So What? (overall message of chart)

- The company achieved rapid early growth that tailed off significantly in 2018. They were also a single channel company until they expanded into grocery last year
- The interviewee should clearly and quickly articulate this message, rather than getting weighed down in the details of exact numbers and growth rates

Additional questions to ask

- Why do you think their revenue growth slowed?
 - Likely due to product cannibalization across channels; possibly brand perception of moving to lower end channels
 - Guide interviewee away from market factors (market growth in both channels was stable, etc.)
- Tell the interviewee they used the same brand in both channels – what are the pros and cons of this single brand approach?
 - Pros: Cheaper, faster
 - Cons: Potential cannibalization, brand perception, limited ability to target consumers

Additional math to calculate company profitability

For interviewer

Prompt: Give the interviewee the following data and ask them to calculate gross profit in each year from 2014-2018

Average product price in Salon channel: \$10

Average product price in Grocery channel: \$8

Average product cost (same across channels): \$6

Shortcut solution

- Profit margin % Salon: 40% (4/10)
- Profit margin % Grocery: 25% (2/8)

	2014	2015	2016	2017	2018
Rev. x Margin Salon	4M	12M	20M	28M	26M
Rev. x Margin Grocery	0	0	0	0	2.5M
Total	4M	12M	20M	28M	28.5M

Longform solution

- Profit margin \$ Salon: \$4 (10 - 6)
- Profit margin \$ Grocery: \$2 (8 - 6)

	2014	2015	2016	2017	2018
Salon Units (Rev / P)	1M	3M	5M	7M	6.5M
Salon Margin (Units x Margin \$)	4M	12M	20M	28M	26M
Groc. Units (Rev / P)	0	0	0	0	1.25M
Groc. Margin (Units x Margin \$)	0	0	0	0	2.5M
Total	4M	12M	20M	28M	28.5M

Guide to additional math to calculate company profitability

For interviewer

When to give data

- Usually give this data immediately following the discussion of exhibit 1 (but not before)
- Sometimes interviewees ask for it (bonus points!), but don't let them steer the conversations elsewhere (“actually, before we discuss competitors, how about we do some additional calculations to determine profitability...”)

So What? (overall message of calculation)

- The company's profits rose dramatically until last year when they launched in grocery, where they barely grew profit at all
- The company seems to have neglected their most profitable channel – for this strategy to remain effective in the future, they would need to re-energize growth in salons while continuing to expand grocery

Assessment of math

- Great interviewees:
 - Use profit margin % as opposed to calculating units (which adds unnecessary steps and time)
 - Rounds numbers in 2018 (as opposed to taking time getting answer 100%)
 - Understands and articulates why the calculation matters
- OK interviewees:
 - Calculate units using long approach, but in clearly structured and quick way
 - Don't round numbers and write out all math problems (no mental math)
 - Have to be prompted to deliver overall message

(Optional) Additional questions to ask

For interviewer

If interviewee is doing well, you can ask them one of the below questions to test their ability to brainstorm (I generally do not give these questions if candidate is struggling on time)

	Potential response	Assessment
How could the hair products company increase its growth?	<p>Existing businesses</p> <ul style="list-style-type: none">Split brandsMarketing campaignsHire sales teamsImprove products <p>New businesses</p> <ul style="list-style-type: none">New geo'sExpand into ecommerceNew product lines	<ul style="list-style-type: none">• Answer should have a structure (doesn't have to be this one) – not a list of ideas• Candidate should briefly touch on details of ideas and potentially pros/cons
How could the hair products company reduce its costs?	<p>Fixed costs</p> <ul style="list-style-type: none">Mfg facilitiesCorporate OverheadProduct development <p>Variable costs</p> <ul style="list-style-type: none">PackagingMaterial (goop?)Marketing / sales	<ul style="list-style-type: none">• Answer should have a structure (doesn't have to be this one) – not a list of ideas• Candidate should briefly touch on details of ideas and potentially pros/cons

Wrap-Up & Conclusion

For Interviewer

- We're about to meet with the private equity client – can you take a few seconds to formulate a recommendation?

Example Conclusion and Assessment

For Interviewer

Example Conclusion

- NO – private equity firm should not buy hair products company
 - Profitability growth has dipped dramatically to just above 0%
 - Growth will likely need to come in the lower margin segment of the industry, with Grocery seeing just 25% margins
 - Recent expansion has alienated current Salon customers, which could be difficult to repair
- In the future, if we wanted to continue exploring this acquisition – we could look at a few things:
 - Viability of a “two brand” strategy to differentiate between the Grocery and Salon segments
 - Ability to expand product offerings beyond current set



Assessment of Candidate's Conclusion

- Recommendation is flexible: candidate can recommend Yes or No based on case facts, just needs to be backed up with facts
- Great Candidates:
 - Clearly articulate recommendation up front
 - Support recommendation with quantitative facts
 - Highlight potential future areas to research or highlight potential risks
- OK Candidates:
 - Don't clearly articulate recommendation first
 - Offer less quantitative supporting facts



ChocolateCo: Profits are not so sweet

Industry: Retail, Restaurants

This case focuses on: Frameworks, Operational Hurdles

Quantitative Overview: Graphs

Qualitative Overview: Customer Reviews, Brainstorming

Prompt

For Interviewer

You client is ChocolateCo, a regional, high-end chocolatier located in Philadelphia, Pennsylvania. ChocolateCo prides itself on its ornate wrapped chocolates and seasonal treats. Over the last two years, ChocolateCo has seen a rise in popularity. However, despite the media attention, ChocolateCo's profits have remained flat.

Your firm has been hired to determine why profit growth has stalled and how they can remedy this.

Clarifying Questions


*Information to be given to **interviewee** when asked*

- You say that profits have remained flat. Is this unique to ChocolateCo or are competitors experiencing similar headwinds?
 - This is unique to ChocolateCo
- What is their average price point? How does this compare to the large manufacturers (Hershey's, Mars etc)?
 - ChocolateCo places an emphasis on quality. The **average price of an item is \$4.**
 - **Note to interviewer: (This information will be helpful as part of Exhibit 3)**
- What does the ChocolateCo value chain look like?
 - ChocolateCo is involved at every step of the Chocolate making process. They source their ingredients from all over the world, make the chocolates in their factory on the Schuylkill river, and distribute the products to their namesake stores and local high-end grocers.
- Does ChocolateCo have its own stores?
 - The Company has 4 stores in Philadelphia and distribution with FullFoods store, an upscale grocery chain, in the northeast

Sample Framework

An interviewee will have 1:30 – 2:00 minutes to complete a framework. The interviewee will likely use abbreviations and symbols where appropriate.

For Interviewer Only



$$\pi = R - C$$

* Revenue = Price X Quantity *

Profit

Food for Thought: How can operating leverage be impacted?

Revenue

Costs

External

- **Customers**
 - Have tastes changed?
 - New Diet fad?
 - Price Elasticity – has their willingness to pay changed?
 - How loyal are your customers? Repeat?
- **Competition**
 - Pricing? Promotions?
 - New Chocolate stores nearby?
 - Substitute goods taking market share?
 - Expanded product offering?

- Changes to the cost of key inputs coco, butter, and sugar?
- Are suppliers reliable and able to meet commitments at every part of the supply chain?
- Regulations in Philly – increased sale’s tax
- Changes to distribution costs?
- Increase in Minimum wage?

Internal

- Price, Volume, & Margin trends throughout our product mix
- Can the factory meet demand?
- Any differences in product Quality and/ or customer satisfaction
- Promotions
- Placement of our chocolates at FullFood
- Sales trends in our stores vs FullFood
- Have we been making more defective chocolates?

- Changes in any key inputs – new materials, new designs?
- Complexity of manufacturing process; the number of different chocolates made
- Standardized Processes? Average cost per chocolate?
- Down time when converting from one product line to another
- Aging equipment and maintenance costs
- Rent or lease expense on factories
- Labor Costs – unionized? Level of skilled labor?
- Changes in marketing spend – Are our chocolates less visible?

Exhibit 1: ChocolateCo. Customer Reviews

For interviewee

“I love ChocolateCo chocolates but they always seem to run out of my favorites at the end of the day.” – Penn Student

“ChocolateCo has the highest quality chocolates in the City. While they don’t have many different types of chocolate, their specialties are worth the price.” –Pastry Chef

“I would buy more ChocolateCo chocolates if I could – they are great gifts. Every time I go to Fullfoods they have limited quantities left”. – Local Mom

“ChocolateCo chocolates are nearly impossible to get. Each time I go in they are out of the Double-Dark-Chocolate-Fudge.”
– Nearby Office Worker

Exhibit 1: ChocolateCo. Customer Reviews

For interviewer

“I love ChocolateCo chocolates but they always seem to run out of my favorites at the end of the day.” – Wharton Student

“ChocolateCo has the highest quality chocolates in the City. While they don’t have many different types of chocolate, their specialties are worth the price.” –Pastry Chef

“I would buy more ChocolateCo chocolates if I could – they are great gifts. Every time I go to Fullfoods they have limited quantities left”. – Local Mom

“ChocolateCo chocolates are nearly impossible to get at the local ChocolateCo Store. Each time I go in they are out of the Double-Dark-Chocolate-Fudge.”
– Nearby Office Worker

Key Themes:

- ChocolateCo chocolates are a local favorite
 - Consumers believe that they are worth the premium price
 - Streamlined product offering
 - Scarcity of supply at both retail stores and Fullfoods
- ★ **The key to this case** is understanding that there is not enough supply in stores. **ChocolateCo is unable to meet demand.** Push the candidate until they make this observation.

Exhibit 2: Year Over Year Factory Output Trends (K units)

For interviewee

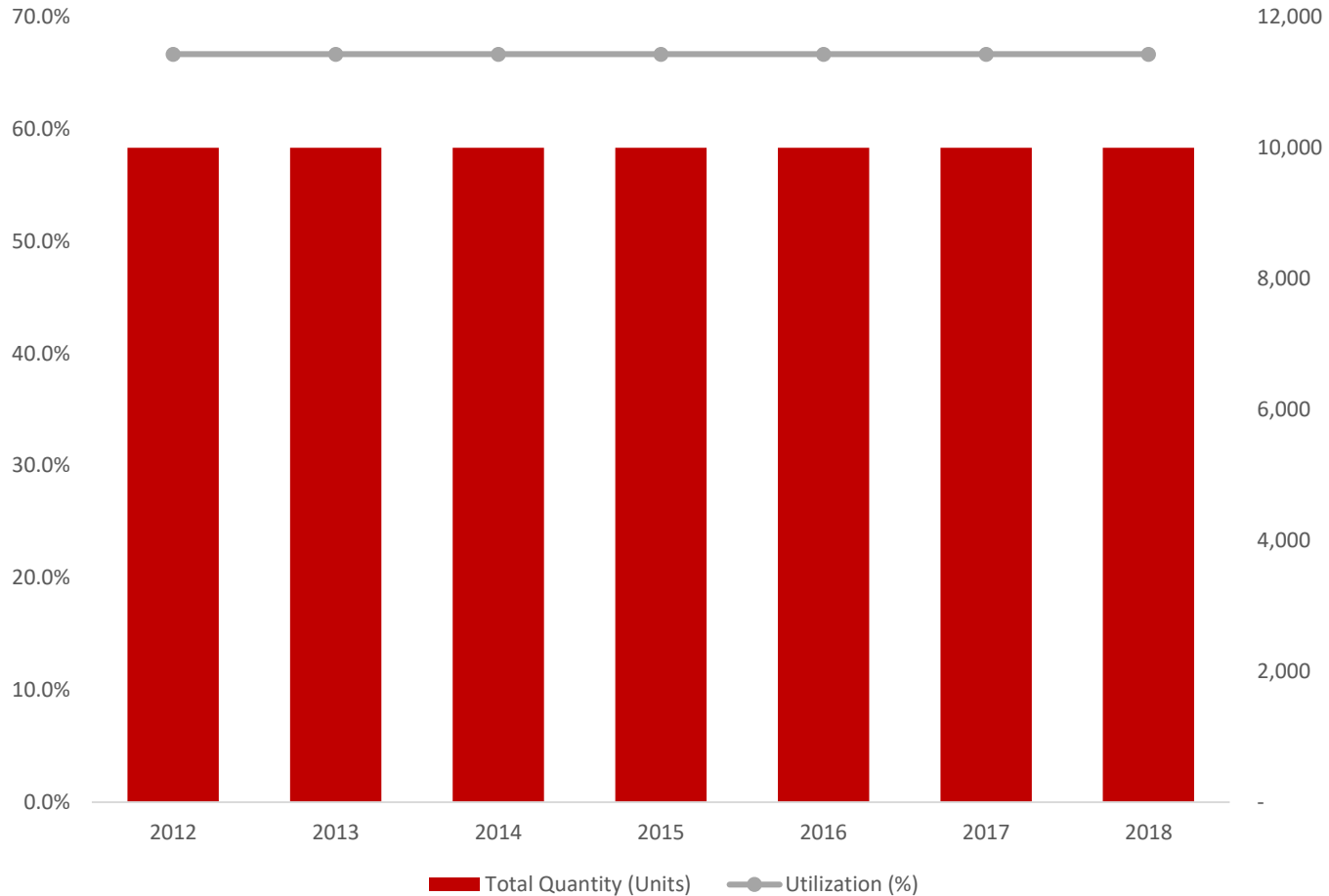
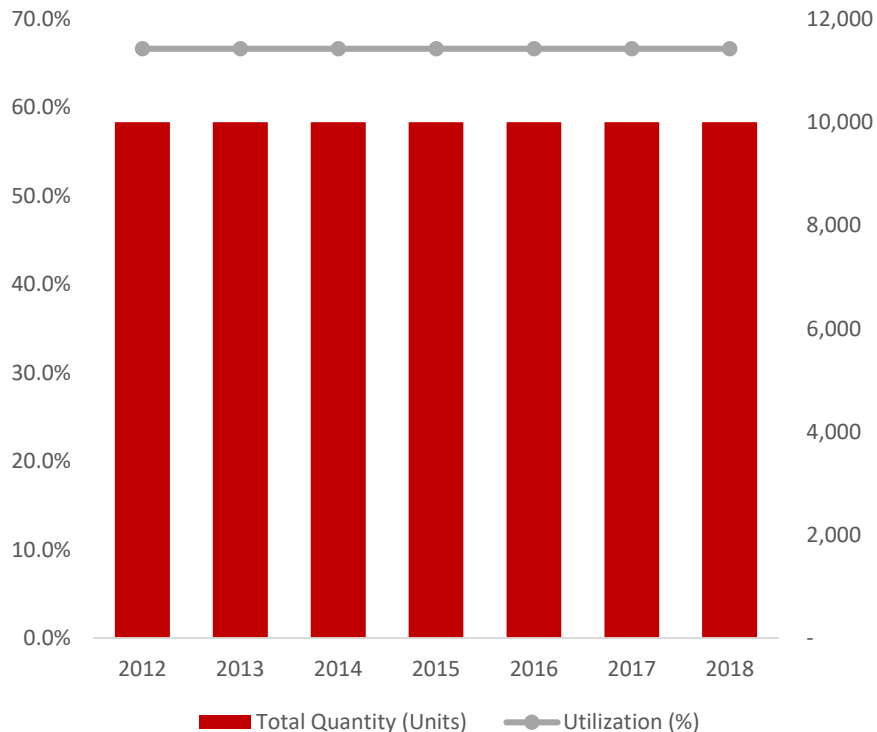


Exhibit 2: Year Over Year Factory Output Trends (K units)

For interviewer



- It is clear that the factory output and utilization has remained flat YoY
- Utilization is approximately 65% of total capacity
- It is important to understand that this only tells you part of the picture.
- A good interviewee will drive the case toward consumer demand.
- If the interviewee does not immediately do so, have them brainstorm other levers that could be causing issues.

Exhibit 3: Demand Trends (K units)

For Interviewee



Exhibit 3: Demand Trends (K units)

For Interviewer

- Quantity produced is equal to demand in 2014
- After 2014, Demand outpaces total quantity produced.
- Last year they missed demand by 20%
- A great candidate will quantify the upside potential
 - Potential Revenue =
 $2,000,000 \text{ units} * \$4 / \text{unit} = \$8,000,000$
- A candidate should also consider total capacity
 - $(10,000 / .667) = 15,000\text{k units}$



- After determining that there is a significant revenue opportunity and that the Company has the ability to meet current demand, the conversation should shift to **WHY** they have not met demand

Additional Background: The Chocolate Making Process

Information for Interviewee

- The Company has seen a considerable increase in popularity over the last few years. Despite local fame, ChocolateCo stays remains true to its artisanal roots.
- ChocolateCo employs a team of chocolatiers and bakers in each of their factories. ChocolateCo gives each employee considerable artistic license.
- The Chocolate making process is as follows:
 - The team creates a liquid chocolate mixture
 - The liquid chocolate is then hand poured into molding trays with seasonal shapes and themes
 - The trays are placed in a freezer to solidify
 - The hardened chocolates are decorated, wrapped, and placed into the display case

Note: The interviewee may have already driven the case to the Chocolate Making Process – that is great!

Exhibit 4: Monthly Chocolate Mold Output (K units)

For Interviewee

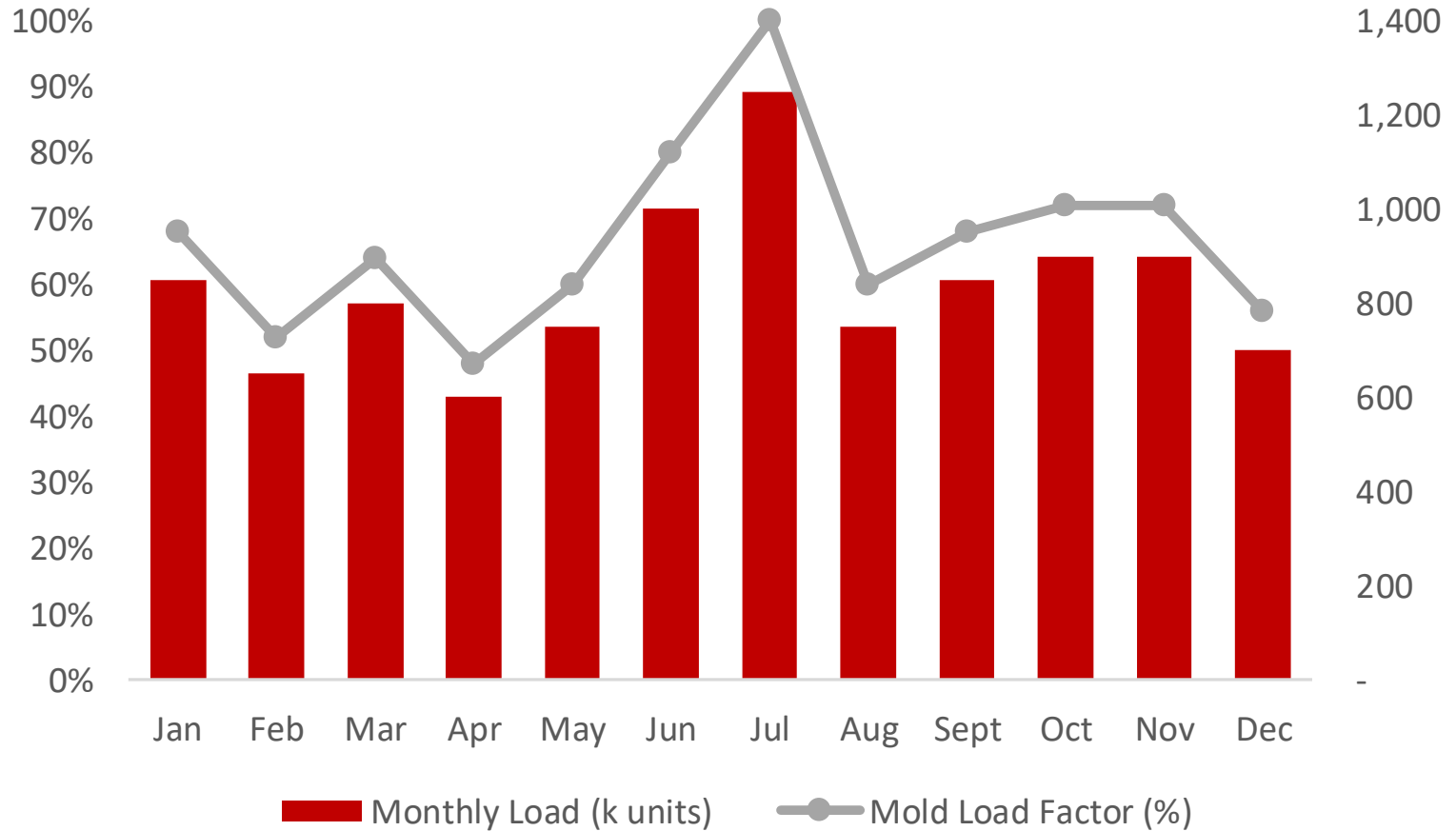
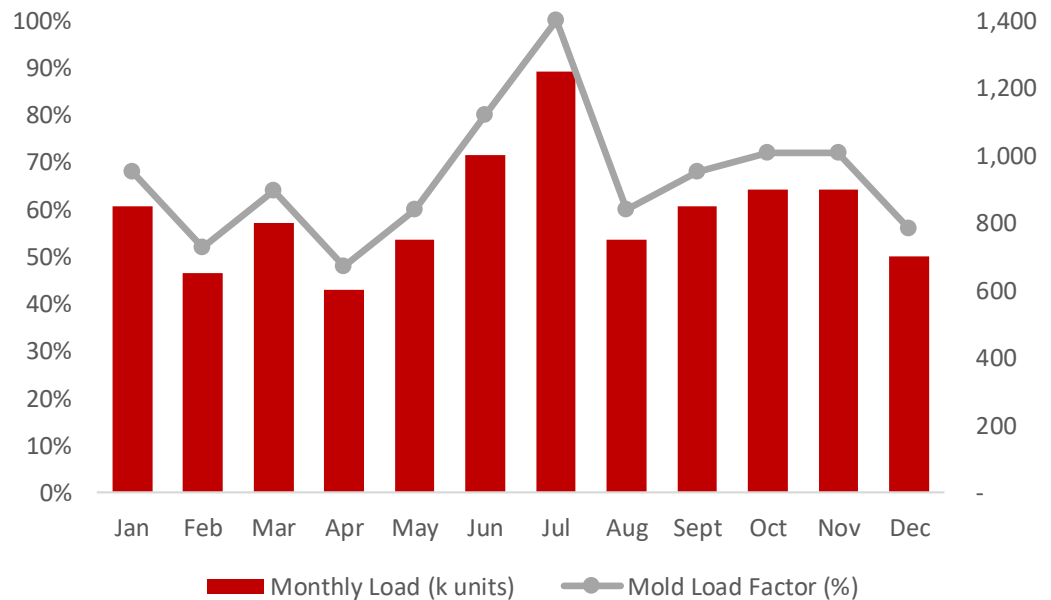


Exhibit 4: Monthly Chocolate Mold Output (K units)

For Interviewer

- **Key observations:**
- The load patterns are erratic
- In July ChocolateCo reaches 100% Mold utilization indicating that they are capable of operating at full capacity
- Thus, the Company is more than capable of meeting demand



Brainstorm: What could be causing the inconsistency in load factors?

Information for Interviewer

- A good brainstorm takes **no more than 30 seconds** and remains organized and case specific

Example Brainstorm

Personnel

- Training & Procedures for loading chocolate?
- Not enough personnel at the mold pouring stage? Bottleneck?
- Limiting output to allow for more ornate decorating?

Equipment

- Do employees have the proper pouring equipment for all molds?
- Are there enough seasonal molds?
- Are all molds of equal size? Issue with freezer loading?

Additional Information: Employee Training

For Interviewee

- As a Mom and Pop Chocolate Company, ChocolateCo has neither formalized their chocolate making training nor created a list of best practices.

Conclusion: ChocolateCo Project

For Interviewee

- The CEO of ChocolateCo is about to enter the conference room to discuss your findings. What do you tell her?

Sample Conclusion

For Interviewer

- **Key Takeaway:** After examining why profits have remained flat, we have concluded that ChocolateCo is not fully utilizing its chocolate molding capacity due to a lack of employee training and clearly defined best practices. As a result of inconsistent molding practices, ChocolateCo is missing out on a potential revenue upside of ~\$8M due to unmet demand.
- **Conclusion:** ChocolateCo should work with employees to create a comprehensive training and best practices program that will allow for consistent loading practices and the optimization of production capacity.
- **Risks:** Employees currently enjoy a lot of autonomy with an emphasis placed on artisanal chocolates. Mandating procedures could create cultural issues and attrition at ChocolateCo.
- **Mitigant:** Management should collaborate with employees to maintain culture while formalizing business practices and creating buy-in.
- **Next Steps:** Do a deep dive on current operating practices and conduct employee interviews to understand current procedures.



CarPool: Expansion across the Pond

Industry: Technology and Transportation

This case focuses on: New Market Entry

Quantitative Overview: Market Sizing

Qualitative Overview: Brainstorm

Prompt: CarPool

For Interviewer

CarPool is a new ride sharing application that connects users commuting to popular workplace destinations. Users request a ride to their selected destination and the application pools users going to the same location. The application is particularly popular in cities like Washington, D.C. and Philadelphia where access points to metro stops are more spread out. In these cities, CarPool is often seen as an efficient home-to-metro solution. CarPool customers also utilize the service on the weekend and after work for various social engagements.

In cities with more extensive public transportation networks, CarPool is perceived as an alternative to taxis, buses, and other ride sharing applications.

After enjoying initial success in major U.S. markets, CarPool is considering entering the U.K. market. **The Company would like to know how and if they should enter the London market.**

Clarifying Questions

*Information to be given to **interviewee** when asked*

- Do CarPool charge by ride or charge a subscription?
 - CarPool charges riders by ride
- How does CarPool pay its drivers?
 - Drivers are paid a portion of the total fare and earn tips from riders
- Does CarPool have a home office?
 - CarPool has a dedicated staff in their San Francisco office
- Does CarPool own the cars?
 - No, CarPool hires independent contractors that utilize their own vehicle
- Why are they considering London?
 - The Company is looking to leverage its popularity as a home-to-metro solution. Management believes that the London “tube” would be an ideal test case to expand into additional European markets.
- Has CarPool expanded internationally before?
 - No, this will be the first time they are expanding outside of the U.S. However, the Company has successfully expanded into 8 U.S. cities including: Washington D.C., Philadelphia, Boston, Chicago, Atlanta, Nashville, Miami, and San Francisco.

Sample Framework

Interviewee should take the lead on where to start and presenting framework

For Interviewer:

Should CarPool enter the London Market?

<p>Why / Strategic Reasoning</p>	<ul style="list-style-type: none"> • Why are they considering the U.K.? <ul style="list-style-type: none"> • Growth, Stagnant Market / Product Segment, Response to Competition? • Total Potential Market Capture • How are they going to do this? <ul style="list-style-type: none"> • What will make this successful? Past track record in similar cities? • Internal knowledge? • Can they leverage current infrastructure? Build new?
<p>Economics of the Decision / Project</p>	<ul style="list-style-type: none"> • New Market Conditions <ul style="list-style-type: none"> • Competitive landscape, Market Size (#, Rev, Profit) • Complements and Substitutes • Economics <ul style="list-style-type: none"> • One time investment? • <u>Payback period, profitability, ROIC, valuation</u> • Ride Share Fee structure
<p>Risks / Other Considerations</p>	<ul style="list-style-type: none"> • Barriers to Entry / Challenges in Execution <ul style="list-style-type: none"> • Regulation → Taxis? • Customer Acquisition Costs • \$ available to invest • Cultural Differences • Risks <ul style="list-style-type: none"> • Political, currency, financing risk? • Macroeconomic Changes • Implementation

An interviewee will have **1:30 – 2:00 minutes** to complete a framework.

Question: How would you estimate the potential revenue from the London new market entry?

Prompt for Interviewer

There are many different ways to do this; it is important to show clear, logical, supported thinking

- Candidate should walk through a market sizing exercise
- There is a top down and bottom up approach to market sizing
- **Top Down:**
 - **Commuting Revenue:** # People in London x % of People that Commute Daily x # Commute Days per Week x Trips per Day x Average Fare per Trip x Weeks in a Year
 - **Other Revenue:** # People in London x % of People that Currently use a substitute x % Switch x Average Number of Rides per Week x Number of Weeks in a Year
 - Tip: To estimate the number of people that commute daily think about the age demographics of a typical commuter
- **Bottom Up:**
 - **Commuting Revenue:** # Days a person commutes x Average Fare x # Trips per Day x Commute Days per Week x # Weeks per Year x (Total Population x % that Commute
 - **Other Revenue:** # of Non-Commuting Trips per Week per Person x (Population x % of People using Substitutes x % Willing to Convert) x Average Fare

Exhibit 1: London Market Information (1 of 2)

For Interviewee

- **Commuting Revenue:**
- Total London Population: 8,000,000
- Percentage of Working Citizens: 60%
- Percentage of Workers that Commute Regularly: 50%
- % of Weekly Commutes Utilizing CarPool: 5%
- Average CarPool Trip Distance (Km): 5
- Fare per Kilometer: \$2.0
- Number of Working Weeks Per Year: 50

Exhibit 1: London Market Information (2 of 2)

For Interviewee

- **Other Revenue:**
- Total London Population: 8,000,000
- Percentage of Citizens Utilizing Ride Sharing Apps: 5%
- Ability to convert users from incumbents: 10%
- Average # of Weekly Trips: 1.5
- Fare per Kilometer: 2.0
- Average Distance (km) : 5
- Number of Weeks Per Year: 50

Exhibit 1: Market Sizing Calculations

For Interviewer

Other Revenue		Commuting Revenue	
Total London Population	8,000,000	Total London Population	8,000,000
% Citizens Using Rideshare Apps	5%	% Working Citizens	60%
Potential Citizens	400,000	Working Citizens	4,800,000
% Utilize Carpool vs Alternatives	10%	% Regular Commuters	50%
Total Potential Riders	40,000	Total Commuters	2,400,000
Average Rides Per Week	1.50	% Utilize Carpool vs Alternatives	5%
Working Weeks	50.00	Total Potential Riders	120,000
Total Annual Rides	3,000,000	Average Rides Per Week	2.00
Average Trip Distance (Km)	5.0	Working Weeks	50.00
Fare Per Kilometer	\$ 2.0	Total Annual Rides	12,000,000
Total Revenue	30,000,000	Average Trip Distance (Km)	5.0
		Fare Per Kilometer	\$ 2.0
		Total Revenue	120,000,000

Brainstorm: What are some potential ways CarPool can enter the London market? What are the Pros and Cons of each?

For Interviewer

- These are three methodologies that an interviewee should know

M&A	JV	Greenfield
<p><u>Pros</u></p> <ul style="list-style-type: none"> • Established Company with existing infrastructure and customer base • Cultural understanding • Quicker entry • Full Control <p><u>Cons</u></p> <ul style="list-style-type: none"> • Expensive • Integration Risk • Financing Risk • Distance from San Fran HQ • M&A Experience 	<p><u>Pros</u></p> <ul style="list-style-type: none"> • Established Company with existing infrastructure and customer base • Cultural understanding • Quicker entry • Some control • Less expensive <p><u>Cons</u></p> <ul style="list-style-type: none"> • Less operational control • Less ability to create change • Integration challenges – Culture, Technology • Distance from HQ 	<p><u>Pros</u></p> <ul style="list-style-type: none"> • Complete control • 100% profits • Ability to set up new HQ <p><u>Cons</u></p> <ul style="list-style-type: none"> • Most potential risk • Start Up Costs and Breakeven horizon • Cultural Risk • Regulation Risk • Time to Market

Entering the Market

For Interviewer

- Management hired an investment bank to determine if there are any viable Targets or JV partners.
- After thorough diligence, Management has decided that there are no potential JV partners.
- Instead, Management would like to compare a potential M&A target to organically building their own London office.

Exhibit 2: Market Entry Strategy

For Interviewee

Input	M&A: SharedSedan	Greenfield: CarPool UK
Total Rides / Market		15,000,000
Average Revenue Per Ride		\$ 10.0
Revenue	80,000,000	Rides * Rev per Ride
Total Expense	60,000,000	100,000,000
Investment	240,000,000	300,000,000
Discount Rate	10.0%	10.0%
Synergies (% of Rev)	15.0%	N/A

Exhibit 2: Market Entry Strategy

For Interviewer

Input	M&A: SharedSedan	Greenfield: CarPool UK
Total Rides / Market		15,000,000
Average Revenue Per Ride		10.0
Revenue	80,000,000	150,000,000
Total Expense	60,000,000	100,000,000
Profit	20,000,000	50,000,000
<i>Profit Margin %</i>	25.0%	33.3%
Investment	240,000,000	300,000,000
Discount Rate	10.0%	10.0%
Synergies (% of Rev)	15.0%	N/A
Profit - Synergized	32,000,000	50,000,000
Valuation	320,000,000	500,000,000
Payback Period (Years)	7.5	6.0
ROIC	33.3%	66.7%

- After the interviewee completes the calculations, ask them for their conclusion

Wrap-Up: CarPool

For Interviewer

- Prompt: After reviewing the issues and choices at hand, what do you think CarPool should do?

Wrap-Up: Example

For Interviewer

- CarPool should enter the London market by organically building their own London office.
 - A greenfield opportunity offers significantly higher upside than the acquisition of SharedSedan.
 - The London market is largely untapped and represents substantial potential upside
 - 100% control of greenfield including the company culture, app technology, and hiring of all personnel
- Next steps should include regulatory due diligence to ensure that CarPool is able to operate in the London Market, the creation of a detailed marketing plan to confirm market penetration estimates, and a detailed understanding of the headcount needed, including the number of drivers that will be onboarded.



Fabio's: Hair Salons and Headshots

Industry: Real Life, Retail, Consumer

This case focuses on: Creating initial frameworks, Staying case specific

Quantitative Overview: Market sizing, breakeven

Qualitative Overview: Brainstorming

Prompt

For Interviewer

Fabio is one of the most in demand hairstylists in Chicago. Recently, he has decided that he wants to start his own business venture. Fabio dreams of owning his own salon and photo studio aptly named Salon Snapshot.

Fabio dreams of providing the best hair cut, color, and style followed by a session of professional headshots.

He has asked your firm for help in:

- **Understanding of the potential Chicago market**
- **Brainstorming ways to improve this business venture**

Clarifying Questions

*Information to be given to **interviewee** when asked*

- What is Fabio's prior experience?
 - Fabio is an award winning hairstylist with a passion for photography. He has been styling hair for over 20 years and has a loyal following throughout the city. In the past, he has worked for the best salons in Chicago.
- How many locations is Fabio initially considering?
 - He will begin with one location but is interested in expanding both in Chicago and nationally.
- Will Fabio be both the hairstylist and photographer?
 - No, Fabio plans on hiring a photographer.
- What is Fabio's objective?
 - Fabio is looking to combine his passion while maximizing profit. He must breakeven on this venture in 2 years.

Sample Framework

For interviewer

<p>Why / Strategic Reasoning</p>	<ul style="list-style-type: none"> • Why is he considering Snapshot ? <ul style="list-style-type: none"> • More creative control, higher potential upside?, ability to combine both passions • How are they going to do this? <ul style="list-style-type: none"> • What constitutes success? • Does he have experience in new business ventures? • Tools and financing to make this successful?
<p>Economics of the Decision / Project</p>	<ul style="list-style-type: none"> • New Market Conditions <ul style="list-style-type: none"> • Competitive landscape, Market Size (#, Rev, Profit) • Complements and Substitutes • Economics <ul style="list-style-type: none"> • One time investment? • <u>Payback period, profitability, ROIC, valuation</u> • Pricing, bundles, cost structure
<p>Risks / Other Considerations</p>	<ul style="list-style-type: none"> • Barriers to Entry / Challenges in Execution <ul style="list-style-type: none"> • Regulation → Licenses • Customer Acquisition Costs • \$ available to invest • Expertise • Risks <ul style="list-style-type: none"> • Customer acquisition and time to breakeven • Level of competition • Ability to scale?

Prompt: Potential Addressable Market

For interviewer

- A critical piece of the SnapShot business will be understanding the potential addressable market. Fabio plans on offering hair styling, and headshots. However, customers do not have to purchase both.
- Fabio understands that while the market is very competitive, he has a very loyal, existing clientele base and is excited about potentially expanding his business.
- At his old salon, Fabio saw 8 clients per day, 5 days each week and each client saw Fabio 6x per year.
- **What is the total potential haircut market in the area expressed in number of haircuts?**

Note: It is important that the interviewee take note of the client metrics as they will be helpful later. If the candidate does not write these down, ensure that they use these metrics in go-forward calculations

Exhibit 1: Potential Addressable Market - Haircuts

For Interviewee

- **The Population:**

- Population near Fabio's new Salon: 500,000
- Percentage of people who get haircuts: 90%
- Percentage Willing to Pay Snapshot Prices: 20%
- Percentage of Patrons willing to switch to Snapshots: 10%

Exhibit 1: Potential Addressable Market - Haircuts

For Interviewer

- **The Population:**

- Population near Fabio's new Salon: 500,000
- Percentage of people who get haircuts: 90%
- Percentage Willing to Pay Snapshot Prices: 20%
- Percentage of Patrons willing to switch to Snapshots: 10%
- **6x per year was mentioned in prompt**

Total Potential Market

Total Population	500,000
% Get Haircuts	90%
Total Haircut Market	450,000
Willing to Pay \$100	20%
Willing to Switch to Headshots	10%
Total Potential Market	9,000
Annual Haircuts	6
Total Annual Haircuts	54,000

While arriving at the correct numerical answer is important, a good interviewee will immediately want to see if SnapShots can serve the potential addressable market. If not, what percentage market share will SnapShot's command?

If the interviewee does not begin this line of thinking, please go to the next slide and read the prompt.

Prompt: Haircut Marketshare

For interviewer

- What is SnapShots annual haircut market share?

Exhibit 2: Potential Addressable Market

For Interviewee

- The Business:
 - Hours of Operation: 10:00 am – 6:00 pm
 - Average appointment length: 1 hour
 - Average cost per haircut: \$100
 - Focus on Women's haircuts
 - Snapshots will be open 50 weeks per year
 - Fabio is the only hairstylist on staff.

Exhibit 2: Potential Addressable Market

For Interviewer

- The Business:
 - Hours of Operation: 10:00 am – 6:00 pm
 - Average appointment length: 1 hour
 - Average cost per haircut: \$100
 - Snapshots will be open 50 weeks per year
 - Fabio is the only hairstylist on staff.

Haircut Revenue	
Hours of Operation	8
Appts per Hour	1
Total Daily Appointments	8
Utilization	100%
Total Daily Haircuts	8
Days Open Per Week	5
Weeks Open	50
Total Annual Haircuts	2,000
% Market Share	3.7%

Notes to the interviewer:

- Utilization will need to be estimated by the interviewee.
- You do not need the price of a haircut – the interviewee should be able to determine this
- Interviewee can estimate market share but should recognize if the estimate is high or low (i.e. 4% is high)

Prompt: Business Expansion

For Interviewee

- Fabio would like to command a larger market share and generate more profit. What are some business expansion options Fabio can pursue on both the salon and headshots side?

Brainstorm: Business Expansion

For Interviewer

Example Brainstorm

Hairstyling Business

- Hire additional hairstylists
 - Significant opportunity to capture additional market share
- Offer appointments later in the evening to easily capture working adults
- Other Services and Price differentiation
 - Mens, UpDos etc

Headshots

- Explore potential addressable headshot market
- Expand photography offering – graduation & wedding
- Rent space to other photographers when availability – AirBnB model

Prompt: Evaluation of Business Expansion

For Interviewer

- While Fabio would like to expand his business, he has limited resources and is only interested in pursuing the most actionable opportunities. As a result, he has decided to focus on his core competency – hairstyling. Thus, he would like to know:
 - What opportunities are the most realistic? What are the pros and cons of each?
 - Are there any risks we need to be aware of? How would you mitigate these concerns?

Brainstorm: Pros & Cons

For Interviewer

Notes to the interviewer:

- These are just a few ideas – there are others. However, ensure that all ideals are actionable, reasonable, and focus on key revenue and profit drivers.

Idea	Pros	Cons
Hiring additional stylists	<ul style="list-style-type: none"> • Additional Revenue • Greater customer base • Expand service offering • Operating leverage – more revenue over the same fixed cost base 	<ul style="list-style-type: none"> • Larger space needed • Capex – set up stations • Fabio must manage others • Increased business complexity
Expand hours	<ul style="list-style-type: none"> • More clients → higher revenues • Expand into new demographic that cannot make appts during current hours 	<ul style="list-style-type: none"> • Fabio has less time for administrative tasks – ordering product, marketing • Does existing client base support additional hours? Can he expand to support?
Additional Services	<ul style="list-style-type: none"> • Increase wallet share per customer → Increase Rev. • Diversity of customers • Potential to serve the entire family → Men and Children's hair cuts 	<ul style="list-style-type: none"> • Additional training & expertise needed • Products to order → Incr. working capital

Brainstorm: Risks

For Interviewer

Idea	Risks	Mitigants
Hiring additional stylists	<ul style="list-style-type: none"> • Fabio has never managed anyone • Turnover risk • Start-Up costs to build out additional stations 	<ul style="list-style-type: none"> • Hire an experienced salon manager → allow Fabio to focus on his core competencies • Contracts with stylists
Expand hours	<ul style="list-style-type: none"> • Competitive, saturated market • Additional client capture possible? • Less than 100% utilization during the day? 	<ul style="list-style-type: none"> • Customer survey to understand when clients want additional appointments • Additional marketing spend and initial promotions
Additional Services	<ul style="list-style-type: none"> • Without additional appointments, will he book the same revenue? • Outside of core competencies • Additional products must be bought, potential have to invest in additional facilities (dryers, sinks etc) 	<ul style="list-style-type: none"> • Increased advertising spend to increase bookings • Additional training • Buy new products after the appointments are made

Wrap-Up & Conclusion

For Interviewer

- Fabio is on his way to the office. Your Manager would like an update on Fabio's project. What do you tell him?

Example Conclusion

For Interviewer

- Overview:
 - Under the current business model, Fabio can provide 2,000 haircuts per year assuming 100% utility. He will command ~4% market share.
 - At \$100 per haircut, Fabio can expect \$200,000 in haircut revenue per year
 - However, Fabio has many expansion opportunities on both the hair salon and headshot businesses.
 - Fabio could increase the number of stylists, add additional appointment slots, and offer additional hairstyling options such as UpDos and Men's Haircuts.
 - On the headshot side, Fabio could expand the photography services offered (graduation, wedding, school) or consider renting the space to other photographers when it is not in use.
- Risks: Fabio does not want to manage other stylists, Fabio does not have the expertise to rent the space to other photographers
- Next Steps: I suggest that he consider hiring additional stylists and exploring the revenue sharing model and interview potential salon managers



BudgetAir: A Weighty Decision

Industry: Airline

This case focuses on: Go / No-Go Decision

Quantitative Overview: Breakeven, Profitability

Qualitative Overview: Brainstorming

Prompt: BudgetAir

For Interviewer

BudgetAir is a low-cost national airline based in Philadelphia, PA. Being from the “city of brotherly love”, the airline is focused on customer service and satisfaction. In fact, the airline consistently receives top customer satisfaction scores amongst all airlines. As part of their customer focused strategy, they are known for their marketing slogan, “Bags Fly Free”.

As the airline expands its routes and offers additional cross country flights, BudgetAir is considering charging for bags. Is this a good idea?

Clarifying Questions

Interviewer: Information to be provided to interviewee when asked

- **What is BudgetAir's main objective?**
 - BudgetAir's primary goal is increasing revenue and profitability. Their secondary goal is maintaining market share.
- **Do BudgetAir's competitors charge a baggage fee?**
 - Yes, all of BudgetAir's competitors charge a baggage fee. A key differentiator for BudgetAir is the fact that they do not charge a baggage fee.
- **What is the industry average baggage fee?**
 - The baggage fee for a standard, 50 pound checked bag is \$50
- **How much will BudgetAir charge per bag?**
 - BudgetAir will charge \$25 per bag
 - Frequent fliers (approximately 10% of BudgetAir passengers) will enjoy free checked baggage.

Example Framework

For Interviewer

- An interviewee should use abbreviations for many of these ideas

Revenue	Customers	Competition
<p><u>Increased Rev from Bags</u></p> <ul style="list-style-type: none"> • Rev Incr. = # Checked Bags * \$40 per Bag <p><u>Decreased Rev from Customer Attrition</u></p> <ul style="list-style-type: none"> • Rev. Decrease = Average Ticket Price * # Lost Customers • Where is our break even? How does this impact market share? 	<p><u>Willingness to Pay (WTP)</u></p> <ul style="list-style-type: none"> • How price sensitive are our customers? We are already operating in the low-cost space • Impact on customer satisfaction? • Impact on brand? <p><u>Operations</u></p> <ul style="list-style-type: none"> • Will customers overpack carry-ons leading for more gate checked baggage? • Operational impact → # gate agents, potential delays, change in boarding procedure? 	<p><u>Their Response</u></p> <ul style="list-style-type: none"> • Will another competitor offer free bags? Impact to us? • What happened to our competitors when they began charging for bags? <p><u>Consumers</u></p> <ul style="list-style-type: none"> • Will customers move to competitors without the additional cost savings? • Do we have any other competitive advantage (increased # flights, more routes, flexible booking etc)?

Brainstorm: Financial Metrics


For Interviewer

- If the candidate does not start with financial, steer them toward their financial bucket.
- If the candidate does not drive the case toward a breakeven calculation, ask the candidate to brainstorm various financial metrics that would be critical in making this decision.
- After the candidate mentions the breakeven calculation, have them brainstorm the facts and figures needed to calculate breakeven. After they have done this proceed to the next slide.

The Breakeven Calculation


For Interviewer

- At this point an interviewee should realize that there is a trade off between an additional baggage fee and the potential loss of customers.
- The interviewee will need to estimate a breakeven number of checked bags
- **Information is only provided when asked**

 **Customers per day can be calculated using the information above – please allow candidate to calculate.**

- **Tip:** Ask the interviewee to walk through their calculation to ensure that they have thought through possible drivers

Increased Revenue - Bags	
Baggage Fee	\$ 25.00
% of Customers Who Check	40%
Average Flight Capacity	150
Seat Utilization	100%
# Flights per Aircraft / Day	4
Fleet Size	150
Total Customers Checking	36,000
Bag Revenue per Day	\$ 900,000

Decrease Revenue - Customers	
Average Ticket Price	\$ 100
Customers per Day 	90,000
% Customers Lost	15%
Customers Lost	13,500
Revenue per Day Lost	\$ 1,350,000
Revenue Per Bag	\$ 25
Break Even Bags	54,000

Evaluation of the Breakeven

For Interviewer: Why is this important?

- A strong candidate will calculate the following:
 - The airline can expect to make an additional \$900,000 per day if they institute a checked baggage fee
 - Conversely, the airline can expect to lose \$1.35M per day if they pursue this change
 - The delta in profit is 18,000 bags or 450k per day
 - At this point, it does not appear that BudgetAirCo should pursue this initiative.

Brainstorm: What are other risk factors in adopting this policy?

For Interviewer

1. Damage to reputation and brand could extend past loss of customers and associated revenue
2. Operational complexity increases dramatically
 - Could result in delays or extended boarding times as passengers will likely bring more carryon bags to avoid the fee
3. Cost of switching marketing campaigns as BudgetAir is currently known for their slogan, “bags fly free”.

Brainstorm #2

For Interviewer

- Management is perplexed. Some of BudgetAir's key competitors introduced this policy and gained market share. Why?
- Potential Ideas:
 - Competitors might be sacrificing revenue for marketshare
 - Customer segmentation might differ from BudgetAirCo
 - For example, business travelers are less price sensitive
 - Families would likely be more price sensitive and have a larger number of bags to check
 - A customer segmentation analysis could help us understand these dynamics

Conclusion

For Interviewer

- The partner on your case is stopping by the team room and would like an update on your findings. What is your conclusion?

Example Conclusion

For interviewer

- Note: While the data favors not launching the program, either answer is acceptable so long as it is well supported. A good answer includes:
 - The initial analysis does not support charging for a bag as BudgetAir Co is projected to lose revenue as a result
 - Launching this initiative could be deleterious to the Company's brand equity and reputation
 - BudgetAirCo will need to reposition itself as its current slogan is "Bags Fly Free"
 - The Company may be enjoying a niche market position as one of the few airlines that does not charge for bags
- Example: Launch the Initiative
 - Launch the initiative as we do not have evidence that the revenue decline is more than a temporary shock and could likely be reversed as a result of our superior customer service. There are other opportunities such a creating bundles (bag + internet) or lower fares while adding a bag fee as we are adding capacity to our routes and will likely have less than 100% utilization.



Palm Beach Capital: Cruise Line Acquisition

Industry: Cruise Line

This case focuses on: Private Equity Acquisitions

Quantitative Overview: Valuation, Synergy Analysis, Profit Calculation

Qualitative Overview: Brainstorming, Non-Financial Factors

Prompt

For Interviewer

Your client, Palm Beach Capital, is a private equity firm that specializes in the Travel and Tourism industry. They have recently asked you to help them evaluate the potential acquisition of a cruise line, CruiseLine Co. The Company expects a purchase price of no less than \$1.2 billion.

They would like to know what you think the cruise line is worth and if you believe they should acquire the target?

Note to Interviewer

This is a quintessential interviewee-led case. The interviewee will be expected to drive to a conclusion with very little help from the interviewer. As a result, a comprehensive framework is critical. A candidate should reference the framework to ensure that all questions have been answered.

This case is long, difficult, and highly quantitative. Allocate an hour to work through the case.

Example Clarifying Questions

For Interviewer

Palm Beach Capital

- *Have they acquired a cruise line before?*
- *Investment rationale?*
- *Will this investment go into an existing fund?*
- *Are there any hurdle rates that we need to be aware of?*
- *Have they specified a hold period?*
- *Are there any other bidders?*

Target

- *Would like to create a comp in my mind. Is Carnival okay?*
- *Does the cruise line own or lease it's boats?*
- *Should we be considering any ancillary revenues – on board shows, merchandise etc?*
- *Clarify value chain to confirm understanding of income statement*

Example Clarifying Questions – Palm Beach Capital

Answers for Interviewer

Palm Beach Capital

- *Have they acquired a cruise line before? **No, this would be their first acquisition in the cruise line industry. However, they have expertise in turning around resorts, hotels, and theme parks. They are considered operations experts within the industry.***
- *Investment rationale? **Would like to acquire a cruise line to complement their existing portfolio and diversify their customer base.***
- *Will this investment go into an existing fund? **Assume this investment will go into its own fund. You do not have to worry about existing industry exposure.***
- *Are there any hurdle rates that we need to be aware of? **Yes, 22%***
- *Have they specified a hold period? **While they are opportunistic, Palm Beach Capital generally holds investments for 5 years. They do not have a specific payback period.***
- *Are there any other bidders? **This has not been disclosed.***

Example Clarifying Questions – Target

Answers for Interviewer

Target

- *Would like to create a comp in my mind. Is Carnival okay? **Yes, you can think of this client as Carnival Cruises (as opposed to a specialized cruise line like Disney)***
- *Does the cruise line own or lease it's boats? **You can assume they own the boats. They are responsible for all costs related to the boats and the boats will be part of the acquisition.***
- *Should we be considering any ancillary revenues – on board shows, merchandise etc? **Assume that this is included in each passenger fare***
- *Clarify value chain to confirm understanding of income statement – **Revenue: Passengers pay per person fares at various price levels for the duration of the voyage***
- ***Costs – FC and VC or Passenger related (food, entertainment, housekeeping) vs Boat (fuel, maintenance, crew)***

Sample Framework 1 (1 of 2)

1. Is CruiseLine Co worth it?

Understanding how synergies impact valuation is critical going forward. There are both revenue and cost synergies

① worth $\Rightarrow \pi$

<p><u>R</u></p> <ul style="list-style-type: none"> - # boats - fares - [passenger utilization - # cabins - # cruises - Ancillary <ul style="list-style-type: none"> - entertainment - up sell - spa? + 	<p>-</p> <p><u>C</u></p> <p>Boats</p> <ul style="list-style-type: none"> - Maintenance - House keeping - Food & Bev - Entertainment - Fuel <p><u>OH</u></p> <ul style="list-style-type: none"> - overhead/ Mgmt - Marketing - SG&A - Salaries < Captain crew other - MISC? 	<p>=</p> <p><u>TT</u></p>	<p>+</p> <p><u>Synergies</u></p> <p>\Rightarrow Rev</p> <ul style="list-style-type: none"> - \uparrow fill rate - Δ pricing - Δ cabin configuration <p><u>Cost</u></p> <ul style="list-style-type: none"> - consolidate ops - out of line < SG&A MKtg - efficient trips 	<p>\Rightarrow valuation</p>
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Example of a handwritten framework

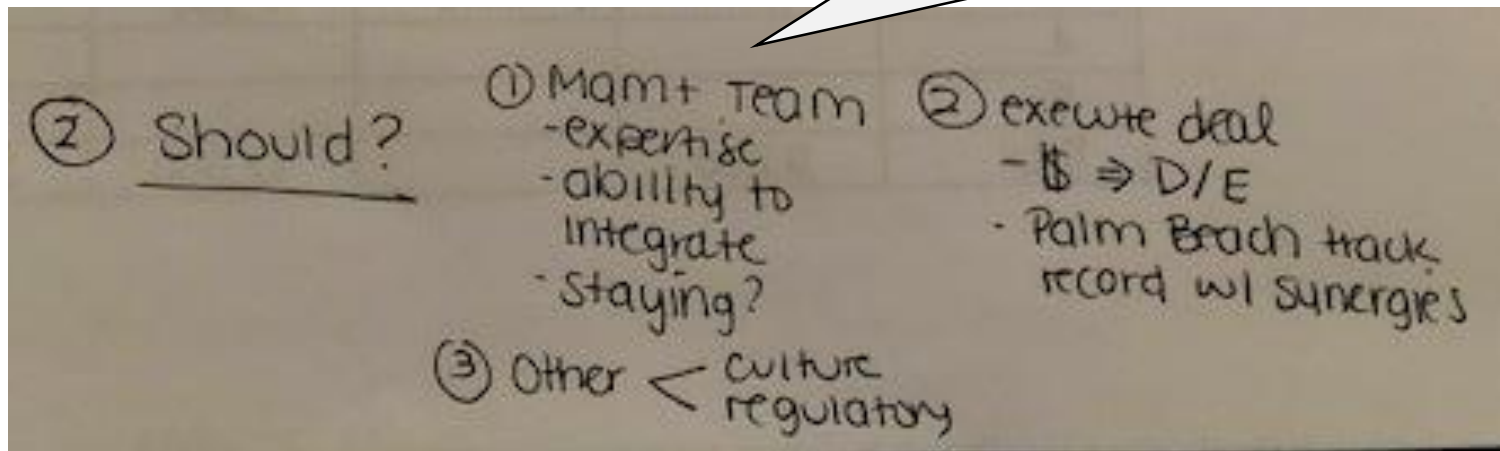
Tips:

- 1.) Use abbreviations to save time – create a system that works for you
- 2.) Stay neat – you need to present this!

Sample Framework 1 (1 of 2)

2. Should Palm Beach Capital acquire?

The framework is organized into three buckets. It is important to understand the non-financial implications of the transaction. The second question is focused on non-financial diligence



Sample Framework 2 (1 of 2)

1. Is CruiseLine Co worth it?

These two frameworks look very different – there are numerous ways to create a framework for each question. Either way it is important to: 1.) **stay case specific** (e.g. drivers in profit calculation) 2.) understand that there will be **synergies** in a PE style transaction

The handwritten framework on a chalkboard includes the following elements:

- Questions:**
 - Q: ① worth?
 - Q: ② should?
- Revenue (R):**
 - #boats × [cabins × utilization × #passengers/cabin] × #cruises/year
- Costs (C):**
 - Maintenance
 - Housekeeping
 - entertainment
 - Food & bev
 - fuel
 - Lease?
 - salaries - boat
 - OH, Marketing, SG&A, misc] fixed
- Equation:**

$$\frac{R}{\#boats} - \frac{C}{\#boats} = \frac{\pi_{un} + \pi_{syn}}{R \wedge C} = \frac{\pi_{syn}}{disc}$$

VS. $\frac{\pi_{un}}{disc}$

Case specific revenue and cost drivers

Synergies

Discount Rate

The interviewee framework should **include short-hand** to keep framework timing between 1:30 – 2:00

Sample Framework 2 (2 of 2)

2. Should Palm Beach Capital acquire?

Here the second question is split between **internal and external factors**. While the interviewee hits upon the same themes, the organization is different.

The handwritten notes are organized as follows:

- ② Should?**
- I** (Internal factors):
 - Mgmt team @ Cruise Co.
 - expertise
 - ability
 - stay?
 - culture
 - governance
- E** (External factors):
 - regulatory environment
 - Macro-risks
 - ↳ where in market cycle are we?
- PBC** (Palm Beach Capital):
 - D & E
 - synergy > execution
- H:** (Hypothesis)
 - ① Yes > I, ZB
 - ② Yes < A, B, C

Question 1: Tip and Tricks

For Interviewer: The Valuation

- This is essentially a mini-profit case with a final valuation component
- The interviewee should include case specific revenue and cost drivers
- Revenue and Cost synergies should be mentioned
- Valuation should be part of the framework

(Optional) Revenue Brainstorm

For Interviewer

- If the interviewee does not include case specific revenue and cost drivers in the framework, **ask them to brainstorm how to calculate revenue and cost**
- Note: A good framework will include case specific drivers

Example Revenue Calculation

Per Boat = (# Cabins by Type x Fill Rate by Type x Cruise Fair by Type x Average # of Customers per Cabin)

x # of Cruises per Year

x # of Boats in Fleet

= Total Revenue per Year

Revenue Calculation

For Interviewer

- Candidate should be given: suite class, # cabins, fill rate, and customer fare / cruise

The Candidate should use averages to calculate 75%. Think of this like a seesaw – half the rooms are at 80% and the other half are at 70% occupancy

Revenue Calculation

Suite Class	# Cabins	Cabin Fill Rate	Customers per Cabin	Customer Fare / Cruise	Total Revenue
A	200	80.0%	2	2,000	640,000
B	100	70.0%	2	3,100	434,000
C	100	70.0%	2	4,000	560,000
Total	400	75.0%	2	2,723	1,634,000

Cruises / Year

30

of Boats in Fleet

3

This is a difficult number to work with. The candidate will likely ask to round – however, this number makes the profit calculation easier. Do not allow them to round the annual revenue number

Annual Revenue

147,060,000

Cost Information

For Interviewer

- Information to be given to interviewee

There are many different units in this cost calculation. Ensure that the interviewee is clear as you read the information

Costs

Variable Costs

Maintenance and Capex per Boat (annual)	1,000,000
Housekeeping per Cabin per cruise	150
Food and Beverage per Customer per cruise	500
Entertainment per Customer per cruise (pools, ice rink etc)	150
Fuel per Cruise per boat	100,000

Fixed Costs

Overhead	12,000,000
Marketing	2,000,000
SG&A	3,000,000
Salaries - Captain & Crew	5,000,000
Misc - Sponsorship at Tropicana Field	10,000



The interviewee should calculate total cost and **immediately drive to calculating profit**

Cost Calculation Answers

For Interviewer

Costs

Variable Costs

Maintenance and Capex per Boat (annual)	1,000,000
Housekeeping per Cabin per cruise	150
Food and Beverage per Customer per cruise	500
Entertainment per Customer per cruise (pools, ice rink etc)	150
Fuel per Cruise per boat	100,000

Fixed Costs

Overhead	12,000,000
Marketing	2,000,000
SG&A	3,000,000
Salaries - Captain & Crew	5,000,000
Misc - Sponsorship at Tropicana Field	10,000

Total Costs	47,060,000
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Profit	100,000,000
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Cost Calculation – Detailed Answer

For Interviewer

Costs

<u>Variable Costs</u>		<u>Other Metric</u>	<u># / Yr</u>	<u>Total</u>
Maintenance and Capex per Boat (annual)	1,000,000	3		3,000,000
Housekeeping per Cabin per cruise	150	300	30	1,350,000
Food and Beverage per Customer per cruise	500	600	30	9,000,000
Entertainment per Customer per cruise (pools, ice rink etc)	150	600	30	2,700,000
Fuel per Cruise per boat	100,000	3	30	9,000,000
<u>Fixed Costs</u>				
Overhead	12,000,000			12,000,000
Marketing	2,000,000			2,000,000
SG&A	3,000,000			3,000,000
Salaries - Captain & Crew	5,000,000			5,000,000
Misc - Sponsorship at Tropicana Field	10,000			10,000
				47,060,000
Total Costs	47,060,000			

Valuation – Pre-Synergy

For Interviewer

- The candidate should **drive the case toward valuation** per the first question in the prompt
- The candidate should recognize that this valuation does not meet the \$1.2B purchase price. **As a result, the interviewee should inquire about synergies**

Valuation Calculation

Profit: 100M

Discount Rate: 10%

Valuation = 100M / 10%

Valuation = \$1B

Give candidate the **Discount Rate assumption if they do not assume 10%**. 10% was chosen for ease.

Revenue Synergies

For Interviewer

- Information to be given to interviewee

Interviewee Tip
 Synergies are calculated as a % of **Total**. The candidate should add the % to **30%** and recognize that one calculation is needed.

Total Revenue Improvements - as a % of Total

Co-branding partnership with major entertainment brand	20%
Changes in Fares to better align with competitor pricing	10%



Total Revenue Improvements - as a % of Total

Co-branding partnership with major entertainment brand	20%
Changes in Fares to better align with competitor pricing	10%

Total Revenue Improvement 30%

Total Annual Revenue 147,060,000

Interviewee should ask to round to **\$44M**

Total Revenue Synergies **44,118,000**

Cost Synergies

For Interviewer

- To be given to interviewee:
 - Palm Beach Capital plans to spend \$2M on a back office IT modernization project. The \$2M will be a recurring annual cost including software licenses, server fees, and continual hardware upgrades
 - As a result of the modernization \$12M of overhead costs can be eliminated

Cost Synergies

Back Office IT Modernization	(2,000,000)
Overhead Elimination	12,000,000
Total Net Cost Synergies	10,000,000

Total Synergies

For Interviewer

- A strong Interviewee should drive the case to this point. If not, prompt them.
- The interviewee should **round** Total Synergies for ease of calculation



Total Revenue Improvements - as a % of Total

Co-branding partnership with major entertainment brand	20%
Changes in Fares to better align with competitor pricing	10%
Total Revenue Improvement	30%
Total Annual Revenue	147,060,000

Total Revenue Synergies 44,118,000

Cost Synergies

Back Office IT Modernization	(2,000,000)
Overhead Elimination	12,000,000

Total Net Cost Synergies 10,000,000

Total Synergies - Rounded 54,000,000

Synergized Profit 154,000,000

Synergized Valuation

For Interviewer

- The interviewee should have driven the case to this point.

Synergized Valuation Calculation

Profit: 154M

Discount Rate: 10%

Valuation = 154M / 10%

Valuation = \$1.54B

(Optional) ROIC and Payback Period

For Interviewer

- If time allows, as the interviewer to calculate Return on Invested Capital (ROIC) and Payback period. These calculation will complete the calculations needed for both PE style and New Market Entry cases.
- However, Palm Beach Capital **does not specify a payback period**

22% was the hurdle

ROIC

Purchase Price: 1.2B
Synergized Valuation: 1.54B

$$\text{ROIC} = (1.54\text{M} / 1.2\text{B}) - 1$$
$$\text{ROIC} = 28.33\%$$

Round to
25 – 30 %

Payback Period

Purchase Price: 1.2B
Synergized Profit: 154M

$$\text{Payback Period} = (1.2\text{B} / 150\text{M})$$
$$\text{Payback Period} = 8 \text{ years}$$

Round to
150M

Question 2: Should they acquire?

For Interviewer

- The interviewee should pivot to question 2 and reference the framework
 - Interviewee should discuss each of these in more detail
- 1. Ability to Execute**
 - Do we have access to capital?
 - Track record of realizing synergies?
 - Will our expertise in T&T translation to success in this business?
 - 2. Management Considerations**
 - We will be placing this Company into a larger conglomerate – Does existing management have the expertise to run the business?
 - Will any of the proposed operational changes cause business disruption? Are we at risk for increased turnover?
 - 3. Other Considerations**
 - Will we get regulatory approval?
 - Macro-risks to the industry
 - What is the opportunity cost? Is there a better cruise line to buy?
 - Is this the correct expansion within the industry?

Wrap Up and Conclusion

For Interviewer

The MD from Alpha Capital walks into the team room and asks for an update. What do you tell him?

Best Practices Tip

A great candidate will:

- Drive the case from framework to conclusion
- Understand how each calculation drives to an answer for Q1
- Reference the framework as a guide to answering all the calculations
- Consider financial and non-financial diligence topics

Sample Conclusion

For Interviewer

1. **Valuation hinges upon our ability to execute on synergy plan**
 - Valuation without synergies = 1.0B vs 1.2B asking price
 - With 100% execution of synergies = 1.54B and a 28% ROIC which meets our hurdles

2. **Risks**
 - Synergy execution
 - Macro-economic
 - New Industry for Palm Beach Capital – transferable expertise?
 - Portfolio fit within the Travel & Transportation continuum?

3. **Mitigants**
 - Industry leader with a track record of success in travel and tourism
 - High barrier to entry industry helps maintain Cruiseline Co's industry leading position

4. **Next Steps**: Develop an understanding of the macroeconomic drivers to better understand topline and determine ability to execute on synergies



Movin' on Out: Local Co. Clothing

Industry: Clothing, Retail

This case focuses on: Off-shoring

Quantitative Overview: Margin, Breakeven

Qualitative Overview: Non-Financial factors

Notes to Interviewer

Exhibits and Case Order

- Exhibits 1 – 3 do not need to be shown in any particular order. The candidate's framework should address each exhibit separately.
- Allow the candidate to drive the case and encourage the candidate to reference their framework throughout the case.
- This is a great opportunity to allow the candidate to work through a variety of exhibits and navigate situations where the information is not provided.
- The interviewer must be familiar with the exhibits and information provided prior to properly give this case

Prompt

For Interviewer

Local Co. is a clothing company based in Los Angeles, California. Known for beachy chic sandals, t-shirts, and beach accessories, Local Co. management prides itself on its American roots. In fact, all products are designed and made in America with the softest fabrics sourced from all over the world.

However, Local Co. is experiencing some headwinds. Commodity prices are rising which can put pressure on margins and profitability. While Local Co. could raise prices, they want to keep Local Co. prices attainable for their average customer. Thus, Local Co is considering ways to decrease manufacturing costs.

Local Co. is currently considering off-shoring clothing manufacturing to South America, should they? In addition, what factors should they consider as they make this decision?

Clarifying Questions

For Interviewer: Information to be given when asked

- Does Local Co. sell clothing outside of the U.S.?
 - No, Local Co. distributes its products through upscale, large retailers and boutiques
 - Local Co. does not currently have any plans for international expansion
- What are competitors doing in response?
 - Competitors have exhibited a variety of responses. Some have off-shored, others have raised prices, some have changed the quality of their fabrics, while others have combined a number of these strategies.
- Outside of the U.S., where are similar products manufactured?
 - Many international locations – South America, China, and India are just a few popular locations
- What other options has Local Co. explored?
 - Local Co. will not compromise on the quality of the clothing or the softness of the fabrics. They have also determined that a price increase is not feasible.
- What is the payback period on new infrastructure investment?
 - Local Co. has a 4 year investment horizon

For Interviewer: Frameworks: Outsourcing / Offshoring (Example 1)

Question: Local Co. is considering offshoring manufacturing. Should they?

<p>Local Co. Strategic Considerations</p>	<ul style="list-style-type: none"> • Why is the Company doing this? <ul style="list-style-type: none"> • Need to save on manufacturing cost • Points of Concern – Local Co <ul style="list-style-type: none"> • Customers – needs, wants, expectations • Quality of product – maintain the same? • Availability and speed to market? • Supply chain flexibility and complexity • Mgmt distraction? • Stakeholder Mgmt – manage lost jobs? <div style="margin-left: 600px;"> <p>You could also bucket these by external vs. internal / customer vs. company etc.</p> </div>
<p>Economics of the Deal</p>	<ul style="list-style-type: none"> • Current Costs – State of Affairs <ul style="list-style-type: none"> • Understand value chain and process • Projected Outsourced Costs • Key changes in costs • Initial Investment <ul style="list-style-type: none"> • Breakeven, Payback period, ROIC • Net Cost Savings
<p>Risks – Other Parties</p>	<ul style="list-style-type: none"> • Ability to Execute – New Manufacturer <ul style="list-style-type: none"> • Do they have the expertise? → Implementation risk • Where are they doing this? → Political Risk • How with currency affect this? → FX Risk • Regulatory / Tariffs to import back into country • Cultural integration • Partner Capabilities <ul style="list-style-type: none"> • Do they have the right technology? Access to the right labor pool? Capacity to handle demand? Satisfactory terms?

Framework: Outsourcing (Example 2)

For Interviewer

Question: *Local Co. is considering offshoring manufacturing. Should they?*

These are two very different frameworks. Either will allow the candidate to work through the question. Example 2 focuses on various factors to consider.

<p><u>Demand</u></p> <ul style="list-style-type: none"> • Ability to meet demand • Volatility of demand – seasonality? • Diversity of Demand – by product, location • Competition • Maintain customer wants, need & expectations – quality, time to market 	<p><u>Supply</u></p> <ul style="list-style-type: none"> • Supply chain complexity • Lead time / responsiveness – additional time? • Economies of scale • Supplier concentration • Direct Capital investment
<p><u>Technological Factors</u></p> <ul style="list-style-type: none"> • Access to human capital • Manufacturing infrastructure • General infrastructure • Ability to Innovate • Ability to scale manufacturing 	<p><u>Macroeconomic Factors</u></p> <ul style="list-style-type: none"> • Tariffs, quota, exchange rates • Political stability • Cultural integration risks
<p><u>Financial</u></p> <ul style="list-style-type: none"> • Cost savings • Current Costs • One time start up costs • One time other costs • Total Savings 	<p><u>Other</u></p> <ul style="list-style-type: none"> • Brand implications – USA made • Internal Cultural implications – layoffs

Exhibit 1: Cost Comparison (millions)

For Interviewee

- Manufacturing Cost Comparison by Region as a % of Revenue

\$M	U.S.	South America
Revenue	\$ 100	\$ 100
Direct Costs		
Labor	20.0%	5.0%
Materials	15.0%	15.0%
SG&A	25.0%	20.0%
Transporation	5.0%	10.0%
Tariffs	0.0%	5.0%
Defect Rate Cost	1.0%	5.0%
Retail Margin	10.0%	10.0%

Exhibit 1: Cost Comparison

For Interviewer

- **Prompt:** Management has determined that outsourcing manufacturing in South America is the most viable option due to the proximity to Los Angeles. Furthermore, existing management has experience in the market.

Analysis

- A strong candidate will identify total cost savings, areas of major savings, and cost increases. The candidate may also discuss the potential causes of the change in various line items.
- Total Cost savings as a % of Revenue = 6% or \$6M
- Major labor savings (10%)
- Increased cost due to additional defects and the addition of tariffs

\$M	U.S.	South America
Revenue	\$ 100	\$ 100
Direct Costs		
Labor	20.0%	5.0%
Materials	15.0%	15.0%
SG&A	25.0%	20.0%
Transporation	5.0%	10.0%
Tariffs	0.0%	5.0%
Defect Rate Cost	1.0%	5.0%
Retail Margin	10.0%	10.0%
Total Cost (%)	76.0%	70.0%

Exhibit 2: Local Co. Customer Priority Survey

For Interviewee

Customer Priority Ranking	
Cost	8
Quality	8
Variety	3
Availability	6
New Styles	4
Fit	9
Made in USA	5
End Market Retailer	2
Style	7

Priorities were ranked on a scale of 1 – 10 with 10 being the most important and 1 being not important at all

Exhibit 2: Customer Priority Survey

For Interviewer

- It is important to note that Fit, Cost, and Quality are the most important customer dimensions
- Availability is important. It will be important to understand how offshoring will impact product availability and lead time
- “Made in the USA” is in the bottom third of customer priorities

Customer Priority Ranking	
Cost	8
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Exhibit 3: New Infrastructure Build

For Interviewee

- Infrastructure Build as a result of the offshore scenario

Infrastructure Build			
	Cost by Type (\$M)		Level of Complexity
<u>Expense by Type</u>	<u>One-Time</u>	<u>Continual</u>	
Factory Modernization	\$ 20.0		High
Capacity Expansion		\$ 5.0	Medium
Headcount Expansion		\$ 10.0	Low
Infrastructure Build	\$ 4.0		High

Level of complexity signifies difficulty of execution

Exhibit 3: New Infrastructure Build

For Interviewer

- Total one time costs = \$24M; per exhibit 1, the company saves \$6M per year as a result of offshoring manufacturing to South America
 - $\$6M = 100M (76\% - 70\%) = \text{Revenue} * \text{Change in Margin}$
- LocalCo would **breakeven on its investment in 4 years (24/6)**
- Continual expenses would be included in and netted out in Exhibit 1 which details the new cost structure
- Complexity adds additional execution risk. It appears that building infrastructure and modernizing the factory will be the most challenging

Infrastructure Build			
Expense by Type	Cost by Type (\$M)		Level of Complexity
	One-Time	Continual	
Factory Modernization	\$ 20.0		High
Capacity Expansion		\$ 5.0	Medium
Headcount Expansion		\$ 10.0	Low
Infrastructure Build	\$ 4.0		High

Level of complexity signifies difficulty of execution

Exhibit 3: Continued

For Interviewer

- If the candidate does not drive to breakeven, ask the interviewee to brainstorm the types of metrics that would allow Local Co. to make this decision
- After the candidate identifies breakeven, refer the candidate to Exhibit 1 if need be. Exhibit 1 will allow the candidate to calculate incremental profit.

Conclusion

For Interviewer

- Recommendation:
 - LocalCo should offshore manufacturing in South America. Offshoring represents \$6M in annual savings. While the plan will require \$24M of initial investment, LocalCo will breakeven in 4 years.
 - Customer surveys show that price, quality, and fit are the most important factors in making the purchasing decision. While LocalCo prides its self on being made in the USA, it does not appear that the customer values this dimension in the same way.
- Risks:
 - Execution risk – build out of the factory and new staff
 - Heightened defect rate could hurt brand name and impact a critical customer criteria
 - Increased complexity could increase time to market and slow the release of new products
- Next Steps:
 - Understand the execution risk around the highly complex infrastructure build projects (factory modernization and infrastructure build)
 - Confirm impact defect rate will have on customer satisfaction



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