Darden 2020-2021 Casebook

Darden School of Business

Darden Case Book 2019-2020 Foreword

New Material + 12 Total Cases

The cases featured in the 2020-2021 Case Book are some of Darden's best cases from prior years

This case book features aconsulting industry guide and 12 total cases

9 New Cases

The 2019-2020 Case Book features 9 brand new cases that will test a broad array of knowledge areas and math concepts

14 Writers

The 2020-2021 Case Book features the work of 14 members of the class of 2021. Their diverse experience allowed us to incorporate creative new case styles.

TABLE OF CONTENTS

Case Name	Firm Style	Round	Industry	Page
Alpha Aviation	McKinsey	2	Aviation	34
Back It On Up	EYP	2	Tech	51
The Big Shot	Bain	1	Entertainment	63
Contagion Containment	BCG	2	Non-Profit	78
Food Frenzy	IDEO	2	Retail	90
A Hairy Ordeal	Bain	1	Retail	102
Lizard Insurance	Bain	1	Insurance	116
Met With Problems	BCG	1	Non-Profit	130
A Messi Decision	BCG	1	Sports	140
New Rubber Plant Investment	AT Kearney	2	Industrial	151
PubU	McKinsey	1	Energy	161
Whale Hotel	McKinsey	2	Real Estate	171

The Case Interview Process

Non-Verbal Communication (Tips for Success)

Communicating the correct message non-verbally is as important as the content that is communicated in a case interview. In order to recommend a candidate, interviewers must:

1. **Feel comfortable putting the candidate in front of a client**
2. **Believe they would enjoy spending 60+ hours a week with the candidate on a project team**

You Need to Convey

- Trustworthiness
  - Confidence
  - Competence
  - Honesty
- Positivity
- Curiosity
- Passion

How to Develop These Traits

- Practice and gain proficiency in the technical requirements of a case – free up mental energy to focus on connecting with the interviewer

- Practice positive self-talk – the best way to demonstrate these traits is to truly believe you have them

- Practice quickly connecting with people about non-work subjects – building rapport before diving into the interview makes an enormous difference (Note: Not always possible)

What Is A Case Interview?

A case interview is a simplified, condensed version of a complete consulting project. The candidate is in the driver's seat and is expected to explore the data and provide solutions to an issue that a client paid the firm for.

Ideal Candidates Demonstrate

Problem-solving Ability	**+**	Interpersonal Skills	**+**	Cultural Fit & Passion

From Bain's Website (but representative of all firms):

The case interview is an example of a real business problem based on your interviewer's past work experiences. The problems you will encounter are not designed to be brainteasers, or theoretical problems designed to stump you, but rather to reflect the challenges that our clients face. These real-life examples allow you to learn more about the type of work we do and the impact we have with our clients.

The firms look for:
- The approach you take to solving a problem
- How analytical and creative your thinking is
- Your usage of data to quantify your recommendation(s)
- Your communication skills in conveying your ideas
- How you would suggest implementing those proposals"

Consulting Case Themes

The following case themes are the most popular topics tested and they are ranked in descending order of frequency. Please note that there are plenty more case topics than the 5 listed below.

Profitability: Analyze potential sources of profit declines and identify ways to improve profitability

Market Entry / Market Sizing: Analyze the client's opportunity to expand and quantify the viable market for any new products

**Growth:** Identify opportunities for the client to optimally grow revenues or increase market share
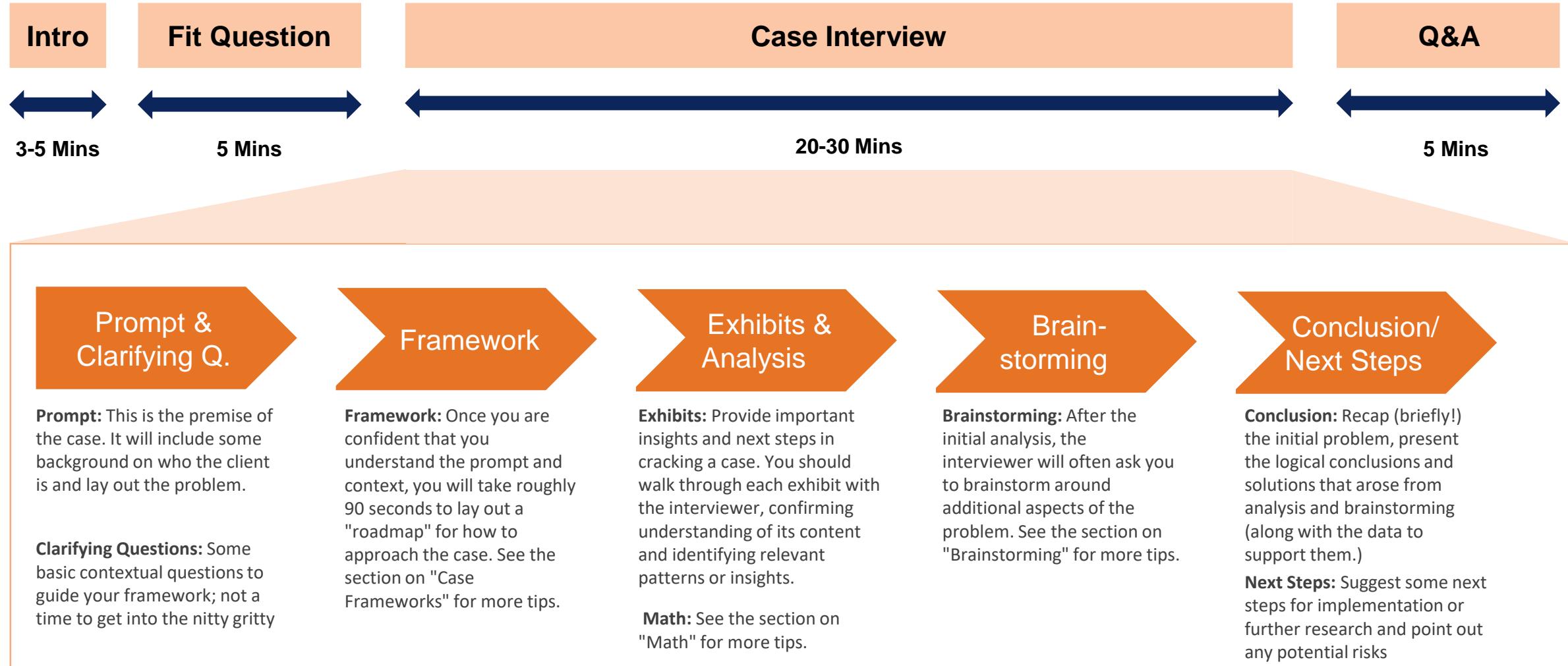
Acquisition / Sale: Determine whether the client should purchase another business or sell an existing part of the company

Industry Assessment: Assess the health and attractiveness of a particular industry to advise a client's decision

Note: This not an exhaustive list of all the types of cases you may experience

Case Interview Format

Intro	Fit Question	Case Interview	Q&A

| 3-5 Mins | 5 Mins | 20-30 Mins | 5 Mins |

Prompt & Clarifying Q. → **Framework** → **Exhibits & Analysis** → **Brain-storming** → **Conclusion/Next Steps**

Prompt: This is the premise of the case. It will include some background on who the client is and lay out the problem.

Clarifying Questions: Some basic contextual questions to guide your framework; not a time to get into the nitty gritty

Framework: Once you are confident that you understand the prompt and context, you will take roughly 90 seconds to lay out a "roadmap" for how to approach the case. See the section on "Case Frameworks" for more tips.

Exhibits: Provide important insights and next steps in cracking a case. You should walk through each exhibit with the interviewer, confirming understanding of its content and identifying relevant patterns or insights.

Math: See the section on "Math" for more tips.

Brainstorming: After the initial analysis, the interviewer will often ask you to brainstorm around additional aspects of the problem. See the section on "Brainstorming" for more tips.

Conclusion: Recap (briefly!) the initial problem, present the logical conclusions and solutions that arose from analysis and brainstorming (along with the data to support them.)

Next Steps: Suggest some next steps for implementation or further research and point out any potential risks

8

Note: This format may differ by firm or by interviewer

Fit / Behavioral Question Overview

Consulting firms are assessing your ability to successfully work with teams and judge how well you understand their firm and yourself

Tell Me About Yourself

- **Your pitch should include:** Where you have been / what you have done, who / where you are now, and what you are interested in going forward
- **All answers must include:** Relative skills & experiences, key transition points in your career, and a career objective
- **Strong answers have:** Powerful "hook" –your value proposition that highlights how you have the competencies they are recruiting for

Why Firm X or Consult-ing

- **Firm & industry fit:** Interviewee should have a deep understanding of a firm's culture, functional expertise, and working style
- **Industry interest:** Interviewee should highlight experiences they want to gain and skills they can bring
- **Strong answers have:** This question answered in opening pitch, structured reasons why, and answers tailored to your prior experiences and future aspirations

Tell Me About A Time When…

- **Experience/ behavioral:** Interviewee should demonstrate leadership ability, "drive" –taking initiative, and professionalism
- **CAR: Context / challenge** you faced, the **action** that you demonstrated, and the **result** of your actions
- **Strong answers have:** Concise response, a learning element if the situation helped you grow, utilizes structure, and engages the interviewer with energy, emotion, and authenticity

The Prompt and Clarifying Questions

| Prompt & Clarifying Q. | Framework | Exhibits & Analysis | Brain-storming | Conclusion/ Next Steps |

The Prompt

- All case prompts will introduce the company name, industry, and a brief description of what the client wants

- Some prompts tend to leave the primary objective to be vague

- Most prompts leave out the business context of the clients core products or operations in question

Clarifying Questions

- Clarifying questions should always be high level (ex. Context on products, core goal of the client, how client makes money)

- Don't ask for detailed insights that you can include in framework (ex. Details on profitability drivers, market trends, etc)

- Feel free to ask further clarifying questions as you are building framework

The Case Framework

| Prompt & Clarifying Q. | Framework | Exhibits & Analysis | Brain-storming | Conclusion/ Next Steps |

By laying out a framework for analysis at the beginning of a case interview, you are not only keeping yourself organized, but you are providing a visual roadmap for the interviewer to see how you are thinking and where you are going.

Characteristics of Great Frameworks

- **MECE:** Mutually Exclusive, Collectively Exhaustive

- Detailed but not lost in the weeds

- Thorough but not wasteful

- Insightful but not presumptive

Incorrect Framework Myths

- There is one perfect framework for every case

- There is a finite number of possible frameworks that will provide answers to every case

- Frameworks are not that important to the overall interview

Framework Example
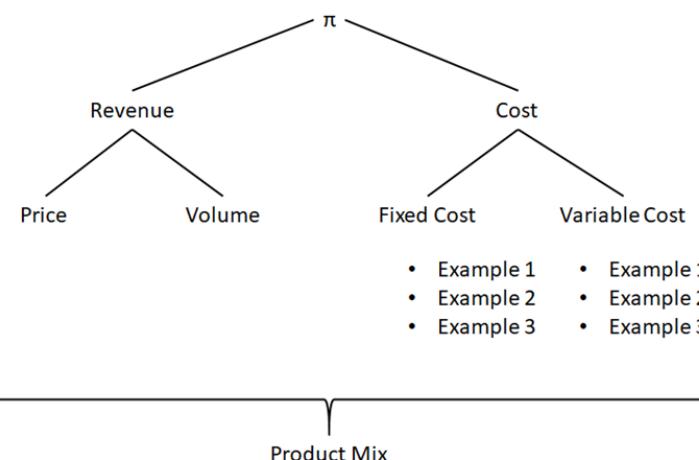
Some frameworks are better than others to address a particular case. There are always multiple approaches that can yield the same answer.

A simple framework example:

Key Question in the Prompt

Notes +

Clarifying

Answers

Profitability Tree

π

Revenue — Cost

Revenue: Price, Volume

Cost: Fixed Cost, Variable Cost

Fixed Cost:
- Example 1
- Example 2
- Example 3

Variable Cost:
- Example 1
- Example 2
- Example 3

Product Mix

Market / External

- Competitors
- Economic Health
- Regulation / Government
- Industry Trends
- Geography / Climate

Customer / Company

- Internal Capabilities
  - Acquisitions
  - Manufacturing Capacity
  - Distribution Networks
- Brand Perception
- Exit Strategies
- Consumer Preferences

12

Other Framework Examples

While being exposed to many frameworks can help build a strong repertoire of framework components, remember that no amount of specific framework memorization will cover every possible case a candidate could encounter.

Before & After

- Compare current with future
- Ideal for a go/no-go decision
- Can be used with profit tree (profits before and after)

	Before	After
Evaluation Criterion 1		
Evaluation Criterion 2		
Evaluation Criterion…		

M&A (similar to Before and After)

- Compare Company A, Company B, and Company A+B along various meaningful criteria

	Company A	Company B	Company A + B
Evaluation Criterion 1			
Evaluation Criterion 2			
Evaluation Criterion…			

Alternative | Evaluation Criteria Matrix)

- Alternatives listed across the top
- Evaluation criteria listed along the left
- Use +, -, o, or check marks to go through the list

	Option 1	Option 2	Option 3	Option 4…
Evaluation Criterion 1	+	-	-	+
Evaluation Criterion 2	-…			
Evaluation Criteria…				

For more details on Framework, please see appendix xx

Guide to Exhibits & Analysis
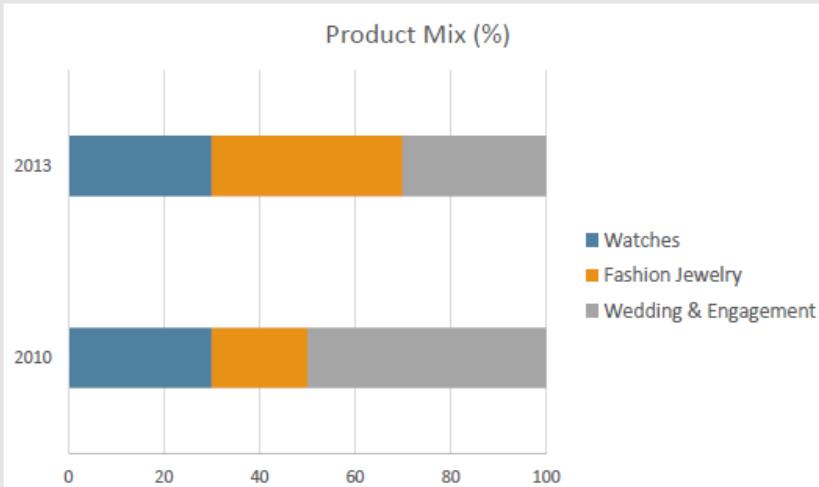
Prompt & Clarifying Q. → Framework → **Exhibits & Analysis** → Brain-storming → Conclusion/Next Steps

Jewelers-R-Us: Exhibit 1

For the years ended 2010 and 2013

Product Mix (%)

Legend:
- Watches
- Fashion Jewelry
- Wedding & Engagement

• Annual Revenues were constant at $1.5M

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Read The title of the exhibit to have a clear understanding of the information

Observe The legend and gauge the sizes of any bar graphs for insights

Pay Attention To the footnotes for vital information

Guide to Math Analysis

Although most case mathematics will involve simple arithmetic, it is still very easy to make mistakes. Follow the tips below to ensure that you are set up for success.

Tips for Success

Sanity Check

Make sure your numbers make sense in the context of the case

Mistakes are OK

You can recover from mistakes, just don't make the same mistake twice

Use Shortcuts

Round when needed and manage your zero's appropriately

Talk it Through

Explain each step that you are doing with your interviewer

So What

Tie the numbers back to the question and explain the implications

Practice

practice until you're comfortable doing math in front of an interviewer

Guide to Math Analysis

| Prompt & Clarifying Q. | Framework | Exhibits & Analysis | Brain-storming | Conclusion/ Next Steps |

Tricky Math Examples

Net Present Value

A. Calculates the discounted return on investment over time

B. Requires cash flows (revenues - costs over a time period), discount rate, timeframe, and an upfront cost

C. Some cases will assume a calculation into perpetuity (timeframe = forever).

D. **Perpetuity:** (Cash Flow per Period / Discount Rate) - Upfront Cost

Payback Period

A. Calculates the amount of time required to pay back an upfront investment

B. Requires cash flows per period and an upfront cost

C. Payback period will be extremely long, extremely short, or you will be given some type of specific criterion the client uses (e.g. 5 years)

D. **Payback Period** = Upfront Cost / Cash Flows per Period

Break-even Sales

A. Calculates the number of units sold to pay back an upfront investment

B. Requires per-unit selling price, per-unit costs, and upfront investment cost

C. **Break-Even Sales** = Upfront Investment Cost/(Per-Unit Selling Price - Per-Unit Costs)

Guide to Math Analysis (Things to Take Note)

| Prompt & Clarifying Q. | Framework | Exhibits & Analysis | Brain-storming | Conclusion/Next Steps |

Example Scenario

How much money will the client save?

Current State	$ Mater. / Unit	# Labor / Unit	Volume	Total Cost
Product 1	15	10	1M	= $25M
Product 2	5	20	2M	= $50M
				= $75M

10% Labor Reduction on a per unit basis

Future State	$ Mater. / Unit	# Labor / Unit	Volume	Total Cost
Product 1	15	9	1M	= $24M
Product 2	5	18	2M	= $46M
				= $70M

Total Savings = $5M

A. **Structure** is crucial. The more you can structure information like an Excel Spreadsheet, the better
   I. Helps you recover information
   II. Your interviewer can follow along
   III. It makes you look organized
B. **Write** down prompts such as "How much money will the client save" and "10% labor reduction per unit" to keep the goal fresh in your mind
C. **Circle** any important numbers (Total Savings =$5M) that may be relevant to your final recommendation
D. **Go Deeper** by speaking to the context of the number, ex: *" I see the total savings is $5M, which represents about 6% of our total costs. This seems like a reasonable deduction but we should figure out how this labor reduction is being generated and seek to understand any negative unanticipated consequences as a result of it."*

Tips For Brainstorming

The key to brainstorming is structure. The candidate should first devise two or more "buckets" or categories to organize his/her thoughts. These constraints make it easier to be creative and provide a more vivid mental model to pull from.

Example Brainstorming Frameworks:

Internal vs. External

- Internal represents any aspect internal to the client, (e.g. products, brand, financials, leadership, etc.)
- External represents factors external to the client, (e.g. market trends, geopolitical dynamic, competition, etc.)

The Supply Chain

- Each step in the supply chain is a category: raw materials, manufacturing, warehouse, transport, retail, customer, etc.
- Useful for exploring causes or solutions to cost problems

Financial vs. Non-Financial

- Financial includes things like costs, hurdle rates, cash flow, etc.
- Non-financial would be everything else

Stakeholders

- Clients, employees, investors, suppliers, regulators, etc.
- How are they affected, or what are they looking for?

Long-term vs. Short-term

- Useful for examining potential consequences of a decision

Customer Journey

- AIDA – Attention, Interest, Desire, Action
- Useful for increasing sales

Conclusion & Next Steps

| Prompt & Clarifying Q. | Framework | Exhibits & Analysis | Brain-storming | Conclusion/ Next Steps |

There are three key elements that the interviewer should include while wrapping up the final portion of the case.

1. Recommendation
Say the action that the client should take and cite the key insights in your analysis that have led you to the conclusion

2. Risks & Concerns
Mention the factors in the case that the client should be aware of that may impact the client or the recommendation –(Concerns should not contradict your overall recommendation)

3. Next Steps
Highlight at least one action the client should do to either help mitigate any concerns or any actions needed to move forward with the recommendation

While you can take a minute before you gather your recommendation, it is crucial to keep this segment concise

What's Different in a Virtual Case?
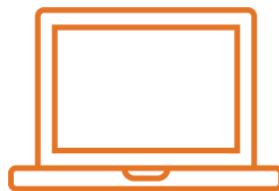
Watch your pauses: 5 seconds feels like 10 on video

Process out loud: Interviewers can't see what you are writing so you have to verbalize more

Focus on collaboration: May feel harder to achieve through the computer!

Resources

Internal:

- Brendan Boler case workshops
- Darden case book (and partnering programs)
- Second year coach
- Second year 1-on-1 cases
- CDC – people like Christy Gunville!
- Online videos (https://www.youtube.com/channel/UCgOS3PL6ok1zFVrX1w9kb1A)

External:

- MyConsultingCoach (https://myconsultingcoach.com)
- Rocketblocks (https://www.rocketblocks.me/)
- *Case Interview Secrets* by Victor Cheng
- *Crack the Case* by David Ohrvall
- *Case in Point* by Marc Cosentino

Industry Overviews

Please note that these are commonly tested industries; This list is not exhaustive of all the industries tested.

Industry Overview – Consumer / Retail

Key Industry Trends

- **Digital Marketing:** CPG (Consumer Packaged Goods) companies are pivoting to digital marketing solutions like Facebook and YouTube more than ever for smarter and more targeted advertising.
- **Big Data:** Consumer companies & retailers are ramping up the use of consumer shopping behavior data now more than ever to create curated/ personalized shopping experiences and targeted advertisements
- **Retail Omnichannel:** Large brick & Mortar retailers are pivoting to an "order online, pick-up in store" mix while also building out their online fulfillment capabilities to cater to the consumer. and keep up with Amazon). Store foot-prints are also getting smaller to reduce inventory
- **Private Label & Amazon Effect:** Private label consumer products are eroding market share of large name brand products. This is partially driven by "the Amazon effect" of quick and cheap replacement fulfillments. -Brand loyalty is getting harder and harder to win.
- **Direct to Consumer vs. In-store Experience:** Brand names are slowly shifting resources to sell directly to consumers as some retailers struggle. Retailers with large brick & mortar footprints are focusing on in-store experiences to attract customers

Important Terminology

- **SKU:** Stock Keeping Unit – Refers to a unique item sold in a store
- **In-stock:** Percent of items that are on the shelves and available for sale vs. what the total display can hold
- **CRM:** Customer Relationship Management: Strategy & tools designed to boost profitability and strengthen customer loyalty by using data – also the name for software that facilitates this
- **Loss Leader:** Merchandise sold at a loss to attract new customers or stimulate other profitable sales
- **Mark-up:** Percentage added to the cost of product to get selling price

Important Calculations

1. Inventory Turnover:

$$= (Sales / Inventory)$$

2. Gross Margin:

$$= \frac{(Revenues - COGS)}{Revenues}$$

3. Contribution Margin (CM):

$$= (Sales - Variable\ Costs)$$

$$CM\ Rate = \frac{(CM)}{(Sales)}$$

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Energy

Key Industry Trends

- **Clean Renewable Energy:** Wind, solar, and biomass power are increasingly replacing the use of fossil fuels in developed and developing countries with some projections indicating 80% of the worlds energy needs being met by renewable energy by 2050
- **Technology:** Advancements in drilling techniques like "fracking" and horizontal drilling have significantly boosted the output of US oil companies and substantially reduced the cost and risks associated with drilling for oil
- **Shale:** Newly found abundance of shale basins in the USA has helped to boost US oil production output and has almost eliminated US dependence on foreign oil
- **Natural Gas:** Given its cheap and abundant supply, natural gas has become the primary source of energy in the US, replacing crude oil and coal
- **(Important) Petroleum Products:** Gasoline, jet fuel, natural gas, fertilizer, plastics, detergent, propane, diesel, lubricant

Important Terminology

- **Upstream (E&P):** Exploration and Production – Process involving the finding, drilling, and producing of crude oil and natural gas or liquified natural gas (LNG)
- **Midstream:** Focuses on the processing, storage, marketing, and transportation of oil and natural gas. (Most pipe-line companies fall in this category)
- **Downstream:** Includes oil refineries, petrochemical plants, petroleum products distributors, retail outlets and natural gas distribution companies
- **OPEC:** Organization of Petroleum Exporting Countries – Cartel of 14 nations that coordinate petroleum policies. –Often influences output and thus oil prices

Important Calculations

1. Return on Investment (ROI)

$$= \frac{(Profits - Cost\ of\ Investment)}{Cost\ of\ Investment}$$

2. Breakeven Point

$$= \frac{(Fixed\ Costs)}{Contribution\ Margin\ (CM)}$$

Important Considerations:

- **Transportation / Distribution costs**
- **Storage Costs**
- **Production Costs: Labor + Materials**
- **Plant Development Costs**
- **Depreciation & Taxes**
- **Overhead**

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Transportation

Key Industry Trends

- **Airline Capacity Additions:** Airline ticket prices have been steadily on the decline driven by companies adding more routes to cities across the globe –led by low-cost carriers such as JetBlue, Southwest
- **Fuel Efficiency:** Airline companies have been investing heavily in upgrading their fleet to more fuel efficient aircrafts to reduce their biggest cost driver
- **EV (Electric Vehicles):** Auto manufacturers are all racing to create battery powered vehicles
- **Autonomous Vehicles:** Autonomous vehicles are expected to hit the road as early as 2019 and will cause major disruption to auto manufacturers, bus systems, taxis, insurance companies
- **Shortage of Truckers:** Transportation companies have been struggling to keep up with the booming demand for cargo shipments due to a massive shortage of truck drivers –thus causing significant increases in labor costs

Important Terminology

- **Load Factor:** Measures the capacity utilization of transportation services and is equal to the average actual utilization divided by the maximum capacity
- **PRASM: Passenger Revenue per Average Seat Mile –**Or RASM (revenue) is the revenue generated per available set miles in which ASM = number of seats available x number of miles flown.
- **Logistics:** The detailed coordination of complex operations involving many people, facilities, or supplies.
- **FOB: Free On Board –**Represents the point at which the sale of a freight cargo is considered complete. "FOB shipping" means ownership is transferred once the product is shipped of, "FOB shipping point" means ownership is transferred once the product is delivered
- **LTL & FTL:** LTL (Less than Load) – Small freight that doesn't fill a truck which is generally more expensive to ship, (FTL) Full Truck Load) – Large shipments that fill a trailer and are thus cheaper to ship

Important Calculations

1. Potential Savings by Switching Equipment

= {New Profit – Old Profit} or

{ [(New Capacity x Price) – (New efficiency x cost)] – [(Old Capacity x Price) – (Old efficiency x cost)]}

Important Considerations:

- **Gasoline / Fuel Prices**
- **Carrying Capacity**
- **Range / Distance**
- **Destination Routes**
- **Maintenance Costs**
- **Depreciation**

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Manufacturing / Agriculture

Key Industry Trends

- **D2C: Direct to Consumer:** More manufacturers are leveraging their own sales platform to market, sell, and ship their products to the customer rather than use third party distributers or retailers to boost profitability
- **Data Driven Analytics:** Manufacturers are using predictive analytics and algorithms to improve product design, optimize production cycles, and improve demand forecasting
- **Trade-war & Tariffs:** In response to the US tariff on steel and more, Canada, the European Union, and China have all implemented retaliatory tariffs of close to 25% on agricultural and automobile goods produced in the US.
- **Sustainable Food Systems:** Vertical farming has been a growing trend in urban locations to minimize environmental foot-prints and bring produce to major cities

Important Terminology

- **(JIT) Just-in Time Inventory:** "Pull demand" inventory system in which assembly materials and support items are delivered as needed to minimize raw material inventory
- **Commodity:** An interchangeable non-differentiated product or material that is sold freely. (Most agricultural products are commodities)
- **Bottleneck:** The resource in a manufacturing process that is working at max capacity and thus limits the output of the entire production
- **Bushel:** A unit of dry measure (1 cubic foot) for grain, fruit, etc., equivalent to 8 gallons of liquid
- **Out-source:** Process of contracting an outside party to complete a production or service task for a business. –Typically done to save cost or due to a lack of expertise

Important Calculations

1. Potential Savings with New Equipment

= (New Equip. Expenses – Old Equip. Expenses)

[(Old Time x Old Labor) + (Raw Material Cost x Old Quantity) + Old Depreciation)]

- [(New Time x New Labor) + (Raw Material Cost x New Quantity) + New Depreciation)

Important Considerations:

- **Raw Material Costs**
- **Labor & Wages**
- **Capacity Constraints / Bottlenecks**
- **Commodity or Not?**
- **Overhead Costs**
- **Supplier & Buyer Relationships**
- **Depreciation**

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Financial Services

Key Industry Trends

- **AI, Block-Chain & Crypto Currencies:** Digital distributed ledgers offer a cheaper and more efficient way for firms to verify and facilitate transactions. Crypto currencies have proven themselves to be an alternative set of asset investments that rival equities, precious metals, and debt holdings

- **Digital-Only Banks & Payments:** The prevalence of more digital transactions have eroded the need for cash for most daily use, which has in turn lead to the proliferation of online banks that offer higher savings account interest rates and comparable services

- **Financial De-regulation:** Congress passed legislation easing some of the restrictions from Dodd- Frank that exempts smaller banks from certain capital requirements which frees up room for more loans

- **More Transparency in PE Funds:** With greater pressure to produce results that outperform their benchmarks, more PE investors have been demanding greater transparency within their funds and firms have been using transparency to attract investors

Important Terminology

- **AUM:** Assets Under Management: Market value of all the financial assets that a firm manages on behalf of all of their clients and themselves. –Includes capital raised by investors and leaders of a firm

- **Private Equity:** Composed of investors and funds that invest directly into private companies or convert public companies to private companies to improve the target company's operations and financials with the goal of extracting a financial return from the company and reselling it another firm or the public at a profit

- **M&A:** Mergers & Acquisition: Mergers are when two companies comes together to make a new entity (Dow Chemical & Dupont) = DowDuPont, while an acquisition is where the smaller company is consumed by the larger company (Amazon + Wholefoods) = Amazon

Important Calculations

1. NPV (Net Present Value)

$$= (CF) \times \frac{1}{(1+i)^n}$$

Where n = # of periods

2. Pay Back Period

$$= \frac{(Fixed\ Costs)}{Contribution\ Margin\ (CM)}$$

Important Considerations:

- **Current Portfolio**
- **Exit Strategy & Time Horizon**
- **Acquisition Price**
- **Employee & Customer Relationships**
- **Market Trends**
- **Tax & Regulatory Implications**
- **Client Risk Profile**

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Information Technology

Key Industry Trends

- **Artificial Intelligence (AI)/ Machine Learning:** Artificial intelligence is the ability for a computer program to think and learn. The emergence of AI has enabled the rise of self-driving cars, smart homes, advanced search algorithms, and smart digital assistants
- **Cloud Computing:** Is the practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer. More companies are moving to this platform for security, convenience, and cost savings
- **Internet of Things (IOT):** Smart devices that are all connected and communicate with each other via the internet are rising in demand due to value of strategic data that they provide
- **Blockchain:** a digital ledger in which transactions made and recorded chronologically and publicly. – Important for security and transfer verification purposes. Ex. include Bitcoin, and other cryptocurrencies
- **GDPR:** General Data Protection Regulation: Data protection regulation protecting privacy for all individuals in the European Union.

Important Terminology

- **IP (Intellectual Property):** A category of property that includes intangible creations protected by trademarks and copyrights (e.g. software, code, algorithms, etc.)
- **Unicorn:** a start-up company valued at more than a billion dollars, typically in the software or technology sector
- **Freemium:** A pricing model used by many digital services, a "freemium" model is one where the majority of users are able to engage with a product or service entirely for free (perhaps in exchange for data collection or being served advertisements)
- **SaaS:** "Software as a service" - a software distribution model in which a third-party provider hosts applications and makes them available to customers over the Internet –Like Salesforce or Workday

Important Calculations

1. Addressable Market size:

Top-Down: Total Population >>> Number of users >>> Market share >>> # of Units per User x Price per Unit

Bottom-Up: Current Customer Population >>> Potential Customer Base (Estimated using consensus data or industry info) >>> Future user base x units per user x price

2. Customer Acquisition Cost:

$$\frac{\text{Marketing Expenses}}{\text{Newly Acquired Customers (Yearly)}}$$

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Media & Entertainment

Key Industry Trends

- **Cord Cutting / Over the Top Streaming:** The rise of Hulu, Netflix, YouTube, & Amazon Prime video has left many to abandon traditional cable and opt for online streaming services to get the content they want
- **Content is King:** Media giants have been spending heavily to curate high quality content to hook subscribers to their service and maintain and grow their subscriber base
- **Ad-model Shift:** Cable advertisement has been trending downward while digital online advertisements have been trending up. As online viewers opt for ad-blockers, AI and big data are helping marketing agencies personalize advertisements and increase user engagement
- **Augmented Realty (AR)/ Virtual Reality (VR):** While still in their early stages, AR and VR capabilities have been gaining traction in the industry as a way to enhance storytelling and improve sporting coverage
- **Music Streaming:** The rise of Spotify, Apple Music, & YouTube Music has almost eliminated the physical disc music market as most artist now prioritize online platforms to release albums and new songs
- **Gaming & E-Sports:** The video gaming industry has been one of the fastest growing segments in entertainment led by mobile gaming and game streaming experiences via Twitch and E-sports. Many video game creators are focused on a "games as a service model" as they monetize video games overtime by selling in-game customizable perks

Important Terminology

- **Digital vs. Linear:** Linear is traditional broadcast or cable television. Digital is online (streaming, etc.)
- **Ratings:** A measure of viewers of a particular program or time segment in television. Nielsen is the largest provider of ratings data in the US, but has been slow to provide digital ratings
- **Box-Office:** The total revenue generated by movies shown at theaters

Important Calculations

1. Profitability

(Revenues – Costs)

(Price x Quantity) – (Quantity x Var. Cost) – (Fixed Costs)

Important Considerations:

- Revenue Factors
  - Advertising Rev.
  - Ticket sales (Price x Quantity)
  - Merchandising
  - Tours / licensing / Endorsements
- Cost Factors
  - Artist fees
  - Commission
  - Promotion advertising
  - Venues
  - Content creation costs

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Healthcare & Life Sciences

Key Industry Trends

- **Wearable Medical Devices:** Activity trackers help patients stay more active and healthier on their own while also monitoring health metrics reducing the need to visit doctors frequently
- **Smart Technology & Data:** Data on a patient's background and conditions allow more personalization options, targeted treatments, and faster recommendations at hospitals
- **Gene Therapy:** The transplantation of normal genes into cells in place of missing or defective ones in order to correct genetic disorders. –Growing trend using CRISPR to treat previously uncurable diseases
- **Price Transparency:** As drug companies receive criticism on the rising cost of their drugs, more states are considering independent efforts to improve transparency in drug pricing and cost controls
- **Government:** With the repeal of the Affordable Care Act (ACA), legislation has stagnated on fixing the rising cost of healthcare and Medicaid in the US, thus leaving a continued rise in insurance premiums
- **Bundled payment, episode-of-care payment, etc.:** Generally describes paying for the whole treatment at once, rather than by individual tests or visits – an attempt to incentivize improved outcomes

Important Terminology

- **Orphan Drug:** A pharmaceutical drug that remains commercially undeveloped due limited potential for profitability as a result of a small curable population size
- **FDA:** "Food & Drug Administration" Federal organization tasked with protecting and promoting the safety of food and pharmaceuticals in the US. FDA approval is needed for almost all drugs sold in the US
- **Generic Drugs:** A prescription drug that has the same active-ingredient formula as a brand-name drug but sold at a cheaper cost. –Typically occurs when name branded drugs lose patents
- **Biotech vs. Pharmaceutical:** Biotech firms use live organisms like bacteria and enzymes to manufacture their medicines while pharmaceutical companies primarily use chemicals synthesis
- **Auto-immune Diseases:** A disease in which the body's immune system attacks healthy cells

Important Calculations

1. Market sizing:

Top-Down: Total Population >>> Number with Illness >>> Number Diagnosed >>> Market share of Drug >>>> (Dosage per Time Frame) x Price per Dosage = Market Size per Time Frame

Important Considerations:

- Regulations
  - FDA Approvals
  - Patent Rights
  - Foreign Government Laws
- Competition / Cannibalization
- Drug Effectiveness
  - Cure vs. Treatment
  - Time to Market
  - Side Effects
- Manufacturing Capabilities
- Pricing, Costs (Fixed / Var.), Dosage

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Telecommunications

Key Industry Trends

- **5G Network Service:** Next generation of mobile internet connectivity with faster speeds, more reliable connections, and 100x more bandwidth capacity than 4G.
    - Network operates mainly on the cloud
    - Allows for "network slicing:" Creates separate wireless networks on the cloud for users to have their own personalized network
    - Roll-out may be 2020 in North America due to high infrastructure costs associated with development
- **Network Consolidation:** The third and fourth largest cell phone carriers T-Mobile and Sprint are in the process of merging, a move that will consolidate the telecom market to 3 major players
- **Content Integration:** High profile acquisition like AT&T of Time Warner and Verizon of Yahoo illustrate a push to either get into the content creation game or to build out their advertising network

Important Terminology

- **Carrier:** A company that is authorized by regulatory agencies to operate a telecommunications service system: AT&T, Verizon, T-Mobile
- **OEM:** Original Equipment Manufacturer – A company whose goods are used as components in the product of another company that sells the finished goods to users
- **LAN:** Local Area Network: Locally owned and administered data network that runs primarily through cables –ex. Ethernet connection
- **Fiber Optic:** Transmission connectivity via glass strands which are 100x more faster than traditional copper wires for more efficient cell phone and internet connections

Important Calculations

1. Return on Investment (ROI):

$$\frac{\text{(Future Profits – Cost of Investment)}}{\text{(Cost of Investment)}}$$

2. Customer Acquisition Cost:

$$\frac{\text{Marketing Expenses}}{\text{Newly Acquired Customers (Yearly)}}$$

Important Considerations:

- Regional Competition
- Competitors
    - New Entrants
    - Barriers to Entry
    - Substitutability
- Contract lengths & stipulations
- Infrastructure

*Please note that not all trends, terminologies, and calculations are listed above

Darden Case Book

2020-2021 Edition

CASE BOOK INDEX

Case Name	Firm Style	Round	Industry	Page
Alpha Aviation	McKinsey	2	Aviation	34
Back It On Up	EYP	2	Tech	51
The Big Shot	Bain	1	Entertainment	63
Contagion Containment	BCG	2	Non-Profit	78
Food Frenzy	IDEO	2	Retail	90
A Hairy Ordeal	Bain	1	Retail	102
Lizard Insurance	Bain	1	Insurance	116
Met With Problems	BCG	1	Non-Profit	130
A Messi Decision	BCG	1	Sports	140
New Rubber Plant Investment	AT Kearney	2	Industrial	151
PubU	McKinsey	1	Energy	161
Whale Hotel	McKinsey	2	Real Estate	171

Alpha Aviation

McKinsey | Round 2 | Aviation

ALPHA AVIATION

McKinsey | Round 2 | Aviation

Prompt:
Your client is a large US-based commercial airline that has lost profitability and market share. The company is under pressure to regain its foothold in the industry and grow its balance sheet. Can you brainstorm some areas you would like to investigate on behalf of the airline?

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. What is the timeline for the project? ASAP – financial investments for the airline typically warrant a payback period of 3 years.

2. How is the rest of the airline industry performing? Our client's profitability is declining slightly faster than the industry – but is in line with other airlines within its class of service.

3. Any specific goals? Take operating margin positive.

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Revenue Opportunities

- Ticket Fares
- Upselling Opportunities
- Cargo Fees
- Airline partnerships
- Credit Card sponsors

Cost Management

- Upfront Investment
  - Airport Investment
  - Equipment
  - Initial Training
  - Marketing & Advertising
- Variable Costs
  - Fuel Costs
  - SG&A
  - Maintenance

Other Considerations

- Creation of a new domestic hub
- Seasonal Risk
- Competitive Response
- Fuel Efficiency + Prices

How to Move Forward:

The interviewer should identify key revenue and cost considerations for route planning and highlight other potential strategic considerations.

To move forward, the interviewee should call out the existing financial forecasts or market research provided.

Question 1

The airline has evaluated your options and decided to re-examine and add additional routes. The flight dispatch office has presented three routes and would like your guidance on which to choose.

Exhibit or Question Guidance:

Show candidate Exhibits 1 and 2 and ask for key strategic takeaways or pros/cons. Interviewer guidance below.
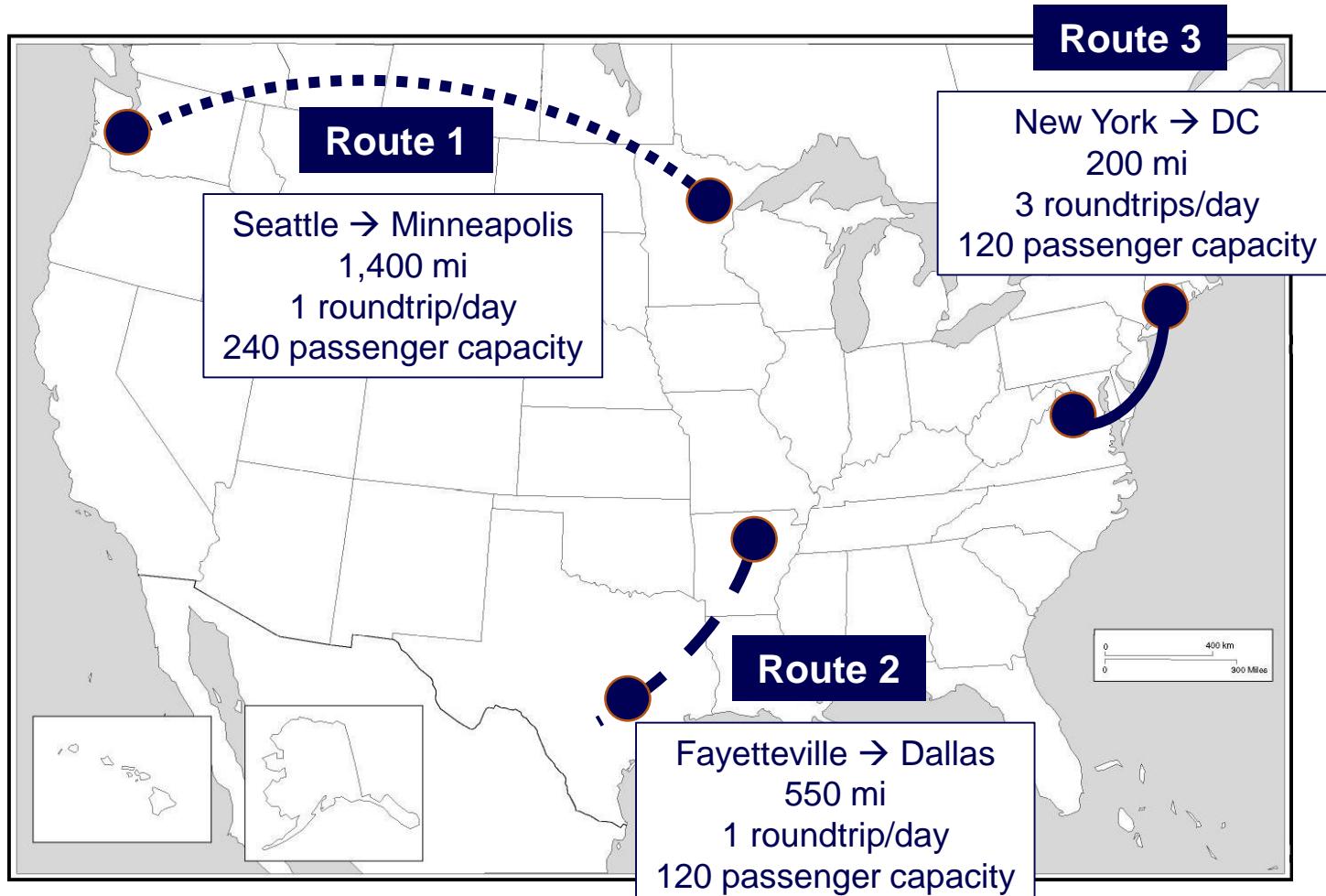
	Route 1 SEA - MINN	Route 2 FAY - DALL	Route 3 NYC - DC
PRO			
Potential for Growth		PRO	
Risk of Disruption	PRO		
Competition for Route		PRO	
Time to Establish Operations	PRO	PRO	
CON			
Potential for Growth	CON		
Risk of Disruption		CON	
Competition for Route	CON		CON
Time to Establish Operations			CON

Key: there is no automatic choice – each route has major tradeoffs. You can urge the interviewer to pick a route and rationalize their choice, OR ask about any additional data they would want/need to make the best decision. At that point, provide Exhibits 3 and 4.

EXHIBIT 1

Route Map

Route 1

Seattle → Minneapolis
1,400 mi
1 roundtrip/day
240 passenger capacity

Route 2

Fayetteville → Dallas
550 mi
1 roundtrip/day
120 passenger capacity

Route 3

New York → DC
200 mi
3 roundtrips/day
120 passenger capacity

EXHIBIT 2

Route Research

	Route 1 Seattle ←→ Minneapolis	Route 2 Fayetteville ←→ Dallas	Route 3 NYC ←→ DC
Potential for Growth*	Low	High	Medium
Risk of Flight Disruption**	Low	High	Medium
Competition for Route***	High	Low	High
Time to Establish Operations	3 months	2 months	12 months

* Projected 5-year increase in passenger volume
** Historical data on flight cancellations due to weather and operations
*** Current competitors flying the same route

Question 2

Keeping in mind your strategic analysis, the airline has provided financial projections and for each route. What are your initial reactions to their data? And can you quantify each route's profitability?

Exhibit or Question Guidance:

Show candidate Exhibits 3 and 4 and guide them toward creating a financial forecast. Interviewer guidance below.

Exhibit 3 – If time allows, have the interviewer brainstorm potential upfront costs.

Exhibit 4 – Best practice is to combine revenue and cost to get CM/ASM for each route. Interviewee can either weight the CM based on the projected fill rate OR reference the passenger capacity in Exhibit 1 to get average passengers per route.

Note: ASM stands for Available Seat Miles; standard aviation practice to denote financial metrics.

Forecast calculations on next page.

CALCULATIONS FOR INTERVIEWER

What is the CM potential of each route?

		Route 1	Route 2	Route 3
		SEA - MINN	FAY - DALL	NYC - DC
	# of Seats per Plane	240	120	120
x	Average % Filled	90%	60%	80%
	Average # of Passengers	216	72	96
x	Average Flight Distance (mi)	1,400	550	200
A	Available Seat Miles (ASM)	302,400	39,600	19,200
	Revenue/ASM	$ 0.12	$ 0.22	$ 0.18
-	Cost/ASM	$ 0.11	$ 0.09	$ 0.12
B	CM/ASM	$ 0.01	$ 0.13	$ 0.06
	ASM	302,400	39,600	19,200
x	CM/ASM	$ 0.01	$ 0.13	$ 0.06
A x B	CM/flight	$ 3,024	$ 5,148	$ 1,152
x	Flights per day	2	2	6
x	Flying days per year	300	300	300
C	Annual CM/route	$ 1,814,400	$ 3,088,800	$ 2,073,600

What is the payback period?

		Route 1	Route 2	Route 3
		SEA - MINN	FAY - DALL	NYC - DC
	Terminal Construction	$ 100,000	$ 2,500,000	$ 5,000,000
+	Equipment Purchase	$ 1,000,000	$ 3,000,000	$ 1,000,000
+	Additional Staff Required	10.00	100.00	50.00
*	Training per Staff Member	$ 100,000	$ 1,000,000	$ 500,000
D	Total Upfront Cost	$ 1,200,000	$ 6,500,000	$ 6,500,000
	Total Upfront Cost	$ 1,200,000	$ 6,500,000	$ 6,500,000
/	Annual CM/route	$ 1,814,400	$ 3,088,800	$ 2,073,600
D / C	Payback (Years)	0.7	2.1	3.1
	Payback (Months)	8	25	38

Key: weigh the shorter payback period with the riskiness of the investment (passenger availability, competition, start-up time, operational considerations)

EXHIBIT 3

Upfront Costs
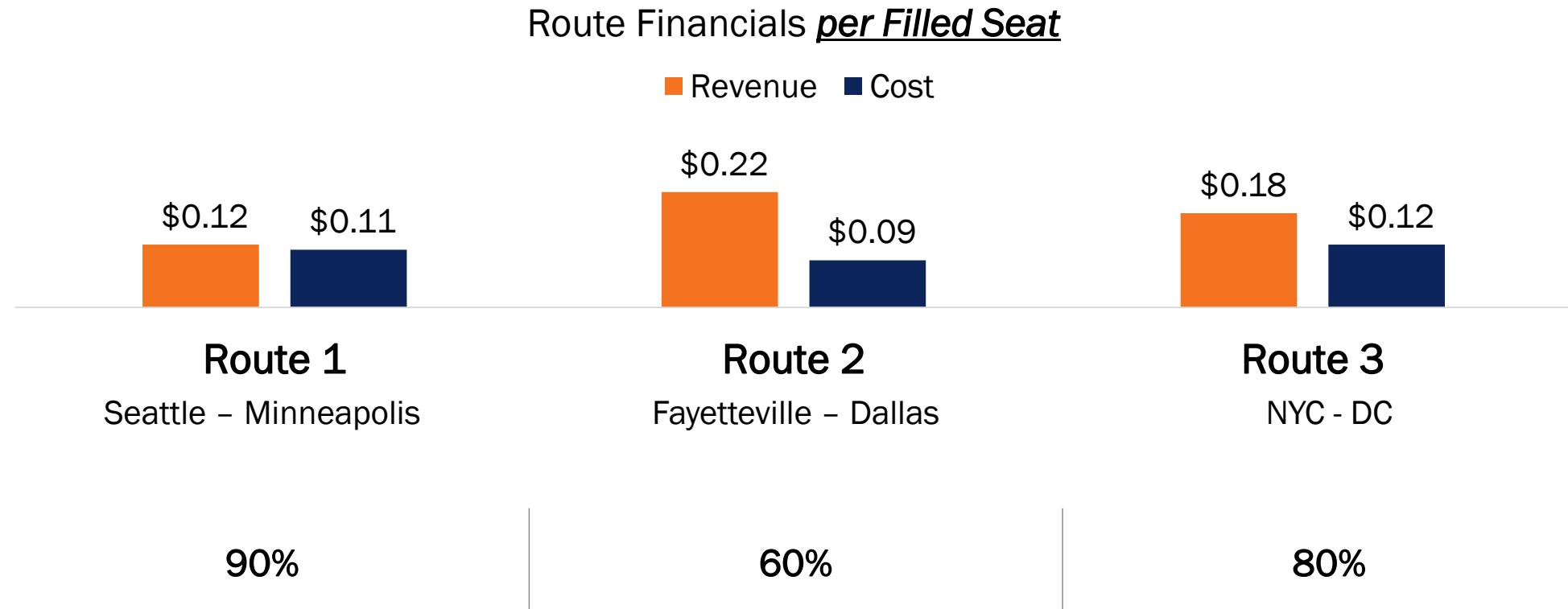
	Route 1 Seattle ←→ Minneapolis	Route 2 Fayetteville ←→ Dallas	Route 3 NYC ←→ DC
Terminal Construction	100k	2.5M	5M
Equipment Purchase	1M	3M	1M
Additional Staff Required*	10	100	50

* 10k/person will be required for training

EXHIBIT 4

Route Financials (Per ASM)

Route Financials *per Filled Seat*

■ Revenue   ■ Cost

	Route 1	Route 2	Route 3
Revenue	$0.12	$0.22	$0.18
Cost	$0.11	$0.09	$0.12
	Seattle – Minneapolis	Fayetteville – Dallas	NYC - DC
Route's Average % Seat Fill Rate	90%	60%	80%

BRAINSTORMING

Your client has identified that attracting business travelers will be key to long-term growth and profitability. Please brainstorm some ideas on how your client can increase business travelers in the next 3 years.

Brainstorming Guidance:

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

In-flight amenities

- Upgraded WiFi
- Extra legroom and business class cabins (lower price sensitivity)
- Priority boarding for business travelers

External partnerships

- Preferred status with Concur and other corporate booking sites
- Alliance networks with smaller, regional airlines (continuous service)

Flight structure

- Early morning and late afternoon time slots to accommodate business schedule
- No penalty rebook or cancellation

Misc.

- Revenue-based loyalty program
- Perks for Elite Status

Best candidates display:

Ability to integrate disparate data on route mapping with brainstorming ideas – i.e. how can the client best design the selected route to appeal to business travelers in that destination. If time allows, the interviewer should ask the candidate why an airline would grow its base of business travelers.

CONCLUSION

To conclude, the interviewee should provide the following:

Recommendation:

- No clear "right answer" – the case is meant to test a candidate's ability to deal with ambiguity. A good answer will consider both the quantitative and qualitative advantages of the three routes, and how each aligns with the client's long-term goals. The information in the case is purposely spread out and difficult to interpret, so candidates should maintain composure and organization when providing their final recommendation.

Risks:

- Competitive activity at destination airport – possibility of a price war

- Pending local legislation at destination city – could prevent or hinder monopolistic activity or make airline travel prohibitively expensive for carriers and passengers

- Decrease in passenger interest in destination cities

Next Steps:

- Regulatory and operational planning schedule to implement route.

INTERVIEWER FEEDBACK FORM

Case Name _____ Interviewer _____

Case Book _____ Case Type _____ Difficulty _____

Case Execution:

❑ Clarifying Questions + Framework
    ❑ Good Questions
    ❑ Structured   1   2   3   4   5
    ❑ MECE
    ❑ Creativity

Feedback:

❑ Exhibits + Quantitative Ability
    ❑ Accuracy
    ❑ Speed   1   2   3   4   5
    ❑ Insights Presented
    ❑ Errors / Guidance Needed

Feedback:

❑ Brainstorm + Conclusion
    ❑ Creative & Structured   1   2   3   4   5
    ❑ Good Business Judgment
    ❑ Recommendation Strength

Feedback:

❑ Presence & Non-Verbal
    ❑ Confidence
    ❑ Poise / Posture   1   2   3   4   5
    ❑ Clear & Concise
    ❑ Body Language
    ❑ Coachability
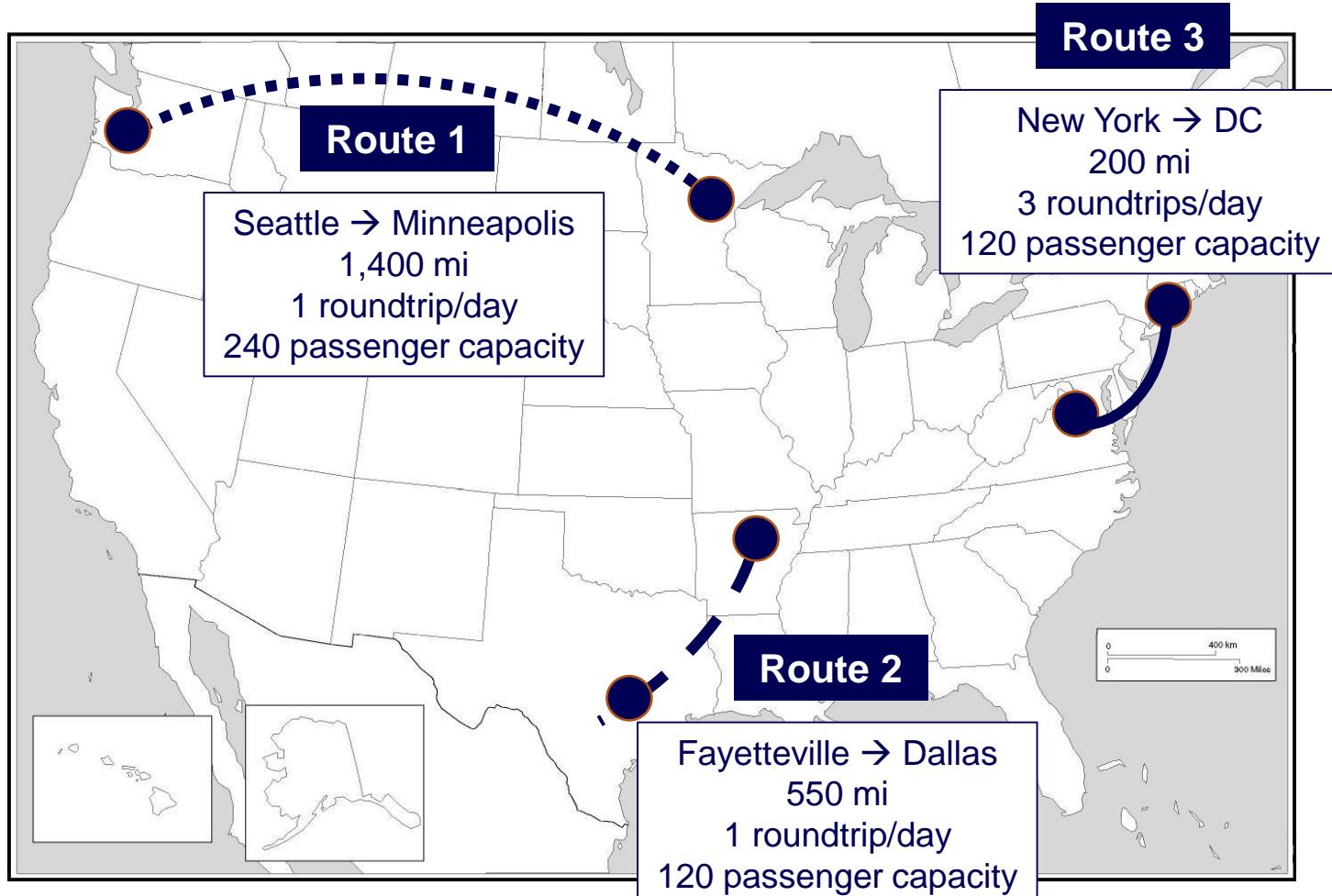
Feedback:

Total: _____ / 20

EXHIBIT 1

Route Map

Route 1
Seattle → Minneapolis
1,400 mi
1 roundtrip/day
240 passenger capacity

Route 2
Fayetteville → Dallas
550 mi
1 roundtrip/day
120 passenger capacity

Route 3
New York → DC
200 mi
3 roundtrips/day
120 passenger capacity

EXHIBIT 2

Route Research

	Route 1 Seattle ←→ Minneapolis	Route 2 Fayetteville ←→ Dallas	Route 3 NYC ←→ DC
Potential for Growth*	Low	High	Medium
Risk of Flight Disruption**	Low	High	Medium
Competition for Route***	High	Low	High
Time to Establish Operations	3 months	2 months	12 months

* Projected 5-year increase in passenger volume
** Historical data on flight cancellations due to weather and operations
*** Current competitors flying the same route

EXHIBIT 3

Upfront Costs
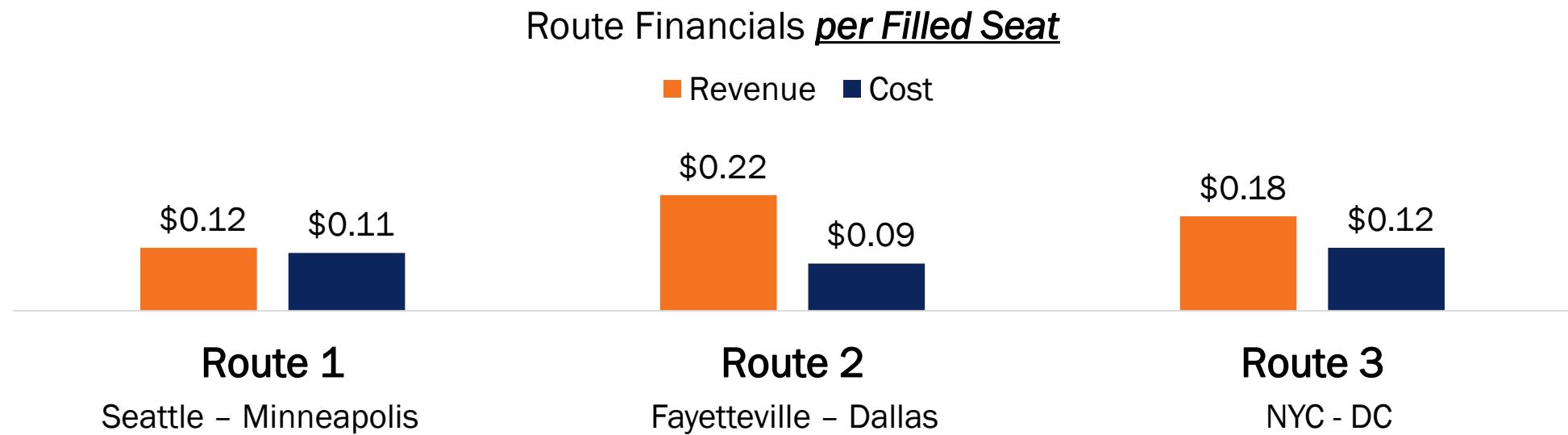
	Route 1 Seattle ←→ Minneapolis	Route 2 Fayetteville ←→ Dallas	Route 3 NYC ←→ DC
Terminal Construction	100k	2.5M	5M
Equipment Purchase	1M	3M	1M
Additional Staff Required*	10	100	50

* 10k/person will be required for training

EXHIBIT 4

Route Financials (Per ASM)

Route Financials *per Filled Seat*

■ Revenue ■ Cost

	Route 1	Route 2	Route 3
	Seattle – Minneapolis	Fayetteville – Dallas	NYC - DC
Revenue	$0.12	$0.22	$0.18
Cost	$0.11	$0.09	$0.12
Route's Average % Seat Fill Rate	90%	60%	80%

Back IT On Up

EYP | Round 2 | Tech

BACK IT ON UP

EY Parthenon | Round 1 | Technology

Prompt: BackupCo is a data backup and disaster recovery company. It's primary headquarters is in Boston, its client services department is in South Carolina, and its development is split between Texas and Ukraine. To expand its product offerings, reach, and revenue, it is considering purchasing CloudCo, a cloud backup provider headquartered in Southern California. Our firm has been hired to evaluate this potential acquisition. How would you begin considering this deal?

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. What does BackupCo Produce? / What is data backup and disaster recovery?

BackupCo produces physical backup appliances that site on site at client locations, as well as software that clients can deploy on their own devices. These products help protect data by duplicating emails, databases, sales data etc. to alternate locations. It only sells B2B.

2. Does it sell its products worldwide?

BackupCo does 100 Million dollars worth of business in North America and the remainder of its business in EMEA and APAC.

BEHAVIORAL INTERVIEW QUESTION:

1. Describe a time you've disagreed with a manager or colleague. How did you navigate the situation?

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Valuation	**Synergies**	**Risk (a few of these is fine)**

Valuation
- DCF
- Comparables
- EBITDA Multiple

Synergies
- Revenue
  - Cross-Sell
  - Up-Sell
- Cost
  - Headcount
    - Reduction/relocation
  - Non-Headcount
    - Scale
    - CAPEX reduction
    - R&D consolidation
    - Shared costs (IT, vendors, licenses)
- Dis-synergies
  - Lost customers
  - Process breakdown

Risk (a few of these is fine)
- Regulatory Risks
- Key talent retention
- Loss of key customers
- Overly optimistic synergy estimates
- Culture
- Brand deterioration
- Overestimate cost savings
- Cost/Vendor relationship risks
- Extended timeline

How to Move Forward:

To move forward, the interviewee should note that we should look try to get a valuation and compare that to the expected benefit. They should ask for info on potential valuation methods – guide them to a DCF

Question 1 (The location of these question slides in your case is completely up to you)

- How would you value CloudCo?

Exhibit or Question Guidance:

- The candidate should recognize that there are several ways to perform a valuation – DCF, Comparables, Multiples – guide them to a DCF.

- Candidate should ask if there is a hurdle rate. When this is brought up, provide:
  - Hurdle rate is 13%, expected growth rate will be 3%

- The candidate should then note they need cash flows – provide them with exhibit 1 and give them the following information
  - In 2019, CloudCo sold 3 tiers of subscriptions based on data size of the customer. Assume these are all inclusive profit numbers.
    - Tier 1 – 10$ per Gigabyte per month, Tier 2 – 8$ per Gigabyte per month, Tier 3 –5$ per Gigabyte per month

- Candidate should do the math as follows:

	Tier 1	Tier 2	Tier 3
Terabytes Sold	10	25	40
Gigabytes Sold	10,000	25,000	40,000
Price Per gigabyte	10	8	5
Monthly Profit	100,000	200,000	200,000
Sum per month	500,000		
Yearly Profit	6,000,000		
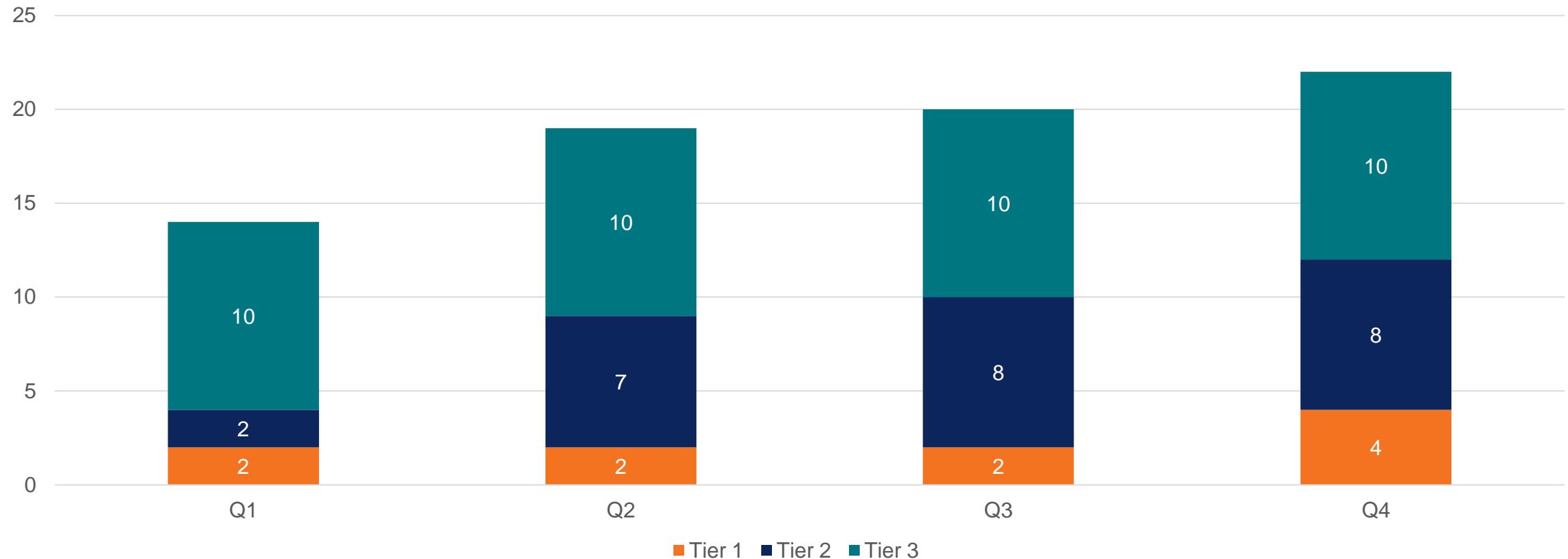
Should then use the 6M in the discount in perpetuity formula (CF/WACC-G) = 6M/13%-3% = 60M

EXHIBIT 1

2019 Revenue in Terabytes of Data Protected

Note: 1TB = 1000GB

Question 2 (The location of these question slides in your case is completely up to you)

- Assuming we expect a standalone valuation 60M, how much do you think BackupCo should be willing to pay for CloudCo?

Exhibit or Question Guidance:

The candidate should realize that the standalone value is typically going to be lower than a combined value if synergies are able to be captured. If the candidate does not realize this, push the candidate to think about this. When they have moved in this direction, provide exhibit 2.

Revenue Synergies	Revenue/Gig in 2019	Gigs			
Increase in Revenue from Tier 1		1	10000	10000*1	=10000
Increase in Revenue from Tier 2		1	25000	25000*1	=25000
Increase in Revenue from Tier 3		1	40000	40000*1	=40000
Total revenue increase per month					75,000
Revenue increase per year				75000*12	900,000
Cost Synergies	**% of Revenue Synergies**				
SG&A			10%	=.1*900k	90,000
Headcount			15%	=.15*900k	135,000
R&D			5%	=.05*900k	45,000
					270,000
Total Yearly Profit Increase	=1,170,000				
DCF to Find Combined Value	=7,170,000/.1 = 71,700,000				

BackupCo should be willing to pay UP TO **71.7M**

EXHIBIT 2

Post Acquisition Costs and Revenue Projections

Revenue Synergies	Revenue Increase Per Gigabyte Sold in 2019
Tier 1 Expansion	1
Tier 2 Expansion	1
Tier 3 Expansion	1
Cost Synergies	**% of Revenue Synergies**
SG&A	10%
Headcount	15%
R&D	5%
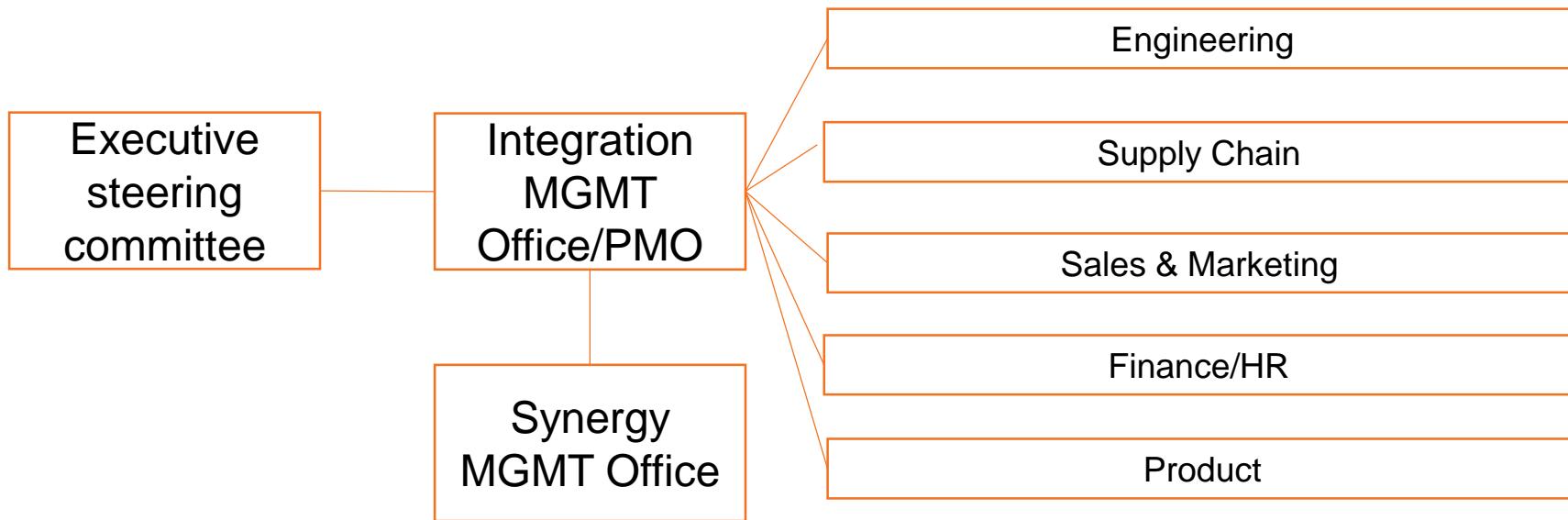
Question 3 (optional)

- We've been asked to develop a proposed M&A structure for BackupCo's acquisition. How might you design this?

Exhibit or Question Guidance:

The candidate should draw the below. Instead of putting functions under IMO/PMO, territory is acceptable, but is not preferred given the type of company

```
                                              ┌─────────────────────────┐
                                              │       Engineering       │
                                              └─────────────────────────┘
                                              ┌─────────────────────────┐
┌──────────────┐   ┌──────────────┐           │      Supply Chain       │
│  Executive   │   │ Integration  │           └─────────────────────────┘
│   steering   │───│    MGMT      │           ┌─────────────────────────┐
│  committee   │   │ Office/PMO   │           │    Sales & Marketing    │
└──────────────┘   └──────────────┘           └─────────────────────────┘
                          │                   ┌─────────────────────────┐
                   ┌──────────────┐           │       Finance/HR        │
                   │   Synergy    │           └─────────────────────────┘
                   │ MGMT Office  │           ┌─────────────────────────┐
                   └──────────────┘           │        Product          │
                                              └─────────────────────────┘
```

CONCLUSION

To conclude, the interviewee should provide the following:

Recommendation:

- BackupCo should look to try and purchase CloudCo for less than 71M

- Strong synergies and potential for upsell make it very attractive

Risks:

- Want to ensure that we can capture the full value of the synergies we projected, so we will want to make sure we validate this information against previous transactions

- Want to devise a strategy to ensure we retain key customers

- Want to make sure we put in place a retention program to prevent loss of key talent

Next Steps:

- Approach CloudCo to validate interest and gain further information for synergy refinement

INTERVIEWER FEEDBACK FORM

Case Name _____ Interviewer _____

Case Book _____ Case Type _____ Difficulty _____

Case Execution:

- ❑ Clarifying Questions + Framework
    - ❑ Good Questions
    - ❑ Structured   1   2   3   4   5
    - ❑ MECE
    - ❑ Creativity

Feedback:

- ❑ Exhibits + Quantitative Ability
    - ❑ Accuracy
    - ❑ Speed   1   2   3   4   5
    - ❑ Insights Presented
    - ❑ Errors / Guidance Needed

Feedback:

- ❑ Brainstorm + Conclusion
    - ❑ Creative & Structured   1   2   3   4   5
    - ❑ Good Business Judgment
    - ❑ Recommendation Strength

Feedback:

- ❑ Presence & Non-Verbal
    - ❑ Confidence
    - ❑ Poise / Posture
    - ❑ Clear & Concise   1   2   3   4   5
    - ❑ Body Language
    - ❑ Coachability
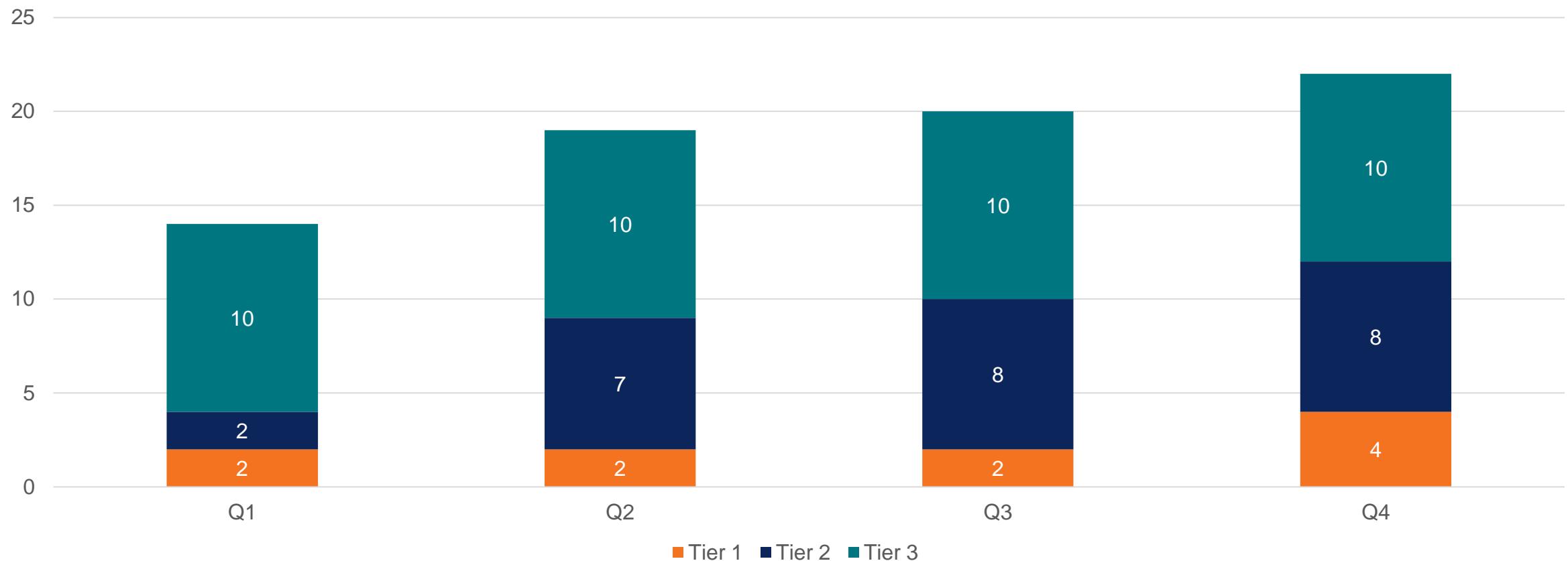
Feedback:

Total: _____ / 20

EXHIBIT 1

2019 Revenue in Terabytes of Data Protected

Note: 1TB = 1000GB

EXHIBIT 2

Post Acquisition Costs and Revenue Projections

Revenue Synergies	Revenue Increase Per Gigabyte Sold in 2019
Tier 1 Expansion	1
Tier 2 Expansion	1
Tier 3 Expansion	1
Cost Synergies	**% of Revenue Synergies**
SG&A	10%
Headcount	15%
R&D	5%

The Big Shot

Bain | Round 1 | Media/Entertainment

THE BIG SHOT

Bain | Round 1 | Media/Entertainment

Prompt:
Our client, Lights Camera Action Entertainment (LCA), is a major movie production house. After a disappointing summer filled with numerous box office flops, the CEO of LCA has approached us to decide which movie the company should release next.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. **What is LCA's business model?** LCA is a production house in the US but release movies across major global markets. They have a distribution network of domestic and international theatres and get a share of the ticket sales.

2. **What movies do they produce?** They've been in the business for the past decade and have a good mix of movies across different genres.

3. **What happened over summer?** The COVID-19 pandemic has wreaked havoc on the movie industry.

4. **What is the financial situation of the company?** Even though the company did not have a major hit over summer, the company has ample cash reserves from investors. The board has indicated, however, that they expect a hit soon, or else the CEO will be looking for a new job.

5. **Do they have any financial target?** The board is concerned about ROI after the recent flops and has classified a hit as a movie that has an ROI > 50%.

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Financial

Revenues
- Number of theaters at release
- Price of tickets
- Fill rate at theater
- Merchandise licensing
- Sequel potential

Costs
- Actors
- Sets
- Special effects
- Advertising
- Editing
- Sound
- Production Design

Non-Financial

Internal
- Sequel of prior hit
- Saturation of series
- Expertise in a genre
- Exclusive deals with actors
- Adaption from popular novels/books

External
- Macroeconomic trends
- Actor popularity
- Genre reach
- Trending theme for the season/pop culture
- Clashes with other movie release dates
- Competition from Netflix and other streaming media

How to Move Forward:

The candidate should recognize that this is a profitability case. Good candidates will also realize that there are other factors that determine the success of movies.

A good understanding of the breakdown of tickets sales at a theatre level is key to moving forward – the interviewer should push candidates to get granular while calculating revenue (theaters * seats * fill rate * ticket sales).

Once you get to this point, hand the student Exhibit 1 and 2.

EXHIBIT 1

LCA movie options
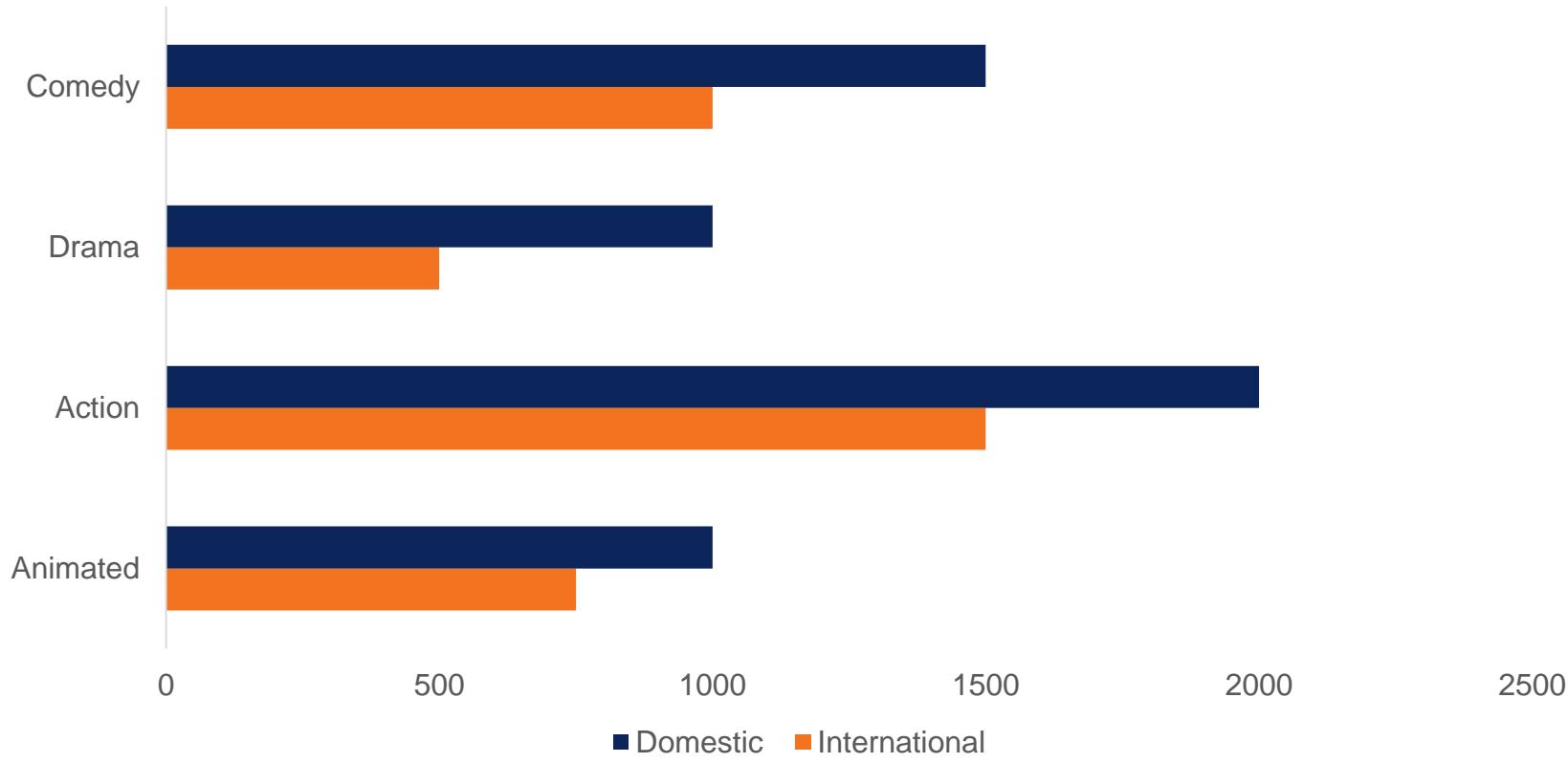
Movie Name	Genre	Total Production Costs (Millions $)	Forecasted Theatre Attendance (%)
Project Huntington	Comedy	50	80
Life at Ivy	Drama	100	60
Case Wars	Action	75	75
Paws at Pav	Animation	90	80

EXHIBIT 2
Global Movie Industry Statistics

Anticipated Theater Demand By Genre*

*Average theater run of 30 days

■ Domestic ■ International

Question 1

- Which of the genres is the most profitable option for the production house?

Exhibit or Question Guidance:

Hand the student Exhibits 1 and 2. The candidate should realize that they cannot do a profitability analysis without number of seats in a theatre and price of a ticket. **Provide Exhibit 3,** when the candidate asks for the above information.

Provide only when asked – Assume 30 days of revenue.

LCA revenue from each theatre type:

Theatre type	LCA revenues/ticket	No. of shows/day	No. of seats/show	Monthly earnings
International	$1	5	400	$1 * 5 * 400 * 30 = $60,000
Domestic	$1.5	10	200	$1.5 * 10 * 200 * 30 = $90,000

EXHIBIT 3

Global Theatres Statistics

Theatre type	LCA revenues/ticket	No. of shows/day	No. of seats/show
International	$1	5	400
Domestic	$1.5	10	200

Exhibit/Question Solution Guidance:

Total Monthly earnings

Genres	International	Domestic	Total
Comedy	80%*1,000*60,000 = 48,000,000	80%*1,500*90,000 = 108,000,000	48M + 108M = 156M
Drama	60%*500*60,000 = 18,000,000	60%*1000*90,000 = 54,000,000	18M + 54M = 72M
Action	75%*1,500*60,000 = 67,500,000	75%*2,000*90,000 = 135,000,000	67.5M + 135M = 202.5M
Animation	80%*750*60,000 = 36,000,000	80%*1,000*90,000 = 72,000,000	36M + 72M = 108M

Exhibit or Question Guidance:

Profit for one month:

Genre	Revenue ($)	Costs ($)	Profit ($)
Comedy	156,000,000	50,000,000	106,000,000
Drama	72,000,000	100,000,000	-28,000,000
Action	202,500,000	75,000,000	127,500,000
Animation	108,000,000	90,000,000	18,000,000

ROI for each genre:

Genre	ROI (Millions $)
Comedy	106/50 = 2.12
Drama	-28/100 = -0.28
Action	127.5/75 = 1.7
Animation	18/90 = 0.2

Exhibit Analysis:

Good candidates should not calculate the profitability for all the 4 movies. From the Exhibit 1, it is clear that "Life at Ivy" will be the least successful and can be disregarded.

From Exhibit 2, a **great** candidate should disregard "Paws at Pav" as it is screened at fewer theatres.

After calculations:

2 movies stand out – however, even though the comedy movie makes less profits, it has a greater ROI which is what LCA needs.

BRAINSTORMING

Other than the profitability analysis, what are the other strategic decisions that LCA should consider for the success of their next movie?

Brainstorming Guidance:

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

Release Timing:

- Strategic release dates to coincide with holidays/popular events, such as romcom during Valentine's weekend, Holiday films over Christmas

- Avoiding clashes with other popular movies or large sporting events during the release

Monetization:

- Merchandise sales from these movie category, e.g.: water tumblers, limited edition gadgets, t-shirts etc.

- Potential for movie sequels based on popularity

- Releasing the movie on other platforms such as Netflix, Hulu, and obtaining television streaming rights.

- Impact of initial reviews on the theatre fill rates for subsequent weeks.

Content/Marketing:

- Using the marketing budget to drive awareness and buzz for the movie using appropriate channels

- Casting the right actors, production and direction, sound crew

- Theme/story of the movie to align with ongoing social and pop culture, macro-economic trends

CONCLUSION

To conclude, the interviewee should provide the following:

Recommendation:

- Recommend "Project Huntington"

- Analysis to support the recommendation – walk through the math, and recognize the lower cost to produce and higher ROI

Risks:

Any concerns with the plan, example:

- The impact of the critics and popular reviews on the theatre fill rates for subsequent periods.

- Audience preferences might change, and theatres might change their genre preferences

Next Steps:

- Investing in releasing the movie from the category selected, choosing an appropriate release date and launching an ad campaign.

- Analyzing the scope of the future revenues from sequels or partners for sale of merchandise.

INTERVIEWER FEEDBACK FORM

Case Name _____ Interviewer _____

Case Book _____ Case Type _____ Difficulty _____

Case Execution:

❑ Clarifying Questions + Framework
   ❑ Good Questions
   ❑ Structured   1   2   3   4   5
   ❑ MECE
   ❑ Creativity

Feedback:

❑ Exhibits + Quantitative Ability
   ❑ Accuracy
   ❑ Speed   1   2   3   4   5
   ❑ Insights Presented
   ❑ Errors / Guidance Needed

Feedback:

❑ Brainstorm + Conclusion
   ❑ Creative & Structured   1   2   3   4   5
   ❑ Good Business Judgment
   ❑ Recommendation Strength

Feedback:

❑ Presence & Non-Verbal
   ❑ Confidence
   ❑ Poise / Posture   1   2   3   4   5
   ❑ Clear & Concise
   ❑ Body Language
   ❑ Coachability

Feedback:

Total: _____ / 20

EXHIBIT 1

LCA movie options
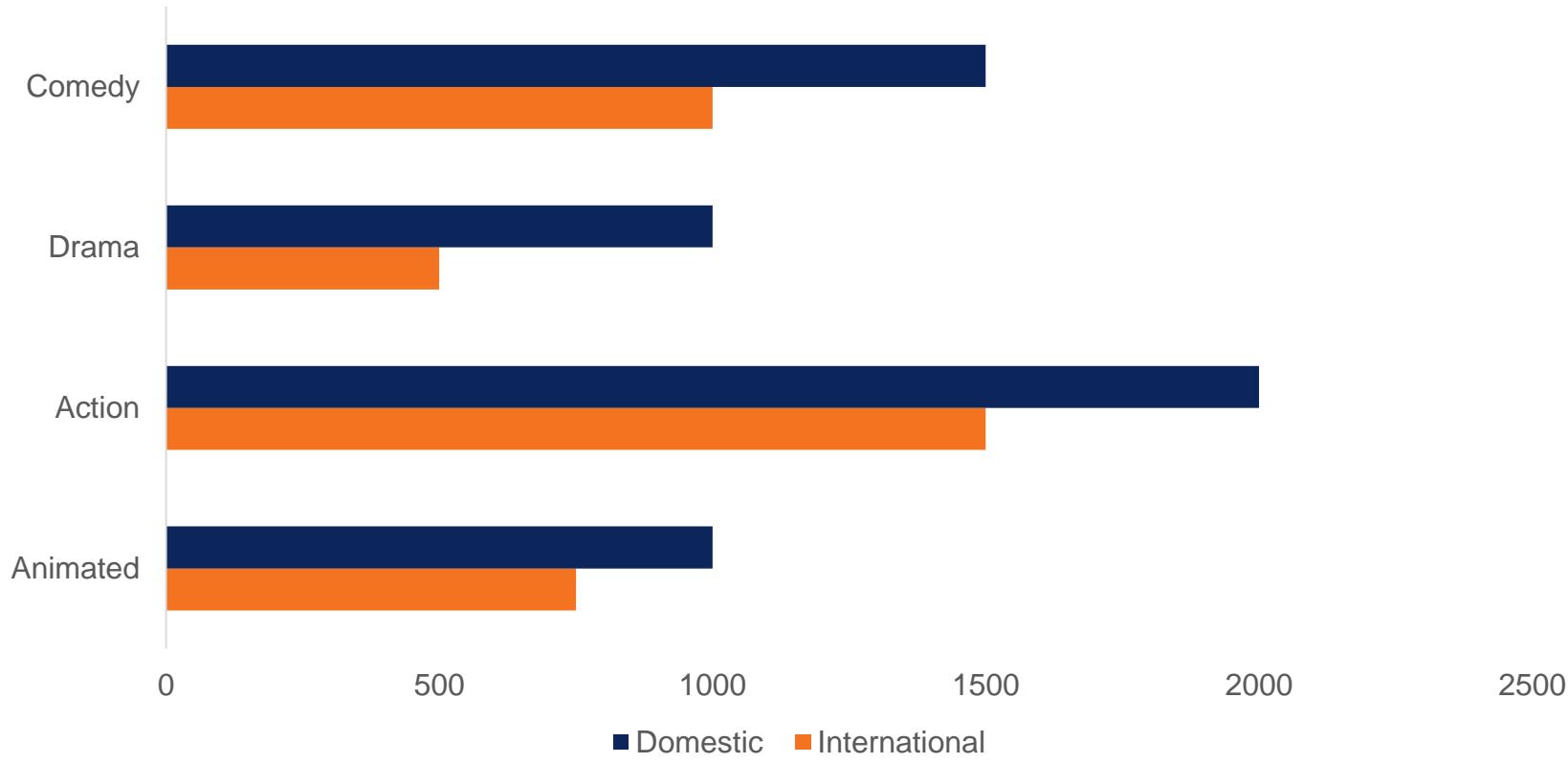
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EXHIBIT 3

Global Theatres Statistics

Theatre type	LCA revenues/ticket	No. of shows/day	No. of seats/show
International	$1	5	400
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Contagion Containment

BCG | Round 2 | Non-profit

CONTAGION CONTAINMENT

BCG | Round 2 | Non-profit

Prompt:

Your client is the International Olympic Committee (IOC), and the Summer Olympics are a couple months away. A viral outbreak has occurred in a country across the globe and has begun to spread. There is a real threat that the outbreak reaches pandemic levels and arrives in the host country within a few weeks or months. Should the outbreak reach the host country, there is an 80% probability of a low-severity outbreak and a 20% chance of a high-severity outbreak. The modern Olympics, which date to 1896, have been cancelled previously only during wartime. Recently, the Rio Games in Brazil went on as scheduled in 2016 despite the outbreak of the Zika virus.

Because countries bear a large cost to host the Olympics, the IOC has decided to be particularly cautious about the host country bearing significant unexpected costs. However, the IOC is unsure whether to cancel or move forward with the Olympics and would like your firm's insight on how they should proceed.

BEHAVIORAL INTERVIEW QUESTION:

1. Tell me about a failure.

2. How have you used data to bring clarity to an ambiguous problem?

Clarifying Information: *Provide only if asked.*

1. **Objective:** Make a decision on whether to proceed or not by considering minimizing unexpected economic costs to host country while maximizing IOC revenue.

2. **Timeline:** The IOC must make a decision today regarding the event.

3. **The IOC:** The International Olympic Committee (IOC) is a not-for-profit independent international organization that is committed to building a better world through sport. While the IOC may consider input from the host country, the IOC is the decision-maker.

4. **The Virus:** Like the seasonal flu, this virus is an infectious respiratory illness. It can spread from person to person through droplets in the air from an infected person coughing, sneezing or talking. However, unlike the flu, no vaccine currently available. Research is being conducted but the timeline is uncertain.

5. **Host Country:** The host country is a developed nation. GDP is 3 trillion.

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Factors for IOC	Financial	Non Financial
Proceed	• Sources of revenue: sponsorships, tv rights, ticket sales, licensing • Outstanding costs: promotion, unfinished construction • Risk of lack of athlete participation	• Potential lives lost • Relationship risk with current and future host countries • Public relations risk
Cancel	• Sunk costs (and that they are irrelevant) • Existing insurance policy to soften blow and recoverable cost	• Impact on athletes from no competition • (Un)happiness of attending Olympics • New precedent set

How to Move Forward:

Key insights include: the types of costs that a host country may bear with an epidemic; quantifying impact of decision and irrelevance of sunk cost; and, impact on human lives.

To move forward, the interviewee should call the potential financial repercussions of the decisions to cancel or proceed.

04 | CASE: CONTAGION CONTAINMENT

Question 1

- What are the sources of revenue for the IOC for each Olympics? What would they keep/lose if they elected to cancel the Olympics?

Exhibit or Question Guidance:

Have candidate provide ideas for sources of revenue before providing the exhibit. After their initial thoughts, provide the precise numbers for each category. A strong candidate will provide some ideas about what percent of each category might be secure regardless of cancel/proceed decision based on potential contract clauses.

- Sponsorships (2.1 billion) are through contractual agreements. 75% of contracts have already been signed and the IOC will keep half of the already secured funds if the event is cancelled.

- Ticket sales (1.8 billion) are non refundable. 85% of tickets have already been sold.

- Licensing (190 million) are for use of the logo. The IOC will retain the entire amount.

- TV rights (3.9 billion) are on a contract. A clause in the contracts permits that you keep 40% of the contract agreement.

Solution:
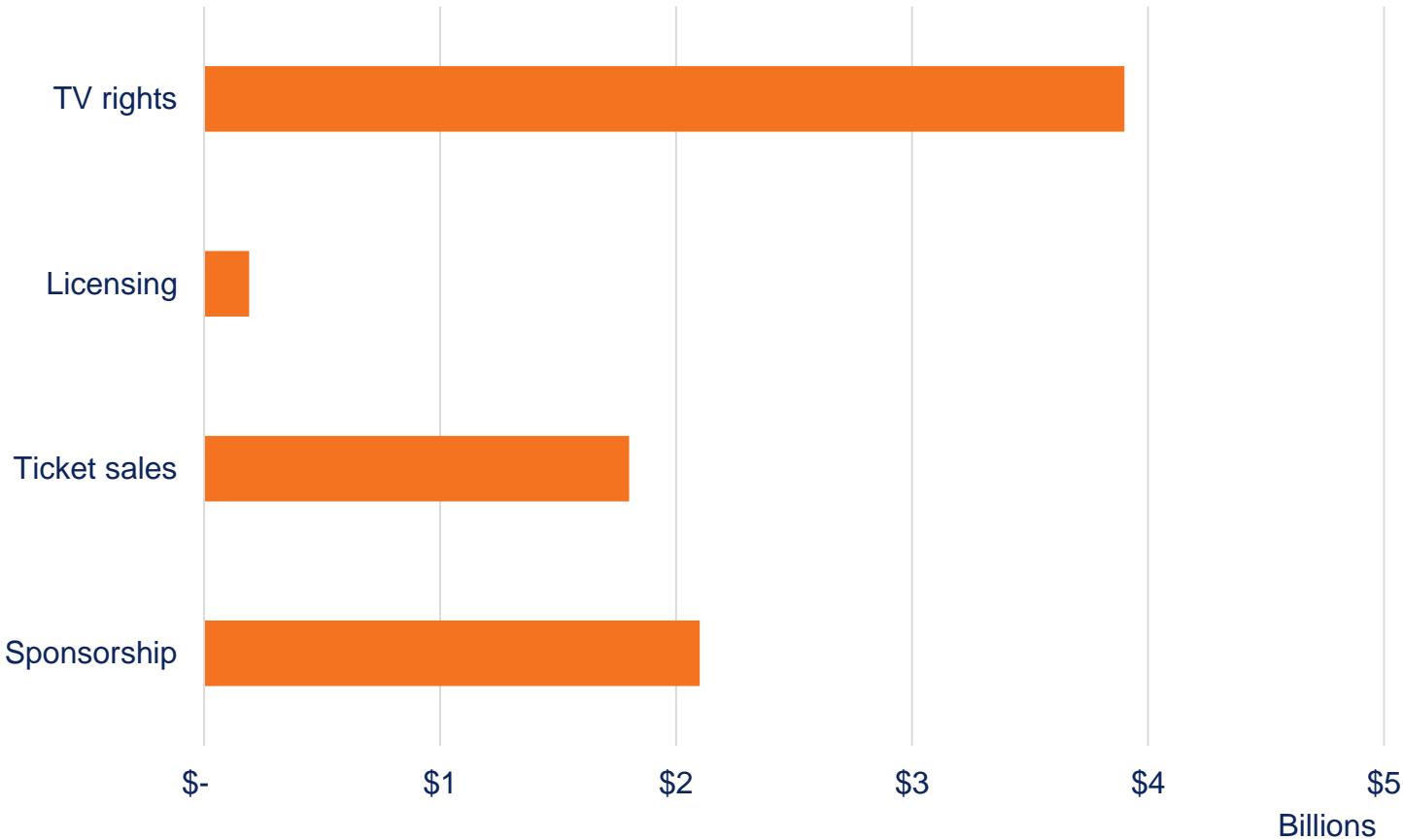
If proceed, revenue = 2.1B + 1.8B + .19B + 3.9B = 7.99 billion ← can rounded to 8 billion, if asked

If cancel: revenue = (2.1B*.75*.5) + (1.8B*.85) + (.19B) + (3.9B*.4)

= 787.5M + 1.53B + 190M + 1.56B = 4.0675 billion ← can be rounded to 4 billion, if asked

EXHIBIT 1

IOC Revenues for Upcoming Olympics

Question 2

- What percent certainty around the virus making it to the host country would the IOC need in order to proceed with the Olympics?

Exhibit or Question Guidance:

The probability of the virus reaching the host country at all is uncertain.

IOC
Expected value of loss * x = Expected value of gain * (1-x) $4 billion * x = $8 billion * (1-x) 4B*x = 8B – 8B*x 12B*x = 8B **X = 2/3 = 66%** to be indifferent about hosting relative to the virus arriving

BRAINSTORMING

What are the other risks to IOC associated with the IOC's decision to proceed or not?

Brainstorming Guidance:

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

External (to IOC)

- Impact to host country
- Lives lost
- Fan dissatisfaction
- Impact on athletes

Internal (to IOC)

- Reputational risk to IOC
- Relationship risk with current and future host countries

Best candidates display:

Creativity in risks identified and will pull in analysis from question 1

Strong structure – other possible frameworks include: Current vs. Future, Known vs. Unknown

Question 3 (optional)

- The client wants to understand the economic impact of a potential outbreak on the host country because of the relationship risk with this host country and future ones. What factors would you consider?

Exhibit or Question Guidance:

A strong candidate should have a solid framework to work through this mini-brainstorm:

- Healthcare costs: efforts to contain or limit outbreaks (i.e. tracing contacts, implementing quarantines, and isolating infectious cases), increasing demand for consumables: medical supplies, personal protective equipment, and drugs.

- All other sectors of the economy—agriculture, manufacturing, services—face disruption, potentially leading to shortages, rapid price increases for staple goods, and economic stresses for households, private firms, and governments.

Once the candidate has identified the factors of GDP that might be impacted, tell them that:

- If the pandemic spreads to the host country, economists have predicted a low-severity pandemic could reduce GDP by up to 0.05% percent, whereas a high-severity event could reduce GDP by 0.2% percent.

- When asked, tell the candidate to assume the annual GDP of the host country is 3 trillion.

Low-severity outbreak GDP impact = 0.05% of 3 trillion = 1.5 billion loss

High-severity outbreak GDP impact = 0.2% of 3 trillion = 6 billion loss

CONCLUSION

The IOC must make a decision today and would like to hear your recommendation.

To conclude, the interviewee should provide the following:

Recommendation:

- Go or no go are both acceptable answers, but the candidate should have a clear argument why.

Risks:

- Financial risks should be outlined.
- Other non-financial risks should be noted: impact on athletes, impact on human lives, etc.

Next Steps:

- Recommended next step should clearly map to a risk identified.

INTERVIEWER FEEDBACK FORM

Case Name _____ Interviewer _____

Case Book _____ Case Type _____ Difficulty _____

Case Execution:

☐ Clarifying Questions + Framework
    ☐ Good Questions
    ☐ Structured   1   2   3   4   5
    ☐ MECE
    ☐ Creativity

Feedback:

☐ Exhibits + Quantitative Ability
    ☐ Accuracy
    ☐ Speed   1   2   3   4   5
    ☐ Insights Presented
    ☐ Errors / Guidance Needed

Feedback:

☐ Brainstorm + Conclusion
    ☐ Creative & Structured   1   2   3   4   5
    ☐ Good Business Judgment
    ☐ Recommendation Strength

Feedback:

☐ Presence & Non-Verbal
    ☐ Confidence
    ☐ Poise / Posture   1   2   3   4   5
    ☐ Clear & Concise
    ☐ Body Language
    ☐ Coachability
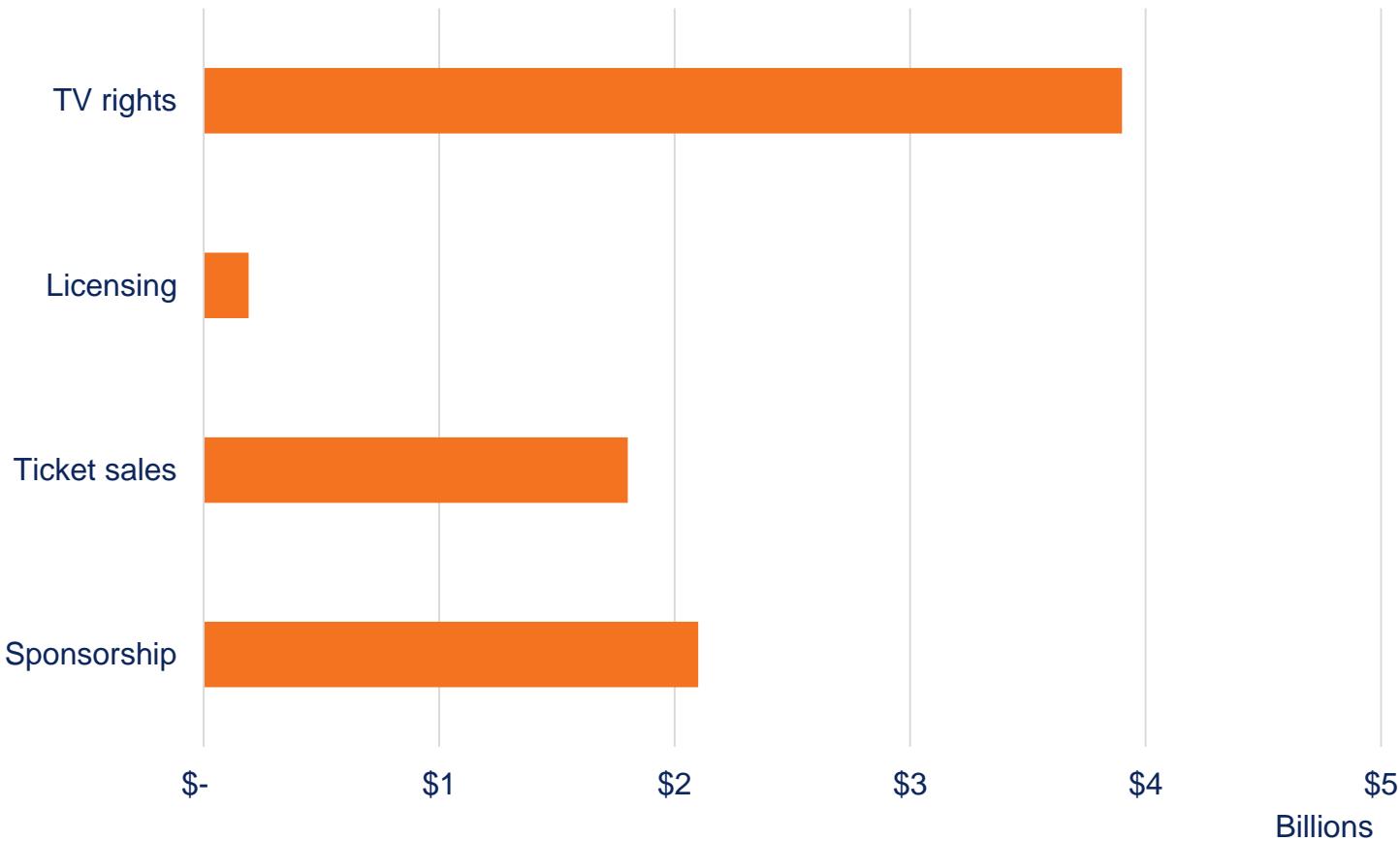
Feedback:

Total: _____ / 20

EXHIBIT 1

IOC Revenues for Upcoming Olympics

Food Frenzy*

IDEO/frog | Round 2 | Food Accessibility & Design

*Note – this case is designed for IDEO / Mural style interviews. It is different from a classic case.

DESIGN FOR FOOD

IDEO | Round 2 | Food Accessibility & Design

Prompt:

Mercado Reforma is a large B2B grocery supplier in Latin America that wants to expand into the B2C space. You are the project leader, ideate ways to investigate the opportunity and bring the concept to life. Walk me through how you would approach the project.

Suggested interview length: ~45 minutes due to the amount of brainstorming and Q&A

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. Reforma has no history or experience in the B2C space but has extensive distribution networks and expects refining their operations and scaling will not be insurmountable challenges.

2. Reforma currently operates in Mexico, Chile, and Colombia. While the company operates across the entirety of these countries, the majority of their distribution capabilities are concentrated in Mexico City, Santiago, and Bogota.

3. Their goal is to enter the market in an innovative way. Reforma believes there is whitespace in the food services industry for an unmet customer need, but is currently unsure what that looks like in practice.

4. A primary focus of the engagement should be to ensure the proposed market entry strategy embodies the voice of the customer, addressing customer needs and frustrations.

BEHAVIORAL INTERVIEW QUESTION:

1. Tell me about a time you have received a tough piece of feedback. How did you respond?

2. What do you hope to gain from your internship this summer?

Framework Guidance:

Candidates should propose a project plan – if they begin to structure a traditional framework, prompt them to structure a project plan. If they still struggle, prompt them to explain why they are structuring the project in such a manner. This should be all verbal and very collaborative – writing during this phase is not required as this could be verbally delivered if they want.

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Research	Synthesis & Design Products	Co-Creation	Prototyping & Scaling
Customer engagement strategy – address how the voice of the customer would be captured. Candidate should be able to expound on a strategy for each of the following as well as note their different uses:	*Putting the pieces together – candidate should be able to address how each of the research inputs is used to distill insights, create design artifacts, and describe the use cases of each artifact*	*Insights & ideation with clients/users – candidates should be able to build workshop ideas for presenting to clients/users and facilitating an ideation session.*	*Iterate, refine, and scale – candidates should be able to outline a scrappy and rough strategy for testing solutions they discover through research and co-creation*
• Ethnographic interviewing • Focus group execution • Ethnographic observation • Stakeholder interviews	• Synthesis process and collaboration practices for processing research outputs • Artifact examples: CX journey map, service design blueprint, personas	• Empathy building exercises • Creative presentation of research • Rapid synthesis ideas for reactions or insights from research • Small group solutioning/brain storming	• Low budget, easy ideas • Service design simulation • Wire frame testing • A/B testing • Pilot market testing

Sample Questions for Framework Drilldown:

• Tell me more about your research plan – how do you plan to source users/customers?
• What kind of questions will you ask them?
• How do you envision using your design artifacts?
• Describe how you would lead a synthesis process with a team? How would you make sure it is collaborative?

How to Move Forward

1. Press the candidate extensively on their framework using the sample questions.
2. Prompt the candidate to begin a brainstorm of insights they might uncover from their research and synthesis products
3. Stress test candidates and continue to ask for additional hypotheses.

EXHIBIT 1

Customer Persona: *Millennials on the Move*

Millennial urban customers. This segment typically works in professional services (CDMX residents pictured here).

Millennial customers in Latin American megacities are moving into positions of leadership within the economy and are increasingly pressed for time due the demands of their professional, personal, and social lives. These customers crave an efficient option that will satisfy their needs within the structure of their current commuting and professional routine during the work week.

NEEDS

- Accessible food options when on the go out in the city
- Food options that better cater to their dietary preferences
- Ability to pick-up up cooked food or bundled ingredients when pressed for time
- Options that allow for a quick and efficient shopping or pick-up experience

FRUSTRATIONS

- Feeling pressed for time and unable to attend to little chores like grocery shopping, laundry, or cleaning their apartments
- Feeling unable to find the specialty food items they like in convenient places
- Lack of diversity of food options around their office

EXHIBIT 1 GUIDE

00 | CASE: DESIGN FOR FOOD

EXHIBIT 1

Customer Persona: *Millennial, Efficient, and Stressed*

Millennial customers in Latin American megacities are moving into positions of leadership within the economy and are increasingly pressed for time due the demands of their professional, personal, and social lives. These customers crave an efficient option that will satisfy their needs within the structure of their current commuting and professional routine during the work week.

NEEDS

• Accessible food options when on the go out in the city
• Food options that better cater to their dietary preferences
• Ability to pick-up cooked food or bundled ingredients when pressed for time
• Options that allow for a quick and efficient shopping or pick-up experience
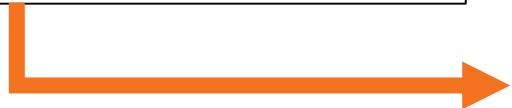
FRUSTRATIONS

• Feeling pressed for time and unable to attend to little chores like grocery shopping, laundry, or cleaning their apartments
• Feeling unable to find the specialty food items they like in convenient places
• Lack of diversity of food options around their office

Millennial urban customers. This segment typically works in professional services (CDMX residents pictured here).

UVA Darden School of Business 2019-20 Casebook

Question 1

After pushing the candidate to explain their project execution plan provide the following exhibit and share the following:

"Your research team conducted extensive field research in Santiago and Mexico City distilled insights to identify millennial, young professionals as an underserved market in the food space. Given this – what ideas do you have for serving this market?"

Exhibit Guidance

• This is meant to kick-off a brainstorm with the candidate.

• Prompt the candidate to provide solutions to the millennial consumers' needs and frustrations

• Ask the Candidate to continue providing additional solutions 1-3 times after they stop providing solutions

• When candidates run out of solution ideas ask them how they might find new ideas for solutions, down select their ideas, or test the validity of their ideas.

How to Move Forward

1. Select one – or two if the candidate is doing very well – ideas and ask how the idea would be prototyped and what the research plan would be.
2. Or ask them to select the idea they think is the best and structure the question around that idea.
3. See below for a sample question for moving forward:

   • *"Given idea [XYZ provided by candidate], how would you test such an idea in a scrappy, cost effective way? How would you ensure the product or service meets the needs of our target customers?"*

Question 2 (The location of these question slides in your case is completely up to you)

- "Given idea [XYZ provided by candidate], how would you test such an idea in a scrappy, cost effective way? How would you ensure the product or service meets the needs of our target customers?"

- Provide Exhibit 2 to candidates only if they struggle to generate ideas.

Exhibit or Question Guidance:

Candidates should recognize this as a request for a prototyping strategy and identify that to successfully conduct a usability test of a prototype the following are required:

- Sample users

- Interactive prototype with test-friendly features

- A facilitator

- Observers

The best candidates will note on their own that outputs from the prototyping exercise with customers will be used to improve the idea. Excellent candidates will also note that feedback from usability testing could cause the team to throw out the idea.

Decision point following the test can be thought of as – ***Adapt, Adopt, or Abandon?***

Tools & Tactics

- Wireframe mock ups and interaction simulations for app or digital based solutions

- Paper prototypes for low fidelity digital product simulation, cardboard prototypes for physical product prototypes, A/B testing for either of these ideas

- Facilitators acting to simulate service interactions

- Other examples: Sketches, hand made constructions, virtual models, role play, videos

Example answer

Idea: small, express, organic markets positioned in/around metro stations in Mexico City

Prototype: Build a simulated cardboard storefront and have a sampling of food products you believe the target customers would enjoy. Position 2 facilitators to provide service while a team of 2-3 observers note how selected customers interact with the service from afar and record video of the interactions. Collect feedback on the service, food selection, and positioning of the store. Test idea with volunteers during off-peak hours. (See next page for a similar test situation from IDEO for a bakery)

EXHIBIT 2

Prototyping examples

Cardboard prototype for a Dyson vacuum cleaner.

Paper interaction testing for apps.

Cardboard boxes designed to create a fake "store" with facilitators acting as employees to simulate and test a new service design.

2nd iteration IDEO service design prototype for a new bakery/restaurant concept.

Question 3

- Given your idea and the target customer for such an idea, please size the market for the opportunity in Reforma's major urban markets. Once you size the opportunity, what do you think about these numbers?

Exhibit or Question Guidance:

Candidates should either ask you for information to be able to size the market or ask to make assumptions and create their own numbers based off some logic, either is fine as long as they work with you to confirm assumptions.

City	Total Population	Millennial Population	Anticipated Penetration Rate	Millennial Pop. % x Penetration	Pop. x (Penetration x Millennial Pop. %)
Bogota	7,500,000	30%	50%	15.0%	1,125,000 (round to 1.1M)
Mexico City	8,500,000	27%	20%	5.4%	459,000 (round to 0.5M)
Santiago	5,500,000	30%	65%	19.5%	1,072,500 (round to 1M)

Once candidates arrive at the millennial population number and penetration number, they should ask for some kind of estimated spend, provide the following

City	Rounded Pop.	Monthly Spend	Monthly Revenue
Bogota	1.1 M	$50	$55 M
Mexico City	0.5 M	$300	$150 M
Santiago	1 M	$220	$220 M

CONCLUSION

To conclude, the interviewee should provide the following:

Recommendation:

- Reforma should continue prototyping and testing their new product/service for B2C grocery services and work to test the ideas as much as possible in the Santiago market given the large size of the opportunity.

Risks:

- Penetration rate is purely and estimate and the calculations are particularly sensitive to this percentage

- Santiago's population is the smallest as compared to Mexico City and Bogota

- Distribution costs could be higher in Santiago given its positioning in the Andes Mountains

Next Steps:

- Prototype the service in all three cities to identify nuanced differences between consumers

- Investigate how consumer needs vary across the cities

- Deploy research team to Santiago, Mexico City, and Bogota to conduct further prototyping

00 | CASE: FOOD FRENZY

Case Name _____ **Interviewer** _____

Case Book _____ **Case Type** _____ **Difficulty** _____

Case Execution:

- ❑ Clarifying Questions + Framework
  - ❑ Good Questions
  - ❑ Structured
  - ❑ MECE
  - ❑ Creativity

  1   2   3   4   5

  Feedback:

- ❑ Exhibits + Quantitative Ability
  - ❑ Accuracy
  - ❑ Speed
  - ❑ Insights Presented
  - ❑ Errors / Guidance Needed

  1   2   3   4   5

  Feedback:

- ❑ Brainstorm + Conclusion
  - ❑ Creative & Structured
  - ❑ Good Business Judgment
  - ❑ Recommendation Strength

  1   2   3   4   5

  Feedback:

- ❑ Presence & Non-Verbal
  - ❑ Confidence
  - ❑ Poise / Posture
  - ❑ Clear & Concise
  - ❑ Body Language
  - ❑ Coachability

  1   2   3   4   5

  Feedback:

Total: _____ / 20

EXHIBIT 1

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NEEDS

- Accessible food options when on the go out in the city
- Food options that better cater to their dietary preferences
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FRUSTRATIONS

- Feeling pressed for time and unable to attend to little chores like grocery shopping, laundry, or cleaning their apartments
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EXHIBIT 2

Prototyping examples

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A Hairy Ordeal

Bain | Round 2 | Consumer

A HAIRY ORDEAL

Bain | Round 1 | Retail

Prompt:

Your friend Megan Black calls you to ask for your advice. Megan had been working in the beauty industry as an independent hair stylist for 2 years when the owner of Salon Deluxe approached her and asked her to buy the salon. It has always been her dream to own a hair salon, but she isn't sure if she should do it, or focus on her current business, Megan Black Balayage (MBB). She wants your help to figure out what she should do.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. **What is balayage?** Balayage is a technique that "paints" the hair to achieve a more natural looking hair dye experience.

2. **What Is Salon Deluxe's business model?** The salon is a high-end hair salon that specializes in balayage. The business has two segments, services and products. Appointments are booked centrally, through the salon's booking portal, and clients see 1 of 4 contractor employee stylists.

3. **What does a balayage appointment consist of?** A balayage appointment has 3 parts: hair & product prep (10 mins), hair painting (90 minutes), drying & styling (50 minutes)

4. **Does Megan have specific metrics or goals related to this project?** Her goal is primarily to evaluate which business has the greatest NPV.

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

NPV Meg Black Balayage	NPV Salon Deluxe	Other Considerations (Internal)	Other Considerations (External)
• Profit	• Profit	• Buy vs build new salon	
• # of clients	• Selling Price/Service	• Initiatives to improve NPV	• Local competition
• Average price/service	• # of chairs	• Grow clientele through physical expansion/marketing	• Customer preferences
• Product Sales	• Avg. Revenue/stylist		• Local talent pool
	• Product Sales	• Increased efficiencies, /lower costs	
• Product Costs		• Megan's risk profile	
• Rent	• Rent	• Managerial experience	
• Labor	• Inventory	• Culture fit with new team and clients	
• Discount rate	• Interest		
	• Discount rate		

How to Move Forward:

To move forward, the interviewee should talk about wanting to understand the client's current business. If the candidate asks about the new Salon (Salon Deluxe) tell them that the client is still collecting data on Salon Deluxe, and we can review the information later.
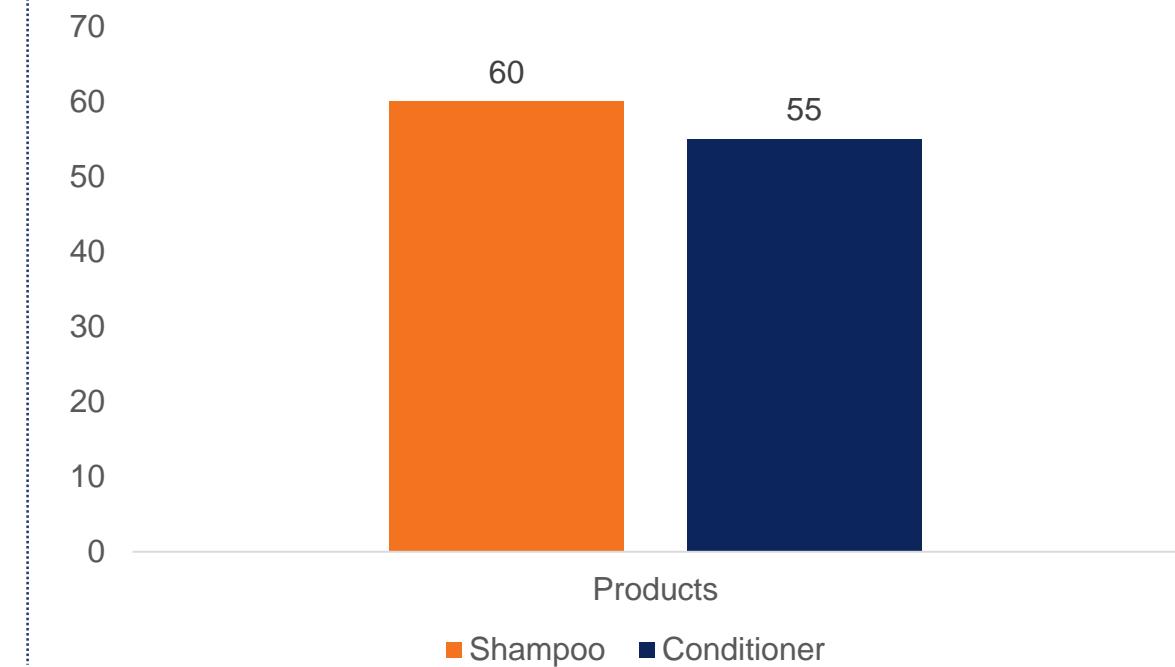
EXHIBIT 1: MEGAN BLACK BALAYAGE P&L

Services Revenue

# of clients	200
Visit frequency	Quarterly
Average spend per visit	$150
Services Margin	60%
Rent	$500 monthly

Product Prices

*Product margins all 50%

Question 1 (The location of these question slides in your case is completely up to you)

- What is MBB's (Megan Black Balayage's) NPV?

Exhibit or Question Guidance:

Exhibit 1 provides revenue and margin details for the services and product segments of the existing business. The candidate should perform the calculations to find out the client's bottom line. Provide missing information when prompted by candidates:

Services:

200 clients X 4 visits per year (quarterly) = 800 X $150 per visit = 120,000 X 60% margins = $72,000

Products:

The candidate does not have enough information to solve the question. Great candidates will recognize this and ask how many units of the products are sold, or the percentage penetration on average. When prompted, provide the following figures:

Shampoo: 25%, Conditioner: 20%, Hurdle rate: 5%

Calculations:

Shampoo: 800 visits (200 X 4) X 25% = 200 bottles X $60/bottle = $12,000 X 50% margin = $6,000

Conditioner: 800 visits X 20% = 160 bottles X $55/bottle = $8,800 X 50% margin = $4,400

Total product profit = $10,400

Sum total: $72,000 + $10,400 - $6,000 (rent) = 76,400

NPV: $76,400/.05 = $1,52,800 OR $1.52MM

So what?: Candidates should recognize that the current net income serves only as a benchmark against the value of the potential acquisition. Proceed to exh. 2

Question 2

- What is the NPV of owning Salon Deluxe?

Exhibit or Question Guidance:

When the candidate asks for information about the salon, provide **BOTH** parts of exhibit 2 and ask them to tell you what they think. Many candidates will be drawn to the second exhibit, exceptional candidates will note that the floor plan shows unused space within the salon that could be used to increase revenues. Other observations may include the difference in profit from product sales, or the difference in rent between the 2 businesses (8X). Note: If candidate asks what happens to Megan's current customers, tell them she will need to give up her clients to focus on operating the Salon Deluxe

NPV Calculation: Service Profit + Product Profit/Discount Rate
Services:
(Salon Capacity x Occupancy Rate x Rev. per appt x Profit Margin) – Rent
- To determine salon capacity and occupancy rate, candidate will need to perform calculations from the information given. For salon capacity:
8 hours per day / 2.5 hours per appt = 3.2 appt/day (on average) x 250 days = 800 appt per year x 4 stylists = 3200 appt capacity
- For occupancy rate: 6,000 appt > 3200 appts OR 100% capacity
- Rev. per appt x profit margin – ($150 x 35% margin)
- Services total – (3200 x $150 x 35% - 48,000 (4,000 x 12 months)) = $120,000

Products
$10,000
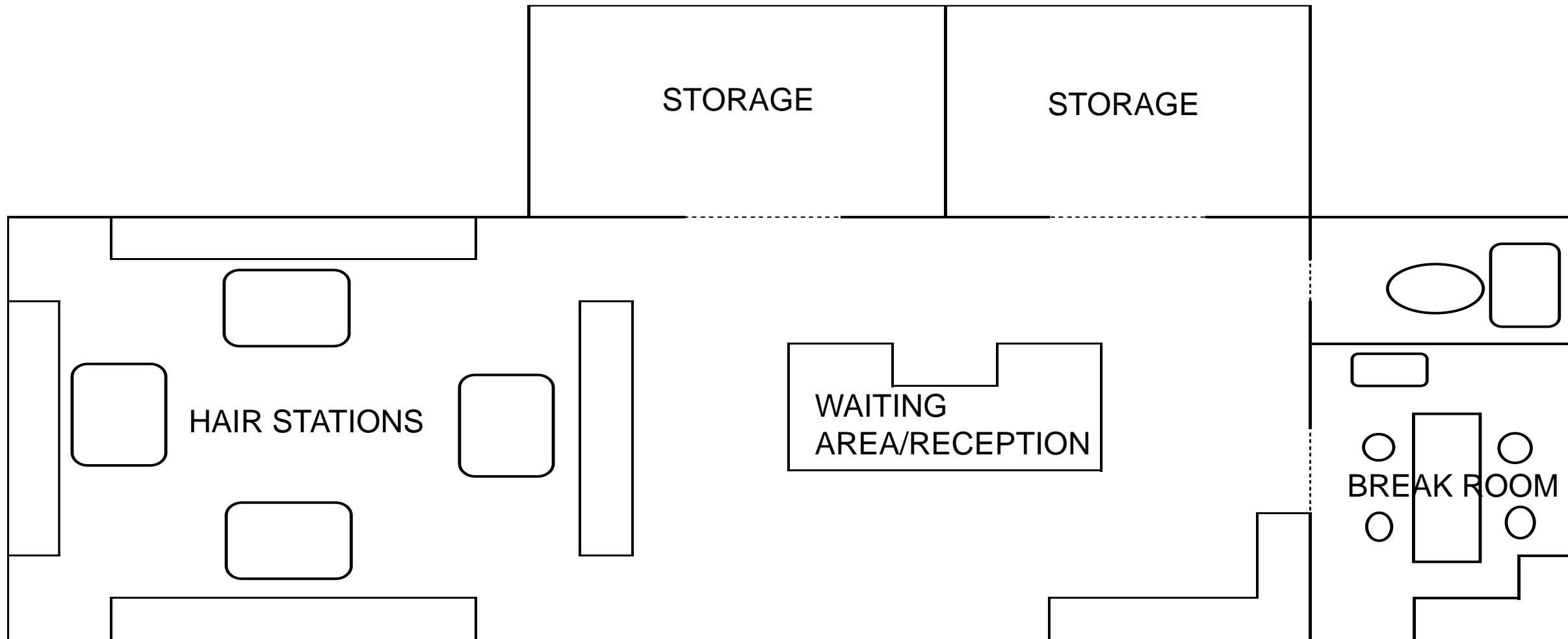
NPV Calculation
$120k + $10k / 10% = $1.3M

The candidate should note that the current NPV of the business is lower than that of the original business. The candidate should also note that there may be opportunities to improve the NPV of the business. If the candidate does not, prompt them to think about what they might do next. Excellent candidates will note that requested appointments are nearly 2x the current capacity, which would nearly double NPV by repurposing storage rooms.

EXHIBIT 2: SALON DELUXE FLOOR PLAN

STORAGE

STORAGE

HAIR STATIONS

WAITING AREA/RECEPTION

BREAK ROOM

EXHIBIT 2 CONTINUED: SELECTED SALON INFORMATION

Salon Hours
10 AM – 7 PM*, 5 days per week

Total requested appts
6,000

Average appt. duration
2.5 hours

Rent
$4k/month

Average spend per appt
$150

Net Profit from Product Sales
$10k/year

Stylist Revenue Share
65% of service revenue

Salon Discount Rate
10%

*Stylists take daily 1 hour break

BRAINSTORMING

What are some levers we could pull to make Salon Deluxe a more attractive business? Which of these ideas might have the largest impact?

Brainstorming Guidance:

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

Increase Service Revenue

- Increase salon capacity
- Loyalty program (more frequent visits)
- Raise prices (more spend per visit)
- Build or buy 2nd salon

Decrease Service Costs

- Cut low margin services
- New product vendor (lower COGS)
- Renegotiate rent prices
- Evaluate profit share labor costs

Increase Product Profitability

- Discounts (more sales)
- Add complementary products/bundle (hairspray, styling creams)
- Smaller bottle sizes (lower costs)
- New vendors (lower costs)
- Website SEO investments

Financing

- Pay down debt
- Refinance at lower rate

Best candidates display:

The best candidates will examine the levers with the largest potential impact. This would include increasing revenues and decreasing costs for the service portion of the business. Good candidates should look at renegotiating rent prices, increasing salon capacity to fit more customers, and great candidates will mention looking at borrowing rates, to see if the salon can lower its interest expense.

Question 3 (optional)

- What are some levers we could pull to make Salon Deluxe a more attractive business?

Exhibit or Question Guidance:

Engage in a conversation about which levers the client could pull to make it more profitable. Here are a few ideas, and potential responses:

- Decreasing costs, Rent, Margin, etc. Response: We're locked into a long-term contract, we will not be able to consider it at this time

- Increasing Service revenues, Price. Response: This is a competitive marketplace, and we believe will be difficult in the market.

- Increasing Service revenues, quantity: Response: Salon Deluxe is currently turning away clients, and does not feel it makes sense to increase marketing, offer discounts for more frequent appts, offer loyalty programs, etc.

The candidate should realize that the salon is currently offering services at its full capacity, and cannot accommodate more customers. If the candidate does not inquire about unused space in the salon, guide them to mention it. When the candidate mentions utilizing the excess space, tell them the following:

- Our client believes she can transform the unused space to create a drying and styling station. This will allow stylists to perform the prep and painting portions of the appointment, before sending their customers to the drying station to wait. After their hair dries, the clients are styled by an assistant, before finishing the appointment. She projects this change will allow each stylist to increase capacity by 37.5%. She estimates it will cost $100k to renovate the space and hire an assistant for styling.

- **Question 4: What is the new projected NPV of the business?**

- $168k (service revenue) x 1.375 = $231k + $10k (product profit) - $10k (interest) - $48k (rent) = $183k / 10% = $1.83M - $100k = $1.73M

- BONUS: $1.73M - $1.52M = $210k (Maximum price that she should pay for the salon)

INTERVIEWER FEEDBACK FORM

Case Name _____ **Interviewer** _____

Case Book _____ **Case Type** _____ **Difficulty** _____

Case Execution:

- ☐ Clarifying Questions + Framework
  - ☐ Good Questions
  - ☐ Structured   1   2   3   4   5
  - ☐ MECE
  - ☐ Creativity

  Feedback:

- ☐ Exhibits + Quantitative Ability
  - ☐ Accuracy
  - ☐ Speed   1   2   3   4   5
  - ☐ Insights Presented
  - ☐ Errors / Guidance Needed

  Feedback:

- ☐ Brainstorm + Conclusion
  - ☐ Creative & Structured   1   2   3   4   5
  - ☐ Good Business Judgment
  - ☐ Recommendation Strength

  Feedback:

- ☐ Presence & Non-Verbal
  - ☐ Confidence
  - ☐ Poise / Posture
  - ☐ Clear & Concise   1   2   3   4   5
  - ☐ Body Language
  - ☐ Coachability

  Feedback:

Total: _____ / 20

EXHIBIT 1: MEGAN BLACK BALAYAGE P&L

Services Revenue

# of clients	200
Visit frequency	Quarterly
Average spend per visit	$150
Services Margin	60%
Rent	$500 monthly
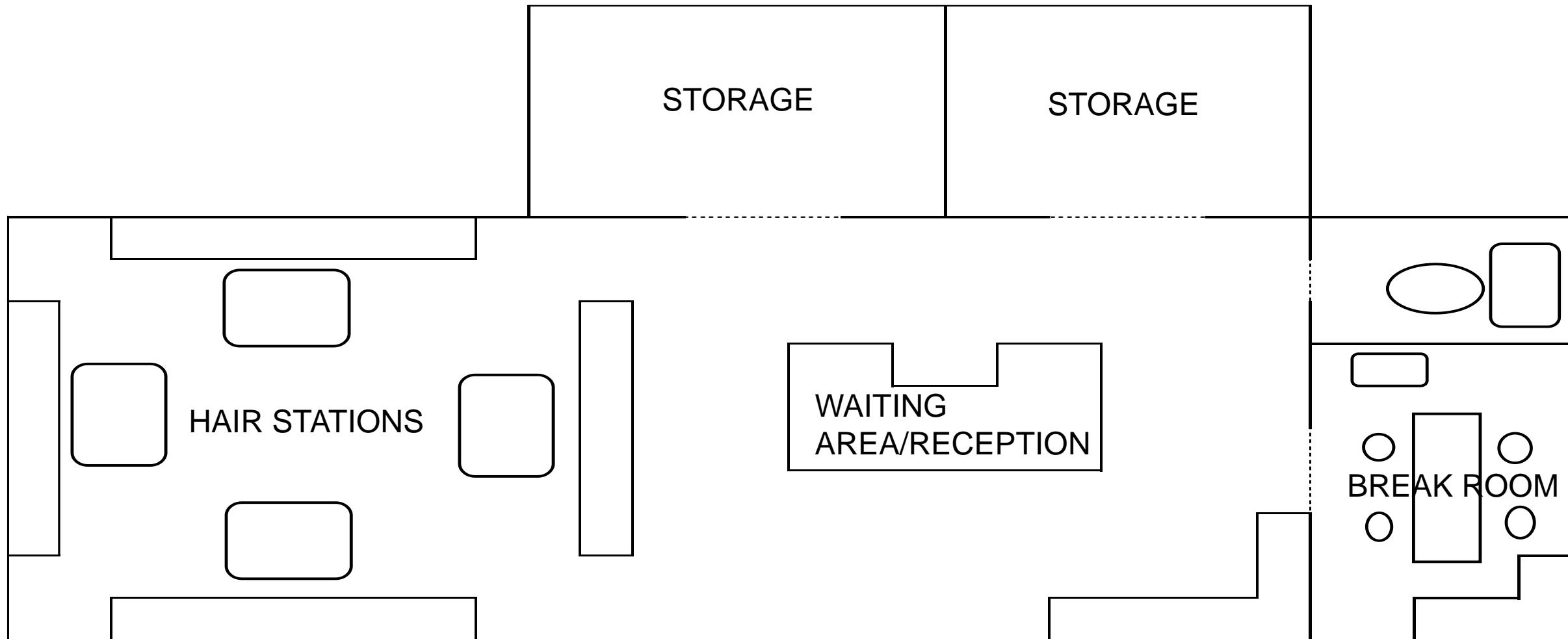
Product Prices

*Product margins all 50%

EXHIBIT 2: SALON DELUXE FLOOR PLAN

STORAGE

STORAGE

HAIR STATIONS

WAITING AREA/RECEPTION

BREAK ROOM

EXHIBIT 2 CONTINUED: SELECTED SALON INFORMATION

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65% of service revenue

Salon Discount Rate
10%

*Stylists take daily 1 hour break

Lizard Insurance

Bain | Round 1 | Acquisition

LIZARD INSURANCE

Bain | Round 1 | Acquisition

Prompt:

Our client, Lizard Insurance, is a US-based auto insurance provider that recently acquired a rival auto insurance company MediumSure. As a part of the acquisition, Lizard Insurance also acquired a subsidiary of MediumSure named TechSize, that provides software for many insurance companies. Lizard Insurance wants to know what they should do with TechSize, and they've brought us in to help.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. **Does Lizard Insurance have any experience in the software space?** No – they would need to develop capability.

2. **What is TechSize?** The TechSize software makes it easier to comply with government regulations when a customer moves from state to state.

3. **Does Lizard Insurance have plans for TechSize?** No – they bought MediumSure for other reasons and don't have plans for TechSize.

4. **How does Lizard Insurance make money?** They sell auto-insurance direct to consumer and collect monthly premiums.

5. **How does TechSize make money?** They sell B2B services helping insurance providers comply with government regulations.

BEHAVIORAL INTERVIEW QUESTION:
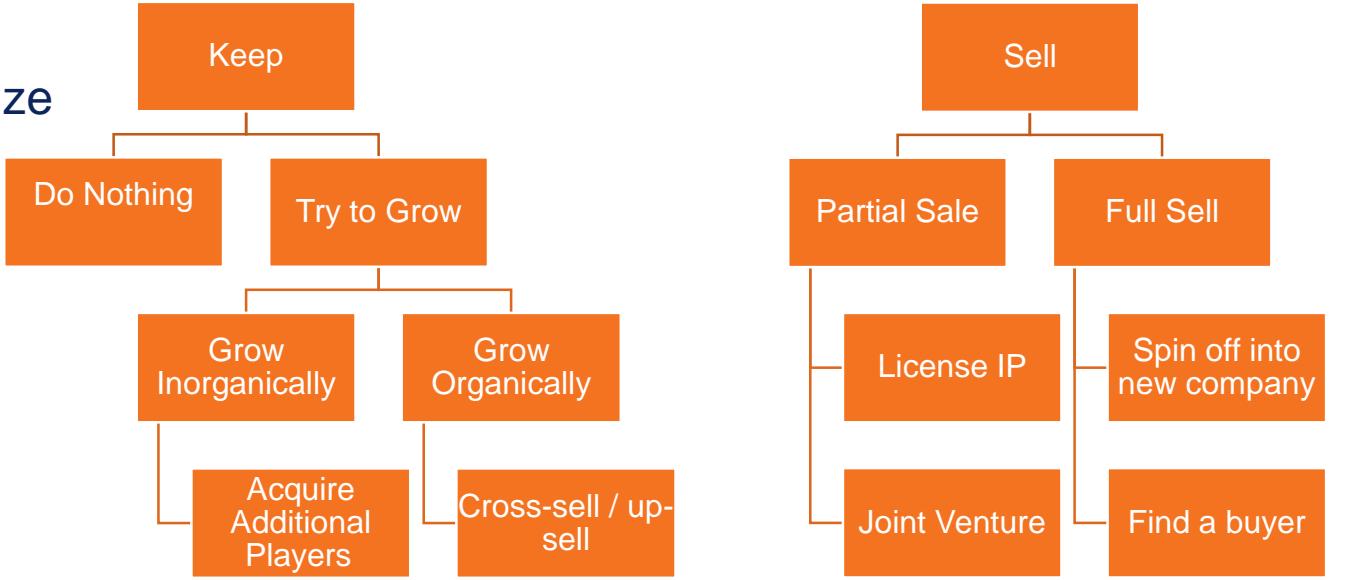
1. What is the greatest asset that you will bring to our firm?

Framework Guidance: There are other ways to approach this framework but a strong candidate will realize that there is a binary choice with this asset – to hold it or to sell it.

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

- Keep – and invest or hold
- Sell – either spinning off part or all of TechSize

How to Move Forward:

- If the candidate has a more traditional profitability framework, lead them to the initial question of Keep or Sell. Then ask the candidate to analyze the keep option.

Discussing the keep option:
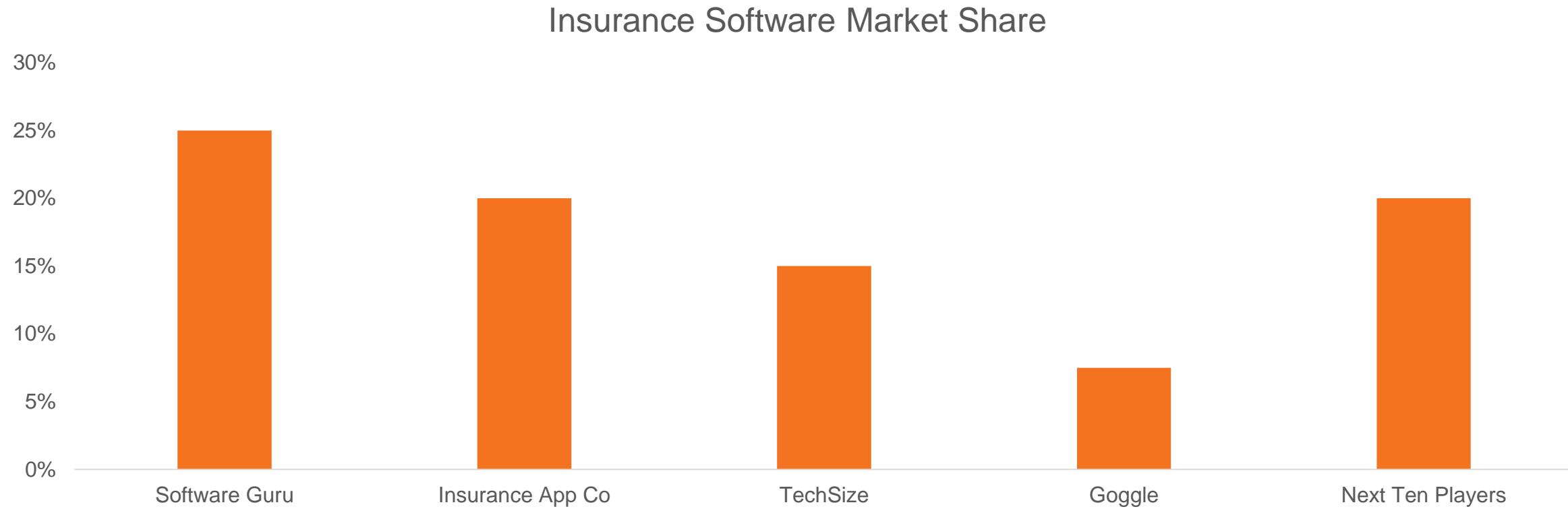
- Present the following information if/when asked:

  - TechSize requires substantial investments and upgrades in the next 2 years to maintain market position

  - Given the vastly different nature of the subsidiary's product, there are no cross-selling or up-selling opportunities between TechSize (a B2B business) and Lizard Insurance Co. (a B2C business).

  - Switching our services over to utilize TechSize would be costly, and would not reduce processing costs by any significant amount (no real cost synergies introduced with TechSize).

  - There is no appetite for additional acquisitions by Lizard Insurance of companies in TechSize's industry.

  - There was a recent acquisition by a competitor for a company in the same industry as TechSize

  - **If the candidate asks for market information – give them exhibits 1 and 2**

  - From the exhibits, the candidate should realize that the market is not attractive, as it is stagnant and fragmented.

How to Move Forward:
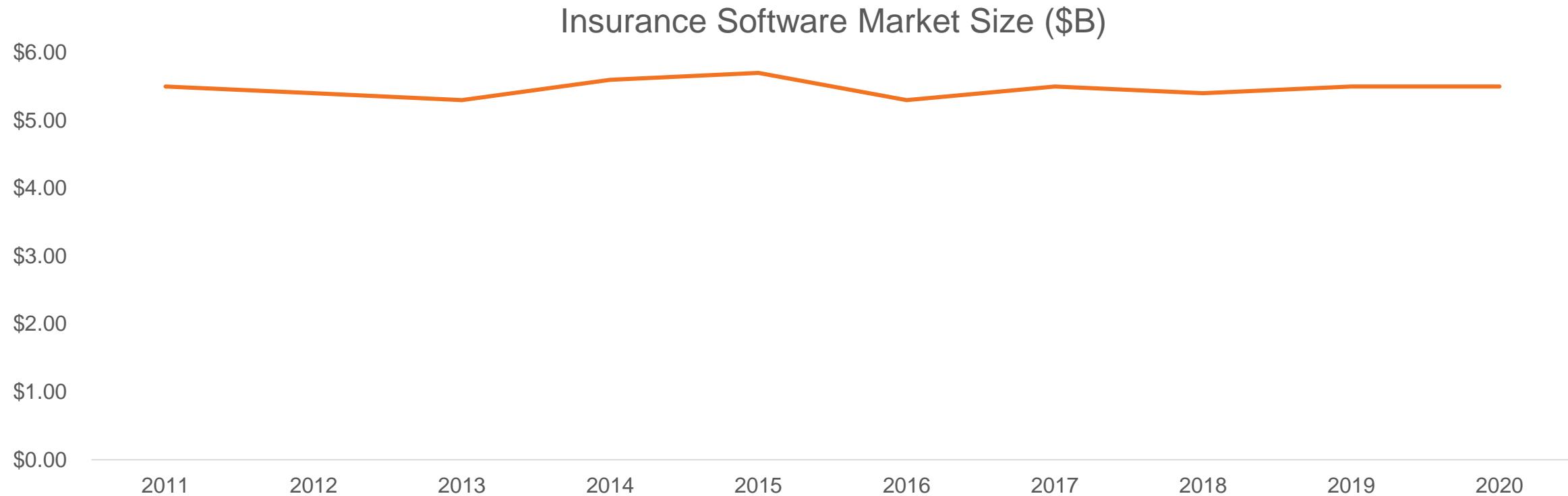
At this point, the candidate should realize that the Keep option is unpalatable and decide to move into sale. .

EXHIBIT 1: INSURANCE SOFTWARE MARKET SHARE

Insurance Software Market Share

EXHIBIT 2: INSURANCE SOFTWARE MARKET SIZE

Insurance Software Market Size ($B)

Discussing the sale option:

- Ask the candidate to brainstorm some ways they might be able to determine a sale value for TechSize, options should include:

  - DCF

  - Industry Multiples

  - Comparable transactions

- Lead them to ask for company values. Once they do, present them with **Exhibit 3**.

How to Move Forward:

Candidate should move into calculating an EBITDA multiple for TechSize based on Exhibit 3

EXHIBIT 3: INFORMATION ON 2020 ACQUISITIONS

Company Name	Description	2020 EBITDA	Selling Price
Fill-Your-Forms	A personalized service for high net worth individuals where a lawyer can be contracted to fill out forms on demand.	$25 Million	$125 Million
Tech Toy Company	Children's toy company specializing in developing educational toys for use in schools	$1.5 Billion	$20 Billion
Insurance App Co.	Insurance software that automates elements of the insurance application process	$300 Million	$1.5 Billion

Guidance on Exhibit 3:

- The candidate should realize that they can use the information in exhibit 3 to find EBITDA multiples.

- A great candidate will also recognize that Tech Toys Co is not a comparable company and exclude that from any analysis.

- Using the remaining information, the candidate should deduce that they can sell TechSize for **5 x EBITDA**.

- A great candidate will realize that they can find TechSize's revenue using Exhibits 1 and 2.
  By taking **15%** market share * the total market of **$5.5B** in 2020, they can get a **revenue of $825M**.

- The candidate will need to ask for an operating margin (or EBITDA as a % of revenue) – **tell them 25%**

- EBITDA = $825 * 25% = $206M

- Sale value @ 5x EBITDA = $206 * 5 = $1.03B

How to Move Forward:

- Ask the candidate to provide their recommendation

CONCLUSION

"The client's CEO is heading up the elevator, what do you recommend?"

Recommendation:

- Candidate should recommend selling off TechSize due to limited market potential and lack of synergies

- Analysis shows the company could be worth $1B based on comparable multiples and 2020 EBITDA

Risks include:

- Lack of buyers

- Small sample size of multiples

Next Steps:

- Due diligence on buyers

INTERVIEWER FEEDBACK FORM

Case Name _____ **Interviewer** _____

Case Book _____ **Case Type** _____ **Difficulty** _____

Case Execution:

❑ Clarifying Questions + Framework
    ❑ Good Questions
    ❑ Structured
    ❑ MECE
    ❑ Creativity

1 2 3 4 5

Feedback:

❑ Exhibits + Quantitative Ability
    ❑ Accuracy
    ❑ Speed
    ❑ Insights Presented
    ❑ Errors / Guidance Needed

1 2 3 4 5

Feedback:

❑ Brainstorm + Conclusion
    ❑ Creative & Structured
    ❑ Good Business Judgment
    ❑ Recommendation Strength

1 2 3 4 5

Feedback:

❑ Presence & Non-Verbal
    ❑ Confidence
    ❑ Poise / Posture
    ❑ Clear & Concise
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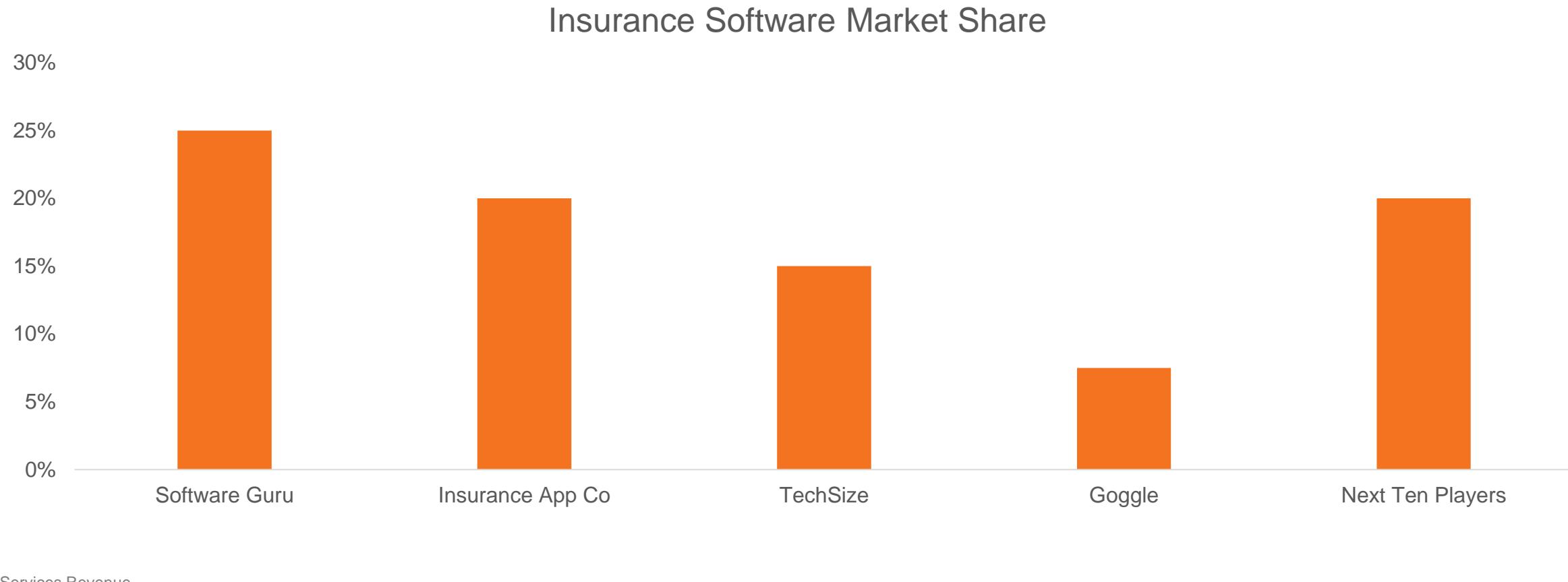
1 2 3 4 5

Feedback:
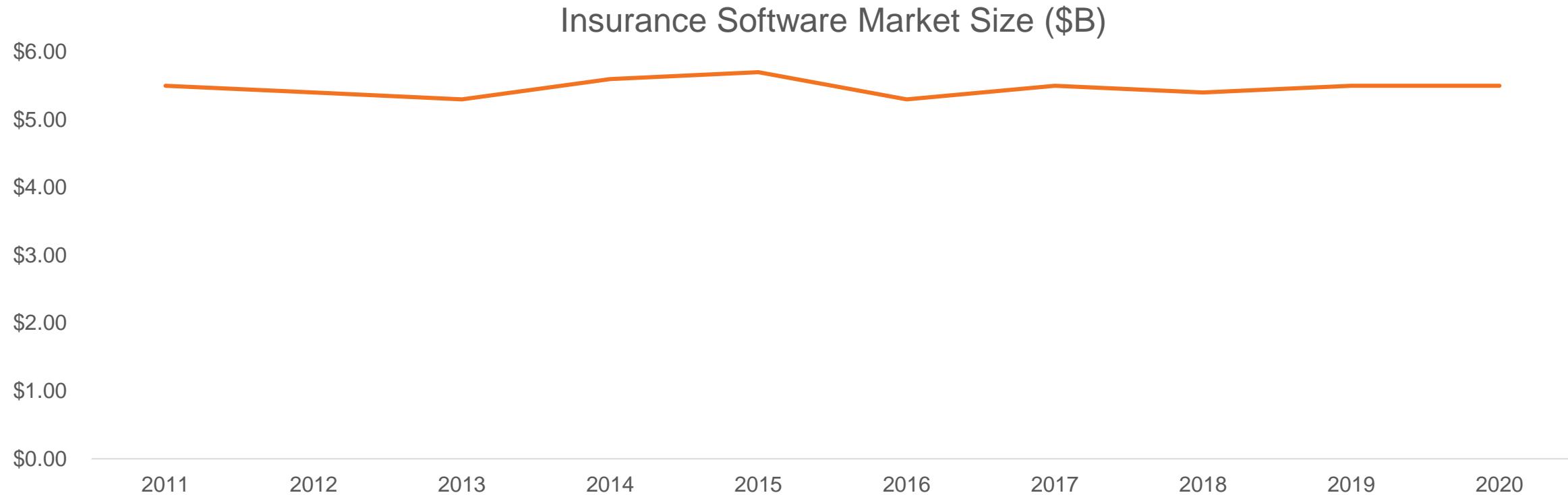
Total: _____ / 20

EXHIBIT 1: INSURANCE SOFTWARE MARKET SHARE

Insurance Software Market Share

Services Revenue

EXHIBIT 2: INSURANCE SOFTWARE MARKET SIZE

Insurance Software Market Size ($B)

EXHIBIT 3: INFORMATION ON 2020 ACQUISITIONS

Company Name	Description	2020 EBITDA	Selling Price
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Met with Problems

BCG | Round 1 | Non-profit

MET WITH PROBLEMS

Round 1 | Human Capital | Non-profit

Prompt:

Your client is Amy Sherald, the Chief People Officer at the Metropolitan Museum of Art ("The Met"). Located in New York City, the Met is one of the world's largest art museum with 250 gallery rooms and a collection of more than 2 million works of art. This mega-museum welcomes over 6 million visitors annually. Your client's department reported unusually high human resources (HR) costs last year and has come under scrutiny by the Executive team and Board of Directors. Amy has hired your team to help her address this problem.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. What is the current structure of The Met's staff? There are four main staff departments at the Met: 1) artistic, 2) security, 3) administrative and 4) executive. The artistic staff are salaried and responsible for the art collection. They decide what works of art to show each season. The security staff are hired on a part-time, hourly basis and are responsible for protecting the art 24/7. The administrative staff are salaried and work behind the scenes to ensure the museum operations run smoothly. The executive staff are the museums' top leaders and includes C-suite staff.

2. How does The Met hire staff? Your client uses a mix of online postings, direct referrals and occasionally hires an executive search firm. Amy describes the process as sourcing, interviewing, onboarding, retaining then turnover.

3. Does the client have a specific goal? Not really. For now, the client wants to know where to focus and how to plan for cost reductions in the short term.

4. How does The Met make money? The Met is a non-profit and generates revenue from government grants, donations and admission tickets. The client *does not* want your insight on improving these revenue streams.

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Direct Costs	Indirect Costs	External Factors
• Wages and Benefits • Recruiting (ex. applicant tracking system) • Training/education • Retention/enrichment • Turnover/severance packages • Overhead and HR team capacity	• Opportunity cost (underperformance of hired staff) • Loss of knowledge with turnover • Decline in morale with turnover or poor management	• Economic Cycle • Competition • New museum openings? • Labor Force (supply vs. demand) • Education patterns? • Union?

A **good candidate** will focus on costs and will not build in revenue considerations into their framework.

A **great candidate** will build incorporate differences between salary/hourly employees or even differences among the four types of staff (from the clarifying questions). Another framework option below. Candidate could fill in the table as case unfolds.

People Cost Considerations

Direct:

	Artistic	Executive	Administrative	Security
Department Size	Medium	Small	Medium	Big
Wages and Benefits	$$	$$$	$	$
Training/education	High	High	Medium	Low
Turnover/retention				
Severance	Low	High	Low	N/A

Indirect:
• Opportunity cost (hours sunk)
• Loss of knowledge
• Decline in morale

External Factors
• Economic Cycle
• Competition
• Labor Force

How to Move Forward:

To move forward, the candidate should call out different types of staff the client must hire for The Met. Ideally, the candidate points to turnover costs or cost of hiring as a potential lever to investigate further. **Provide Exhibit 1 and let candidate respond to the table.**

EXHIBIT 1

2019 Museum Department Snapshot

	Artistic	Executive	Administrative	Security
Cost per Staff Turnover	$30,000	$95,000	$10,000	$5,000
Average Time-to-fill[1]	3 months	6 months	2 months	2 weeks
Staff Count[2]	500	20	1,000	1,200
% Turnover	2.2%	10%	5.7%	~16.67%
Compensation Type	Salary	Salary + Bonus	Salary	Hourly

1. Time-to-fill counts the days from the date when you've published your new job opening. This metric answers the question: How long is your whole recruitment process?
2. Numbers as of 01/01/2019

Question 1

- How much did turnover cost The Met in 2019? We know that turnover cost $1.5M in 2018.

Exhibit or Question Guidance:

A **good candidate** will compare and contrast the departments then quickly realize the table provides unnecessary information for answering the question at hand. He/she should use staff count, % turnover and cost per staff turnover to solve for the turnover costs per department. Solution below (note, 16.67% = 1/6)

A **great candidate** will build out a clear structure for solving for each department's costs. He/she will also connect the total cost to the $1.5M in 2018 - pointing out a 39% or ~33% increase in turnover costs.

	Artistic	Executive	Administrative	Security
Staff Count	500	20	1,000	1,200
% Turnover	2.2%	10%	5.7%	16.67%
Turnover Count	11	2	57	200
Cost per Staff Turnover	$30K	$95K	$10K	$5K
Turnover Cost per Department	$330K	$190K	$570K	$1M
Total Turnover Cost	$2.09M (or ~$2M)			

How to Move Forward:

The candidate should call out the security department as the most expensive and recommend focusing on turnover cost reductions there. If the candidate does not suggest the security department, ask "where would you like the client to focus in 2020?"

BRAINSTORMING

"Amy wants to explore ways to cut HR cost in the security department overall. Brainstorm some ideas for her."

Brainstorming Guidance:

Note: This is just one possible set of categories and answers.

Sourcing → Interviewing/Onboarding → Retaining/Turnover

Sourcing
- Cut unnecessary advertising (cut subscriptions to channels that do not result in applications)
- Optimize criteria (for faster and more effective screening)
- Employee referral program (to save search costs)

Interviewing/Onboarding
- Streamline applicant tracking system (across departments) for efficiency in long-term
- First-round phone interviews
- University/community college partnerships (security staff for credit)
- Online training for onboarding (upfront cost but long-term savings and consistency)

Retaining/Turnover
- Fire underperforming (or surplus) of security staff
- Less security staff per gallery during slower days/seasons
- No severance and limit overtime pay
- Good management and predictability in schedule
- Tiered benefits based on tenure
- Low-cost staff perks (museum pass, gift store discount, exclusive tours of new exhibitions, family day, awards)
- Priority consideration for other full-time, salaried positions in artistic and administrative departments

How to Move Forward:

The candidate should come up with distinct buckets (example above uses hiring pipeline for structure) and 2-3 items under each bucket. Variable costs/fixed costs vs. short-term/long-term is one example of a 2x2 structure for this brainstorm. If candidate falls short, ask "how else could you cut costs in the security department." A **great candidate** will mention some risks behind their cost cutting ideas and may even star low risk options the client should prioritize.

At this point, the interviewer may move to the end recommendation or they may ask a follow-up question (to further test math analysis).

Question 2 (OPTIONAL IF TIME ALLOWS)

- Does Amy have the optimal number of security staff members?

Supply only when asked:

- Security staff only allowed to work 35 hours max (or average of 5 hours per day)
- 250 galleries under surveillance (also stated in the prompt)
- Museum hours 10am-6pm
- Museum open 350 days/year
- 2 security staff needed per gallery rooms when museum is open
- 1 security staff needed per 4 gallery rooms when museum is closed

Exhibit or Question Guidance:

	Calculations on Daily Basis	
	When Open	**When Closed**
Security staff/room	2	0.25
# of gallery rooms	250	250
# security staff positioned	**500**	**62.5**
Hrs/day	8 open	16 closed
Security hrs/day needed	**4,000**	**1,000**
Average hrs/day per staff	35/7 = 5	35/7 = 5
Security staff needed	**800**	**200**
Total security staff needed	**1,000**	

There are a number of ways to calculate 1,000. Math could be done on weekly or annual basis. Encourage candidate to stick with a daily basis (or weekly basis).

- A **good candidate** will calculate 1,000 security staff as the optimal number and realize Amy has too many people staffed in that department. A candidate may mention that having The Met should consider having a "reserve" of staff beyond the 1,000 required under the current assumptions.

- A **great candidate** will state that the Met has overstaffed the security department by 200 people (1,200-1,000) and realize this number equals the 2019 turnover number for security staff – and recommend not filling vacant security positions in 2020 to save on costs.

CONCLUSION

"The phone is ringing. Amy has called to ask for your recommendation. What would you say?"

Recommendation:

- The Met faced an overall ~33% increase in turnover costs from 2018 to 2019. Through analyzing the turnover costs per department, I've identified some opportunities for cost savings in the security department, which is responsible for almost half of 2019's turnover cost. I propose Amy…

  - Lower the minimum # of security staff per room on low visitation hours/days (ex. weekday mornings)

  - Disregard replacing 100-200 security staff positions in 2020 (Question 2 reveals Amy only needs 1,000 people staffed in the security department)

Risks with decreasing security staff concentration or size:

- Less oversight (potential damage from visitors or even art theft)

- Decreased job satisfaction (job becomes more stressful if security staff must cover more gallery rooms)

Next Steps:

- Quantify cost savings at different reductions of the security staff and weigh those savings against potential risks

- Schedule an in-person meeting on Monday to prioritize cost-savings options for the Executive team and Board of Directors

INTERVIEWER FEEDBACK FORM

Case Name _____ **Interviewer** _____

Case Book _____ **Case Type** _____ **Difficulty** _____

Case Execution:

- ❑ Clarifying Questions + Framework
    - ❑ Good Questions
    - ❑ Structured   1   2   3   4   5
    - ❑ MECE
    - ❑ Creativity

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    - ❑ Good Business Judgment
    - ❑ Recommendation Strength

Feedback:

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Feedback:

Total: _____ / 20

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A Messi Decision

BCG | Round 1 | Sports and Entertainment

A MESSI DECISION

BCG | Round 1 | Sports

Prompt:

Your client is the CEO of a major English soccer team. He's called you while brimming with excitement after receiving news that Lionel Messi was looking for a new team. Players of Messi's quality rarely became available, and would surely improve any team. However, with COVID-19 restricting budgets, money would be tight and would need to generate a return. He would like you to figure out what the right amount of money to offer would be.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. **What is the team's goal?** To win the European Championship within 3 seasons. Due to recent financial restrictions, all of their player acquisitions must be offset with new revenue within 5 years.
2. **How do soccer teams acquire players?** In soccer transfers, the acquiring team buys out the new player for an agreed upon fee. After they pay that fee, they then agree a new annual contract with the player.
3. **How does the team make money?** If asked this question, have the candidate brainstorm revenue streams. Full guidance appears later on.
4. **What is soccer?** Soccer is a global sport where a team strives to score more goals then their opponent.
5. **How good is Messi?** He is in the conversation for greatest of all time. He contributed (scored or assisted) 55 goals last season.
6. **How old is Messi?** He is 35 years old.

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Financials	Competitors	Messi	Risks
Revenue	• How will they respond?	• How good is he?	• Injury risk (could increase with age)
• Incremental Ticket Sales	• Could this start a talent arms race?	• Age / Career Arc? – How many years	• Could he ask to leave our club in a few years?
• Jersey sales		• Will he want to come?	• Style of play doesn't adjust to our league
• TV/AD Revenue		• Are there cheaper alternatives?	
Costs		• Language barriers?	
• Acquisition Fee			
• Salary Cost			

How to Move Forward:

A great candidate should recognize that they can value Messi like any type of asset, through a number of approaches including incremental cash flows or comparable players.

If the candidate gets stuck, encourage them to think about how they would value a different type of asset. Have them brainstorm cash flows and comps.

Ask the candidate to review Exhibit 1.

EXHIBIT 1

Recent Transfers of Top Forwards

Name	Age (at time of transfer)	Goal Contributions*	Transfer Fee	Transfer Year
Christiano Ronaldo	33	62	$117M	2018
Neymar	25	24	$225M	2017
Kylian Mbappe	19	31	$310M	2017
Pierre Emerick Aubameyang	29	28	$56M	2018
Diego Costa	27	28	$62M	2018

*Goal contributions include goals and assists – key offensive metrics. The European average for attacking players is 12, over 30 is considered elite.

EXHIBIT 1 – INTERVIEWER GUIDANCE

Recent Transfers of Top Forwards

Name	Age (at time of transfer)	Goal Contributions	Transfer Fee	Transfer Year	Multiple
Christiano Ronaldo	33	62	$117M	2018	~2x
Neymar	25	24	$225M	2017	~10x
Kylian Mbappe	19	31	$310M	2017	10x
Pierre Emerick Aubameyang	29	28	$56M	2018	~2x
Diego Costa	27	28	$62M	2018	~2x

Exhibit Analysis:

A good candidate should recognize that they can use market multiples to approximate a value. They should try to calculate a multiple of Transfer Fee to Goal Contributions. An average multiple would be 5x.

A great candidate will recognize that older players trade at lower multiples, and suggest a more conservative multiple of 2x.

How to Move Forward: With a multiple in mind, the candidate should ask for Messi's goal contributions. Tell them 55, and suggest that he will sell for a multiple of 2.6x – giving a value of $143M

ROI Calculation:

With the value of $143M on the table, the candidate should pivot towards looking at the incremental revenue Messi will bring in and whether the transfer will break even. Ask the candidate to brainstorm how the client makes money. Push them until they find the following:

- Ticket revenue

- Food + Beverage Revenue

- TV and streaming broadcast revenue

- Sponsorship & partnership revenue

- Jersey and merchandise sales

Once the candidate has established the revenue streams – they should ask for information on current performance of each channel. When they do, provide them with the following information:

- The team plays 25 home matches per year, with an average ticket price of $50. The stadium has 60,000 seats and is 83.33% full.

- Each fan typically spends $10 on food and beverages.

- TV rights are assigned based on popularity – the team currently receives $150M per year in revenue.

- Sponsors currently pay $50M a year

- In the past, the team has sold 1M jerseys at a price of $100 each, but only receives a 25% margin

- Given that information, the candidate should attempt to calculate the current revenue.

ROI Calculation (continued):

- Current revenue calculations:

  - 60,000 seats * 83.33% (5/6) fill rate * $50 ticket * 25 games = $62.5M

  - 60,000 seats * 83.33% * $10 food and beverage * 25 games = $12.5M

  - Broadcast ($150M) + Sponsorship ($50M) = $200M

  - 1M jerseys * $100 jersey * 25% margin = $25 M

  - Total Revenue = $300M

Once the candidate has completed those calculations, they should ask for the incremental costs and benefits associated the transfer. Give them the following.

- Given Messi's significant commercial draw, the team would expect to sell out every home game, and charge $15 more per ticket.

- Broadcast revenue would increase by 10% and sponsorship would double

- Last year, Messi had the highest selling jersey in the world. Selling 2M units. The team expects to sell that many each year of his contract, but it would cannibalize 50% of their current jersey sales. Pricing and margins would remain the same.

- Messi is the second highest player in the world, with a salary of $100M per year. His agents take a 10% fee annually.

ROI Calculation (continued):

- Future revenue calculations:

  - 60,000 seats * 100% fill rate * $65 ticket * 25 games = $97.5M

  - 60,000 seats * 100% * $10 food and beverage * 25 games = $15M

  - Broadcast ($150M*110% = $165M) + Sponsorship ($100M) = $265M

  - 2M new jerseys + 1M old jerseys * (50% cannibalization rate) = 2.5M total jerseys * $100 * 25% margin = $62.5M

- **Total New Revenue = $440M**

- New Revenue($440M) – Old Revenue ($300M) = $140M incremental per year

- Incremental Costs = $110M in new salary and fees

- Incremental Profit = $140M - $110M = $30M

- Upfront costs = $143M

- Payback period is just under 5 years

- A good candidate will realize that this investment will break even in just under five years.

- A great candidate will realize that the transfer breaks even but will want to dive into the risks. S/he might suggest that there might be issues with high wages for an older player, risk of injury, etc.

CONCLUSION

"The CEO and the world soccer community are waiting, what will you tell them?"

Recommendation:

- Our client is interested in determining a fair market value for Lionel Messi

  - Based on a market multiples approach, we found it fair to offer ~$140M for his contract

  - Even with an annual salary of $100M, incremental revenues will allow this transfer to break even in 5 years

  - Players of Messi's quality are rare, and he could help the client achieve their goal of a European championship

Risks:

- Financial projections show an aggressive uptick in revenue that could be hard to obtain.

- Huge investment for an older player who may not have lasting value on the field

Next Steps:

- Do further diligence on the feasibility and sensitivity on the revenue model

- Lock in additional sponsorship dollars from corporations who might want to align their brand with Messi

INTERVIEWER FEEDBACK FORM

Case Name _____ Interviewer _____

Case Book _____ Case Type _____ Difficulty _____

Case Execution:

- ❑ Clarifying Questions + Framework
    - ❑ Good Questions
    - ❑ Structured   1   2   3   4   5
    - ❑ MECE
    - ❑ Creativity

Feedback:

- ❑ Exhibits + Quantitative Ability
    - ❑ Accuracy
    - ❑ Speed   1   2   3   4   5
    - ❑ Insights Presented
    - ❑ Errors / Guidance Needed

Feedback:

- ❑ Brainstorm + Conclusion
    - ❑ Creative & Structured   1   2   3   4   5
    - ❑ Good Business Judgment
    - ❑ Recommendation Strength

Feedback:

- ❑ Presence & Non-Verbal
    - ❑ Confidence
    - ❑ Poise / Posture
    - ❑ Clear & Concise   1   2   3   4   5
    - ❑ Body Language
    - ❑ Coachability

Feedback:

Total: _____ / 20

EXHIBIT 1
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*Goal contributions include goals and assists – key offensive metrics. The European average for attacking players is 12, over 30 is considered elite.

New Rubber Plant Investment

BCG | Round 2 | Industrial

NEW RUBBER PLANT INVESTMENT

BCG | Round 2 | Industrial

Prompt:

The federal government of a foreign country is investigating whether to reopen a rubber factory in a western part of the country. The factory was operational in the past, but has not been used for 7 years. The plant was closed due to terrorism in the area. If rejuvenated, it may become a target for the rebels. All the equipment is usable, but the government would need to spend $12M on upgrades, which would allow the plant to produce 10M lbs of rubber per month. The demand for rubber is strong, but rubber must be transported by train to a port. Two trains a day can be used for this.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. **How is rubber made?** Gum resin is refined. Need 3lbs of gum resin to produce 1 lb of rubber
2. **How do we get resin?** By train from the capital. Up to 4 trains can be used for this purpose.
3. **How much can we sell rubber for?** $20 per pound. Gum resin costs $5 per pound.
4. **How many suppliers are there?** We have identified one gum supplier
5. **Who are our customers?** Rubber is highly commoditized. We would sell on the global markets.
6. **What is the government's goal?** Profitability, job creation, and economic development.

BEHAVIORAL INTERVIEW QUESTION:

1. Describe your working style.

2. Why consulting?

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Financials	Operational Considerations	Non-Financial Benefits	Risks
Revenue	• Can we ship and receive the required amount of finished goods and raw materials	• Job creation	• Supply chain
• Rubber pounds		• Economic development	• Labor shortage
• Rubber price		• Community improvement	• Terrorism
		• Positive PR	• Commodity price changes
Costs		• Improved trade relations	
• Up front investment			
• Variable costs			
• Gum resin			
• Fixed costs			
• Overhead			
• SG & A			

How to Move Forward:

• Push the candidate to calculate the ROI of the plant.

• If the candidate asks for demand, tell them that rubber demand worldwide is strong enough that all rubber produced by the plant can get sold.

ROI Calculation Guidance:

- Before the candidate starts calculating, encourage them to think about where the bottleneck lies. If they start to use the 10M pounds per month figure, ask them about the trains.

- Once the candidate asks you how much rubber the train can carry, give them the following:

  - 25 operating days a month

  - 2 trains / day

  - 8 bogies / train

  - 25 cases / bogie

  - 500 lbs / case

- Expected calculation:

  - 2 * 8 * 25 * 500 = 200,000 lbs a day

  - 200,000 * 25 = 5 M lbs a month

ROI Calculation Guidance:

- Before the candidate starts calculating, encourage them to think about where the bottleneck lies. If they start to use the 10M pounds per month figure, ask them about the trains.

- Once the candidate asks you how much rubber the train can carry, give them the following:

    - 25 operating days a month

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    - 8 bogies / train

    - 25 cases / bogie

    - 500 lbs / case

- Expected calculation:

    - 2 * 8 * 25 * 500 = 200,000 lbs a day

    - 200,000 * 25 = 5 M lbs a month

ROI Calculation Guidance (continued):

- Now that the candidate has realized that there production is limited by the amount of rubber they can ship out – they should also realize there is a limit to the raw material they can bring in. An astute candidate will ask about the capacity of the trains bringing resin in.

- Resin train information:

  - 25 operating days a month

  - 4 trains / day

  - 10 bogies / train

  - 25 barrels / bogie

  - 640 lbs / barrel

- Expected calculation:

  - 4 * 10 * 25 * 640 = 6400,000 lbs a day

  - 640,000 * 25 = 16 M lbs of resin a month – since it takes 3 lbs of resin to produce 1 lb of rubber – they can produce $5.3 M lbs of rubber from raw materials

  - **The candidate should realize that they can produce 5M barrels a month based on the limiting factor – the outbound trains**

ROI Calculation Guidance (continued):

- Other Financial Information:

  - Labor - $8M per month

  - Other overhead - $10M per month

  - Trains - $40k per trip

- **Expected calculation:**

  - **Transport Cost**:

    - $40K * (4 + 2) [trains per day] * 25 [days per month] = $6M

  - **Revenue**

    - 5M lbs rubber * $20 per pound = $100M

  - Material Cost

    - 15M lbs resin * $5 per pound = $75M

ROI Calculation Guidance (continued):

- **Final Income Statement (monthly)**

  - Revenue - $100M

  - COGS - $75M

  - Labor - $8M

  - Overhead - $10M

  - Transport - $6M

  - **Operating Profit - $1M (or 1% margin)**

- Given the above, a good candidate will recognize the plant has an operating profit of $1M monthly. Given an initial investment of $12M, that would have a payback period of 1 year.

- A great candidate will notice that the margins are wafer thin at 1%. Given that rubber is a commodity, a small dip in price could easily force this investment into the negative territory.

- Ask them what additional factors they should consider.

BRAINSTORMING

"What other factors could we consider when making a decision with this investment?"

Brainstorming Guidance:

Note: This is just one possible set of categories and answers.

Cash Flow Improvements

- Plant is at 50% capacity, if we improve transportation – can we bolster profit
- Can we lock in a long-term price or hedge on resin prices

Economic Development

- Can we utilize an uptick in local wages to support other development priorities
- Could be used to help with reelection message

Risks

- Terrorism
- Fall in the rubber market price
- Scarcity of gum resin
- Mechanical failures on train tracks cause a shut down
- Local pushback against the project

How to Move Forward:

Feel free to push the candidate on any of their brainstorming ideas. Make sure they at least touch on the fact that the government has multiple criteria for success, including ROI, job creation, and economic developments. This could also be a good time to ask them to detail some of the risks involved.

INTERVIEWER FEEDBACK FORM

Case Name _____ **Interviewer** _____

Case Book _____ **Case Type** _____ **Difficulty** _____

Case Execution:

❑ Clarifying Questions + Framework
- ❑ Good Questions
- ❑ Structured   1   2   3   4   5
- ❑ MECE
- ❑ Creativity

Feedback:

❑ Exhibits + Quantitative Ability
- ❑ Accuracy
- ❑ Speed   1   2   3   4   5
- ❑ Insights Presented
- ❑ Errors / Guidance Needed

Feedback:

❑ Brainstorm + Conclusion
- ❑ Creative & Structured   1   2   3   4   5
- ❑ Good Business Judgment
- ❑ Recommendation Strength

Feedback:

❑ Presence & Non-Verbal
- ❑ Confidence
- ❑ Poise / Posture   1   2   3   4   5
- ❑ Clear & Concise
- ❑ Body Language
- ❑ Coachability

Feedback:

Total: _____ / 20

PubU Footprint

McKinsey | Round 2 | Energy

PUBU FOOTPRINT

McKinsey | Round 2 | Energy

Prompt:

You are the Dean of a large public university in the Midwest. Your tenure has focused on raising the profile of the university through various initiatives. Recently, the Board of Regents has requested a plan that outlines the university's environmental footprint and a goal to reach net-zero waste by 2040. As a former business executive, you are familiar with the principles of ESG, but need to understand what the major drivers of environmental impact at PubU.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. How big is PubU? PubU is a large research institution consisting of an undergrad (35k students), graduate school (10k) and various professional schools (~2k). Number in student body is expected to be stable. The university is very large and requires an extensive diesel-powered bus system for students to commute all over campus.

2. How much money does PubU have available / where does it come from? The average operating budget of PubU is $2B. Of that $2B, roughly 30% comes from the state, 10% from alumni donations, 20% from the university endowment (fund that pays out money each year) and 40% from student fees.

3. How does PubU currently get electricity? From the local grid (which uses a mix of coal, gas, wind, and solar). The local utility is transitioning to 100% carbon-free by 2030.

4. What does net-zero waste mean? Net Zero means consuming only as much energy as produced, achieving a sustainable balance between water availability and demand, and eliminating solid waste sent to landfills.

5. What is PubU's goal? As noted in the prompt, a plan to reach net-zero by 2040.

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Solid Waste	**Energy**	**Water**	**Other Considerations**

• Sources
  • Dining halls
  • Dormitories
  • Laboratories
  • University Building
• Possible Strategies
  • Reduction
  • Recycling
  • Elimination
	• Electricity
	  • Add renewable generation
	  • Negotiate with local utilities
	  • Reduce usage
	• University Transit
	  • Bus fleet – diesel
		• Landscaping
		• Plumbing and other Uses
		• Athletic Facilities including golf courses, athletic fields
		• Fountains throughout campus
			• State funding for waste-reduction efforts?
			• Use current budget / re-allocate budget
			• Positive impact on university recruiting both students and faculty.
			• Leverage existing faculty know-how to get recommendations

A good framework here will hypothesize sources of waste and make preliminary estimates of relative size. A great framework will begin to hypothesize possible solutions and the considerations that a public university must have when evaluating these projects, particularly regarding impact on reputation / rankings and ability to fund initiatives.

How to Move Forward:

The interviewee should call out the many possible sources of waste and make a justified guess as to which waste stream has the largest impact for the university. Push the interviewee to flesh out the framework to include specific details to the university (for instance, dining halls) during framework discussion. While cost is certainly a consideration, this case does not revolve around the estimated return.

To move forward, the interviewee should call out the public transit system of the university. A great answer will include mentioning the inefficiency of diesel buses and the possibility of electrification.

Question 1

- One of the most promising areas identified by PubU is converting the diesel bus fleet to an electric fleet. The Board of Regents typically evaluates projects on a 5-year basis and have the goal of emitting less carbon dioxide. For the current diesel fleet, we would like to know the current cost and environmental impact of the diesel fleet?

Exhibit or Question Guidance:

- Give the candidate **Exhibit 1**

- Provide the info below for diesel costs when asked, prompt candidate until all information comes out.:

    - 1 bus per route, 2 miles per gallon, each route runs on average, four times an hour, for 15 hours a day, seven days a week, 50 weeks a year.

    - $6 / gallon of diesel. Other maintenance costs include $20,000 per bus in annual maintenance

    - 20 lbs CO2 / gallon of diesel

    - Answers:

    - **Total Annual Cost of Diesel (Round 104 miles to 100 miles) *Guide the candidate to start with miles per year*:**

    - Miles: 100 miles of routes x 4 routes / hour x 15 hours / day x 7 days / week x 50 weeks / year = 2.1M miles

    - Fuel Usage: 2.1M Miles / 2 miles per gallon = **1.05M gallons of diesel**   Cost = 1.05M x $6 / gallon of diesel = **$6.3M**

    - Maintenance: 25 buses x $20k per year = **$0.5M**   **Total Cost: $6.8M per year**

    - Emissions: 1.05M gallons x 20 lbs CO2 = **21M lbs of CO2**

EXHIBIT 1

Current Bus Routes and Costs

Area of Campus	# of Routes	Average Miles Per Route
Main Campus	8	6
Athletic Fields	8	3
Med Center	4	3
Downtown Mall	5	4

Note: Buses run each route 4 times per hour, 15 hours per day.

Question 2

- PubU has received preliminary information from an electric bus manufacturer and the company has promised that their internal calculations show PubU will save significant amounts of money by switching to electric. We would like to independently verify the company's claims. How much money will PubU save by switching to electric?

Exhibit or Question Guidance:

Interviewee should ask about the following:

Cost per bus: $1M

Annual Maintenance Cost: $4,000 / bus

Bus Efficiency: 4 miles / gallon of diesel equivalent (gallon of diesel equivalent is a measure of energy)

Electric to Diesel Conversion: 25 gallon of diesel equivalent / megawatt-hour (MW-h)

Grid Stats: $100 / MW-h generated, 1000 lbs CO2 / MW-h generated (currently, future is 0)

A great caser should recognize that maintenance cost is 1/5th the diesel cost. The bus efficiency is 2x. This will simplify math. Interviewee should drive case towards five-year savings and recognize a negative ROI. From an emissions standpoint, this won't immediately affect carbon emissions. But as mentioned earlier, the grid is moving to a zero-carbon state.

Answers:

Electricity: 2.1M Miles / 4 miles per gallon of diesel equivalent = **525k gallons of diesel equivalent**

       525k gallons of diesel equivalent (gde) / 25 gde / MW-h = **21k MW-h**

       21k MW-h x $100 MW-h =**$2.1M / year**

Annual Maintenance: 25 buses x $4000 / bus = **$100,000 per year**

Total Cost = **$2.2M / year**

Emissions:

21k MW-H x 1000 = **21M lbs of CO2**

Cost Savings Per Year: $6.8M – $2.2M **= $4.6M**   **Total Investment = $25M…**over five years, **Save $23M**, ROI of (23-25)/25 = **-8%.**

BRAINSTORMING

It seems like the electric bus fleet might not successfully lower emissions. What are some other benefits of switching to an electric bus fleet outside the framework of carbon emissions?

Brainstorming Guidance:

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

Local Impact	Reputation Boost	Future Impacts
• Reduced noise	• Increased Student Attraction	• Reduced maintenance staff
• Reduced fumes	• Increased Faculty Attraction	• Opportunity to automate
• Increased student wellness (improved air quality	• Increased Research funding	• Buses as energy storage
• Increased public safety (more advanced, sensors ala Tesla)		

Best candidates display:
Candidate should provide a structure to their thinking and focus on other potential impacts on the university. Universities have multiple stakeholders including the students, faculty, employees, community and state and local governments. The best candidates will think about impact on multiple stakeholders.

CONCLUSION

To conclude, the interviewee should provide the following:

Recommendation:

- Either PubU should invest in electric buses or not. Either decision can be justified.

- Should Not Invest: ROI in 5 years is negative, no major change in emissions in short-term. Technology likely to get cheaper in coming years.

- Should Invest: In 6 years, ROI becomes positive. Eventual path to zero emissions. Significant other benefits.

Risks:

- First Adopter Risk – What are unknowns around the technology that have yet to be identified?

- Infrastructure Requirements – Need to build out significant other infrastructure and training (charging infrastructure, new maintenance training)

Next Steps:

- Prepare bid documentation and go forward with project.

- If they decide not to go forward – next step should be to explore alternatives that reduce costs AND deliver environmental benefits

INTERVIEWER FEEDBACK FORM

Case Name _____ Interviewer _____

Case Book _____ Case Type _____ Difficulty _____

Case Execution:

- ❑ Clarifying Questions + Framework
  - ❑ Good Questions
  - ❑ Structured
  - ❑ MECE
  - ❑ Creativity

1   2   3   4   5

Feedback:

- ❑ Exhibits + Quantitative Ability
  - ❑ Accuracy
  - ❑ Speed
  - ❑ Insights Presented
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1   2   3   4   5

Feedback:

- ❑ Brainstorm + Conclusion
  - ❑ Creative & Structured
  - ❑ Good Business Judgment
  - ❑ Recommendation Strength

1   2   3   4   5

Feedback:

- ❑ Presence & Non-Verbal
  - ❑ Confidence
  - ❑ Poise / Posture
  - ❑ Clear & Concise
  - ❑ Body Language
  - ❑ Coachability

1   2   3   4   5

Feedback:

Total: _____ / 20

EXHIBIT 1

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Note: Buses run each route 4 times per hour, 15 hours per day.

WHALE HOTEL

McKinsey | Round 2 | Retail

Prompt:
Our client is a real estate company that owns and operates luxury hotels around the world. They've previously owned 3 resorts in Dubai and are considering building a fourth, targeted specifically at high net worth individuals – called whales.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. **What's the payback period?** 5 years

2. **How long is the construction period?** 2 years

3. **What is the tourism industry in Dubai like?** Very ritzy and highly seasonal (25% increase in the summer)

4. **Does the company currently own hotels in Dubai?** No – ignore cannibilization

5. **Are there any similar resorts in Dubai?** Yes, the King's Palace, the Belzor, and the Egyptian

BEHAVIORAL INTERVIEW QUESTION:

As a consulting professional, you will often have to resolve conflict within teams. Tell me about a time you successfully resolved conflict in a team setting.

EXHIBIT 1

Resort	# of Rooms	Off-Peak Utilization	Off-Peak Whales %	Rate	Pool Quality	Peak* Utilization	Peak* Whales %
King's Palace	5000	80%	25%	$2000/night	Poor	80%	25%
Egyptian	4000	75%	25%	$2000/night	Good	95%	37.5%
Belzor	8000	75%	33.3%	$2500/night	Excellent	100%	50%

Note: Peak season runs from June – August

Question 1 – Hand the candidate Exhibit 1

- After looking at Exhibit 1, calculate the total number of whales at expected at each hotel each night.

  - Prompt the candidate to do Peak and Off-Peak separately

Exhibit Guidance:

	Whales Per Night, Off-Peak	Whales Per Night, Peak
King's Palace	5000 * 80% * 25% = 1000	5000 * 80% * 25% = 1000
Egyptian	4000 * 75% * 25% = 750	4000 * 95% * 37.5% = 1425
Belzor	8000 * 75% * 33.3% = 2000	8000 * 100% * 50% = 4000
Total	**3750**	**6425**

- Interviewee should identify that:

  - Correlation between whale % and swimming pool quality

  - Impact of seasonality on overall demand (great candidates will notice that Belzor is at 100% utilization, meaning that there could be additional demand (for a hotel with an excellent pool) that is not being met

- Steer the interviewee towards the conclusion that the hotel **must have an excellent quality pool**

- Ask the interviewee what a reasonable rate to charge a whale for a new hotel would be – any rate is acceptable as long as it is supported logically

Question 2 : Market research indicates that a hotel with an excellent quality pool charging $2,500 a night would capture 100% of the whales who stat at the King's Palace and the Egyptian as well as an additional 250 whales per night during the off-season and 1575 during the peak season. What is the expected demand for the potential new hotel?

Exhibit Guidance:

- Nightly Whale Demand, Off-Peak = 2000
  - 1000 (King's Palace) + 750 (Egyptian) = 2000
- Nightly Whale Demand, Peak = 4000
  - 1000 (King's Palace) + 1425 (Egyptian) + 1575 (new) = 4000

EXHIBIT 2

Variable A: Hotel Stories

1500 rooms per story

$1 billion construction cost per story

Variable B: Pool Options

Excellent - $500 million

Good - $100 million

Poor - $50 million

Question 3 – Hand the Candidate Exhibit 2

How many stories will the new hotel require?

Exhibit Guidance:

- Interviewee should recognize that, in order to meet demand of 4000 rooms per night in peak season, the hotel must be at least 3 stories tall

Question 4: Annual operating expenses are $250M per 1500 rooms. Land acquisition is $2B. What is the total initial investment and would you recommend moving forward with the hotel.

Exhibit Guidance:

- **Initial investment**:

  - Land - $2B

  - Rooms - $3B – (3 stories)

  - Pool - $.5B – (excellent quality)

  - **Total - $5.5B**

- **Annual Revenue:**

  - $2,500/night * 30 nights = $75K per whale monthly

  - 4000 whales * $75K per whale = $300M (peak, monthly) * 3 Month Peak Season = $900M Peak

  - 2000 whales * $75k per whale = $150M (off – peak, monthly * 9 Months = $1.35B Off – Peak

  - **Total Annual Revenue = $2.25B Annually**

Question 4 (continued): Annual operating expenses are $250M per 1500 rooms. Land acquisition is $2B. What is the total initial investment and would you recommend moving forward with the hotel.

Exhibit Guidance:

- **Annual Profit:**

    - **Annual Revenue - $2.25B**

    - **Annual Opex - $750M ($250M per 1500 rooms * 3)**

    - **Annual Operating Profit - $1.5B**

- **Payback Period:**

    - **2 years of construction**

    - **3 years of revenue (3*$1.5B) = $4.5B**

    - **After 5 – years, $5.5B cost - $4.5B revenue**

- **A good candidate will realize that:**

    - **We don't break even in 5-years**

    - **We will turn a profit, 8 months into year 5**

    - **We haven't considered additional revenue sources or a potential exit opportunity**

    - **If time allows – consider asking them how to raise additional revenue**

Question 5: The real estate company's CEO is on his way in – what do you recommend?

Exhibit Guidance:

- A candidate can recommend either moving forward with the deal or foregoing the opportunity,

- If they recommend moving forward, they should include that they are evaluating additional revenue streams that will bring the company closer to a 5-year payback period

- A candidate might choose to turn-down the hotel because of:

  - Issues with the payback period

  - Competitive response from the King's Palace, Egyptian, or Belzor

INTERVIEWER FEEDBACK FORM

Case Name _____ Interviewer _____

Case Book _____ Case Type _____ Difficulty _____

Case Execution:

❑ Clarifying Questions + Framework
    ❑ Good Questions
    ❑ Structured   1   2   3   4   5
    ❑ MECE
    ❑ Creativity

Feedback:

❑ Exhibits + Quantitative Ability
    ❑ Accuracy
    ❑ Speed   1   2   3   4   5
    ❑ Insights Presented
    ❑ Errors / Guidance Needed

Feedback:

❑ Brainstorm + Conclusion
    ❑ Creative & Structured   1   2   3   4   5
    ❑ Good Business Judgment
    ❑ Recommendation Strength

Feedback:

❑ Presence & Non-Verbal
    ❑ Confidence
    ❑ Poise / Posture   1   2   3   4   5
    ❑ Clear & Concise
    ❑ Body Language
    ❑ Coachability

Feedback:

Total: _____ / 20

EXHIBIT 1

Resort	# of Rooms	Off-Peak Utilization	Off-Peak Whales %	Rate	Pool Quality	Peak* Utilization	Peak* Whales %
King's Palace	5000	80%	25%	$2000/night	Poor	80%	25%
Egyptian	4000	75%	25%	$2000/night	Good	95%	37.5%
Belzor	8000	75%	33.3%	$2500/night	Excellent	100%	50%

Note: Peak season runs from June – August

EXHIBIT 2

Variable A: Hotel Stories

1500 rooms per story

$1 billion construction cost per story

Variable B: Pool Options

Excellent - $500 million

Good - $100 million

Poor - $50 million

ACKNOWLEDGEMENTS