RICE 2024-2025 CASEBOOK

Rice Business Consulting Association

WELCOME to the Inaugural Rice Business Consulting Association Casebook

We are pleased to present the very first Rice Business Consulting Association Casebook, a comprehensive collection of cases designed to challenge your strategic thinking and enhance your problem-solving skills. This casebook represents the collective efforts of experienced case writers and industry professionals who have crafted scenarios reflecting real-world business challenges across various sectors.

Our goal with this casebook is to provide a valuable resource that equips you with practical experience and sharpens the analytical skills necessary for successful consulting. Each case is designed to simulate the complexities of strategic decision-making, requiring you to apply your knowledge creatively and collaboratively.

From corporate strategy and growth to operations and market entry, the cases span multiple industries and business functions, offering diverse perspectives and insights. Whether you are preparing for case interviews, honing your consulting toolkit, or exploring strategic concepts, we hope this casebook serves as a powerful learning tool.

We would like to acknowledge and express our sincere gratitude to everyone who contributed to this casebook. Your work has made this resource a cornerstone for our community's continued growth and development.

Thank you for choosing the Rice Business Consulting Association Casebook, and we wish you success in your journey ahead.

All our best,

Kate Walker & Clint Dorrell
VPs of Learning & Development
Rice Business Consulting Association

THANK YOU to our writers, reviewers, and editors

The development of this casebook has been a collaborative effort involving numerous individuals who generously shared their time, knowledge, and expertise. We would like to extend our heartfelt thanks to all the case writers and reviewers who contributed to this project.

Your dedication to producing cases that reflect real-world challenges and opportunities has been essential in shaping a resource that will enhance the learning experience for our students. Your insights, attention to detail, and commitment to excellence have made this casebook a valuable tool for our program.

This project is a testament to the strength of our community at Rice Business and our collective passion for developing leaders who think strategically and act decisively. We are deeply grateful for your contributions and the impact this casebook will have on future students and professionals.

Thank you for your unwavering support and for making this casebook a reality.


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Categorical Breakdown of Major Chapters as Follows...

We value your feedback! Please provide input on our casebook using this form.

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THE CASE INTERVIEW

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CASE INTERVIEW Introduction

Case interviews are 20 - 40 minute sessions involving an interviewer feeding questions and information about a hypothetical problem that needs to be solved in a structured & rational manner

Two Types of Case Interviews

INTERVIEWER-LED

Unique Characteristics:

- Interviewer gives problem statement
- Interviewer guides interviewee through case stages
- Primary solution direction set by interviewer

INTERVIEWEE-LED

Unique Characteristics:

- Interviewee must deduce main problem
- Interviewee needs to drive case from one stage to the next
- Interviewee determines route to ultimate solution of the case

STRUCTURE The Case Interview Process Explained

Case Prompt & Framework → Exhibit Analysis OR Calculations Session → Exhibit Analysis OR Brainstorming Session → (Conclusion) Presentation of Findings

Laying the foundation

Case prompt

- Listen carefully & take notes of figures, dates, stakeholders, and the overall problem statement
- Give a summary of what you heard to the interviewer
- Ask clarifying questions using BGOT *(Business Model, Geography, Objective, Timeline)*

Framework

- Develop a MECE framework that covers major case categories
- Framework should inform next steps & drive to a solution

Constructing the supporting argument for a solution

Exhibit Analysis

- Exhibits consist of graphical representations of data that generally conveys both numbers used for calculations and general trends that will inform the rest of the case
- Interviewee's should take 15 - 30 seconds to analyze information in the exhibits prior to answering to display thoughtfulness & to draw correct conclusions

Brainstorming Session

- Generally phrased as "do you have any thoughts" or "what do you think about…"
- Strong candidates will provide thoughts/solutions that are considered both in-the-box & out-of-the-box
- Connecting different facets of the hypothetical client and case atmosphere make for the strongest brainstorming ideas

Landing the final pitch

Conclusion

- Take a few moments to breathe and put together a shortlist of case highlights
- Present the conclusion as follows:
  - Give the recommended solution **first**
  - Provide a few supporting facts
  - Thank the interviewer
- The conclusion should be concise and take ~20 - 30 seconds

Make sure to have a viewpoint regardless of if you think you are right or not

FRAMEWORKS, BRAINSTORMING, MATHEMATICS

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Frameworks

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FRAMEWORKS Introduction

ABOUT FRAMEWORKS

Frameworks are essential tools in case interviews, helping you **break down complex business problems into manageable, logical parts**. A well-structured framework provides a roadmap for your analysis, ensuring that you cover all relevant areas while maintaining a logical flow. In the interview, you have **2 minutes** to think about it.

However, it is important to remember that **frameworks are guides, not strict rules** to follow. In case interviews, creativity and flexibility are key. While frameworks offer a starting point, **you must tailor your approach to the specific nuances of the case in front of you**. Simply memorizing and applying frameworks without adapting to the situation won't help you succeed in a dynamic business problem-solving environment.

MUTUALLY EXCLUSIVE, COLLECTIVELY EXHAUSTIVE

An effective framework should be **MECE (Mutually Exclusive, Collectively Exhaustive).** This means:

- **Mutually Exclusive:** Each element of the framework should be distinct and not overlap with other elements.
- **Collectively Exhaustive:** The framework should comprehensively cover all possible areas of the problem, ensuring nothing is left out.

When you structure your framework to be MECE, you avoid redundancy and ensure a clear, logical flow in your analysis. This not only helps you stay organized but also demonstrates structured thinking to your interviewer.

FOUNDATIONAL FRAMEWORKS

In this guide, we provide several foundational frameworks that will help you structure your thinking across various business problems. These include:

- **The 3 C's** (Customer, Company, Competitor) – Useful for understanding the business environment.
- **The 4 P's** (Product, Price, Place, Promotion) – Focused on marketing strategy and execution.
- **Porter's Five Forces** (Competition, Threat of New Entrants, Bargaining Power of Suppliers, Bargaining Power of Customers, Threat of Substitutes) – A tool for analyzing competitive forces in an industry.

COMMON FRAMEWORKS

Additionally, we have created example frameworks for four common case types:

- **Profitability**
- **Market Entry & Expansion**
- **Mergers & Acquisitions (M&A)**
- **Corporate Strategy & Growth**

For each case type, we provide:

- **A Suggested Framework:** A structured, MECE approach for analyzing the problem.
- **Common Solutions:** Practical, high-level solutions that can be applied based on the results of your analysis.

FRAMEWORKS The 3Cs

The 3Cs framework helps businesses evaluate their competitive environment by focusing on three critical areas: the company, customers, and competitors. It's a powerful tool for developing a strong **market strategy.**

Company	Customers	Competitors
Focus on the company's internal strengths and weaknesses. This analysis considers: • **Resources and capabilities:** What unique assets, skills, or knowledge does the company have? • **Value proposition:** What makes the company's offerings distinctive or superior? • **Market position:** How does the company compare to competitors? • **Organizational structure and culture:** How do internal processes and culture affect performance?	Understanding the customer is vital for developing an effective strategy. This part of the framework examines: • **Target demographics:** Who are the customers? What are their age, income, preferences, and behaviors? • **Needs and preferences:** What do customers want? What drives their purchasing decisions? • **Customer segments:** How are the customers segmented, and what are the key differences between segments? • **Customer relationships:** How does the company maintain and strengthen its relationship with customers?	To stay competitive, businesses must continuously analyze their rivals. Key areas include: • **Market share:** How much of the market is controlled by competitors? • **Competitive positioning:** What are the strengths and weaknesses of competitors compared to the company? • **Strategies:** What are competitors doing in terms of pricing, product development, marketing, etc.? • **Threats:** What potential new competitors or substitute products could disrupt the company's position?

FRAMEWORKS The 4Ps

The 4Ps framework helps businesses develop effective **marketing strategies** by focusing on four key elements: product, price, place, and promotion. It ensures all aspects of a product or service are aligned to meet customer needs and achieve business goals.

Product

The product element involves creating or managing goods or services to meet customer needs. It includes:

- **Product features and quality:** What does the product offer, and how does it meet the needs of the target audience?
- **Design and packaging:** How does the product's appearance contribute to its appeal?
- **Product lifecycle:** What is the current stage of the product (introduction, growth, maturity, or decline)?
- **Product differentiation:** How is the product positioned against competitors?

Price

Price refers to the amount charged for a product or service. Pricing strategy should balance profitability with customer expectations and competitive pressures. Key considerations include:

- **Pricing objectives:** Is the goal to maximize profit, increase market share, or penetrate a new market?
- **Price elasticity:** How sensitive are customers to price changes?
- **Discounting strategies:** What discounts or promotions can be offered to attract customers?
- **Competitor pricing:** How does the company's pricing compare to competitors?

Place

Place refers to the methods and channels used to get the product to customers. It encompasses:

- **Distribution channels:** Does the company use direct (online, company-owned stores) or indirect (wholesalers, retailers) channels?
- **Market coverage:** Does the company focus on intensive, selective, or exclusive distribution?
- **Logistics:** How does the company manage inventory, transportation, and supply chain efficiency?
- **Accessibility:** How easy is it for customers to find and purchase the product?

Promotion

Promotion is about how the company communicates the product's benefits to customers. It includes:

- **Advertising:** What media and channels are used to reach the target audience (TV, online, social media)?
- **Sales promotions:** What short-term incentives (discounts, coupons, special offers) are offered?
- **Public relations:** How does the company build and maintain a positive brand image?
- **Personal selling:** Does the company use direct sales teams or representatives to promote the product?

FRAMEWORKS Porter's Five Forces

Porter's Five Forces is a tool used to analyze the competitive intensity and attractiveness of an **industry**. By understanding the forces that shape competition, businesses can develop strategies to improve their competitive position.

Competitive Rivalry

This refers to the intensity of competition among existing competitors in the market. High rivalry can drive down prices and reduce profitability. Factors influencing competitive rivalry include:

- The number of competitors.
- Industry growth rate.
- Product differentiation (or lack thereof).
- Switching costs for customers.
- Exit barriers that keep unprofitable firms in the market.

Threat of New Entrants

This force examines how easy or difficult it is for new players to enter the industry. Barriers to entry protect established companies and limit new competitors. Barriers can include:

- Economies of scale.
- Brand loyalty.
- Capital requirements.
- Access to distribution channels.
- Regulatory and compliance costs.

Bargaining Power of Suppliers

This force assesses the ability of suppliers to influence the price and terms of supply. If suppliers have significant power, they can raise prices or limit availability, affecting profitability. Supplier power is higher when:

- There are few suppliers and many buyers.
- Suppliers provide a unique or differentiated product.
- Switching suppliers is difficult or costly.
- Suppliers can integrate forward into the industry.

Bargaining Power of Buyers

The bargaining power of buyers refers to customers' ability to influence pricing and quality. When buyers have power, they can demand lower prices or higher product quality. Buyer power is strong when:

- There are few buyers and many sellers.
- Products are standardized or undifferentiated.
- Buyers can easily switch to another supplier.
- Buyers can integrate backward to produce the product themselves.

Threat of Substitutes

Substitutes refer to products or services outside the industry that can meet the same need. The presence of substitutes limits industry profitability because they provide alternative choices for consumers. This threat is higher when:

- Substitutes offer a better price-performance trade-off.
- Switching costs between products are low.
- Substitute products are easily accessible.

FRAMEWORKS Profitability Analysis

Profitability cases focus on identifying the root causes of profit issues and recommending solutions. To approach these cases, break down the key components of profit: Profit=Revenue−Costs

Revenue	Costs	External Factors
• Breakdown of revenue sources (price per unit and volume of sales) • Market demand and customer preferences • Competitor pricing and market share trends • Effectiveness of sales and marketing efforts	• Fixed costs (e.g., rent, salaries, overhead) and opportunities for reduction • Variable costs (e.g., COGS, logistics, marketing) and their impact on margins • Efficiency of production and operational processes	• Market trends impacting demand or pricing power • Regulatory or legal factors increasing operational costs • Macroeconomic factors like inflation or consumer spending trends

Potential Solutions for Profitability Analysis Cases

Revenue-Boosting	Cost-Reduction	Operational Efficiency
• Adjust pricing strategies to reflect market conditions and customer willingness to pay. • Expand into new customer segments or markets to increase sales volume. • Improve marketing and sales strategies to boost conversion and customer retention.	• Streamline production and operational processes to reduce variable and fixed costs. • Optimize supply chain management to lower COGS and logistics expenses. • Implement automation or lean practices to cut overhead.	• Invest in technology to improve operational productivity and reduce manual tasks. • Reassess and renegotiate supplier contracts to achieve better pricing. • Consolidate or eliminate non-essential expenses to focus on core profit drivers.

FRAMEWORKS Market Entry & Expansion

Market Entry and Expansion cases revolve around analyzing whether a company should enter a new market or expand its presence in an existing one. The goal is to assess the attractiveness of the new market, understand the company's ability to compete, and evaluate the risks and potential rewards of entering or expanding.

Market Analysis	Company Capabilities	Financial Evaluation
• Market size and growth potential • Customer needs, preferences, and demand trends • Competitive landscape (key players, market share, pricing) • External factors (macroeconomic, regulatory, geopolitical)	• Strength of existing products/services and their fit for the new market • Operational capacity to support market entry (supply chain, logistics) • Financial resources available for investment and scaling • Brand recognition and potential for localization	• Projected revenues, costs, and profitability of entering the market • Market share potential relative to competitors • Required investment to enter and operate in the new market • Risk factors (e.g., economic instability, market saturation)

Potential Solutions for Market Entry & Expansion Cases

Market Penetration	Internal Optimization	Financial Strategy
• Enter the market through partnerships or joint ventures to leverage local expertise. • Acquire an existing player in the market for immediate customer base and infrastructure. • Launch a tailored product or service to address local market needs and preferences.	• Expand operational capacity (production, logistics) to support market demand. • Optimize supply chain and distribution channels for the new market. • Invest in local marketing and branding to build awareness and trust.	• Allocate sufficient resources for market entry while managing risks. • Reinvest profits from existing operations to fund expansion into new markets. • Adjust pricing models to align with local purchasing power and competitor strategies.

FRAMEWORKS Mergers & Acquisitions

Mergers & Acquisitions cases evaluate the current state of both the acquiring company and the target, focusing on strategic fit, financial health, and integration potential. After the analysis, solutions are proposed for a successful M&A strategy.

Strategic Fit	Financial Health & Valuation	Integration & Synergies	Regulatory & Legal Considerations
• Alignment of the target's products, services, or technology with the acquiring company's business model. • Market share expansion or new customer base access through the acquisition. • Competitive advantage gained through acquisition (market entry, new capabilities, or product lines). • Cultural compatibility between the companies (management style, corporate values).	• Financial performance of the target (revenue, profitability, cash flow). • Valuation of the target relative to industry standards. • Debt levels and liabilities of the target. • Deal structure considerations (e.g., earnouts, payment terms). • Projected ROI and impact on the acquiring company's financial health post-deal.	• Operational fit between the two companies (supply chain, technology, processes). • Opportunities for cost reduction and eliminating redundancies. • Economies of scale (procurement, production, distribution). • Talent retention and post-acquisition management alignment.	• Antitrust or competition law concerns that could block the deal. • Regulatory approvals required for the acquisition. • Legal risks associated with the target (lawsuits, compliance issues). • Intellectual property, contractual obligations, or licensing risks.

Potential Solutions for Mergers & Acquisition Cases

Acquisition & Integration	Internal Optimization	Financial Strategy
• Acquire the target to gain market share, enter new regions, or expand product offerings. • Develop a post-acquisition integration plan focusing on operational alignment, cultural fit, and technology integration. • Establish a retention strategy for key personnel to ensure smooth operations post-acquisition.	• Streamline overlapping operations to reduce costs and eliminate redundancies. • Leverage economies of scale to improve efficiency and lower COGS. • Integrate supply chains, technology platforms, or distribution networks to enhance productivity.	• Structure the deal to minimize financial risk (e.g., earnouts, staggered payments). • Ensure the acquisition aligns with long-term growth and ROI targets. • **Do not acquire** the target if it fails to meet the financial objectives or expected returns of the acquiring company. • Reallocate capital to prioritize high-impact post-acquisition initiatives.

FRAMEWORKS Corporate Strategy & Growth

Corporate Strategy & Growth cases address broader strategic decisions firms make to achieve growth and competitive advantage. Topics might include diversification, scaling operations, strategic partnerships, and investment decisions.

Market Position & Competitive Landscape	Internal Capabilities & Resources	Strategic Assets & Partnerships
• Market share compared to key competitors • Growth or decline in the market segment • Competitive intensity (pricing, innovation, customer loyalty) • Major competitors' strengths and weaknesses • Core customer segments and recent shifts in customer behavior	• Core competencies (e.g., technology, brand, supply chain) • Operational efficiency in production and logistics • Bottlenecks or inefficiencies in operations • Financial health (profitability, cash flow, debt levels) • Availability of financial resources for growth initiatives	• Strength and reliability of supplier and partner relationships • Strategic alliances that support current business operations • Intellectual property and proprietary technology • Level of technology adoption and its impact on growth or efficiency • Brand equity and reputation within the current market

Potential Solutions for Corporate Strategy & Growth Cases

Market Positioning	Internal Optimization	Strategic Partnerships & M&A
• Innovate or differentiate products to meet customer needs and stay competitive. • Reduce costs through operational efficiency and automation. • Strengthen customer loyalty programs and brand presence.	• Streamline operations and supply chains to reduce costs and improve efficiency. • Reinvest in core areas (technology, capacity) to support growth. • Divest non-core assets and reduce overhead to focus on profitable areas.	• Form partnerships to access new markets, reduce costs, or share resources. • Pursue acquisitions to gain market share or expand product offerings. • Divest underperforming units to refocus on core strengths.

Brainstorming

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BRAINSTORMING Introduction

ABOUT BRAINSTORMS

In a case interview, brainstorming questions typically come after you've completed your framework analysis and reviewed any exhibits. These open-ended questions are designed to test your ability to generate creative ideas and structured solutions on the spot. The key is to provide quick, clear, and structured responses that are relevant to the problem at hand.

After you've analyzed the data, the interviewer may ask questions that encourage you to explore broader strategies, solutions, or challenges. These brainstorming questions are an opportunity to showcase your creative problem-solving skills while maintaining a structured approach.

EXAMPLES

- "What are the benefits and challenges of different growth strategies?"
- "In what ways can the company increase profitability based on the current analysis?"
- "What other factors should the company consider when developing a new marketing campaign?"
- "What are the pros and cons of each viable business strategy?"
- "How can costs be reduced following a recent acquisition?"
- "What potential challenges should the company anticipate with its expansion plan?

STRUCTURING YOUR BRAINSTORM

To provide a clear and structured response, aim to quickly categorize your ideas into two or three buckets. Common approaches include:

- Internal vs. External Factors
- Revenue vs. Costs
- Pros vs. Cons
- Short-Term vs. Long-Term Impact
- Risks vs. Benefits
- Financial vs. Non-Financial Considerations
- Operational vs. Non-Operational Factors

20-SECOND RULE

In a case interview, you typically have about 20 seconds to start articulating your brainstorming ideas. Use this time wisely by following these steps:

1. **Pause and Organize:** Take a couple of seconds to mentally organize your ideas into clear categories.
2. **Start Broad, Then Get Specific:** Begin by outlining the categories (e.g., “We can approach this problem from both internal and external perspectives”). Then, provide 2-3 specific ideas under each category.
3. **Keep It Concise:** Aim for brevity and focus on quality over quantity. Provide a couple of key ideas for each category.

BRAINSTORMING Examples

"Based on the current market trends and competitive landscape, how can the company improve its profitability over the next 12 months?"	
Revenue Growth	**Cost Reduction**
• **Expand into new markets:** Target under-served regions or demographic segments that align with the company's product offerings. • **Introduce new products or services:** Develop complementary products that address existing customer needs, allowing cross-selling or upselling opportunities. • **Increase customer retention:** Implement loyalty programs, offer subscription-based models, or enhance customer service to build long-term relationships.	• **Streamline operations:** Optimize manufacturing or service delivery processes to reduce waste and improve efficiency. • **Negotiate better supplier contracts:** Explore alternative suppliers or renegotiate terms to reduce COGS. • **Invest in technology:** Automate repetitive tasks or leverage data analytics to improve productivity and reduce labor costs.

"The company is looking for ways to achieve significant growth over the next three years. What strategies should they consider?"	
Internal Growth	**External Growth**
• **Expand current operations:** Focus on growing existing product lines or services by improving production capacity, enhancing marketing, and optimizing sales strategies. • **Invest in R&D:** Develop new products or improve existing ones to meet evolving customer needs and stay competitive in the market. • **Increase efficiency:** Streamline operations, reduce costs, and invest in technology to improve productivity and profitability over time. • **Organic market expansion:** Explore new customer segments or expand into adjacent markets using existing infrastructure.	• **Mergers & Acquisitions:** Acquire or merge with companies that offer complementary products, new technology, or access to new markets. • **Strategic partnerships:** Form alliances with other companies to share resources, enter new regions, or develop joint ventures. • **Franchising or licensing:** Expand quickly by franchising the business model or licensing products to partners in different regions or industries. • **International expansion:** Enter new geographic markets through acquisitions, partnerships, or setting up operations abroad to capture growth opportunities.

Mathematics

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MATHEMATICS Introduction

ABOUT CASE MATH

Mathematics is a crucial part of case interviews, allowing you to quantify your solutions and support your recommendations with data. While the math itself is generally simple, your ability to handle calculations quickly and accurately is essential. This section covers the types of math you'll encounter, tips for mental math, and how to approach numerical challenges efficiently.

TYPES OF MATH

In case interviews, the most common calculations involve:

- **Profit and Loss Analysis:** Calculating revenue, costs, and profit margins.
- **Breakeven Analysis:** Determining when a company will cover its fixed costs.
- **Market Sizing:** Estimating the potential of a market or specific customer segment.
- **Growth Rates:** Calculating growth over time to assess business performance.

MENTAL MATH

Since case interviews often require on-the-spot calculations, mastering mental math is key. Focus on the following techniques:

- **Breaking Down Percentages:** Split complex percentages into manageable parts for quicker calculations.
- **Multiplication and Division Shortcuts:** Use strategies such as breaking down larger numbers into smaller components for easier calculations.
- **Quick Approximations:** Simplify numbers mentally (if allowed) to keep calculations moving, but always prioritize accuracy unless the interviewer says otherwise.

COMMUNICATION

In addition to performing calculations, explaining them clearly is key. To communicate your math effectively:

- **Walk the interviewer through your process:** Step-by-step, explain how you reached your conclusions.
- **Use simple language:** Ensure the interviewer understands your thought process without getting lost in the details.
- **Stay structured:** Even if minor errors occur, demonstrating clear logic is more important than perfect accuracy.

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FORMULAS Common Examples

Profit & Loss Analysis	Breakeven Analysis
$Cost = Fixed\ Costs + (Variable\ Cost\ Per\ Unit \times Quantity\ Produced)$ $Revenue = Price\ Per\ Unit \times Quantity\ Sold$ $Profit = Revenue - Costs$	$Breakeven\ Point\ (Units) = \frac{Fixed\ Costs}{(Price\ Per\ Unit - Variable\ Cost\ Per\ Unit)}$ $Breakeven\ Revenue = \frac{Fixed\ Costs}{Gross\ Margin\ Percent}$

Market Sizing	Growth Rates
$Market\ Size = Total\ Population \times Penetration\ Rate \times Average\ Consumption\ Per\ User$ $Market\ Share = \frac{Company's\ Sales}{Total\ Market\ Sales} \times 100$	$Growth\ Rate\ (Percent) = \frac{New\ Value - Old\ Value}{Old\ Value} \times 100$ $Compound\ Annual\ Growth\ Rate\ (CAGR) = (\frac{End\ Value}{Start\ Value})^{(\frac{1}{Number\ of\ Years})} - 1$

FORMULAS Common Examples (cont.)

Return on Invesment (ROI)	Net Present Value (NPV)
$ROI\ (Percent) = \frac{Net\ Profit}{Investment} \times 100$ $Payback\ Period = \frac{Investment}{Annual\ Cash\ Flow}$	$NPV = \Sigma \frac{Cash\ Flow\ in\ Year\ t}{(1 + Discount\ Rate)^t} - Initial\ Investment$

Profit Margins	Rule of 72
$Gross\ Profit\ Margin = \frac{Revenue - Cost\ of\ Goods\ Sold}{Revenue}$ $Net\ Profit\ Margin = \frac{Net\ Profit}{Revenue}$	$Doubling\ Time\ (years) = 72 \div Growth\ Rate\ (Percent)$

MENTAL MATH Tips & Tricks

Break Down Percentages	Simplify Multiplication	Use Rounding Sparingly	Master Multiplication by 5, 10, 25
When dealing with percentages, break them into simpler parts for quicker calculations. Example: To calculate 18% of $500, split it into smaller parts: • 10% = $50 • 5% = $25 • 3% = $15 • Total = $90	**Break larger numbers into manageable components.** Example: To multiply 47 × 19, break it down as: • (47 × 20) – (47 × 1) = 940 – 47 = 893.	**Round numbers only if the interviewer allows it and the exact figure is not crucial.** Example: For 399 × 21, round to 400 × 20 = 8,000, and adjust based on the context.	**Multiplying by 5: Multiply by 10, then divide by 2.** Example: 48 × 5 = (48 × 10) ÷ 2 = 480 ÷ 2 = 240. **Multiplying by 25: Multiply by 100, then divide by 4.** Example: 16 × 25 = (16 × 100) ÷ 4 = 1600 ÷ 4 = 400.

Leverage Common Fractions	Use Estimation for Quick Checks	Add in Parts	Practice Mental Division
Understand common fractions and their percentage equivalents to speed up your calculations. Example: 1/3 = 33.33%, 1/4 = 25%, 1/5 = 20%, 1/8 = 12.5%.	**Quickly estimate the result to ensure you're in the right ballpark, even when exact precision isn't required.** Example: For 512 ÷ 17, approximate by using 500 ÷ 20 = 25. This gives you a close estimate before refining the calculation.	**When adding larger numbers, break them down into smaller, more manageable pieces.** Example: For 687 + 493, split them into hundreds, tens, and units: • 600 + 400 = 1,000 • 80 + 90 = 170 • 7 + 3 = 10 • Total = 1,000 + 170 + 10 = 1,180.	**Practice dividing numbers using simpler, approximate values.** Example: For 870 ÷ 29, think of 870 ÷ 30 = 29. This provides a close estimate before adjusting for more accuracy.

THE BEHAVIORAL INTERVIEW

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INTRODUCTION What is a Behavioral Interview?

The behavioral interview is a widely-used method designed to assess a candidate's **past experiences and behaviors to predict future performance.** Unlike traditional interviews, which may focus on hypothetical scenarios or technical skills, behavioral interviews are grounded in the belief that past behavior is the best predictor of future success. These interviews typically revolve around **competency-based questions**, encouraging candidates to reflect on how they have navigated specific situations in their previous roles.

Structure

Behavioral interviews follow a structured format, often utilizing the STARL method (Situation, Task, Action, Result, Lessons Learned) as a guide for both the interviewer and the interviewee:

- **Situation:** The candidate is asked to describe a specific situation from their past.
- **Task:** The candidate outlines the challenge or responsibility they were faced with.
- **Action:** The candidate explains the actions they took to address the task or situation.
- **Result:** The candidate describes the outcomes of their actions, focusing on measurable impacts.
- **Lessons Learned:** Finally, the candidate reflects on the experience, sharing insights, growth, and how they would approach a similar situation in the future.

Key Competencies

Behavioral interviews typically target specific competencies or soft skills that align with the job role. Common competencies explored include:

- **Leadership:** Examples where candidates have led a team, project, or initiative.
- **Teamwork:** Instances where candidates have collaborated with others to achieve a common goal.
- **Problem-Solving:** Scenarios where candidates faced challenges and successfully navigated them.
- **Adaptability:** How candidates handled changing conditions or unforeseen difficulties.
- **Communication:** Effective verbal and written communication skills, demonstrated through past interactions.
- **Time Management:** Examples of managing competing priorities or handling tight deadlines.

PREPARATION 5 Steps for Behavioral Readiness

Identify Examples for Each Competency	Structure Your Examples Using STARL	Tailor Your Examples to Consulting Challenges	Practice Answering Questions for Each Category	Simulate Realistic Interview Scenarios
Choose examples that showcase your skills in the Key Competencies. Each example should highlight consulting-relevant experiences like managing teams, solving complex issues, and working under pressure.	Once you have your examples, apply the STARL (Situation, Task, Action, Result, Lessons Learned) method to ensure your responses are clear, structured, and concise. Consulting firms value logical, outcome-oriented answers.	Ensure your examples reflect situations relevant to consulting, such as dealing with ambiguity, managing stakeholders, and delivering data-driven solutions within tight deadlines.	Rehearse questions covering all key categories. Focus on delivering concise, structured responses with a clear outcome, ensuring each answer demonstrates your ability to handle consulting-like challenges.	Conduct mock interviews or practice with a peer under time constraints to simulate real interview pressure. Focus on your delivery, ensuring you stay composed while clearly communicating your experiences.

EXAMPLES Introduction & Personal Fit

Introduction & Personal Fit

Beyond competency-based assessments, interviewers may also explore a candidate's personal motivations and how they fit with the company's values and culture. These questions are designed to assess:

- **Motivation & Career Goals:** Why is the candidate interested in this role and company? What are their long-term career aspirations?
- **Cultural Fit:** How well does the candidate align with the company's mission, values, and work environment?
- **Interpersonal Skills:** How effectively does the candidate communicate and build rapport with others? Are they collaborative and adaptable in team settings?

Common Questions

- "Tell me about yourself?"
- "Walk me through your resume."
- "Why are you pursuing your Rice MBA?"
- "Why consulting?"
- "Why our firm?"
- "Why [Houston] as your home office?"

EXAMPLES Leadership & Teamwork

Leadership

- What is your leadership style?
- How has your leadership style changed over the course of your career?
- If you were CEO of your last employer, what is the first thing you would do and why? How would you approach going about it?
- If you were to start a company, what 3 values would you base the company around?
- Give me an example of leadership.
- Tell me about a time you showed leadership with diverse teams and how you promoted inclusivity.
- Tell me about a time that you led a team. What challenges did you face?
- Tell me about a time you led a team on a tight timeline.
- Tell me about a time when you had to lead without authority.
- Tell me about a time when there was a difficult personality on a team you led. How did you manage the situation?
- Tell me about a time when you were asked to lead a group in a subject matter you were not comfortable with.
- Tell me about a time when you assumed a leadership role? What do you think made you a good leader?
- Tell me about a time when you led a team through adversity. Thanks...tell me about another time.
- What is your greatest strength and weakness as a leader?

Teamwork

- What is the best team you have ever worked on and why?
- Give me an example of when you worked on a team and challenges you faced.
- Tell me about a time when you struggled working with a team.
- Tell me about a time you helped a team overcome a problem.
- Tell me about a time when you resolved a conflict.
- Tell me about a time you managed team conflict.
- Tell me about a time when you had a disagreement with your boss/team and how you handled it.
- What types of teammates cause you the greatest frustration?
- Tell me about a time when you had to deal with a difficult teammate and how you resolved it.
- Tell me about a time when you worked with people who approached things differently than you.
- How would you react if you had a non-performing member in your team?
- Tell me about a time when you had to give a team member unpleasant feedback. How did you approach the situation? What would you do differently?
- If you were in a team of 5 people at our firm that is working on deciding an internal product's go-to-market strategy, what role would you take?

EXAMPLES Problem-Solving & Adaptability

Problem-Solving

- Give me an example of a time you came up with a creative solution to a difficult problem.
- Tell me about a time when you had to solve a tough problem.
- Give me an example of a time you used data to solve a problem at work/make a decision.
- Tell me about a time when you have used analysis to guide your decision-making process.
- What was your most challenging work project?
- Tell me about a project that didn't go well. What would you have done differently?
- Tell me about a time that a project did not go as expected.
- Tell me about a time when you faced an ethical dilemma.
- Tell me about a decision you made at work that showcased your integrity.
- Tell me about a time when you were part of a high-performing team. What was your role in achieving success?
- If you were CEO of your last employer, what is the first thing you would do and why? How would you approach going about it?

Adaptability

- Tell me about a time when you had to deal with an ambiguous situation.
- Tell me about a time when you made a decision under pressure with limited information. (faced or led the team)
- Tell me about a time you had to make an unpopular decision and how you went about it.
- Can you walk me through a time when you had to quickly adapt to a new work environment or team? What did you do to ensure your success?
- Describe a time when you had to adapt your approach or strategy due to unexpected circumstances during a project?
- Tell me about a time when you had to change direction on a task. What did you do?
- Tell me about a time when you had to work on a project or in an area outside your comfort zone. How did you make an impact?
- What steps did you take to adapt to the work environment at [firm]?

EXAMPLES Communication & Time-Management

Communication

- Tell me about a time when you had to persuade someone to do something they initially resisted.
- Tell me about a time when you persuaded a group.
- Tell me about a time when you had to convince someone to take a particular course of action.
- Tell me about a time when you persuaded someone you fundamentally disagreed with.
- Tell me about a time when you influenced senior leadership.
- Tell me about a time you motivated someone.

Time-Management

- Tell me about a time when you set your goals too high or too low.
- What accomplishment/achievement are you most proud of?
- At what point in your life or career were you the most busy or overwhelmed? How did you handle it?
- Tell me about a time you worked under pressure with competing priorities.
- Tell me about a time you went out of your way to achieve something you didn't have to do.

FIRM OVERVIEWS

INTERVIEW INSIGHTS

Firm	Interview Length	Interview Format	Insight
Accenture	2 rounds, 90 Minutes each	In-Person, On-Campus (1st round) Virtual (2nd round)	Rounds 1 & 2: • 45-minute case • 45-minute interview
Bain	135 Minutes	Virtual	• 45-minute case • 45-minute behavioral
Boston Consulting Group (BCG)	90 Minutes	Virtual	Two 45-minute interviews, each one split between a case and behavioral questions
Deloitte	120 Minutes	In-Person, On-Campus	• 45-minute strategy case • 15-minute behavioral interview • 45-minute analytical case • 15-minute presentation over analytical case
EY-Parthenon (EY-P)	120 Minutes	In-Person, at EY-P Office	• 45-minute strategy case • 30-minute behavioral interview • 45-minute analytical case
McKinsey & Company	180 Minutes	Virtual	Three 1-hour interviews, each one split between a case and PEI behavioral questions

INDUSTRY OVERVIEWS

RICE | BUSINESS

Industry Primer

Energy industries deal primarily with power sources ranging from traditional fossil fuels to renewable energies. The energy industry makes up a massive part of the global economy, and is often the subject of both sociopolitical & geopolitical scrutiny and discussion.

Fossil fuels have historically been the dominate source of power/energy and continue to be dominate globally, specifically in developing countries & emerging economies. Oil & Gas are particularly strong fossil fuel products and derivatives of these are often used in the creation of things such as plastics, fuel, and even clothing.

Renewable/regenerative energy sources have been making great strides in recent years, particularly with support from agencies and governments that are invested in reducing their carbon footprint. Adoption of these energy types has been steadily increasing, however subsidies are often required for economical viability due to their relatively cost-inefficient nature compared to traditional fossil fuels.

Highlights & Recent Trends

Fossil Fuels

- **Consolidation of competitors** primarily led by supermajors such as ExxonMobil, Chevron, etc.
- **OPEC** is a major driving factor in crude oil supply worldwide, and has seen increasing political power as a result.
- **Oil & Gas** makes up the majority of fossil fuel energy sources with coal slowly being phased out.
- **Societal pressure** is driving fossil fuel firms to invest in green technologies to reduce carbon footprints.

Renewables

- **Strong societal approval** has brought renewable energies to the front of climate change discussions globally.
- **Lack of profitable margins due to high costs** have acted as strong headwinds to growth.
- **Wind, solar, and hydro** have seen significant government backing in the form of subsidies to boost investment.
- **Approximately 30%** of energy is produced renewably across the globe with a strong presence in developed countries.

Industry Primer

The petrochemicals industry is a vital subset of the global chemical industry, producing chemicals derived from petroleum and natural gas. These chemicals are the building blocks for a wide range of products, including plastics, fertilizers, synthetic fibers, rubbers, adhesives, detergents, and pharmaceuticals.

Petrochemicals are essential for many sectors, including manufacturing, agriculture, healthcare, and consumer goods. The industry is closely tied to the oil and gas sector, as raw materials like ethylene, propylene, and benzene are sourced from refining crude oil and natural gas. Global demand for petrochemical products is growing, particularly in developing economies, but the industry faces increasing pressure to reduce its environmental impact, as it is a significant contributor to carbon emissions and plastic waste.

Highlights & Recent Trends

Feedstocks & Production:

- The U.S. has seen significant growth in petrochemical production due to the availability of inexpensive feedstocks from **shale gas**, driving increased capacity and exports.
- There's a growing trend of integrating petrochemical production with **oil refineries** to improve efficiency and lower costs.
- **Environmental concerns** are pushing the industry to explore bio-based feedstocks and improve recycling technologies for plastics.

Market Dynamics:

- Global efforts to **reduce plastic waste** have led to regulatory changes, with governments and companies focusing on recycling, biodegradable materials, and circular economies.
- Rapid industrialization and urbanization are driving demand for petrochemical products, with a particular focus on **construction materials and consumer goods.**
- Advances in catalyst **technologies and digitalization** (IoT, AI) are improving process efficiencies and reducing energy consumption in petrochemical plants.

RICE | BUSINESS

Industry Primer

The consumer goods and retail industry encompasses a broad range of products sold directly to consumers, including food and beverages, clothing, electronics, and household items. It's one of the largest and most diverse sectors in the global economy, driven by consumer spending and heavily influenced by trends in demographics, consumer preferences, and technological advancements.

Retail operations range from traditional brick-and-mortar stores to e-commerce giants, with a growing emphasis on omnichannel strategies that combine physical and digital experiences. Consumer goods manufacturing is closely tied to supply chains, labor markets, and raw materials, and is subject to global economic fluctuations, tariffs, and trade regulations.

As consumer habits shift, companies in this industry are increasingly focused on sustainability, product differentiation, and creating value through brand loyalty. Technology, particularly in e-commerce and logistics, has been a key enabler of growth and efficiency.

Highlights & Recent Trends

Consumer Goods:

- Rising consumer demand for **sustainable products** has pushed companies to focus on eco-friendly materials, ethical sourcing, and reducing packaging waste.
- Increasing innovation in **health-conscious products** (e.g., organic, plant-based) and personal care has grown, particularly in developed markets.
- Recent **global supply chain challenges**, such as COVID-19 and geopolitical tensions, have highlighted the need for more resilient and flexible supply chain models.

Retail:

- The shift towards **online shopping** continues, with consumers expecting fast delivery, seamless returns, and personalized digital experiences.
- Retailers are integrating their **physical and online stores**, allowing for options like buy online, pick up in-store (BOPIS), and creating hybrid shopping experiences.
- Rising labor costs and labor shortages have encouraged investment in **automation technologies** for warehouses, retail checkouts, and inventory management.

Industry Primer

The hospitality and tourism industry is a dynamic sector that includes travel, lodging, food and beverage services, recreation, and entertainment. It is a critical part of the global economy, driven by consumer spending on experiences, travel, and leisure activities. The industry relies heavily on both domestic and international travel, and its growth is closely tied to economic conditions, consumer confidence, and discretionary income levels.

Tourism plays a significant role in the economic development of many countries, generating revenue and employment. The industry is highly sensitive to external factors such as political stability, environmental concerns, and public health crises, with the COVID-19 pandemic having been a notable recent disruptor.

In addition to traditional hospitality services, there has been a shift towards experience-based travel, sustainability in tourism, and the incorporation of technology to enhance customer experiences. From booking platforms to smart hotels, the digital transformation is playing a crucial role in shaping the future of the industry.

Highlights & Recent Trends

Hospitality:

- Hotels and resorts are increasingly adopting **green practices**, such as reducing energy consumption, waste management, and sustainable sourcing of materials.
- High-end hotels are focusing on **personalized services**, offering curated experiences tailored to guest preferences.
- The hospitality sector is gradually **recovering from the pandemic**, with a focus on hygiene protocols, flexible cancellation policies, and contactless services.

Tourism:

- There is a growing demand for travel that offers unique, **authentic experiences**, such as cultural immersion, adventure travel, and eco-tourism.
- **Smart technologies**, such as AI-powered bookings, mobile check-ins, and virtual concierge services, are transforming how travelers interact with hotels and travel services.
- **Environmental awareness** is influencing travel decisions, with more tourists seeking eco-friendly destinations and services that focus on preserving local ecosystems and cultures.

Industry Primer

The real estate and construction industry encompasses the development, management, and sale of residential, commercial, and industrial properties, as well as infrastructure projects. This sector is a significant contributor to global economic growth and is often considered a key indicator of economic health, given its ties to consumer spending, job creation, and capital investment.

Real estate involves buying, selling, and leasing properties, while construction focuses on the physical building process. Market dynamics such as interest rates, housing supply, and demand drive real estate cycles. In construction, labor costs, material prices, and regulatory approvals significantly influence project timelines and profitability.

Sustainability, urbanization, and technological advancements are reshaping both real estate and construction. Green buildings, smart home technologies, and infrastructure resilience are becoming key priorities for firms and investors looking to address future societal needs.

Highlights & Recent Trends

Real Estate:

- A **shortage of housing** supply, combined with high demand, has driven up home prices in many markets, particularly in urban areas.
- Fluctuating **interest rates** affect mortgage affordability and the volume of real estate transactions, especially in residential markets.
- Developers are increasingly focused on energy-efficient, **eco-friendly properties** to meet regulatory and consumer demands.

Construction:

- Global supply chain disruptions, rising material costs, and labor shortages have **extended project timelines** and increased costs for construction firms.
- **Prefabricated and modular construction** techniques are gaining popularity for reducing costs and improving project efficiency.
- Incorporation of **IoT, automation, and AI** in new buildings is improving energy efficiency and creating smarter, more responsive living and working environments.

Industry Primer

The manufacturing and industrial goods sector includes the production of materials and goods across a wide range of industries, from automotive and aerospace to electronics, machinery, and chemicals. Manufacturing is the backbone of the global economy, driving innovation, employment, and economic growth. This industry relies on global supply chains, raw materials, labor, and technology to produce finished goods and components for other sectors.

Industrial goods are generally divided into durable and non-durable categories, with durable goods being long-lasting (e.g., machinery, vehicles) and non-durable goods being consumed quickly (e.g., chemicals, packaging materials). The sector is heavily influenced by technological advancements, such as automation, robotics, and AI, which have increased production efficiency and reduced costs. Sustainability is becoming a growing focus as firms aim to reduce waste and energy consumption throughout the manufacturing process.

Highlights & Recent Trends

Manufacturing:

- Increasing investment in **automation and robotics** is driving efficiency in production, reducing the need for manual labor, and improving precision.
- Global supply chain disruptions have led companies to consider bringing **operations closer to home**, reshoring to domestic markets or nearshoring to neighboring countries.
- There is a rising emphasis on reducing energy consumption, waste, and emissions, with companies adopting **green manufacturing practices**.

Industrial Goods:

- Ongoing geopolitical tensions and **supply chain bottlenecks**, particularly for raw materials, have led to higher costs and longer lead times for production.
- The rise of **smart manufacturing** through IoT, AI, and data analytics is creating more connected, efficient, and responsive production environments.
- Manufacturers are increasingly shifting towards **mass customization**, offering products tailored to specific needs while maintaining large-scale production efficiency.

Industry Primer

The education sector encompasses a broad spectrum of services, from early childhood education to higher education and professional training. It plays a crucial role in societal development by equipping individuals with the knowledge and skills necessary for personal and economic growth. The industry includes both public and private institutions and spans a variety of educational models, such as traditional in-person learning, online education, and hybrid models.

The industry is influenced by government funding, policy changes, and technological advancements. The rise of e-learning platforms has disrupted traditional education, providing greater access to knowledge but also presenting challenges in terms of quality control, engagement, and inclusivity. Education also faces a growing need for adapting curricula to align with emerging technologies and evolving job market demands.

Highlights & Recent Trends

K-12 Education:

- The pandemic accelerated the integration of **digital tools** in classrooms, with a greater reliance on online platforms and hybrid learning environments.
- Efforts to address disparities in **access to quality education**, especially for marginalized communities, are becoming a key focus for policymakers.
- There is a growing emphasis on science, technology, engineering, and math (**STEM**) education, as these fields are seen as critical to future job markets.

Higher Education:

- Higher education institutions, particularly in the U.S., are facing **declining enrollments** due to demographic shifts and rising tuition costs.
- The expansion of **online degree programs** and e-learning platforms is reshaping how students engage with higher education, providing more flexible learning options.
- There is increasing demand for **skills-based and vocational training** as alternatives to traditional degrees, driven by the need for more practical and job-oriented education.

Industry Primer

The technology and telecommunications sector is a cornerstone of the global economy, encompassing hardware, software, communications infrastructure, and services that connect businesses and consumers worldwide. This industry drives innovation in fields such as artificial intelligence, cloud computing, data analytics, and the Internet of Things (IoT). The telecommunications arm provides the essential infrastructure for internet access, mobile networks, and broadband services, enabling digital connectivity.

As the pace of technological advancement accelerates, companies in this space focus on delivering faster, more reliable, and secure connectivity. Cloud computing, 5G networks, and artificial intelligence are reshaping industries, driving productivity, and fostering new business models. However, the industry also faces challenges such as regulatory oversight, data privacy concerns, and cybersecurity threats, which require ongoing attention and adaptation.

Highlights & Recent Trends

Technology:

- Rapid developments in **artificial intelligence and machine learning** are transforming industries, automating tasks, and creating smarter systems across sectors.
- The adoption of **cloud services** continues to grow, providing scalable, cost-efficient solutions for businesses, enabling remote work and digital transformation.
- Heightened awareness of **data privacy** and the rise in cyberattacks are prompting stronger regulatory frameworks and increasing demand for cybersecurity solutions.

Telecommunications:

- The expansion of **5G networks** is enhancing internet speeds and connecting more devices, facilitating innovations in healthcare, manufacturing, and transportation.
- **The Internet of Things** is creating opportunities for smarter cities, homes, and industries, but also raising concerns over data security and network capacity.
- Efforts to close the **digital divide** are increasing, as governments and companies work to extend broadband access to underserved and rural areas.

Industry Primer

The agriculture industry is a foundational sector that provides food, raw materials, and other resources necessary for the global population. It includes the cultivation of crops, raising livestock, and fisheries. Agriculture is a major driver of economic activity, particularly in rural areas, and plays a critical role in food security, sustainability, and environmental stewardship. The industry is influenced by factors such as climate change, technological innovations, and governmental policies, which aim to balance productivity with environmental concerns.

Agriculture has seen rapid transformations through the use of advanced machinery, precision farming, genetically modified crops, and sustainable practices. However, challenges such as water scarcity, soil degradation, and fluctuating commodity prices continue to impact the sector's growth.

Highlights & Recent Trends

Crops:

- The adoption of **GPS, data analytics, and IoT** in farming is enabling more efficient use of resources, reducing waste, and increasing crop yields.
- Advances in **biotechnology** are helping develop crop varieties that can withstand extreme weather conditions, addressing the challenges posed by climate change.
- There is a growing emphasis on regenerative agriculture, soil health, and **reducing the environmental footprint** through organic farming and reduced chemical inputs.

Livestock & Fisheries:

- The rise of **plant-based and lab-grown proteins** is reshaping the livestock industry, as consumers demand more sustainable food options.
- Increasing attention to **ethical animal treatment** has led to new regulations and practices in livestock management, improving living conditions for animals.
- **Fish farming** is seeing rapid growth to meet the global demand for seafood, but it faces sustainability concerns, particularly around overfishing and habitat destruction.

Industry Primer

The consulting and professional services industry encompasses a wide array of advisory and support services, including management consulting, legal, accounting, IT services, and human resources. The sector serves clients across industries, helping businesses optimize operations, navigate regulatory challenges, develop strategies, and implement technology solutions. Consulting firms range from global leaders like McKinsey & Company, EY-P, Accenture, Deloitte, and BCG, to specialized boutique firms that offer expertise in niche areas.

The industry is heavily driven by talent, expertise, and intellectual capital, making employee retention and skill development key to success. Consulting firms have increasingly adopted digital solutions to offer data-driven insights, improve efficiency, and address the growing complexity of global markets.

Highlights & Recent Trends

Consulting:

- As companies modernize their operations, consulting firms are increasingly providing **digital transformation**, focusing on implementing AI, cloud computing, and data analytics.
- There is a rising demand for **sustainability and ESG** (Environmental, Social, and Governance) consulting, with companies seeking help to meet regulatory requirements.
- The shift towards **remote work and hybrid models** is changing how firms provide consulting services, emphasizing virtual collaboration and flexible delivery models.

Professional Services:

- As **regulatory environments** become more complex, legal and accounting firms are seeing increased demand for compliance, risk management, and advisory services.
- Companies are increasingly **outsourcing non-core functions** like HR, IT support, and payroll to specialized firms, driving demand for professional services providers.
- **Specialization** is trending within professional services, as firms build expertise in specific industries or functions, such as cybersecurity, blockchain, or intellectual property.

Industry Primer

The non-profit sector includes organizations that operate for social, cultural, educational, and charitable purposes, rather than for profit. These organizations focus on addressing societal needs, ranging from poverty alleviation and education to healthcare, environmental conservation, and arts and culture. Non-profits rely on diverse revenue sources such as donations, grants, and government funding to support their activities.

The sector plays a critical role in promoting civic engagement, advocating for policy change, and delivering essential services to underserved populations. Non-profits often work alongside governments and private businesses to create positive social impacts. However, they face challenges such as limited funding, increasing demand for services, and the need for transparency and accountability.

Highlights & Recent Trends

Funding & Resources:

- With the rise of social media and online platforms, non-profits are leveraging **digital channels** for fundraising campaigns, donor engagement, and advocacy efforts.
- Increased competition for **government and private grants** is pushing organizations to become more strategic in their applications and program implementation.
- Non-profits are increasingly forming **partnerships with corporations** for funding and resources, particularly through corporate social responsibility (CSR) programs.

Impact & Accountability:

- Donors and stakeholders are placing a greater emphasis on **measuring the tangible impact** of non-profits' activities, leading to increased use of data and performance metrics.
- There is growing pressure on non-profits to **improve transparency** and governance practices to build trust with donors, beneficiaries, and the public.
- Non-profits are using **technology** to improve efficiency, streamline operations, and enhance outreach, from mobile apps for data analytics for better decision-making.

Industry Primer

The healthcare and pharmaceuticals sector encompasses a broad range of services and products aimed at improving health outcomes. This industry includes pharmaceuticals, medical devices, biotechnology, hospitals, and healthcare services. Pharmaceuticals focus on drug development, production, and distribution, while the medical device industry produces instruments, machines, implants, and diagnostic tools that are critical to patient care.

Healthcare is a highly regulated industry driven by research and innovation, as well as evolving healthcare policies and patient needs. The industry is influenced by demographic trends such as aging populations, advancements in personalized medicine, and ongoing efforts to improve healthcare access globally.

Medical devices play a crucial role in diagnostics, treatment, and monitoring, ranging from simple tools like stethoscopes to complex technologies such as pacemakers and robotic surgery systems.

Highlights & Recent Trends

Pharmaceuticals:

- Advances in **genomics and biotechnology** are driving the development of drugs tailored to individual genetic profiles, improving treatment outcomes.
- Increased scrutiny on **drug pricing** from governments and advocacy groups is pushing companies to justify costs and focus on affordability.
- **Mergers and acquisitions** continue as companies seek to expand their portfolios, enhance R&D capabilities, and accelerate innovation.

Medical Devices & Healthcare Services:

- **Wearable medical devices** like smartwatches and AI-powered diagnostic tools are enabling real-time monitoring, early detection, and better treatment planning.
- **Telemedicine** saw rapid growth during the pandemic and continues to expand, offering greater access to healthcare, particularly in rural and underserved regions.
- The **aging population** is increasing demand for long-term care and chronic disease management, and value-based care models are prioritizing patient outcomes and cost efficiency.

2024-2025 CASES

RICE | BUSINESS

2024-2025 CASE LIST

RICE | BUSINESS

CASE NO.	CASE TITLE	CASE TYPE	INDUSTRY	DIFFICULTY LEVEL	PAGE NO.
1	The Wild West Fashion Show	Profitability Analysis	Consumer Goods & Retail	★☆☆	53
2	Gracia Detergent	Brand Management & Marketing	Consumer Goods & Retail	★☆☆	62
3	StayComfort	Profitability Analysis	Hospitality & Tourism	★☆☆	71
4	Brick & Mortar	Market Entry & Expansion	Real Estate & Construction	★☆☆	80
5	GeoSystems*	Mergers & Acquisitions	Manufacturing & Industrial Goods	★☆☆	91
6	Blossom Heights	Human Resources & Organizational Behavior	Education	★★☆	101
7	EnergyCo**	Market Entry & Expansion	Energy & Utilities	★★☆	111
8	Owl Deliver It***	Operations & Supply Chain Management	Manufacturing & Industrial Goods	★★☆	123
9	Global Language Assessment	Product Launch	Education	★★☆	135

*Accenture-Inspired Case
** Bain-Inspired Case
***Deloitte-Inspired Case

★☆☆ Easy difficulty
★★☆ Medium difficulty
★★★ Hard difficulty

RICE BUSINESS

CASE NO.	CASE TITLE	CASE TYPE	INDUSTRY	DIFFICULTY LEVEL	PAGE NO.
10	Protect, Inc.	Market Entry & Expansion	Technology & Telecommunications	★★☆	147
11	HK Chemical**	Profitability Analysis	Petrochemicals	★★☆	156
12	Global Strategy Consultants	Profitability Analysis	Consulting & Professional Services	★★★	168
13	The Rose Ranch	Mergers & Acquisitions	Agriculture	★★★	179
14	DevCo**	Financial Analysis & Valuation	Hospitality & Tourism	★★★	193
15	Brawndo Candy Company	Innovation & Disruption	Consumer Goods & Retail	★★★	209
16	Ricemetrics	Profitability Analysis	Energy & Utilities	★★★	221
17	MedTech Solutions***	Corporate Strategy & Growth	Healthcare & Pharmaceuticals	★★★	232
18	Sheep Happens	Profitability Analysis	Non-Profit	★★★	241

*Accenture-Inspired Case
** Bain-Inspired Case
***Deloitte-Inspired Case

★☆☆ Easy difficulty
★★☆ Medium difficulty
★★★ Hard difficulty

INTERVIEWER FEEDBACK FORM

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Case Name: ________________________ **Case Type:** _________________________ **Difficulty:** _______________

Casebook: _________________________ **Interviewer:** ________________________

1. Problem Solving & Framework Development
   - Clear problem identification and approach
   - Logical structure of the framework
   - Creativity in the solution process
   - MECE (Mutually Exclusive, Collectively Exhaustive) approach

1 2 3 4 5

Notes:

2. Analytical Skills
   - Accuracy in analyzing data and exhibits
   - Speed in drawing insights
   - Ability to handle complex calculations
   - Attention to detail in the analysis

1 2 3 4 5

Notes:

3. Communication & Delivery
   - Clarity in explaining ideas and conclusions
   - Confidence and poise during presentation
   - Adaptability to feedback or new information
   - Effectiveness in guiding the interviewer through thought process

1 2 3 4 5

Notes:

4. Business Judgement & Recommendations
   - Strength of final recommendation
   - Relevance of the solution to the business context
   - Consideration of risks and trade-offs
   - Soundness of business judgment

1 2 3 4 5

Notes:

The Wild West Fashion Show

Profitability Analysis | Consumer Goods & Retail

RICE | BUSINESS

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THE WILD WEST FASHION SHOW

Profitability/Growth | Consumer Goods & Retail

★ ☆ ☆

Case Prompt

Your client is a retailer called Bison Denim who sells western style clothing, primarily jeans. Historically, they have operated in shopping malls but they also have an e-commerce site. Over the past two years, online sales have declined after many years of revenue growth and the CEO, Buffalo Bill, has hired your firm to address these issues. In your initial meeting with Buffalo Bill, he said that reversing the e-commerce growth trend was important, but he wanted to do it in a profitable way. How would you begin to address this issue?

Clarifying Information (only provide if asked)

- *Business Model:* Bison operates like most retailers, they sell a mixture of "National Brands" and "Private Label Brands". National Brands are bought from distributors and resold in Bison Denim stores/online while Private Label Brands are created in house, produced and sold in stores/online.
- *Timeline:* Bison Denim is looking to turn around e-commerce sales as quickly as possible.
- *Geography:* Bison Denim only operates in the United States, primarily in more rural markets in the West and the South.
- *Financial Objectives:* The goal is to stop the declining growth, and to continue to grow in a profitable way. Current profit margins are 20%.

FRAMEWORK

Case Type: Interviewee should immediately recognize that this is a profitability case with growth aspects
Framework: Interviewee should be pushing to look into the following areas

Revenue	Cost	Ideas for Growth	Competitive Landscape	Internal Considerations
Volume • How many customers are purchasing? • How many items are customers purchasing when they order? **Price** • What is the average sales price per item? **Product Offering** • Analyze both volume and price based on products	**Fixed** • Employee Salaries • Server costs • Warehousing • Etc **Variable** • Shipping • Customer acquisition Cost • COGS • Etc	**Examples:** • Increase marketing efforts • Focus on new customer acquisition • Focus on existing customer retention	**Examples:** • Is there competitors that are stealing customers? • Who are the competitors? • What is their market share? • What is their competitive advantage? • Are competitors also seeing the decline in sales?	**Examples:** • Is customer service an issue? • How skilled is our team at e-commerce? (historically they are primarily in stores) • Are we doing customer segmentation correctly? • Is this a product issue?

Moving forward: The candidate should correctly identify that this is either a revenue issue because it is top line growth that has stalled. They should also recognize that costs might be important as the client wants to grow profitably, however their focus should be on revenue and the ideas that they have for growth. To move forward, the candidate should want to dig further into revenue analysis.

BRAINSTORMING Session 1

Question: Walk me through how you would begin to think about analyzing the revenue decline and how would you identify the issue?

Price	Volume
Main Points • What is our product offering? • What is the average sales price? **Additional** • Are certain product offerings underperforming? • Have our prices changed recently? • Other creative thoughts	**Main Points** • How many customers per month visit the e-commerce site? • What is the conversion rate of those customers? • How many items do customers typically purchase? **Additional** • Is there any seasonality to customer purchase volumes? • Are sales being cannibalized by in store sales? • Other creative thoughts

Moving forward: After the candidate exhausts ideas regarding price and volume, move on to Exhibit 1 to analyze both aspects in Bison Denim's recent financials.

EXHIBIT 1 Bison Denim E-commerce Revenues

	2022	2023	2024
# of website visitors per month	1M	1.2M	1M
Conversion Rate	5%	4%	3%
Number of items purchased per customer (average)	4	3	4
Sales price per item (average)	$60	$60	$60

EXHIBIT 1 - Guidance Bison Denim E-commerce Revenues

Route 1: Exhibit 1 Notes:

- Provide Exhibit 1 and allow them to digest it. The candidate should recognize the conversion rate decline is having the biggest impact on sales. They should also recognize that the average number of orders purchased has a large impact on total sales. They should also recognize that # of items is higher in 2024 than 2023, so we need to focus on the conversion rate.
- Ask them to calculate the revenues:

Visitors * 12 months * Conversion Rate * # items * ASP = Annual e-commerce revenue

2022: 1m * 12 * 5% * 4 * 60 = $144m
2023: 1.2m * 12 * 4% * 3 * 60 = $103.7m
2024: 1m * 12 * 3% * 4 * 60 = $86.4m

Moving forward: The candidate should want to explore ways to improve conversion rate, when they say this (after calculating revenues) ask them the brainstorming question on the following page.

BRAINSTORMING Session 2

Question: What could be the cause of the declining conversion rate, and what are some options for Bison Denim as they work to address this issue?

Potential causes of decline	Potential ideas for improvement
• Poor customer online experience • Customer Segmentation issues - marketing to the wrong people • Fashion trends have changed and Bison Denim has not kept up • Is this a broader industry trend and are competitors also seeing the decline? • Etc	• Make the checkout process easier for customers • Retain customers with a loyalty program • Offer discounts during checkout (could impact ASPs) • Targeted advertising • Etc

Moving forward: Tell the candidate that Bison Denim is considering offering free shipping for all online orders. Do they think it is a good idea?

BRAINSTORMING Session 3

Question: Is offering free shipping on all orders a good idea?

Provide the following information if asked:

- Shipping costs $5 per order - Buffalo Denim has previously charged a $5 fee for shipping to cover these costs. This would be an additional cost to Bison Denim.
- Free shipping should improve conversion rates by 1%
- Current profit margins are 20%
- You can provide exhibit 1 if needed again, however a great candidate should not need it

No change (baseline) = 2024 Revenue (previously calculated) = $86.4m * 20% = <u>$17.3m in profit</u>

With Free Shipping

Revenues = 1M * 12 * 4% * 4 * 60 = $115.2m (revenue)

Shipping Costs = 1m * 12 * 4% * $5 = $2.4m

Total profits with Free Shipping = 115.2m * 20% = $23m - $2.4m = <u>$20.6m in profit</u>

CONCLUSION

⟵ Back to Case List

Prompt: Buffalo Bill has asked for your final recommendation for Bison Denim. What should we tell him?

Recommendation:

- Conversion rate is the issue with declining growth
- To address this issue, offering free shipping on all orders is a good idea because it will improve revenues.
- Profit margins will decrease slightly, however overall profits will be higher, so this action is worth it.

Risks (examples)

- If the conversion rate does not go up as much as we think, revenue growth may not be as large and they are now paying for shipping
- This may not be the only issue contributing to revenue decline, there could be others that are not addressed with this change

Next Steps (examples)

- Look into what it would take to get free shipping off the ground

Gracia Detergent

Brand Management & Marketing | Consumer Goods & Retail

RICE | BUSINESS

GRACIA DETERGENT

Brand Management & Marketing | Consumer Goods & Retail

★ ☆ ☆

Case Prompt

Gracia is a well-known detergent brand in Algeria, it operates in two segments, powder detergents & liquid detergents. It first launched in 1980 and for many years was the only detergent manufacturer in the country thanks to favorable monopolistic legislations, until 2021 where the government started encouraging local investments and many new entrants showed up to compete with Gracia Detergent. For the last 3 years, the company`s sales have been declining and, last year, major retailers started refusing to put Gracia`s products on their shelves, stating that Gracia`s products are slow movers compared to newcomers. You were brought in as a consultant to identify the reasons for which the product is moving slow and propose solutions that will allow Gracia Detergent to return to its former glory. What factors would you consider in advising Gracia`s management team?

Clarifying Information (only provide if asked)

- *Business:* The detergent market size in Algeria is $100 million/year. In this case, there are 5 key players in the detergent market in Algeria: 3 of them have 25% of the market each, then Gracia and the last player are equally splitting the remaining 25%
- *Timeline:* As soon as possible
- *Geography:* In this case, Algeria is the only location the product is located in with no plans for expansion
- *Objectives:* The management team is looking to increase shelf space by 20% per year for the next 3 years, leading to an increase in sales 10% per year for the same period.
    - If asked, shelf space is the percentage of space a brand has from the total available space for that specific category of products

RICE | BUSINESS

FRAMEWORK

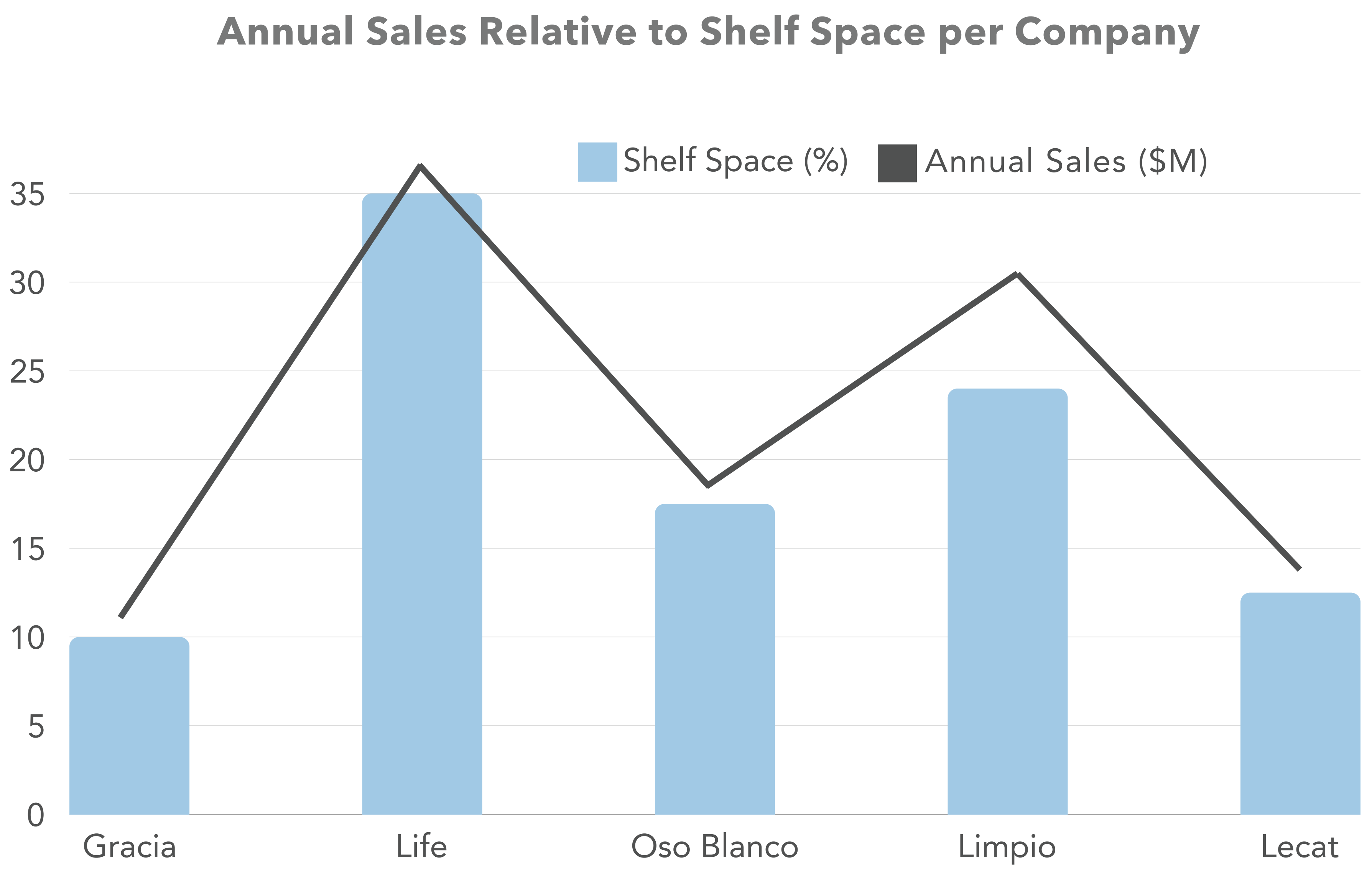
Case Type: Interviewee should understand from the clarifying questions that this is a Marketing/Brand Management case
Framework: Interviewee should be pushing to look into the following areas

Market Position & Competitive Analysis	Product Performance & Consumer Insights	Marketing Strategy & Spend
Market Share & Competitor Landscape: • Evaluate Gracia's market share compared to competitors • Analyze the competitive advantages of newcomers, including their market strategies, pricing, and product features **Shelf Space Comparison:** • Compare the shelf space allocation for Gracia versus competitors and understand why Gracia's products are being perceived as slow movers	**Product Offering & Consumer Preferences:** • Analyze the performance of Gracia's product lines (powder and liquid detergents) • Evaluate consumer preferences and how they align with Gracia's offerings **Brand Perception & Consumer Feedback:** • Gather insights on how consumers perceive Gracia versus competitors • Identify any gaps between consumer expectations and Gracia's product performance or brand positioning	**Marketing Spend & Allocation:** • Evaluate the current marketing spend and its effectiveness compared to competitors • Assess how reallocating spend to social media and in-store promotions could drive sales and improve shelf space **Campaign Development & Execution:** • Develop a clear, consistent messaging strategy across all marketing channels • Consider the cultural relevance and legal compliance of the campaign in the Algerian market

Moving forward: Ask the interviewee where they would like to go next. If they don't answer with Shelf Space Analysis, push them in that direction.

RICE | BUSINESS

EXHIBIT 1 Shelf Spend Analysis



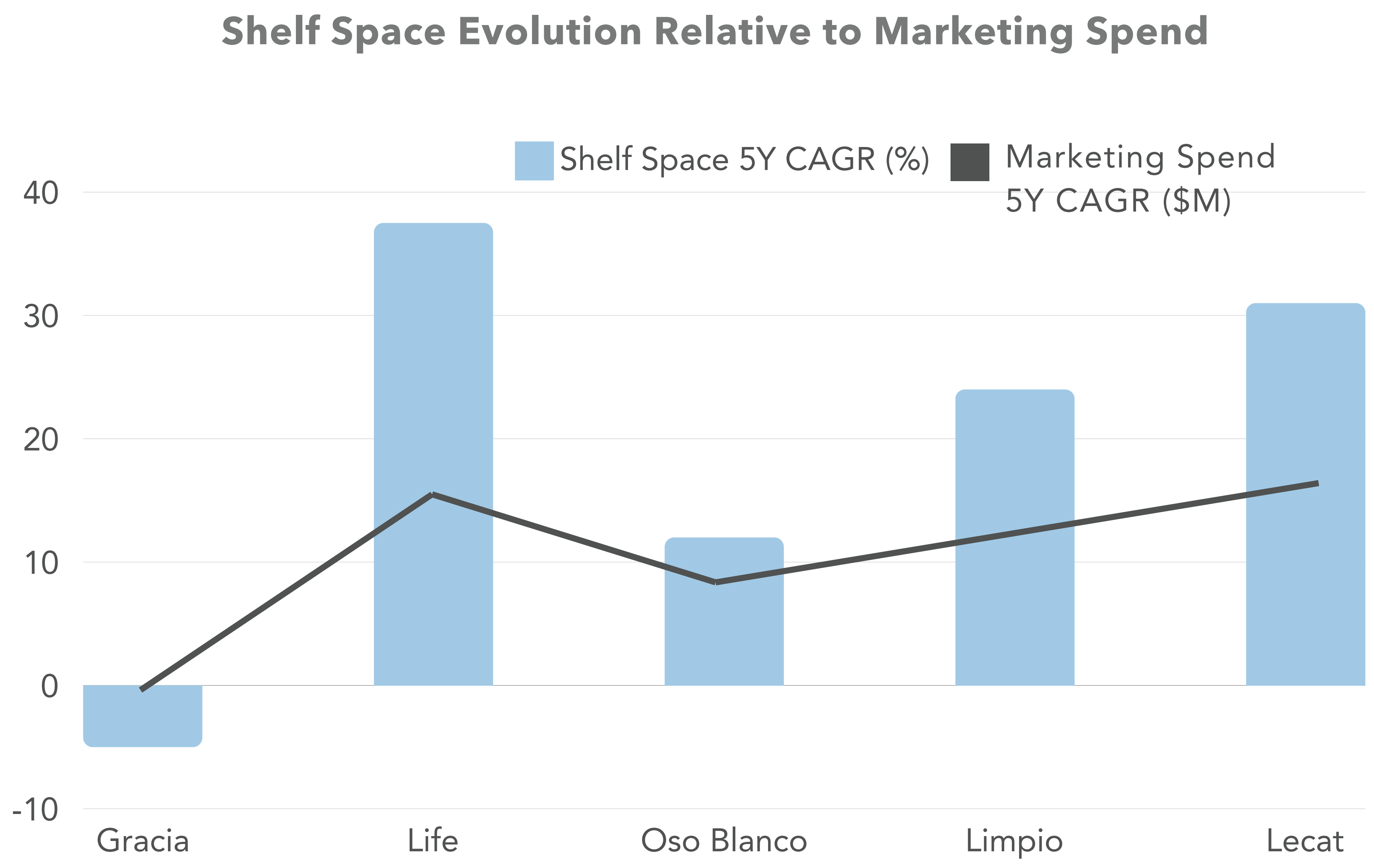


EXHIBIT 1 - Guidance
Shelf Spend Analysis

Prompt: Great. Let's take a look into some information the client has regarding shelf space amongst competitors.

Notes:

- Provide Exhibit 1 to the interviewee at first and allow them to digest
- The interviewee should see that the sales of these companies are correlated with their shelve space
- The interviewee should deduce that marketing spend encourages retailers to give companies more shelf space
- A good candidate will note that some the marketing budget of some companies did not evolve as much as others, but they gained more shelf space

Moving forward: The interviewee should want to look more at marketing spend. If they don't indicate this, push them in that direction before moving to Exhibit 2.

EXHIBIT 2 Gracia's Promotional Activity Options

Marketing Channel	Cost/Year	Shelf Space Increase/Year
Television	1,800,000	20.0%
Social Media	160,000	4.5%
Out of Home	600,000	8.5%
In-Store	700,000	11.5%

Note: Companies can have multiple marketing campaigns per year

EXHIBIT 2 - Guidance

Revenues and costs per committee (in millions)

Prompt: We have some information on the different marketing options that Gracia may use to increase shelf space. Given that their goal is 20% increase in shelf space per year over the next 3 years, which option or combination of options will be optimal to reach that goal at the lowest cost? Given that the projected sales increase would be 10% per year if marketing is implemented, calculate the increase for the next 3 years. Does the increase in revenue justify the marketing spend?

Notes:

- Provide Exhibit 1 to the interviewee and allow them to quickly digest
- The interviewee must give a quick interpretation of the table
- The interviewee should ultimately conclude that a combination of different promotional activities is necessary to reach the goal shelf space
  - The optimal mix is 2 social media campaigns and 1 in-store campaign
  - 4.5% + 4.5% + 11.5% = 20.5% shelf space growth per year
  - $160K + $160K + $700K = $1.12M marketing spend per year; **total cost = $3.26M over 3 years**
- The interviewee should then calculate the projected sales increase over 3 years
  - $10M * 1.1^3 = $13.31M; **total sales increase = $3.31M over 3 years**

Moving forward: Candidate should see that the projected increase in sales is more than the cost for the marketing campaigns, justifying the spend.

RICE BUSINESS

BRAINSTORMING

Question: What other aspects should the company consider when launching a marketing campaign?

Strategic	Operational
Target Audience Identification: • Define the target demographics and psychographics • Determine the most effective channels and content types to engage these segments **Budget Allocation & ROI:** • Assess the cost-effectiveness of social media versus in-store campaigns • Estimate the expected return on investment (ROI) for each marketing channel **Campaign Messaging & Branding:** • Ensure consistent and compelling messaging across both social media and in-store promotions • Tailor the campaign to resonate with local cultural values in Algeria **Competitor Response:** • Anticipate potential competitive reactions and prepare counter-strategies • Ensure the campaign clearly differentiates Gracia from competitors, emphasizing unique advantages	**Partnerships & Collaborations:** • Collaborate with retailers to align in-store promotions with their strategies • Explore partnerships with local influencers who align with Gracia's brand image **Measurement & Adjustment:** • Define key performance indicators (KPIs) to measure the campaign's success • Prepare to adjust the campaign based on real-time data and feedback **Legal & Compliance Considerations:** • Ensure compliance with local advertising regulations and consumer protection laws • Avoid potential legal issues by adhering to promotional guidelines and truthful advertising **Execution Risks:** • Monitor the campaign's progress closely, particularly on social media, to make necessary adjustments • Ensure retailer cooperation is secured to avoid challenges in implementing in-store promotions

CONCLUSION

⟵ Back to Case List

Prompt: The CEO of Gracia Detergent is calling. What would be your suggestion for the client to increase the shelf space?

Recommendation:

- A good answer would be focusing on social media and in-store advertising for the first years, then penetrating through television
- The interviewee should produce a complete strategy that mixes between different marketing activities to market the company's products while explaining the rational behind each decision, in addition the interviewee should the discuss the required budget

Risks

- Marketing spend relative to the company's total revenues is tight
- Refer to brainstorm

Next Steps

- Due diligence
- Assess quality of suppliers/agencies, negotiate good rates, give exclusivity to one agency for better rates
- Competitive review of other company marketing strategies

StayComfort

Profitability Analysis | Hospitality & Tourism

STAYCOMFORT Profitability Analysis | Hospitality & Tourism

★☆☆

Case Prompt

StayComfort Hotels operates 10 mid-scale hotels across the US, each with around 100 rooms. Known for offering comfortable stays at mid-range prices, StayComfort faces increasing competition from short-term rental platforms like AirBNB. To stay competitive, they frequently adjust pricing to attract customers while maintaining profitability. However, the chain has recently seen a decline in profits. The US hotel industry is dominated by large players but also includes many smaller competitors, which are decreasing as major brands expand. Inflationary pressures, while easing, are still projected to stay above pre-pandemic levels in 2024. StayComfort has hired your consulting firm to recommend strategies to boost profitability and maintain a competitive edge in the market.

Clarifying Information (only provide if asked)

- *Business Model:* The hotel industry includes establishments offering paid lodging and full guest services. Its value comes from revenue generated by room rentals and additional services like food, beverages, telecommunications, leisure, and car rentals. StayComfort uses dynamic pricing based on location, demand, competition, and services to maximize occupancy and improve the guest experience. They also offer free parking for hotel guests.
- *Timeline:* Over the next 36 months, StayComfort needs to implement strategies to improve profitability, ensure growth, and increase market share. The client seeks a phased approach that addresses both immediate and long-term goals.
- *Geography:* StayComfort Hotels operates 5 locations in Texas, 2 in Arizona, and one each in Louisiana, Mississippi, and New Mexico. The total hotel and motel market in these 5 states spans major cities, tourist destinations, and suburban areas, catering to both business and leisure travelers with tailored services to meet diverse guest needs in strategic locations.
- *Financial Objectives:* StayComfort aims to achieve a net profit margin comparable to the average of the US hotel market, increase annual revenue, and improve capital efficiency, all within the next three years to ensure sustainable financial health.

FRAMEWORK

- Case Type: Interviewee should immediately recognize that this is a profitability case (see key words of "…profit margins, profitability decline)
- Framework: Interviewee should be pushing for looking into the following areas:

Market	Revenue	Costs

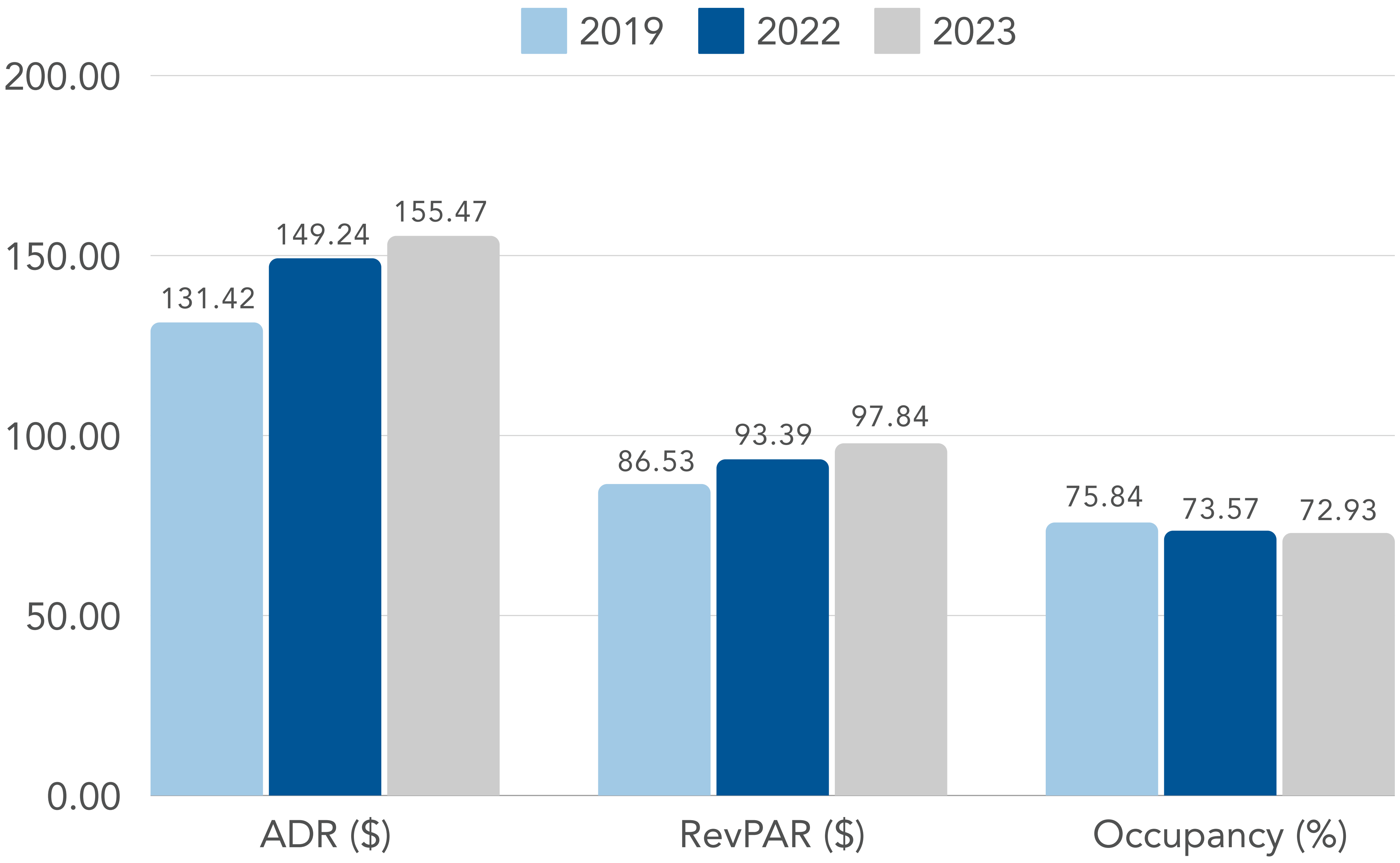
• Market size
• Customer Segments
• Competitive Land scape Market Trends
• Geographic Presence
• Macroeconomic conditions
	• Average daily rate
	• Occupancy rate
	• Average length of stay per customer.
	• Capacity
	• Product Mix
	• Revenue by region/city
	• Revenue by product
		• Operational Costs:
		  ◦ Fixed costs (i.e rent or mortgage payments, salaries of permanent staff, insurance, and property taxes)
		  ◦ Variable costs (i.e housekeeping supplies, utilities, food and beverage costs)
		• Benchmarking: Comparing the hotel's cost structures and performance metrics against industry standards and competitors to identify areas for improvement

Moving forward: The candidate should be interested in exploring overall financials to understand the decline in profitability. Move to the first exhibit.

EXHIBIT 1 StayComfort Standings within the U.S. Hotel Market

U.S. Hotels Performance

Annual, Average



StayComfort ADR and Total Revenue

	2019	2022	2023
Average ADR ($)	130	145	150
Total Revenue ($M)	24	26.5	27

Definitions
ADR is Average Daily Rate
RevPAR is Revenue per Available Room = Total Revenue / Total Available Rooms

EXHIBIT 1 - Guidance StayComfort Standings within the U.S. Hotel Market

Notes:

- Provide the exhibit to the interviewee at the same time and allow them to digest the information
- The candidate should consider the data provided earlier (10 locations and 100 rooms available in each location) along with the data in the exhibits
    - The interviewee should be able to either calculate the RevPar or Occupancy rate
    - Assume **300 operating days** in a year and rounding is allowed; RevPAR = Total Revenue / Total Available Rooms
    - Occupancy rates: It is fine for candidate to note that the occupancy each year is less than 2/3 or 66% rather than the full calculation

Formulas
Total Available Rooms = # Locations * # Rooms per Location * Days per Year = 10 * 100 * 300 = **300,000**
RevPAR = Total Revenue / Total Available Rooms
Total Possible Revenue = Total Available Rooms * ADR
Occupancy = Total Revenue / Total Possible Revenue

Calculations	2019	2022	2023
ADR ($)	130	145	150
Total Revenue ($M)	24	27	27
Total Available Rooms	300,000	300,000	300,000
RevPAR ($M)	**80**	**90**	**90**
Total Possible Revenue ($M)	**39**	**44**	**45**
Occupancy	**62%**	**61%**	**60%**

Moving forward: The interviewee should conclude that the RevPAR and Occupancy Rate at StayComfort is below the market despite the lower ADR than the market.

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EXHIBIT 2 U.S. Hotels Performance

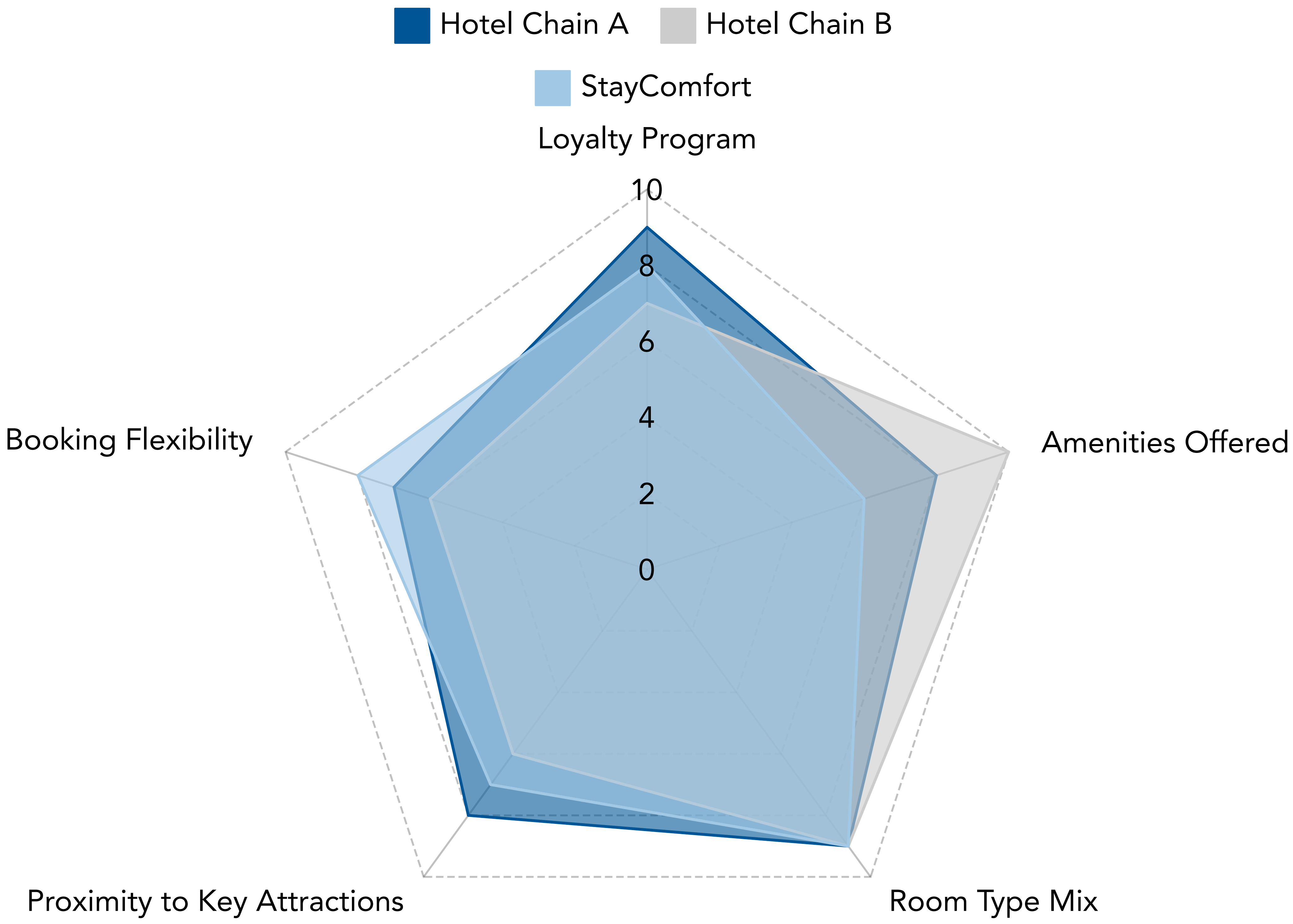

EXHIBIT 2 - Guidance U.S. Hotels Performance

Prompt: StayComfort's Revenue and Occupancy rates could be down due to some of the following factor that we have benchmarked against competitors. What are some key areas for improvement?

Notes:

- Provide the exhibit to the interviewee at the same time and allow them to digest the information.
- The candidate should consider the 5 metrics and discuss their thought process
- Ultimately, they should see that StayComfort has the worst performance in "amenities offered" compared to competitors

Moving forward: The interviewee should ask to know more about "amenities offered." Move to the brainstorm.

BRAINSTORMING

Question: The amenities that StayComfort already offers are free Wi-Fi, a swimming pool, and a business center. What are other amenities that the hotel should consider offering?

Convenience & Comfort	Experience & Engagement
• **Complimentary Breakfast** – A convenient start to the day without leaving the hotel • **Fitness Center** – Provides guests the ability to stay fit while traveling • **Shuttle Services** – Enhances mobility and convenience for travelers • **Pet-Friendly Rooms** – Expands options for guests traveling with pets • **Enhanced In-Room Services** – Includes room service, mini-fridges, and coffee machines for greater comfort • **Electric Vehicle (EV) Charging Stations** – Installing EV chargers can attract environmentally-conscious travelers and those driving electric vehicles • **Flexible Check-In/Check-Out Times** – Offering flexible check-in and check-out options (like early check-in or late check-out) adds convenience, especially for business travelers or those with odd travel schedules • **Luggage Storage** – A convenient option for guests arriving before check-in or leaving after check-out who need a place to store luggage	• **On-Site Restaurant or Bar** – Adds convenience and a social experience for dining or relaxing • **Spa Services** – Offers relaxation and wellness options, improving the leisure experience • **Concierge Services** – Personalized assistance for local tours, transportation, and restaurant bookings • **Outdoor Amenities** – Rooftop terraces, BBQ areas, and gardens provide attractive relaxation or social spaces • **Kids' Play Area or Activities** – Engages families by offering designated spaces or activities for children • **Event Hosting Facilities** – Providing meeting rooms or banquet halls for conferences, weddings, or events can attract group bookings and event attendees • **Cultural or Local Experience Partnerships** – Collaborating with local businesses to offer exclusive tours, workshops (like cooking or crafts), or discounts to nearby attractions

CONCLUSION

⟵ Back to Case List

Prompt: StayComfort's CEO will be joining us shortly to hear your analysis and recommendations. Could you summarize your findings and suggest what you believe is the best course of action?

Recommendation:

- The candidate should recommend that StayComfort boosts profitability using any of the discussed options of amenities offered from the brainstorm to drive occupancy rates

Risks

- Adding new amenities can raise operating costs
- If the new amenities don't align with StayComfort's target market, the investment may not yield the expected increase in occupancy

Next Steps

- Develop a tailored proposal outlining specific amenity improvements and profitability strategies, showcasing past success with similar hotels
- Propose a pilot at select locations to implement and test key amenities, demonstrating measurable results in occupancy and revenue growth

Brick & Mortar

Market Entry & Expansion | Real Estate & Construction

RICE | BUSINESS

BRICK & MORTAR Market Entry & Expansion | Real Estate & Construction

Case Prompt

Brick & Mortar is a medium-sized commercial real estate developer based in Galveston, Texas, known for specializing in mixed-use retail centers. Three years ago, Brick & Mortar acquired a highly sought-after 75,000 square foot plot for $1.5 million. The lot is located near a bustling highway in Houston, Texas. Anticipating a flourishing commercial market after COVID-19 subsided, the initial plan was to develop the land into a retail center. However, with rising inflation, consumers are spending less, and retail centers are suffering. Thousands of retailers are closing stores across America, raising concerns about finding tenants for the upcoming project. This has prompted the company to re-evaluate its strategy. While the residential sector has also experienced challenges due to increasing interest rates, Houston appears to be more resilient, with steady growth driven by swift population increase and rising demand for housing. Brick & Mortar has engaged your firm to provide strategic advice on the following options:

1. Proceed with the initial plan of developing a retail center.
2. Diversify by venturing into residential development with a subdivision project.
3. Explore an alternative strategy.

Clarifying Information (only provide if asked)

- *Business Model:* Brick and Mortar buys plots of lands to develop into mixed-use retail centers. Mixed-use development incorporates two or more uses into the same building, or in the same general area. The term often refers to development that combines residential functions with commercial or even industrial ones, but can also encompass cultural and institutional uses as well as public amenities. Brick and Mortar usually develops retail centers with luxury apartments connected to them.
- *Timeline:* They would like to recoup their investment within 3-5 years.
- *Geography:* Houston, Texas, is a diverse and dynamic metropolitan area with a mix of urban and suburban settings that cater to a wide range of demographics, including families and professionals. The real estate market in Houston varies significantly between the urban core and the suburbs. Urban areas have seen a rise in high-density, mixed-use developments that cater to professionals looking for proximity to workplaces and urban amenities. Meanwhile, the suburbs continue to expand with new housing developments focused on providing family-friendly environments.
- *Financial Objectives:* Brick & Mortar is looking for a profitable long term real estate investment, they have capital constraints of 20M.

FRAMEWORK

Case Type: Interviewee should recognize that this is a Market Entry case
Framework: Interviewee should be pushing to look into the following areas

Market Analysis	Financials/Profitability	Risk Assessment & Mitigation Strategies	Synergies
Commercial Sector: • Current demand and supply trends • Growth rates and future projections • Competitive landscape: key players and their market share • Consumer behavior and spending patterns **Residential Sector:** • Current demand and supply trends • Growth rates and future projections • Competitive landscape: key players and their market share • Demographic trends: population growth, urbanization, income levels	**Costs:** • Development costs for both the retail center and residential subdivision • Operational and maintenance costs **Revenue:** • Expected rental income, sales revenue • Occupancy rates and pricing strategies **Profitability Analysis:** • Return on Investment (ROI) • Break-even analysis • Net Present Value (NPV) and Internal Rate of Return (IRR)	**Market Risks:** • Economic volatility, inflation impact. • Regulatory and compliance risks • Market entry barriers for residential projects **Operational Risks:** • Construction delays, cost overruns • Tenant acquisition and retention for retail centers **Mitigation Strategies:** • Diversification of project portfolio • Strategic partnerships with local firms • Risk management plans and contingency strategies	**Long-term Growth Potential:** • Alignment with Brick & Mortar's core competencies and expertise • Potential for future expansion and scalability • Impact on brand reputation and market positioning **Strategic Fit:** • How well each option aligns with the company's vision and strategic goals • Opportunities for innovation and differentiation in the market • Leveraging existing resources and capabilities

Moving forward: The interviewee should want to explore market analysis and financials, primarily. However, a brainstorm on development options is the next step.

BRAINSTORMING Session 1

Question: What are the possible options Brick & Mortar have for this piece of land?

Develop		Sell	Hold
Commercial Development: • Retail center • Office complex • Industrial park **Residential Development:** • Subdivision project • Apartment complex • Mixed-use residential	**Mixed-Use Development:** • Commercial-residential hybrid • Entertainment complex • Green development • Specialized • Hotel/resort • Health & wellness center • Educational campus	**Sell As-is:** • To a developer • To an investor **Improved Sale:** • Partial development • Sell with development plan **Joint Venture:** • Partner with another developer	**Land Banking:** • Wait for market improvement • Future development **Temporary Use:** • Leasing • Community space **Strategic Reserve:** • Future expansion • Land swap

Moving forward: Push the candidate towards development as the most viable option before moving on to Exhibit 1.

EXHIBIT 1 Construction Development Options

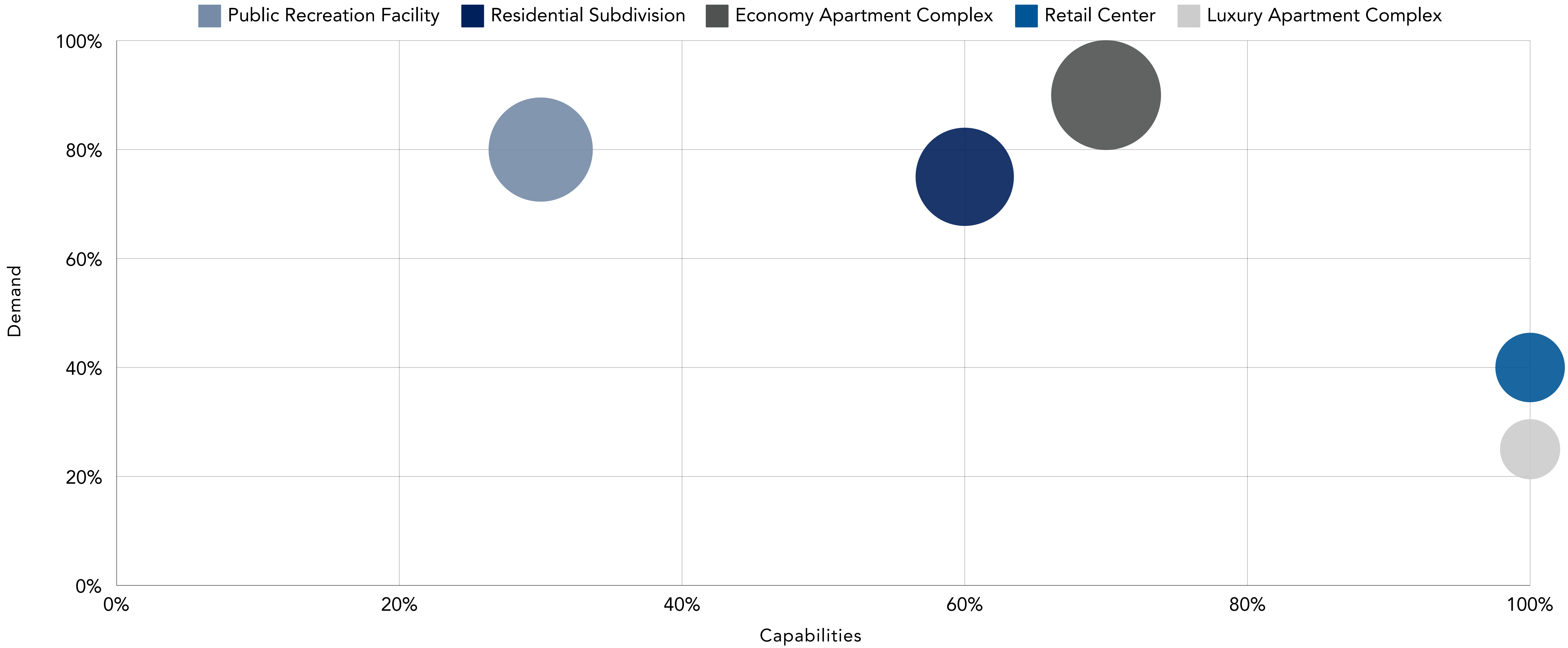

EXHIBIT 1 - Guidance

Construction Development Options

Prompt: Great. We have some information on some development options for the lot.

Notes:

- Provide Exhibit 1 to Interviewee, Interviewee should recognize this chart shows construction development options weighted by demand and internal capabilities
- Interviewee should determine which project looks most attractive
- Ask interviewee if there is any additional information needed to determine which project they should explore.

Insights from Exhibit

- Residential Subdivision: High demand and high capability indicate this is a strong option with fewer risks.
- Retail Center: Moderate to high demand and capabilities suggest it's viable but needs careful risk management.
- Economy Apartment: High demand with strong internal capabilities make this an attractive option despite some risks.

Moving forward: The candidate should discuss the ideas above before moving to Exhibit 2.

EXHIBIT 2 Construction Development Options: Financial Evaluation

Projects	Cost	Utilization	Revenue	Timeline
Public Rec. Facility	$2M	50-100%	$250K/Year	1 Year
Residential Subdivision	$10.5M	50-75%	$8M + $200K/Month	3 Years
Economy Apt. Complex	$2M	60-80%	$100K/Month	1 Year
Retail Center	$10.5M	40-60%	$300K/Month	1 Year
Luxury Apt. Complex	$20M	60-80%	$300K/Month	1.5 Years

EXHIBIT 2 - Guidance

Construction Development Options: Financial Evaluation

Prompt: We have some additional data on the estimates for each development option. Which project or combination of projects achieves the best return in 3-5 years?

Notes:

- Provide Exhibit 2 to Interviewee, Interviewee should recognize they will need to calculate yearly revenue. Guide them to calculate 3 and 5 year profits.
- Utilization implies how much of the 75,000 sq ft plot would be necessary to develop the project. Interviewee can think about developing one project or multiple. Developers are hoping to maximize utilization. An exceptional interviewee will recognize the only way to do that is through a mixed use property.
- Subdivision project includes selling units and leasing units.
- Interviewee should include cost of land ($1.5 Million) in their investment/ cost calculation.
- Should be able to see fairly quickly that the luxury apartment isn't the best option based on development cost.

EXHIBIT 2 - Guidance (cont.) Construction Development Options: Financial Evaluation

Project	Rev. Y1	Rev. Y2	Rev. Y3	Y3 Total	Rev. Y4	Rev. Y5	Y5 Total
Public Rec. Facility	-	$250K	$250K	$500K	$250K	$250K	$1M
Residential Subdivision	-	-	-	-	$10.4M	$2.4M	$12.8M
Economy Apt. Complex	-	$1.2M	$1.2M	$2.4M	$1.2M	$1.2M	$4.8M
Retail Center	-	$3.6M	$3.6M	$7.2M	$3.6M	$3.6M	$14.4M
Luxury Apt. Complex	-	$1.8M	$3.6M	$5.4M	$3.6M	$3.6M	$12.6M

Project	Cost	Y3 Total Revenue	Y3 Profit	Y5 Total Revenue	Y5 Total
Public Rec. Facility	$2M + $1.5M	$500K	-$1.5M	$1M	-$1M
Residential Subdivision	$10.5M + $1.5M	-	-$12M	$12.8M	$800K
Economy Apt. Complex	$2M + $1.5M	$2.4M	-$1.1M	$4.8M	$1.1M
Retail Center	$10.5M + $1.5M	$7.2M	-$4.8M	$14.4M	$2.4M
Luxury Apt. Complex	$20M + $1.5M	$5.4M	-$14.6M	$12.6M	-$7.4M

Moving forward: The interviewee should identify that the Retail Center has the highest return, yet will have the highest risk when executed alone due to issues indicated in the prompt. The next best option is the Economy Apartment Complex, but due to utilization rates, could be a combined project with the Retail Center for a diversified use.

BRAINSTORMING Final Brainstorm

Question: What are the pros and cons for each viable development strategy?

Retail Center	Residential Subdivision	Economy Apartment Complex
Pros: • High demand and capabilities (moderate) • Potential for high annual revenue • Can attract diverse tenants (essential services, experiential businesses) • Opportunity to offer competitive lease terms and unique amenities **Cons:** • Economic downturns could reduce consumer spending and demand for retail space • Difficulty in securing tenants can lead to high vacancy rates • Construction delays and cost overruns • Competition from existing and new retail spaces	**Pros:** • High demand and capabilities • Strong market for housing due to population growth and demand • Potential for rental increases YOY • Differentiation through unique community features and amenities **Cons:** • Fluctuations in housing market demand impacting sales • Increased interest rates making mortgages more expensive for buyers • Zoning and regulatory approval delays • Competition from other residential developments	**Pros:** • High demand and capabilities • Steady revenue stream from rental income, with potential for small increase • Can cater to a broader market with more affordable rental options • Opportunity for cost-effective construction and operational efficiency **Cons:** • Maintenance and operational costs eroding profitability • High tenant turnover leading to increased vacancy rates • Economic downturns impacting tenants' ability to pay rent • Lower margins compared to luxury apartments

Moving forward: Candidate should list at least one pro and con for each profitable development strategy

CONCLUSION

⟵ Back to Case List

Prompt: The client is about to arrive. Please take two minutes to consolidate the information you've analyzed and present your recommended strategy for Brick & Mortar.

Recommendation:

- Primary Recommendation: Develop the Economy Apartment complex. This option stands out due to its high demand, relatively lower upfront costs, and steady rental income, making it a solid long-term investment. To enhance profitability, consider combining the Economy Apartment with a Retail Center. While this combination carries higher risk, particularly with retail market uncertainty, it offers significant growth potential as the market stabilizes.
- Alternative Strategy: Develop a Residential Subdivision paired with a Public Amenity. This can help differentiate the subdivision and potentially drive property values higher. However, this option may face zoning or regulatory challenges, requiring careful planning.

Risks

- Market Volatility:
    - Risk: Economic downturns or rising interest rates could reduce demand for housing and retail space.
    - Mitigation: Implement flexible pricing strategies and ensure pre-sales and pre-leasing to secure commitments before construction is completed.
- Construction Delays and Cost Overruns:
    - Risk: Delays or increased construction costs could derail the project timeline and budget.
    - Mitigation: Use fixed-price contracts with contractors and allocate a contingency budget. Employ experienced project managers to ensure adherence to timelines.
- Tenant Acquisition & Retention:
    - Risk: Difficulty in securing tenants for the Economy Apartments and Retail Center could result in higher vacancy rates and lower rental income.
    - Mitigation: Offer competitive lease terms and incentives to attract tenants. Invest in quality property management to ensure high retention and occupancy rates.

Next Steps

- Conduct a detailed financial analysis for the chosen development option(s), including 3-5 year ROI projections and risk assessments.
- Create project timeline & Begin securing contractors and finalizing permits to ensure alignment with the project timeline and budget.

GeoSystems

M&A | Manufacturing & Industrial Goods

RICE | BUSINESS

GEOSYSTEMS M&A | Manufacturing & Industrial Goods

Case Prompt

Your client, GeoSystems, is a company that specializes in manufacturing asset-tracking devices. All manufacturing, software development, and hardware development are done in-house at their Houston, Texas facility. The company sells these GPS tracking devices to distributors whose primary customers are fleet management companies, car dealerships, etc. GeoSystems has experienced 10% year-over-year growth in its revenue and is now looking to expand its presence in Latin America. The CEO of GeoSystems has been approached by another tracking device manufacturer, Track Sphere Co., located in Monterrey, Mexico which is available for purchase. Will acquiring Track Sphere's assets and customer base make sense for GeoSystems?

Clarifying Information (only provide if asked)

- *Business Model:* GeoSystems is an asset-tracking device manufacturer in Houston, Texas. Devices are manufactured on a customer-order basis, with minimal inventory being held, and lowest-in-industry lead times. The company has a large market share due to the outstanding quality of its products (lower than 10 ppm fallout rate) and the robustness of its telematics software stack. They have a growing R&D division and are currently expanding their product line into the AI-enabled connected dashcam segment (connected meaning uses telematics data).
- *Timeline:* GeoSystems would like to acquire within the next year.
- *Geography:* Why Latin America (LATAM)? GeoSystems already has an international customer base; however, they are having difficulty expanding into LATAM because of the geographic area's extreme price sensitivity and language barrier. Acquiring Mexican assets would enable them to decrease the cost of production and leverage a customer base for higher penetration into the South/Central America market.
- *Financial Objectives:* Grow their profits through expansion into a new market.

FRAMEWORK

Notes: The interviewee should focus on the synergistic value of the acquisition. This case is designed to test the interviewee's ability to assess the strategic rationale behind the acquisition and determine it to be a desirable transaction

GeoSystems is healthy	Purchase is financially +	Synergies	Market Analysis	Risk Evaluation
Profitability • Revenue • Costs • High levels of automation **Size, Growth** • Access LATAM network of customer base • Growth of assembly/product recourses	• Cost of acquisition • Positive NPV	**Revenue synergies** • Cross-sell • Up-sell **Cost synergies** • Headcount ◦ Reduction ◦ Relocation • Non-headcount ◦ Scale ◦ CAPEX reduction ◦ R&D consolidation ◦ Shared costs (IT, vendors, licenses)	• How many competitors are in LATAM? • Is the LATAM market growing? • Are there high barriers to entry?	• Regulatory risks in Mexico • Target company's talent retention • Overly optimistic synergy estimates • Culture • Brand deterioration/ improvement • Overestimate cost savings • Cost/vendor relations risk • Extended timeline

Route 1: Exhibit 1 Notes:The interviewee should want to move forward in the direction of evaluating the financial feasibility of the acquisition. This is a great starting point. This case is designed to test the interviewee's ability to conceptually discuss the potential acquisition. To eliminate math, provide the interviewee with Exhibit 1.

Route 2: Exhibit 1A Notes: To make this case more challenging, ask the interviewee to calculate the profit per customer by providing them with Exhibit 1A.

EXHIBIT 1 Calculated Profitability of Customers for the Current and Combined Companies

	GeoSystems	TrackSphere	Combined
Revenues	$8,000,000	$5,000,000	$13,000,000
Costs	$6,500,000	$4,000,000	$10,500,000
Profits	$1,500,000	$1,000,000	$2,500,000
Customers	25	20	45
Profit/Customer	$60,000	$50,000	$55,556

EXHIBIT 1A Calculated Profitability of Customers for the Current and Combined Companies

	GeoSystems	TrackSphere	Combined
Revenues	$8,000,000	$5,000,000	$13,000,000
Costs	$6,500,000	$4,000,000	$10,500,000
Profits			
Customers	25	20	45
Profit/Customer			

EXHIBIT 1(A) - Guidance Calculated Profitability of Customers

Route 1: Exhibit 1 Notes:

- Provide Exhibit 1 and allow them to digest it. The candidate should recognize the profitability per customer for GeoSystems is higher than combined.
- A great candidate would jump into brainstorming how to lower costs rather than immediately conclude that this deal is not worthwhile. If the candidate cannot see that, direct them to the following brainstorming session.

Route 2: Exhibit 1A Notes:

- Ask the interviewee to fill in the table by calculating the total profits per company and combined, and then profit per customer.
- The candidate should recognize the profitability per customer for GeoSystems is higher than combined.
- A great candidate would jump into brainstorming how to lower costs rather than immediately conclude that this deal is not worthwhile. If the candidate cannot see that, direct them to the following brainstorming session.

BRAINSTORMING Session 1

Question: How can we lower costs after purchasing Track Sphere?

Combined Cost Synergies

- **Employee headcount:** Potential for merging departments and redesigning the organization to avoid duplication of roles, which can lead to significant savings on salaries, wages, and benefits (SWB).
- **CAPEX reduction:** Merging infrastructures or technology can reduce the need for future capital investments.
- **R&D consolidation:** Focus resources on promising initiatives and avoid duplication of projects.
- **Non-headcount:** IT systems, vendor contracts, and licenses will be shared after the acquisition, so this would result in higher negotiating power and lower costs per unit.

Once the candidate hits on several of these factors on cost synergies, tell them that if GeoSystems acquires Track Sphere, they believe they can save $2.5 M due to a leaner labor force and utilizing certain contracts that they currently have. Ask the candidate to calculate the new profit per customer post-acquisition. Would the acquisition then be worthwhile?

The candidate should calculate new costs and new profit per customer. Rounding for profit/customer is acceptable: ~100,000 (5 M / 50 customers). The interviewee should note that the cost-saving synergies result in higher profit per customer post-acquisition and that the deal is worthwhile for GeoSystems to further explore.

	Combined with Cost Synergies
Revenues	$13,000,000
Costs	$10,500,000 - $2,500,000 = $8,000,000
Profits	$5,000,000
Customers	45
Profit/Customer	$111,111

The interviewee should note that the cost-saving synergies result in higher profit per customer post-acquisition and that the deal is worthwhile for GeoSystems to further explore.

TRACKSPHERE VALUE ANALYSIS

Depending on time and interviewee performance, ask them to calculate the value of Track Sphere by providing them with the NPV assumptions.

NPV	
Assumptions	
Profitability in Perpetuity	
WACC	12%
Growth Rate	2%
Effective Discount Rate	12% - 2% = 10%
Total Additional Profit from Acquisition	
TrackSphere Profit	$1,000,000
Synergies	$2,500,000
Profit	$3,500,000
Value	**$35,000,000**

Some insights that a candidate can derive from the value exhibit:

- Track Sphere's ability to generate $1M in profit alone suggests that the company has intrinsic value, and its assets and customer base will help GeoSystems reach its financial and expansion goals.
- The assumption that profitability remains constant in perpetuity outlines the confidence in the stability and sustainability of Track Sphere's assets and customer base.
- Cost synergies contribute to ~70% of the total profits ($2.5M / $3.5M), outlining the substantial opportunity for cost savings.

Moving forward: Now that the candidate has calculated the profit per customer with account of cost synergies post-acquisition, lead them into the last brainstorming session.

BRAINSTORMING Final

Prompt: What are some benefits and risks to consider with the acquisition of Track Sphere?

	Benefits	Risks	Mitigations
Customers	• Access to wider customer base • Faster expansion and growth	• Customer attrition - loyalty to TrackSphere • Lower customer service	• Preemptive announcement to existing base • Show them track record of GeoSystems
Employees	• Trained staff / additional skill set	• Employee attrition • Company culture (merged cultures)	• Employee incentives • Launch culture initiative
Products	• Diversification of product offering	• Lose sight of primary products	• Create post-merger integration plan

Moving forward: After exhausting all areas of consideration, move to final conclusion.

CONCLUSION

⟵ Back to Case List

Prompt: GeoSystems CEO is waiting to hear about your recommendation. What will you present to him?

Recommendation:

- The candidate should answer succinctly with supporting points in favor of the acquisition. This section should be no longer than a minute
- The client should acquire Track Sphere's assets and customer base for up to $35M
- We can capture an additional $3.5M profit per year
- This is due to the increase of $51,000 in profit per customer

Risks

- Overestimate of cost synergies
- Acquisition could result in some customer and employee attrition

Next Steps

- Stress test numbers / Perform detailed due diligence to confirm estimates / secure synergy cost reduction
- Customer survey to see what customer retention would be like
- Assess the market for competitive response
- Develop a post-merger integration plan

Blossom Heights

Human Resources & Organizational Behavior | Education

RICE | BUSINESS

BLOSSOM HEIGHTS

Human Resources & Organizational Behavior | Education

Case Prompt

Blossom Heights is a private Pre-K through 8th grade school in Houston, Texas. The school has a unique, evidence-based approach to education where students spend most of their day outside in the school's ample green spaces, working on long-form projects that require the students to use many different subject areas at one time. This is different from the more common method of education with short lectures for each class and classes taught on a subject-by-subject basis.

Blossom Heights has gained a loyal following of parents who see the remarkable effects on their children's social and intellectual capabilities, and the administration is looking for a way to continue developing children beyond 8th grade and extend the Customer Lifetime Value of the families who are so devoted to the school.

Blossom Heights administration has decided that it would be best to buy a high school to extend the impact of its unique approach to education. What are some elements of target schools that Blossom Heights should consider in order to ensure that the acquisition is a good cultural fit?

Clarifying Information (only provide if asked)

- *Business Model:* as a private school, Blossom heights collects revenue via tuition paid by parents per student.
- *Geography:* This case takes place in Houston, Texas and schools are only being considered within this range.
- *Objective:* Blossom Heights is looking for a school that is both profitable and a good fit from an organizational behavior perspective.
- *Timeline:* Blossom Heights is looking to complete this transaction within the next year.

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FRAMEWORK

Case Type: This case is a Human Resources/Organizational Behavior Case. This case type is less common and will largely focus on thinking out of the box and considering non-financial, qualitative data.

Educational Philosophy	Staff/Teacher Attitudes	Parent Priorities
• Outdoor learning • Long-form projects • Evidence-based learning	• Engaging curriculum • Teachers aligned with Blossom Heights values	• Commute time • Cost • Outdoor learning

Exceptional interviewees will pick up on the cues that they should primarily be considering the attitudes of stakeholders

Moving forward: A candidate should ask, or the interviewer can indicate, that they'd like to review survey data from the different schools and have a hypothesis for which stakeholder is most important

EXHIBIT 1 Pedagogical Statements of Local Schools

School	Statement
Blossom Heights	Research shows that long-form, multi-subject projects in an outdoor environment create a rich and meaningful education for children that prepare them to be both kind and innovative members of society.
Hartford High	We educate children by facilitating hands-on activities in science, entrepreneurship, and the arts that can last many months and prepare children for real-world challenges.
Adhere Academy	Every student is unique, and it is our job to cultivate that uniqueness by giving students systematic lectures on a variety of subjects spanning the educational realm.
Sunshine School	We believe that extensive, cross-curricular endeavors conducted in nature offer children a profound educational journey, cultivating the compassion and ingenuity essential for constructive participation in society.

EXHIBIT 1 - Guidance

Revenues and costs per committee (in millions)

Prompt: Below are the pedagogical statements of Blossom Heights and 3 target high schools. What insights do you have for me from this information?

Notes:

- Interviewees should be processing which target school statements are aligned with Blossom Heights' pedagogy.
- Exceptional candidates will rank the schools and be able to defend their ranking
- Pedagogical is an education industry specific term and candidates can ask for its definition
  - Pedagogy (ped·a·go·gy): the method and practice of teaching, especially as an academic subject or theoretical concept.
- Based on the pedagogical statements alone, below is a ranking of the target schools alignment with Blossom Heights

Sunshine School	Hartford High	Adhere Academy
• Aligned: outdoors/nature, long-form projects, interdisciplinary • Not aligned: no mention of evidence based	• Aligned: long-form projects, interdisciplinary • Not aligned: no mention of outdoor learning or evidence based	• Aligned: N/A (calling students "unique" is a red herring, something meant to trick candidates) • Not aligned: no mention of outdoors/nature, no long form projects; instead focused on subject based learning

Moving forward: The candidate should identify that Sunshine School is the best target based on pedagogical statements alone. Move to Exhibits 2 & 3

EXHIBIT 2

Staff & Teacher Attitudes: "What was the main reason you chose to work here?"

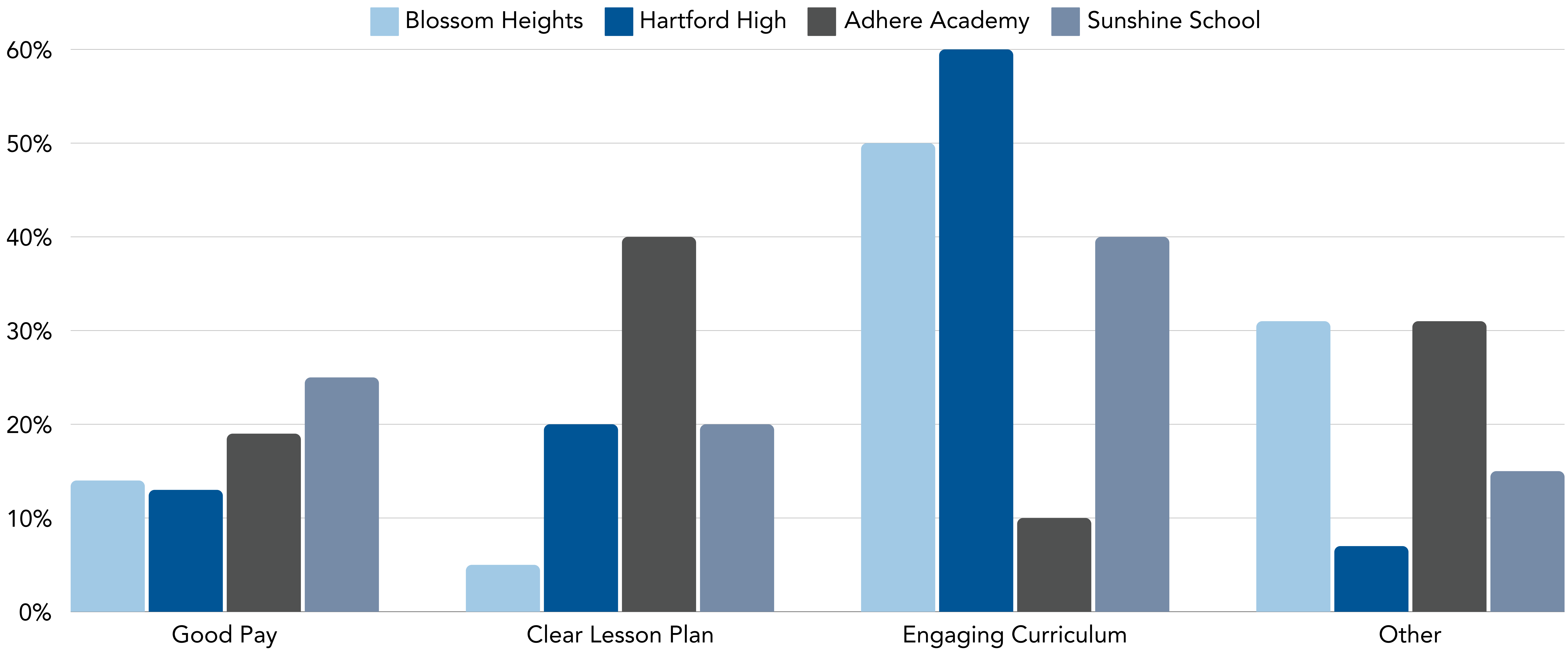

EXHIBIT 3 Parent Priorities: "What was the main reason you chose this school for your child?"

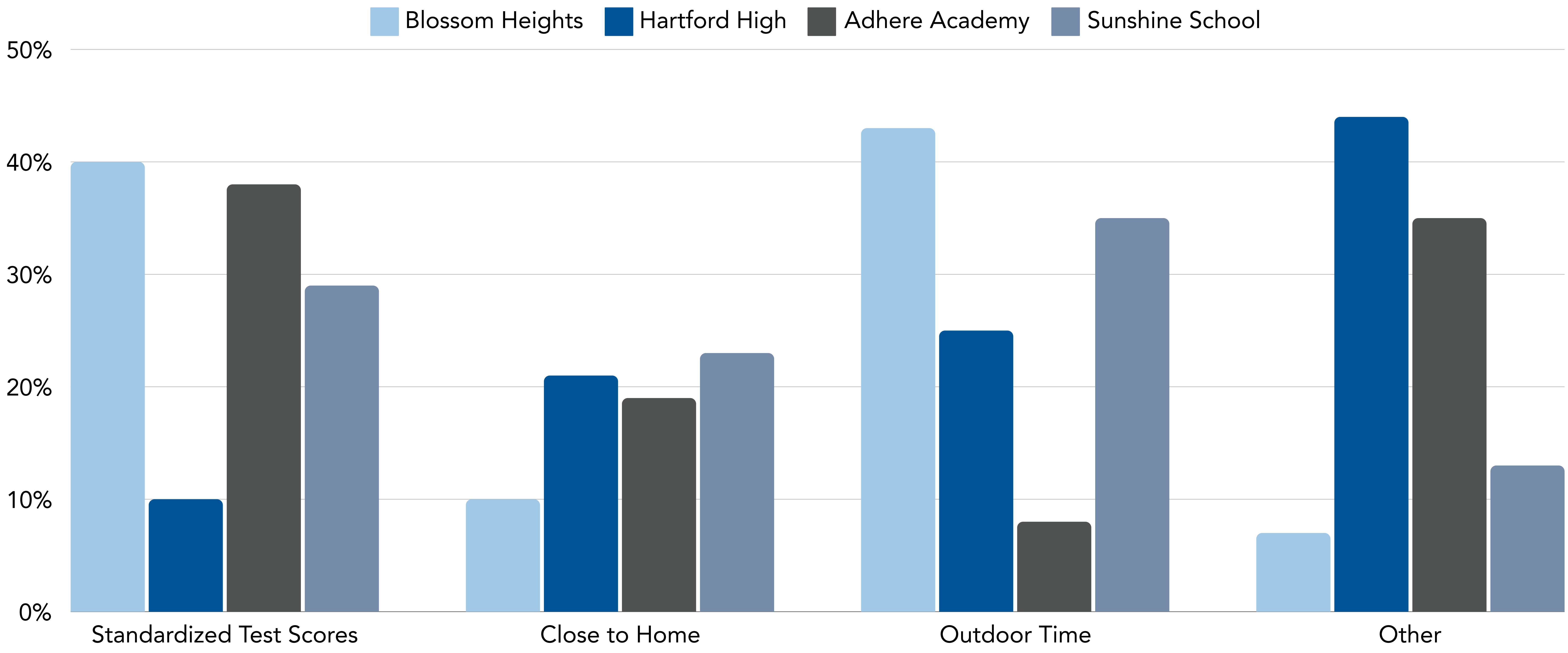

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EXHIBIT 2 & 3 - Guidance (2) Staff & Teacher Attributes vs. (3) Parent Priorities

Prompt: I've got some data from staff and parent surveys. Would you mind analyzing it and sharing your thoughts with me? Exhibit 2 is a survey of staff at Blossom Heights and each of the three target schools. Four options were given for the main reason why a staff member chose to work at the school. Exhibit 3 is a survey of parents at Blossom Heights and each of the three target schools. Four options were given for the main reason why a parent chose to send their child to a particular school.

	Blossom Heights	Hartford High	Adhere Academy	Sunshine School
2	• Teachers value the engaging curriculum the most	• This school is most aligned with Blossom Heights since teachers also value the engaging curriculum	• This school is least aligned with Blossom Heights since teachers value a clear lesson plan and do not care about having an engaging curriculum	• Sunshine School teachers also value the engaging curriculum, but not as much as Hartford High
3	• Highest standardized test scores • Seems to be a willingness for parents to commute further for this school • The most common reason for parents choosing the school is outdoor time, so the ideal target school would also have parents that value this equally.	• A decent amount of outdoor time, but majority of responses are in "other category." • It is reasonable at this point that a candidate still sees Hartford as a viable potential target.	• Exhibit 3 should be the nail in the coffin for Adhere Academy. • The similarity in standardized test scores is a red herring. • Candidates should notice that outdoor time is the most common main priority for Blossom Heights parents, and therefore they should look to find other schools where this is the main priority.	• While this exercise is subjective, Sunshine School is a match for each exhibit. • The fact that most parents choose the school for its emphasis on outside time should be a good indication that this school is a cultural fit for an acquisition.

Moving forward: Candidate should be presented both exhibits simultaneously. Once the candidate discusses qualitative judgements the align with above table, move to Brainstorm

BRAINSTORMING

Question: Since we have now evaluated key cultural factors of the targets, what are some other elements that you would want to consider to make sure an acquisition is successful?

Financials	Location	Security	Potential Operational Synergies
Revenue • Price similarity • Number of students **Costs** • Teacher salaries • Rent • Potential cost synergies (admin, maintenance, etc.)	• Target school's proximity to Blossom Heights • Target school's proximity to Blossom Heights' customers' homes • Does the neighborhood of the target school feel like Blossom Heights' neighborhood?	• Does the target school have similar levels and layers of security as Blossom Heights?	• Rotating staff between high school and lower schools • Having high school students teach lower school students

Moving Forward: After candidate explores more considerations, move to final conclusion

CONCLUSION

⟵ Back to Case List

Prompt: The director of the school is going to be here in a minute. Would you mind sharing with her your recommendation for which school to acquire?

Recommendation:

- A good candidate will quickly provide which school(s) should be considered as viable targets
- Hartford High and Sunshine School are both viable candidates because of their alignment with Blossom Heights in the three exhibits
- Exceptional candidates might distinguish Sunshine School as the best choice because parent priorities are most aligned with Blossom Heights, and parents make the purchasing decisions for schools
- Exceptional candidates could also make the argument that good teaching staff that value an engaging curriculum are part of Blossom Heights' competitive advantage, and therefore Hartford High might have more synergies from a staff perspective

Risks

- Target school may be aligned philosophically, but may not be profitable

Next Steps

- Schedule a visit of the target school
- Review financial information of the target school

EnergyCo

Market Entry & Expansion | Energy & Utilities

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ENERGYCO

Market Entry & Expansion | Energy & Utilities

Case Prompt

EnergyCo, a mid-sized utility company in the Midwest United States, has traditionally relied on fossil fuels for most of its energy production. However, due to increasing regulatory pressure, public demand for sustainable energy, and favorable tax incentives, EnergyCo is contemplating a strategic shift towards renewable energy sources, primarily wind and solar. EnergyCo's current energy mix consists of 90% fossil fuels and 10% renewables. State regulations have mandated that the company increase its renewable energy share to at least 35% within the next five years. The company's board is divided on how to proceed, with some members advocating a gradual transition prioritizing solar energy, while others propose a more aggressive push towards wind energy. EnergyCo's CEO has asked for a detailed analysis and recommendation on whether the company should focus on solar or wind energy.

Clarifying Information (only provide if asked)

- *Business Model:* EnergyCo operates as a mid-sized utility company that generates and sells electricity. Revenue is largely generated from selling electricity to residential, commercial, and industrial customers in the Midwest United States. The company also benefits from regulatory incentives for adopting renewable energy technologies. The utility company acts as a monopoly in its area of service
- *Client Objective:* The CEO aims to transition the company's energy production from fossil fuels to renewables, specifically focusing on either solar or wind energy. The goal is to choose the option with the highest 5-year ROI. The CEO has an option of purchasing power from other producers instead of generating it to meet the government mandate, which would have an ROI of 30% over 5 years
- *Public Sentiment:* High demand for cleaner energy, with a slight preference for solar due to aesthetic and safety perceptions

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Interviewer Guide (do NOT share with interviewee)

- This case tests the interviewee's ability to navigate two low-complexity exhibits to determine the best path forward with a market expansion decision. Conversing with the interviewer is critical to properly conducting the calculations required in Exhibit 2, as key information is missing from the Exhibit that needs to be provided by the interviewer
- Key Steps:
  - Develop a structure to address the question, identifying the most important factors for assessing two options
  - Analyze exhibits to determine which option is more suitable from a quantitative and qualitative perspective
  - Let the interviewee struggle throughout the case but guide them if they ask specific and related questions. The goal is to get them to be conversational

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FRAMEWORK

Case type: This is a market expansion case with a choice between two options

Structure: Interviewee should want to explore the following factors

Financial Factors (should compare Wind vs. Solar)	Non-financial Factors (should compare Wind vs. Solar)

• **Revenue**
  ◦ Energy produced
  ◦ Energy demand
  ◦ Average Price to consumer
• **Cost**
  ◦ Maintenance
  ◦ Operations
  ◦ Etc.
• **Initial Investment**
  ◦ Land
  ◦ Equipment
• **Government subsidies**
	• Public perception
	• Strategic Fit
	• Government regulations
	• Scalability
	• Technology maturity
	• Risks
	  ◦

Note: There are several possible structures to this case. The critical elements are underlined above.

Moving forward: Once the interviewee shares their structure, ask them where they would like to start. The interviewee should indicate that they want to explore the financials associated with the two options given the client's objectives. At this point, provide them with both exhibits and ask for their thoughts. If they want to explore anything else, ask why and then redirect them to understand the financials.

EXHIBIT 1 Solar and Wind Energy Options

Option	Technology Maturity	Scalability	Suitability for Midwest	Public Perception
Solar	●	◑	◑	●
Wind	●	◑	◕	◑

EXHIBIT 1 - Guidance

Solar and Wind Energy Options

Notes:

- This exhibit aims to contrast the wind and solar energy options from a qualitative perspective. Both options are similarly appealing qualitatively. It is inconsequential but is provided to the interviewee as a distraction from the quantitative assessment.
- Some insights that could be provided by the interviewee:
  - Scalability: Both options are scalable but require significant CAPEX
  - Suitability for Midwest: The Midwest is known for its generally strong and consistent wind patterns. Solar energy potential in the Midwest tends to be less consistent due to limited peak sun hours per day outside of the summer months. Hence, Wind is more suitable
  - Public perception: preference for Solar as discussed in the clarifying questions

Moving forward: If the interviewer spends too much time analyzing this exhibit, remind them of the client's primary objective (choosing option with highest 5-year ROI) and push them to Exhibit 2

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EXHIBIT 2 Solar and Wind Energy Options

Description	Wind Energy	Solar Energy
Capacity factor	35%	25%
Installed capacity	250 MW	200 MW
Initial investment cost	$100 million	$130 million
Average selling price to customers	$0.10	$0.10
Fixed operational costs	$10 million per year	$15 million per year
Variable costs (per kWh)	$0.03	$0.02
Tax rate	30%	30%
Government subsidies	N/A	$5 million per year

EXHIBIT 2 - Guidance

Solar and Wind Energy Options

Notes:

- The goal of this exhibit is to conduct a financial assessment of the wind and solar energy options to determine which option is more appealing financially. This exhibit tests the interviewee's ability to structure calculations and identify critical missing information (e.g., hours of operations in this case). It is important that the interviewee aligns with the interviewer on the structure of calculations before solving the math

Clarifying Questions:

- Assume capacity is fully installed and available today
- *How many annual operational hours can we assume?*
  - Wind: 8,760 hours (24 hours per day)
  - Solar: 1,825 hours (Average of 5 peak sun hours per day that can be utilized for electricity generation)
  - The number of hours used in the calculations represents the maximum number of operational hours in a year, and it's not the actual number of hours the facilities will generate power, but a figure to calculate the maximum potential output. The capacity factor corrects for the actual expected operation.
- *What is the Capacity Factor?*
  - The ratio between the actual output that the plant actually produces and the maximum possible output is what the plant would produce if it ran at full power capacity 24/7 during the period. Accounts for items such as downtime for maintenance.
  - Formula: (Maximum Possible Output over the Period/Actual Output over a Period) × 100%
- *What is Growth Rate*? Assume no growth
- *Time value of money?* Assume no discounting
- *Unit Definitions:*
  - MWH (Megawatt-hour) = 1000 KWH (Kilowatt-Hour)
  - KWH = KW (Kilowatt) x H (Hours, however, it is pronounced hour)
  - Kilowatt-Hour (KWH): A measure of electricity defined as a unit of work or energy, measured as 1 Kilowatt (1,000 watts) of power expended for 1 hour

WIND ENERGY ROI Calculation Over Five Years

Calculations:

- *Annual Energy Production:* 250 MW * 8,760 hours * 35% = 766,500 MWh (Ask to round to 766,000 for ease)
- *Annual Revenue:* 766,000 MWH * $0.10/KWH * 1000 KW/MW= $76,600,000
- *Total Revenue Over Five Years:* $76.6 million * 5 years = $383 million
- *Annual Variable Costs:* 766,000 MWH * $0.03/KWH * 1000 KW/MW= $22,980,000 (round to $23.0 million)
- *Total Annual Operational Costs:* $10 million (fixed) + $23 million (variable) = $33 million
- *Total Operational Costs Over Five Years:* $33 million * 5 years = $165 million
- *Total Pre-Tax Cash Flow Over Five Years:* $383 million (revenue) - $165 million (operational costs) = $218 million
- *Tax Over Five Years:* $218 million * 30% = $65.4 million
- *Cash Flow Over Five Years:* $218 million - $65.4 million = $152.6 million
- *ROI Over Five Years:* ($152.6 million / $100 million) * 100 - 1 = 52.6%

SOLAR ENERGY ROI Calculation Over Five Years

Calculations:

- *Annual Energy Production:* 200 MW * 1,825 hours * 25% = 91,250 MWh (rounded to 91,000 MWh)
- *Annual Revenue:* 91,000 MWh * $0.10/KWH * 1000 KW/MW = $9,100,000 (rounded to $9.1 million)
- *Total Revenue Over Five Years:* $9.1 million * 5 years = $45.5 million
- *Annual Variable Costs:* 91,000 MWh * $0.02/KWH * 1000 KW/MW = $1,820,000 (rounded to $1.8 million)
- *Total Annual Operational Costs:* $15 million (fixed) + $1.8 million (variable) = $16.8 million
- *Total Operational Costs Over Five Years:* $16.8 million * 5 years = $84 million
- *Total Pre-Tax Cash Flow Over Five Years (including subsidy):* $45.5 million (revenue) + ($5 million * 5 years subsidy) - $84 million (operational costs) = -$13.5 million (resulting in a loss)
- Given the loss, the tax calculation and subsequent steps for net profit and ROI are not applicable.

Moving forward: Given the Financials, the interviewee should indicate a clear direction for moving forward with the Wind option at this point. Move on to the brainstorm.

BRAINSTORMING

Question: What are some of the risks associated with the decision to move forward with the Wind option?

Financial Risks	Non-financial Risks
ROI uncertainty (many assumptions made) • Price fluctuations • Maintenance costs • Discounting	• Changes in regulations • Changes in incentives and subsidies • Impact on local wildlife • Opposition from population

The goal is to obtain a structured response from the candidate. If the candidate starts rambling responses (shooting from the hip) then stop them and ask them to think through the answer and respond in a structured approach.

Moving forward: Challenge the candidate to push further in this brainstorm. Then move on to the final recommendation.

CONCLUSION

Prompt: The client just reached the elevator and is on their way up now to receive your recommendation. Could you fill them in on what you believe the best course of action is?

Recommendation:

- The candidate should recommend EnergyCo proceed with the wind energy option. Based on the financial analysis, wind energy offers a 52.6% return on investment (ROI) over five years, while solar energy results in a financial loss

Risks

- Potential fluctuations in energy prices
- Uncertainty in long-term maintenance costs
- Changes in government regulations or incentives
- Possible local opposition due to environmental concerns, such as the impact on wildlife

Next Steps

- Conduct a detailed feasibility study on maintenance costs and long-term profitability
- Develop strategies to engage with local communities and address environmental concerns
- Explore fixed-price contracts or hedging strategies to mitigate price fluctuations
- Monitor regulatory changes to adapt quickly to any new policies or incentives

Owl Deliver It

Operations & Supply Chain Management | Manufacturing & Industrial Goods

RICE | BUSINESS

OWL DELIVER IT

Operations & Supply Chain Management | Manufacturing & Industrial Goods

Case Prompt

Your client, PolyProducer, is an established Gulf Coast producer in the petrochemical industry where they manufacture polymers, in the form of small pellets, for molders to make into various finished goods. To simplify their customer's supply chain experience, they have elected to offer their product delivered via truck or railcar with the respective freight cost built into the $/lb. price of the material, depending on the delivery mode.

They have recently taken on an initiative to increase market share in the mid-west but are finding that they are losing too much margin given the additional shipping costs to each individual customer. They have approached our firm seeking a plan to reduce delivery costs to the region so they can continue competing for new market share.

Clarifying Information (only provide if asked)

- *What is the client's business model?* The client sells mostly commodity polymers delivered in bulk for a flat price per pound.
- *What are the current means of delivering products to the mid-west?* Railroad primarily with Trucks where needed.
- *What is the petrochemical industry?* It's an industry that manufactures large-scale chemicals and polymers for use in various products and industries. Most of the material is delivered in bulk
- *What is the overall objective the client is seeking to achieve?* To grow market share in the Midwest by optimizing their supply chain to reduce costs and improve efficiency and by enhancing their customer service offerings to differentiate themselves from competitors.
- *What geographic regions does the client serve?* The client operates in Houston and sells across North America but they are particularly focused on expanding market share in the Midwest.
- *What is the timeline associated with achieving this objective?* The client is targeting cost reductions in under three months.
- *Special condition for the product?* The product does not expire but must be kept clean and debris-free.

FRAMEWORK

Case Type: Interviewee should recognize that this is a cost-reduction / supply chain case given the key words

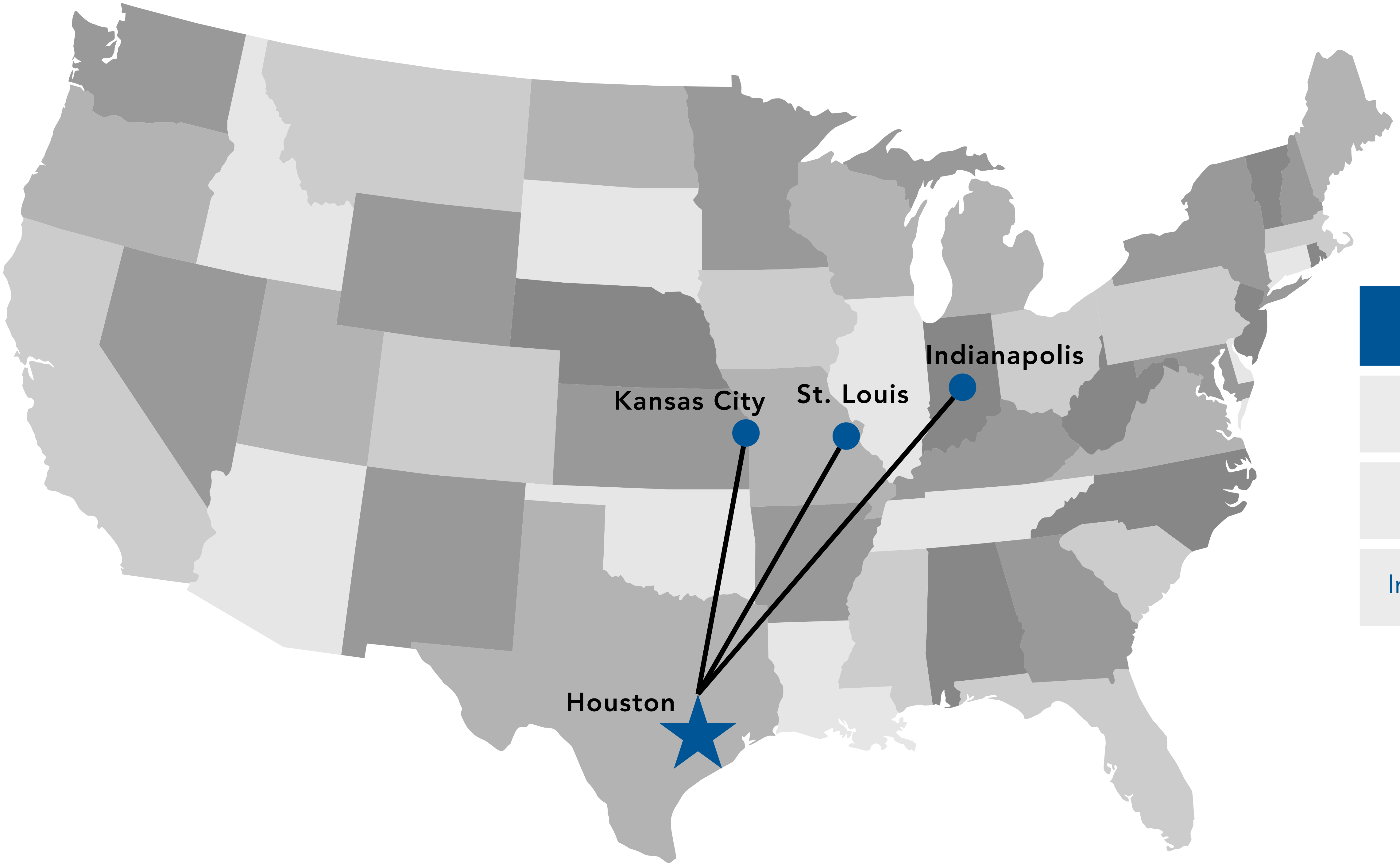
Focus should be on reducing delivery cost/increasing efficiency and providing value to customers beyond price

Increase Profitability	Investments	Competitive Landscape

Revenues:
• How is pricing structured
  ◦ Rates for shipping costs
• Contracts
  ◦ Large steady customer vs.
  ◦ Small spot buyers
• Increase product value
Variable costs:
• COGS
  ◦ Production, raw materials
• Distribution
  ◦ Distance, mode, volume
Fixed costs:
• Overhead
• SG&A
	• Additional offerings
	• Product differentiation
	• Infrastructure investments to reduce shipping cost
		• Mid-west market size and volume
		• Competition
		  ◦ How are they handling deliver?
		• Penetration rate
		• Fragmentation of customers

Moving forward: Candidate should start asking for relevant information to determine options for the supply chain. Price increases should not be suggested as the client is working to remain competitive in a new marketplace

EXHIBIT 1 Logistical Mapping of New Midwest Clients and Customers



Customer	Deliveries Accepted	Distance (mi)
Kansas City Plastics	Truck & Railcar	700
St. Louis Polymers	Truck	800
Indianapolis PolyPlastics	Truck & Railcar	900

EXHIBIT 1 - Guidance

Logistical Mapping of New Midwest Clients and Customers

Prompt: We have some information on the different supply chain options the client has prepared. Please take a moment to look it over.

Notes:

- Provide Exhibit 1 to the interviewee and allow them to quickly digest.
- The candidate should speak his thoughts and observations on the different clients, distance from Houston location, and acceptable delivery modes by each client

Moving forward: The candidate should ask for additional information regarding delivery cost per mile and volume of demand for each customer, leading to Exhibit 2

EXHIBIT 2 Current Transportation Modes and Costs

Customer	Monthly Demand
Kansas City Plastics	3,000,000
St. Louis Polymers	2,000,000
Indianapolis PolyPlastics	1,000,000
Delivery Mode	**$ / lb. / 1000 miles**
Truck	$0.20
Railcar	$0.10
Airfreight	$1.00

EXHIBIT 2 - Guidance

Current Transportation Modes and Costs

Prompt: Attached is more information about each client's demand and the current cost of each mode of transportation

Notes:

- Provide Exhibit 2 to the interviewee and allow them to digest
- For this case, assume that PolyProducer can fully meet their client's demands via each mode of transportation
- Candidate can now calculate the existing cost to ship to the 3 customers
  - A good candidate will immediately rule our airfreight due to cost
  - Candidate should know to calculate railcar only for Kansas City Plastics and Indianapolis PolyPlastics as Railcar is cheaper than Trucking

Customer	Deliveries Accepted	Monthly Freight Costs per Mode
Kansas City Plastics	Truck & Railcar	Railcar: 700mi x 3Mlbs x 0.10 / 1,000 = 210,000
St. Louis Polymers	Truck	Truck: 800mi x 2Mlbs x 0.20 / 1,000 = 320,000
Indianapolis PolyPlastics	Truck & Railcar	Railcar: 900mi x 1Mlbs x 0.10 / 1,000 = 90,000
Current Freight Cost		**$620,000**

DISTRIBUTION CENTER (DC) OPPORTUNITY

Prompt: We have identified two possible distribution centers that can intake railcars and deliver in trucks. There are locations in Kansas City and St. Louis. Both will cost a monthly flat fee of $20,000 to use the facility. Consider the cost to ship from DC locally in truck within each city to be negligible

Notes:

- The interviewee should discuss the benefits of selling more customer via truck through the DC
- Candidate should see that the DC does not improve shipping to railcar customers, only the truck customer. Hence, calculating Kansas is null compared to St. Louis

Customer	Deliveries Accepted	Monthly Freight Costs per Mode
Kansas City Plastics	Truck & Railcar	Railcar: 700mi x 3Mlbs x 0.10 / 1,000 = 210,000
St. Louis Polymers	Truck	Truck: 800mi x 2Mlbs x 0.10 / 1,000 = 160,000
Indianapolis PolyPlastics	Truck & Railcar	RC: 900mi x 1Mlbs x 0.10 / 1,000 = 90,000
Current Freight Cost	**+ $20,000**	**$480,000 ($140,000 savings; $1,680,000 annual savings)**

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BRAINSTORMING Session 1

Question: Now that there is a plan to effectively manage our delivery cost, what else can the client do to provide additional value to the customers?

Technical Support and Training	Customized Solutions	Enhanced Communication and Feedback Channels	Digital Tools and Resources
• **Technical Assistance:** Offer on-site or virtual technical support to help customers optimize the use of your products in their manufacturing processes. • **Training Programs:** Provide training sessions or webinars on best practices, product handling, or innovations in plastics technology.	• **Tailored Product Offerings:** Work closely with customers to develop customized plastic products that meet their specific needs, providing added value through uniqueness. • **Co-Development Programs:** Partner with customers in R&D to create new products or improve existing ones, fostering a collaborative relationship.	• **Dedicated Account Managers:** Assign dedicated account managers who regularly check in with customers, ensuring their needs are met and anticipating future requirements. • **Customer Feedback Loops:** Establish regular feedback sessions where customers can discuss their experiences, with a focus on continuous improvement.	• **Customer Portals:** Develop an online portal where customers can track orders, access technical documents, and view real-time production updates. • **Mobile Apps:** Create a mobile app that provides order tracking, product catalogs, and instant communication with customer service.

EXHIBIT 3 Customer Service Programs

Program	Premium Service	Standard Service	Basic Service
Features	Mobile app & web portal with order placement, tracking, technical service, regulatory info, support staff	Web portal with order placement, tracking, basic technical service	Basic order placement and support via phone/email
Initial Investment	$500,000	$300,000	$100,000
Monthly Operational Cost	5%	10%	20%

EXHIBIT 3 - Guidance Customer Service Programs

Prompt: The client has proposed spending a portion of the identified savings on a new customer service program. Qualitatively assess the pros and cons of each program based on features, cost, and potential impact on customer satisfaction

Notes:

- The interviewee should calculate the annual operational cost from the Initial Investment and the Monthly Operational Cost Percentage provided. The interviewee should catch that these investment figures are actually small compared to the freight savings calculated. While this section does not have an explicit correct answer as monetary gains from each program are not disclosed an argument could be made for the Premium program to provide as much value to the customers as possible in terms of services.

Annual Maintenance	$25,000	$30,000	$20,000
Pros	Comprehensive service, high customer satisfaction, competitive advantage	Moderate cost, covers essential services, easier to implement	Low cost, simple implementation
Cons	High cost, longer implementation time, potential complexity in integration	Less comprehensive than Premium, might not fully meet all customer needs	Limited features, lower customer satisfaction, less competitive

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CONCLUSION

⟵ Back to Case List

Prompt: PolyProducer has asked for our initial thoughts on reducing delivery cost. Please prepare a short discussion for their leadership highlighting the main initiatives, savings, and other offerings they could provide.

Recommendation:

- The interviewee should suggest utilizing the Distribution Center in St. Louis and discuss the annual freight savings calculated, which can be used to increase margin while holding prices. Additional consideration should be made regarding the value of being prepared to take on new business in a region which the client is looking to grow. Lastly, a recommendation of a customer service program should be justified.

Risks

- Dependence upon the third party
- Decrease in delivery reliability
- Quality Control
- Customer Experience
- Security issues with new customer service program

Next Steps

- Engage in discussions with the DC
- Build out the customer service program

Global Language Assessment

Product Launch | Education

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GLOBAL LANGUAGE ASSESSMENT

Product Launch | Education

Case Prompt

Global Language Assessments (GLA), a prominent company headquartered in the UK, known for providing an English proficiency exam widely used for university admissions, business school entries, and immigration purposes, faces a rapidly evolving market landscape. Historically, the exam has been administered on paper across the globe and graded by examiners in the UK. However, the onset of COVID-19 accelerated the shift towards online learning and testing platforms, leading to significant market share losses to new, agile online English test competitors. GLA is considering launching a fully online and digital version of its English proficiency exam, utilizing artificial intelligence for evaluation and establishing regional hubs for components requiring human assessment. As a consultant, your role is to assess the viability of this launch and its potential impact on the company's profitability.

Clarifying Information (only provide if asked)

- *Business Model:* GLA generates revenue through administering English proficiency exams essential for university admissions, business applications, and immigration processes. The firm is transitioning to include a fully digital online exam to complement its existing paper-based format. This expansion aims to harness cutting-edge technologies like AI for exam monitoring and leveraging global hubs for parts of the exam that require human assessment, thereby enhancing its product offering while maintaining competitive pricing.
- *Timeline:* GLA plans to launch the digital version of the exam within the next two years, targeting an effective rollout by 2026. This timeline underscores the urgency to respond to market shifts and consumer preferences favoring online testing solutions. Rapid development and deployment are essential to recapture market share and address competitive pressures from fully online competitors.
- *Geography:* While headquartered in the UK, GLA has a significant global presence with offices worldwide. The introduction of regional hubs for grading and examination management is a strategic move to localize aspects of the exam process, thereby improving scalability and customer service across various time zones and regions.
- *Financial Objectives:* The primary financial objectives are to enhance the operating profit margin and increase market share. GLA aims to price the digital version at least equal to the current price of the paper-based exam, ensuring competitive positioning while maintaining profitability.

FRAMEWORK

Case Type: Interviewee should immediately recognize that this is a new product case and profitability
Framework: Interviewee should think about the following areas

Market Analysis	Product Fit	Profitability
• Market Size and Growth potential • Customer Segments/demographics • Competition (current and future competitors) • Demand Drivers • Go-to-Market Strategy	• Company Capabilities and digital skillsets • Technology and Infrastructure • Brand Fit • Strategic Alignment	• Revenue Projections (Price * volume) • Product Mix and Possible Cannibalization • Financial Viability • Cost Analysis (CAPEX and OPEX) • Operating Profit Margin

Moving forward: Ask the interviewee where they want to start. If they don't bring up the current pricing and cost structure for the paper-based exam or the assumptions for the digital version, steer them toward addressing these areas.

EXHIBIT 1 Current Margins and Predicted Cost Assumptions

Current Financials ($M)	2022	2023
Volume	1.8	2
Revenue	**360**	**440**
Exams venue rentals	72	82
Examiners	63	80
Support services	36	44
Proctors	45	60
Logistics costs	27	36
Other costs	9	12
Customer service	18	24
Total costs	**270**	**338**
Operating Profit	**90**	**102**
Operating Profit Margin	***25%***	***23%***

Category	Predicted Cost Assumptions
Price	GLA aims to price the digital version at least equal to the current price of the paper-based exam. This price, which was recently increased, will be maintained for the next five years starting from the launch of the digital version.
Examiners	The cost of examiners for the digital version is expected to be 75% lower than that of the paper-based exam, reflecting reduced logistical and administrative requirements.
Proctors	Proctoring costs for the digital version are anticipated to be 50% higher than those for the paper-based exam, due to enhanced security and monitoring needs
Customer Service	With the shift to a digital platform, online customer service costs per exam are expected to double compared to the paper-based exam, due to increased customer interactions and technical support requirements
AI Platform Costs	GLA plans to invest 715 million in developing and maintaining an AI platform and the infrastructure needed to administer the digital exams. These costs will be amortized based on the projected volume of digital exams for the coming 5 years starting from 2026
HUB Costs	GLA intends to invest 390 million in establishing and maintaining regional hubs to provide around-the-clock support to test takers in various time zones. These costs will also be amortized based on the expected number of digital exams for the coming 5 years starting from 2026

EXHIBIT 1 - Guidance

Current Margins and Predicted Cost Assumptions

Notes:

- Present Exhibit 1 and give the interviewee some time to review and understand the data.
- Brief the interviewee on Exhibit 2, which outlines the assumptions related to the cost structure of the digital version of the exam.

Questions that interviewees could think about regarding current margins:

- What factors contributed to the increase in revenue from 2022 to 2023? How did the volume growth impact revenue?
- Which cost components experienced the most significant increase from 2022 to 2023? What could be the underlying reasons for these changes?
- Despite an increase in revenue, the profit margin decreased from 25% to 23%. What are the potential reasons for this decline?

Questions that interviewees could think about regarding predicted costs:

- *Pricing Strategy:* What are the implications of maintaining the same price for the digital version as the paper-based version? How might this affect the company's market position and profitability? What is the possibility of introducing segmented or locational pricing strategies?
- *Cost Reductions and Increases:* How will the reduction in examiners' costs and the increase in proctoring and customer service costs impact overall profitability? What strategies could be employed to manage these changes effectively?
- *Investment in AI and HUB Costs:* How do the AI platform and HUB investments affect the cost structure for the digital exam? How should these costs be allocated over the next five years to ensure a return on investment?

Moving forward: Encourage the interviewee to start considering the market size and target market share. If they haven't, guide them in that direction. Ensure the candidate also calculates the AI platform and hub-shared cost per test before proceeding further.

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EXHIBIT 1 - Guidance (cont.) Current Margins and Predicted Cost Assumptions

Category	Predicted Cost Assumptions
Price	The interviewee should calculate the price per exam using data from Exhibit 1. Divide the total revenue of $440 million by the volume of 2 million exams to arrive at $220 per exam. 440m / 3m = $220
Examiners	The interviewee should use Exhibit 1 to determine the examiner cost per exam. With $80 million spent on examiners for 2 million exams, the cost per exam is $40. (80m / 2m = $40) For the digital version, the cost should be reduced by 75%, calculated as $40 multiplied by 25%, resulting in $10 per exam. ($40*25% = $10)
Proctors	The interviewee should use Exhibit 1 to calculate the proctoring cost per exam. With $60 million spent and 2 million exams, the cost per exam is $30. For the digital version, this cost is expected to increase by 50%, making it $45 per exam. Proctor cost/exam for paper-based version = 60m / 2m = $30 Proctor costs per exam for the digital version = $30 *1.5 = $45
Customer Service	The interviewee should use Exhibit 1 to determine the customer service cost per exam. With $24 million spent on customer service for 2 million exams, the cost is $12 per exam. For the digital version, this cost is expected to double to $24 per exam. Customer service cost/exam for paper-based exam 24m / 2m = $12 Customer service costs per exam for the digital version $12*2 = $24

EXHIBIT 2 Projected Market Size (Volume in Millions)

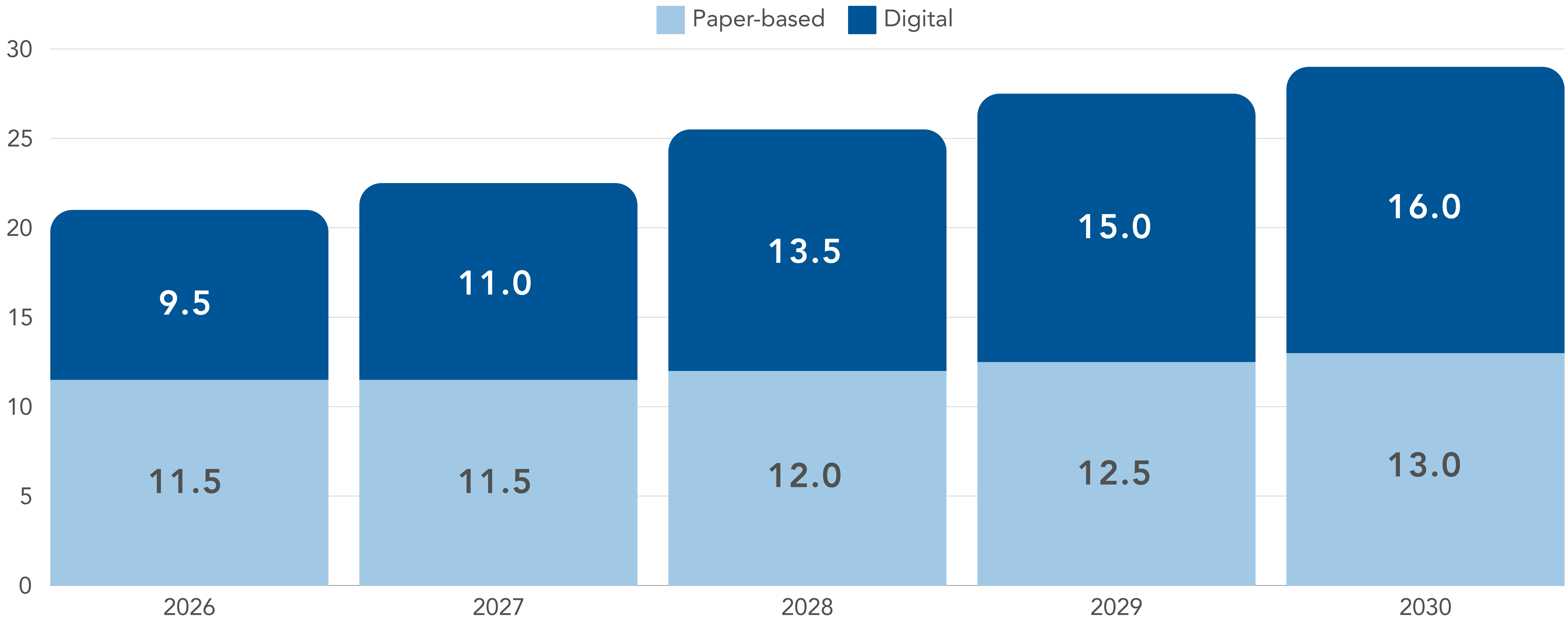

EXHIBIT 2 - Guidance

Projected Market Size (Volume in Millions)

Notes:

- Display the graph depicting the English Exams market to the interviewee and allow time to digest and get insight out of the graph.
- Inform the interviewee that GLA aims to capture 20% of the digital exams market with the launch of its digital version.

Calculations:

1. The interviewee should use Exhibit 2 to calculate the expected volume based on the targeted market share of 20% of the digital exam segment.
2. The interviewee should use Exhibits 1 and 2 to calculate the AI platform costs and Hub shared costs per test based on the projected number of exams calculated in the earlier step.

2

AI Platform Costs	The interview should use exhibit 1 and exhibit 3 to calculate the allocated AI platform cost /exam. 715m / 13m = $55
HUB Shared Costs	The interview should use exhibit 1 and exhibit 3 to calculate the allocated Hub shared cost /exam. 390m / 13m = $30

3. The interviewee should be able to calculate the profit margin per exam as follows.

1

Exam Type	2026	2027	2028	2029	2030	Total
Paper-based	11.5	11.5	12.0	12.5	13.0	
Digital	9.5	11.0	13.5	15.0	16.0	
Total Market	21.0	22.5	25.5	27.5	29.0	
GLA Target Share	1.9	2.2	2.7	3.0	3.2	**13.0**

3

Description	Value ($M)
Price	220
Examiners	(10)
Proctors	(45)
Online Customer Service	(24)
AI Platform Costs	(55)
HUB Shared Costs	(30)
Operating Profit per Exam	56
Operating Profit %	25%

EXHIBIT 2 - Guidance (cont.) Projected Market Size (Volume in Millions)

Notes:

- The interviewee should conclude that launching a digital version of the English exam can achieve a 25% operating profit margin/exam, surpassing the current margin for the paper-based version of 23%. Although the improvement is only 2%, it will enhance the company's overall profitability.
- The interviewee should consider additional risks, including the potential cannibalization of the paper-based exam by the new digital version and its impact on the overall product portfolio. Moreover, the target market share of 20% by the launch year 2026 might be overly ambitious, as it could take longer to achieve. If this goal is not met, it could lower the expected operating profit margin below the current 23%, thereby reducing overall company profitability.
- The interviewee should also recognize that GLA has not accounted for the marketing expenses required to launch the new digital product successfully; this could lower the expected operating profit margin below the current 23%, thereby reducing overall company profitability.
- The interviewee should consider the competitive landscape and anticipate how competitors might react to the new product. This includes potential counter-moves like price changes, enhanced features, or increased marketing efforts, which could affect the product's market entry and success. Understanding these reactions is key to developing strategies that position the product effectively and ensure it can compete successfully.

Moving forward: Bring the interviewee’s attention to the importance of demographics in the test-taker population and how this varies between the paper-based and digital versions.

EXHIBIT 3 Test-Taker Demographics by Age and Test Version

2023 Market Data	Digital	Paper-based	Total Market
Volume ($M)	5.0	10.5	**15.5**
Revenue ($M)	1,150	2,100	**3,250**
Test Takers by Age Group	**Digital**	**Paper-based**	**Total Market**
Under 18	7%	5%	**6%**
18-24 years	47%	20%	**29%**
25-34 years	27%	25%	**26%**
35-44 years	13%	33%	**27%**
45 and above	6%	17%	**13%**
Total	**100%**	**100%**	**100%**

EXHIBIT 3 - Guidance

Test-Taker Demographics by Age and Test Version

Notes:

- Display the table depicting the 2023 English Exams market to the interviewee and allow time to digest and get insight out of the table.

Calculations and takeaways:

- The interviewee should be able to average price per exam for each of the exam versions as follows:
  - Digital version: 1,150/5= 230
  - Paper-based version: 2,100 / 10.5= 200
- The interviewee should note that the average market price for the digital version is higher than the price previously considered in the calculations. This suggests an opportunity to enhance profitability if GLA matches this market price or offers a premium version (i.e faster test result) at an even higher price point.
- The interviewee should recognize the differences in test-taker demographics and understand that GLA will need to assess digital readiness across various age groups, tailoring user experience and support to align with their comfort levels with technology. Additionally, the company must strategically manage the transition, ensuring a smooth launch of the digital version while continuing to meet the expectations of those who prefer paper-based exams.

Moving forward: The interviewer should understand that the paper-based version of the test should be maintained but the company should add digital versions to expand into a larger market. Move to final conclusion.

CONCLUSION

⟵ Back to Case List

Prompt: GLA's CEO will be joining us shortly to hear your analysis and recommendations. Could you first summarize your findings and then suggest the best course of action?

Recommendation:

- GLA should carefully manage the transition to the digital exam to stabilize the paper-based exam market and continue serving its current test-takers, who predominantly belong to older age groups.
  - The digital version of the English exam is projected to achieve a 25% operating profit margin per exam, slightly higher than the current 23% margin of the paper-based version. This improvement is expected to enhance GLA's overall profitability.
  - The average market price for the digital exam in 2023 is $230, while GLA's current price is $220 per exam. This presents an opportunity for GLA to increase its pricing to match the market average and further improve profitability.
  - The digital exam market is expanding and is anticipated to surpass the paper-based exam market by 2028. This shift highlights the growing preference for digital solutions and the potential for long-term growth in this segment.
  - GLA should initially set a more modest market share target that gradually increases until it reaches 20%. This approach will allow for more realistic growth and better management of market expectations.

Risks

- Key risks include potential cannibalization of the paper-based exam by the digital version, the challenge of achieving a 20% market share by 2026, and the possibility of increased competition reacting to GLA's new product launch.
- To mitigate these risks, GLA should maintain a balance between digital and paper-based offerings, set realistic market share targets, and enhance the digital exam's value proposition through differentiated features and strategic pricing. Additionally, a strong marketing plan and ongoing market analysis will be essential to navigate competitive pressures.

Next Steps

- GLA should finalize the development of the digital exam platform, establish regional hubs, and prepare a phased go-to-market strategy. The company should also reassess pricing strategies to match or exceed the market average and carefully plan the marketing campaign to ensure a smooth launch of the digital exam.

Protect, Inc

Market Entry & Expansion | Technology & Telecommunications

RICE | BUSINESS

PROTECT, INC Market Entry & Expansion | Technology & Telecommunications

Case Prompt

Our client, Protect Inc., is a large cybersecurity software company headquartered in San Francisco. They develop cybersecurity solutions, package them into software, and then sell that software to other companies who have cybersecurity needs. Over the past five years the company has seen explosive growth but recently the company's growth has stagnated. The CEO is worried that they will not meet the revenue targets set forth by investors and that he will lose his job because of it. He has hired our firm to investigate the issue and provide solutions.

Clarifying Information (only provide if asked)

- *Geography:* The company is public, it sells products primarily to other large US based companies. They are market leaders in server security. They have some customers in other countries.
- *Business Model:* Their main product is ServerProtect, which detects cybersecurity threats on customer's servers. They have numerous other products in development today, and a small professional services team to assist customers.
    - They have a sales team who sell directly to customers.
    - The industry is highly competitive and often being disrupted by newer, better technology.
- *Financial Objective:* They have goals of achieving $11b in annual revenues in 3 years, their current annual revenue is $7b.
- *Timeline:* As soon as possible

FRAMEWORK

Case Type: Interviewee should immediately recognize that this is a Market Entry case

Framework: Interviewee should be pushing to look into the following areas

Market Attractiveness	Growth Opportunities	Financial Considerations	Internal Capabilities

• Cybersecurity market size
• Total market growth
• Average profit margins
• Competitors
  ◦ Who?
  ◦ Direct/Indirect competitors?
  ◦ Size/market share of competitors
	Organic:
	• Existing Revenue Sources
	  ◦ Increase Prices
	  ◦ Increase Volume
	    ▪ New Segments (Mid Market, SMB)
	    ▪ Marketing and Sales activities
	    ▪ New geographies
	    ▪ New sales channels
	• New Revenue Sources
	  ◦ New products
	  ◦ New services
	Inorganic:
	• M&A
	• Joint Venture
	• Partnerships
		• Revenue
		  ◦ Price
		  ◦ Volume
		• Cost
		  ◦ Fixed Costs
		  ◦ Variable Costs
		• Investment costs for growth project
			• Existing sales team capacity
			• Software engineers to build new products
			• Existing customer relationships
			• Financial position to support growth
			• Synergies to leverage
			• Gaps?

Moving forward: The candidate should identify that expanding further outside of the US seems like a logical thing to do and should push to identify potential markets for expansion. Once they do, show Exhibit 1.

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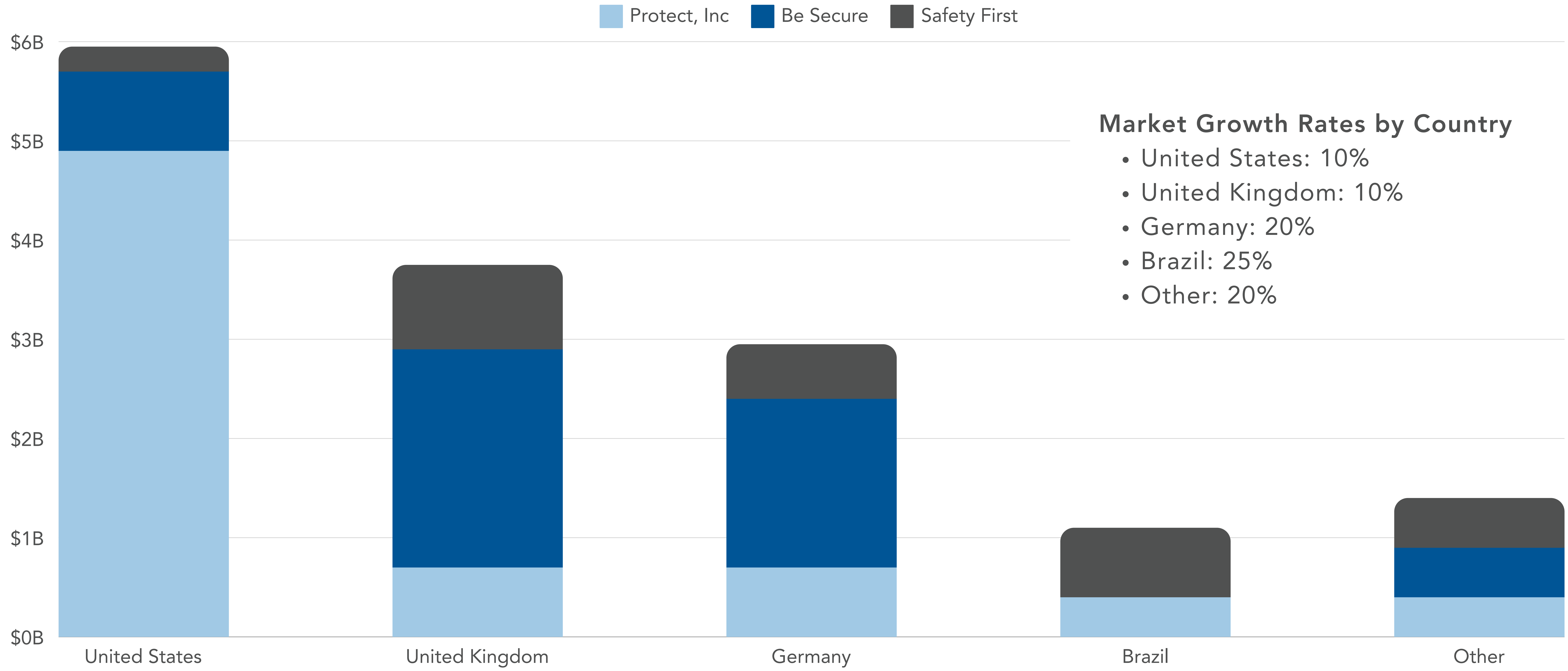
EXHIBIT 1 Revenue Share by Country Geography



Market Growth Rates by Country

- United States: 10%
- United Kingdom: 10%
- Germany: 20%
- Brazil: 25%
- Other: 20%

EXHIBIT 1 - Guidance

Revenue Share by Country Geography

Prompt: The client is interested in globally expanding. Here are the options they have considered.

Notes:

- Provide Exhibit 1 to the interviewee and allow them to digest.
- Candidate should begin to calculate market share for Protect Inc
- Note here is that it is needed to look at the growth in all markets for the next 3 years
- Rounding is ok (really the only way to do it is if you round)
- There is a red herring here, the candidate does not need to know the total market share of all the other firms, but they should note which ones are significant in which markets
- Once the candidate understands the potential growth organically over the next three years – they should come to a conclusion that expansion within one of these other markets is a good idea
  - Best Conclusion: Expand in Germany
  - Reasoning: More even split of competitor share, high growth rate, relatively high total addressable market.

	2024	2025	2026	2027
USA	5,000,000,000	5,500,000,000	6,050,000,000	6,655,000,000
UK	750,000,000	825,000,000	907,500,000	998,250,000
Germany	750,000,000	900,000,000	1,080,000,000	1,296,000,000
Brazil	250,000,000	312,500,000	390,625,000	488,281,250
Other	250,000,000	300,000,000	360,000,000	432,000,000
SUM	7,000,000,000	7,837,500,000	8,788,125,000	9,869,531,250

Rounded Numbers

$5B * 1.1 = $5.5B * 1.1 = $6.05B * 1.1 = **$6.7B**

$750M * 1.1 = $8.25M * 1.1 = $907.5M * 1.1 = **$1B**

$750M * 1.2 = $900M * 1.2 = $1.08B * 1.1 = **$1.3B**

$250M * 1.25 = $312.5M * 1.2 = $390M * 1.25 = **$500M**

$250M * 1.2 = $300M * 1.2 = $360M * 1.2 = **$450M**

Candidate should get close to $10M

BRAINSTORMING Session 1

Question: What are some ways Protect Inc might expand into Germany?

Expansion Options
• Expand sales team • Expand marketing efforts • Grow with existing customers • Acquire local company to expand market share • Strategic partnerships with firms in Germany

Moving forward: Once the candidate has come up with numerous ideas, ask them to pick a growth idea and then to defend it. Once they have adequately defended their choice for growth, show them Exhibit 2.

EXHIBIT 2 Revenues and costs per committee (in millions)

	Target #1	Target #2
Company Info	Mobile security company, founded 2011 by 2 ex-Google employees, known for innovative products	Desktop security company, founded in 2015, major investors include Warren Buffett, known for having a great sales team
Total Customers	4,000	5,000
Average Revenue per Customer	$200,000	$150,000
Company Growth Rate	15%	10%
Customer Satisfaction Score	★★★★★	★★★★★

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EXHIBIT 2 - Guidance

Revenues and costs per committee (in millions)

Prompt: Protect Inc has decided to acquire a local firm to assist with growth in Germany. Two targets have been identified, and they are looking for your advice on picking a target to do deeper due diligence on and hopefully acquire.

Notes:

- Candidate should examine EXHIBIT 2 and begin to form an opinion on which firm to acquire.
- Look for a process oriented approach to answering this question. It should involve analyzing revenues over 3 years.
- Candidate must remember that it is a three year horizon, and remember the goal for 2027 growth.
- Candidate can round where appropriate

Target 1:

- **2024 Revenues:** 4,000 customers * $200k = **$800m**
- **2027 Revenues:** $800m * 1.15 = $920m * 1.15 = $1.058m * 1.15 = **$1.216b**

Target 2

- **2024 Revenues:** 5,000 customers * $150k = **$750m**
- **2027 Revenues:** $750m * 1.1 = $825m * 1.1 = $907.5m * 1.1 = **$998m (or $1b rounded)**

Candidate should realize that both options give Protect Inc enough revenue to meet targets in 2027. Candidate should pick a target and defend it. (Target 1 will likely be the more popular option, but there are good reasons for target 2)

EXAMPLE ANSWERS:

- For target 1 – More revenue, higher revenue growth rate, higher average sales price
- For target 2 – More customers, company is younger and may not have hit their highest growth years yet, desktop technology is closer to server technology and may provide more synergies

CONCLUSION

⟵ Back to Case List

Prompt: The CEO of Protect Inc will be here in 30 seconds and would like an update about your findings. Can you summarize your recommendation?

Recommendation:

- Candidate should recommend that Protect Inc. pursue expansion in Germany to achieve the $11 billion revenue target by 2027. Germany offers the highest market growth rate (20%), making it a prime market for increased revenue. Acquiring Target 1, the mobile security company, is advised due to its higher growth rate (15%) and greater average revenue per customer ($200,000). This acquisition will enable Protect Inc. to capture new customers while leveraging the innovative strength of mobile security, aligning with global cybersecurity trends.

Risks

- Integration challenges in merging technologies and corporate cultures
- Regulatory hurdles due to Germany's strict data protection laws (GDPR), potentially increasing operational costs
- Competitive response from local market players, leading to pricing pressures and higher marketing costs

Next Steps

- Conduct detailed due diligence on Target 1 to assess synergies and ensure smooth integration
- Develop a market entry strategy with a focus on expanding the sales team and enhancing marketing efforts in Germany

HK Chemical

Profitability | Petrochemicals

RICE | BUSINESS

HK CHEMICAL Profitability | Petrochemicals

Interviewer Guide
HK Chemical is an interviewer-led profitability case that has increasing cost as the main driver to improve profitability.

Case Prompt

Your client is HK Chemical, the leading manufacturer of polyethylene (PE) globally with facilities in U.S., Kingdom of Saudi Arabia (KSA), and Germany. In the past couple of years, HK Chemical has seen a decline in the profits of their Germany manufacturing facility. The Global Product Manager has asked your team to identify the cause of the declining profits and how to turn things around.

Clarifying Information (only provide if asked)

- *Business Model:* HK sells PE to other businesses that then turn PE into its final product before being sold to the consumers. Traditional B2B business
- *Polyethylene (PE):* Is a petroleum-based plastic used in auto, hygiene, medical, food containers, plastic films, etc. There are also different types of PE to service the different industries. The main raw material for production is ethylene. PE production is energy intensive and requires a catalyst. [HB1]
- *HK Chemical:* Has a global footprint of where they make a range of different petroleum products and ship across the world. This may come up as a potential risk later in the case.
- *Germany Plant:* The Germany plant has the capability to produce 800,000 tons of PE per year. The Germany plant produces a number of other products including the major feedstock of PE, ethylene.
- *Financial Goal:* The Product Manager is looking to improve profitability by 15%.
- *Timeline:* ASAP
- *Market:* If asked about how the overall market is performing, tell the candidate that we would like to get their perspective as you continue to work through the case. The market in general is very fragmented with competitors all offering similar products.

FRAMEWORK

Notes: This is a straightforward profitability case, that candidates will need to explore whether the decline in profitability is revenue and/or cost driven. It is important the candidate highlights both, but in the exhibits, they will identify this is a cost issue.

Revenue	Cost	Other
• Increase number of units sold • Increase average price of units sold • Change to more profitable product mix	• Fixed Cost ◦ Direct Salary (engineers, supervisors, health, and safety) ◦ Maintenance ◦ Indirect Salary (Sales, HR, etc.) ◦ Depreciation of equipment • Variable Cost ◦ Raw materials ◦ Wage Labor ◦ Energy/Utilities to produce PE	• Candidate could have another bucket here around market or risk, but the focus will be on cost reduction

Moving Forward: Candidate should highlight if they want to focus on revenue or cost first. Even though the case will focus on cost reduction please push to look at revenue first to progress to Exhibit 1.

EXHIBIT 1 Annualized Revenue and Total Profit

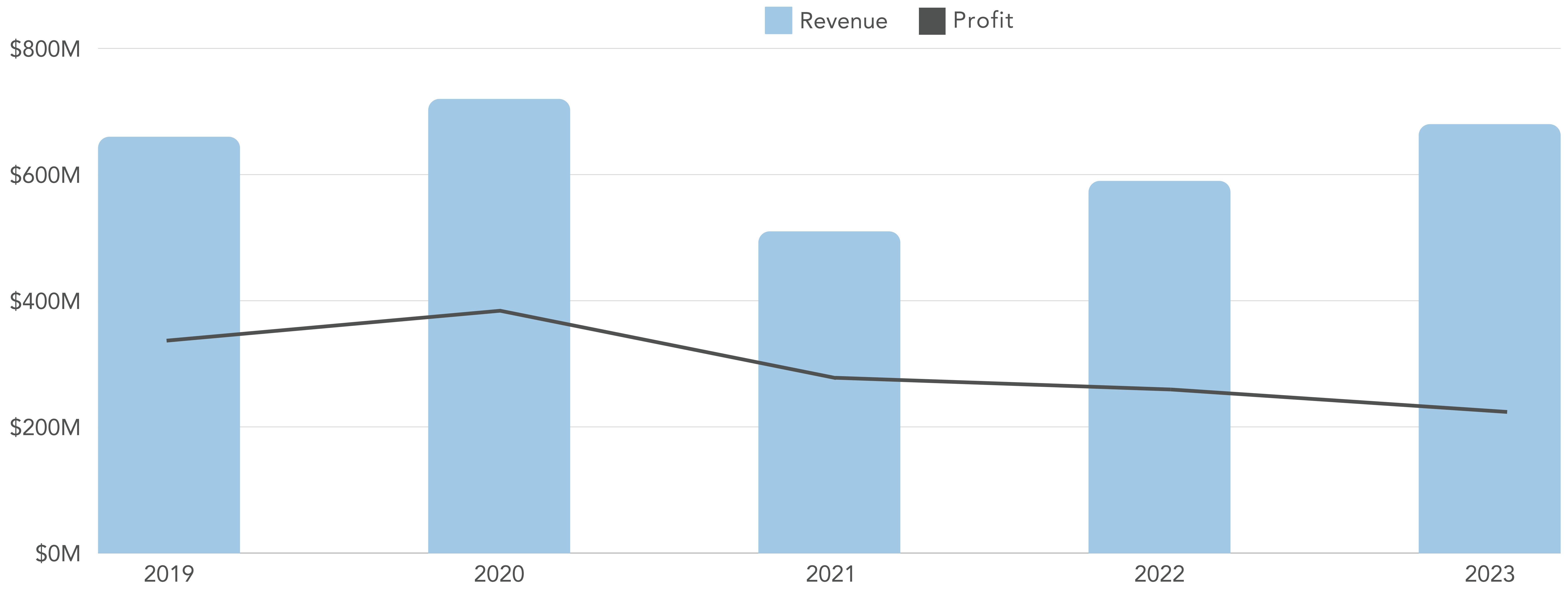


EXHIBIT 1 - Guidance

Annualized Revenue and Total Profit

Notes:

- Provide Exhibit 1 and allow them to digest it. The candidate should recognize the exhibit is a revenue and profit graph over previous 5 years
- Candidate should identify that the COVID-19 years are outliers and focus on the last 3 years.
- A good candidate will connect back to prompt, PE is used in hygiene/medical/food which saw a large increase in demand and price during COVID-19, driving the higher revenues/profit.
- The trend will show an increase in revenue, but profits relatively flat. The candidate should quickly realize this is not a revenue problem and that the cost must be increasing at a higher rate than the revenue increase. The candidate will also need to identify the 2023 profit of $250 Million to understand the profitability improvement required.

EXHIBIT 2 Breakdown of Production Cost for PE ($/Ton)

		2019	2020	2021	2022	2023
Raw Materials	Ethylene	450	450	545	750	820
	Catalyst	10	10	10	12	12
Utilities	Energy	28	28	33	34	36
	Water	20	20	20	21	21
Labor	Salaried Labor	30	30	30	33	34
	Wage Labor	12	12	12	14	15
Total Production Cost		**550**	**550**	**650**	**864**	**938**

EXHIBIT 2 - Guidance

Breakdown of Production Cost for PE ($/Ton)

Notes:

- Table of cost data broken down. Candidate should identify that there are 2 main drivers for the cost increase. First will be the energy cost to produce and second will be the raw material cost (ethylene). The energy cost will have a larger percentage change but it is a smaller cost overall. Great candidates can tie this back to real-world events driving high energy costs in Europe.

Moving forward: After candidate analyzes data and indicates ethylene as the main cost driver eroding profits, prompt candidate with Exhibit 3

EXHIBIT 3 Global Ethylene Production Cost and Current Manufacturing Plants

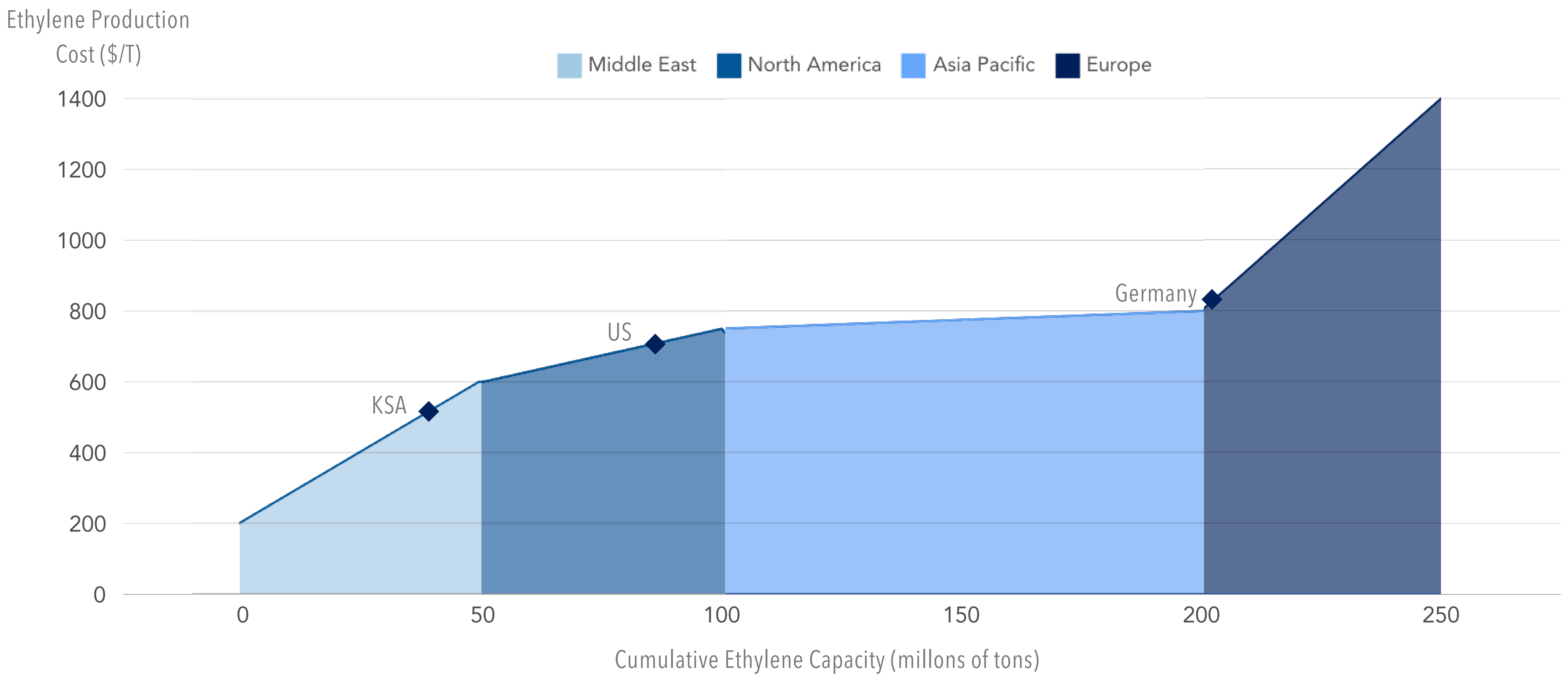


EXHIBIT 3 - Guidance

Breakdown of Production Cost for PE ($/Ton)

Notes:

- One of the solutions the client is considering is to source the ethylene from a different manufacturing facility and would like you to investigate if this is feasible. Hand candidate Exhibit 3 (Ethylene Supply Curve) and read below:
  - The U.S. raw materials facility has excess capacity of 750,000 tons per year and cost $60 per ton for transportation.
  - The KSA raw materials facility has excess capacity of 600,000 tons per year and cost $265 per ton for transportation.
  - The cost to shutdown the Germany raw material facility is $1.25 Million per month.
  - It requires 1.2 tons of ethylene to make 1 ton of PE.
  - If not given earlier in case, Germany Plant produces 800,000 tons of PE.
- Based on Exhibit 3 and transportation cost associated with the 2 plants, candidates should be able to identify the optimal mix from each facility. Based on the price and transportation cost the optimal mix is to utilize all the excess US capacity, 750,00 tons, and 210,00 tons from the KSA plant, calculations on next page.
- Great candidates may draw the insight that both the KSA and US plants are high-cost producers in their respective regions, but overall the Middle East and North America are able to produce at lower cost than Europe.
- Now the candidate has all the information needed to calculate the cost savings from switching to the new raw material locations.

EXHIBIT 3 - Guidance (cont.) Breakdown of Production Cost for PE ($/Ton)

Math:

The steps do not have to be done specifically as written below, but make sure the candidate has a logical and structured approach if different.

Step 1: Calculate total ethylene needed for Germany plant

- Total Ethylene = Germany PE capacity x feed ratio = 800,000 tons x 1.2 = 960,000 tons

Step 2: Calculate the total cost for US supply and total cost for KSA supply

- Total Cost US = Production Cost US + Transportation Cost US = $700 per ton + $60 per ton = $760 per ton
- Total Cost KSA = Production Cost KSA + Transportation Cost KSA = $500 per ton + $256 per ton = $765 per ton

Step 3: Determine the optimal raw material mix:

- US: 750,000 tons
- KSA: 210,000 tons

Step 4: Calculate the cost savings of US supply and cost savings of KSA supply

- Cost Savings US = (Germany Price - US Price) x US Volume = ($820 per ton - $760 per ton) x 750,000 tons = $45,000,000
- Cost Savings KSA = (Germany Price - KSA Price) x KSA Volume = ($820 per ton - $765 per ton) x 210,000 tons = $11,550,000

Step 5: Calculate the shutdown cost for the Germany ethylene plant

- Shutdown Cost = $1,250,000 per month x 12 months = $15,000,000 per year

Step 6: Calculate the total savings

- Total Savings = US Savings + KSA Savings - Shutdown Cost = $45,000,000 + $11,550,000 - $15,000,000 = $41,550,000 per year

Step 7: Determine if savings meet the 15% target profitability target

- Candidate should be able to quickly identify that a savings of $41,550,000 dollars on profit of $250 Million per year is over the 15% threshold

BRAINSTORMING

Question: What are some other factors that should be considered when shutting down the plant?

Operational	Non-Operational
• Is there storage available for the raw material (ethylene) • How reliable are the US and KSA plants? • How reliable are the supply chains? • Do we have the transportation logistics available? ◦ Vessels, storage, etc. • Government regulations required to shutdown manufacturing facilities	• How will this impact moral at the plant? • What should we do with the extra employees? • Public Relations in Germany/Europe? Could we lose customers? • How reliable are the supply chains? • Geopolitical concerns

Moving forward: Challenge the candidate to push further in this brainstorm. Then move on to the final recommendation.

CONCLUSION

⟵ Back to Case List

Prompt: The Global Product Manager of HK Chemical is waiting to hear about your recommendation. What will you present to him?

Recommendation:

- Candidate should recommend shutting down the Germany ethylene plant to achieve the approximately 20% improvement on cost which would achieve the target of 15% improvement in profitability

Risks

- Highlight the risks identified in the brainstorming section

Next Steps

- Begin analysis of the supply chain to test feasibility of logistics
- Work plan for workforce reorganization
- Begin initial discussion with government agencies

Global Strategy Consultants

Profitability Analysis | Consulting & Professional Services

RICE | BUSINESS

GLOBAL STRATEGY CONSULTANTS

Profitability Analysis | Consulting & Professional Services

★ ★ ★

Case Prompt

Global Strategy Consultants (GSC) is a mid-sized management consulting firm headquartered in Chicago, with additional offices across the United States. Established in 2005, GSC Consulting is organized into five main divisions, recently expanding its staff to meet the increased demand during the COVID recovery period. Prior to the pandemic, GSC Consulting was on a growth trajectory, with average annual revenues of around $500 million and profit margins of approximately 15%. The onset of COVID-19 led to a surge in demand for strategic advice as businesses grappled with the global slowdown and other pandemic-related challenges. However, as normalcy began to return, many companies tightened their budgets, resulting in a significant reduction in consulting expenditures. The CEO of GSC Consulting has initiated a strategic review to address these challenges. As a consultant, your task is to develop a comprehensive strategy that tackles these issues, with the goal of restoring the firm's profitability without compromising the quality of service and client relationships.

Clarifying Information (only provide if asked)

- *Business Model:* GSC generates revenue through consulting services with great focus on process and operations management as well as financial advisory. The firm is structured into five main divisions, each focusing on different project types. This structure allows the firm to tailor its services based on client needs, thereby maximizing efficiency and effectiveness in delivering solutions.
- *Geography:* GSC operates exclusively within the United States, and currently does not consider expansion beyond the U.S.
- *Financial Objectives:* The firm's financial goal is to restore a 15% profit margin to return to previous levels of profitability. Additionally, it seeks to achieve sustainable growth, ensuring that it not only recovers but also builds a strong foundation for future stability and expansion in the consulting market.
- *Timeline:* GSC is targeting to restore its profitability within the next 24 months.

FRAMEWORK

Case Type: Interviewee should recognize that this is a profitability case
Framework: Interviewee should be pushing to look into the following areas

Market	Revenue	Costs
• Market size • Competition • New consumer trends • Macroeconomic conditions	• Price • Volume • Product Mix • Profitability by service type	• Fixed costs • Variable costs (Staffing) • Benchmark

Moving forward: After exhausting the framework, the candidate should be interested in the client financials to better understand the profitability issues.

EXHIBIT 1 Global Strategy Consultants Financial Statement

Figures in Millions ($)	2019	2020	2021	2022	2023
Business Revenue	440	480	510	510	500
Cost of Goods and Services	286	322	347	360	356
Total Gross Profit	154	158	163	150	144
General and Administrative Expenses	40	41	44	46	50
Selling and Marketing Expenses	48	50	54	55	60
Total Selling, General and Administrative Expenses	**88**	**91**	**98**	**101**	**110**
Total Operating Profit/{Loss}	66	67	65	41	34
Profit Margin	**15%**	**14%**	**13%**	**8%**	**7%**

EXHIBIT 1 - Guidance

Global Strategy Consultants Financial Statement

Prompt: The client has shared some of their financial information with us. What do you see from this statement?

Notes:

- Present Exhibit 1 to the interviewee, allowing sufficient time for thorough analysis
- The interviewee should then identify and discuss the trend of declining profit margins highlighted within the exhibit
  - Revenues declining after COVID recovery match the information in the prompt about companies tightening their expenditures on consulting work
  - Expenses increase for SG&A (in hopes of business growth) and marketing (in hopes to gain more business after COVID)
  - Profit margins have been shrinking since COVID affected the US economy

Moving forward: Once the candidate has examined the financials and noticed increasing costs, move to Exhibit 2.

EXHIBIT 2 Employee Headcount and Billable Hours

Title	2019	2020	2021	2022	2023	Future Hires	% Client Work	% Managing Staff
Partner	20	22	25	23	22	1	40%	60%
Senior Manager	40	45	50	46	47	1	45%	55%
Manager	80	88	90	92	96	2	55%	45%
Associate	120	136	140	155	159	5	85%	15%
Analyst	160	189	200	229	236	8	100%	0%
Total	420	480	505	545	560	17	-	-

	2019	2020	2021	2022	2023
Total Billable Hours (000)	760	860	880	905	907

EXHIBIT 2 - Guidance

Employee Headcount and Billable Hours

Prompt: The client provided us with information on their employees and billable hours. What does this tell you about their utilization rates?

Notes:

- Provide the interviewee with the data on headcount and the number of billable hours. Allow sufficient time for them to thoroughly review and digest the information
- Inform the interviewee that each staff member works 40 hours per week, with a total of 50 working weeks in the year. This context will help them analyze the data effectively
- Communicate to the interviewee that the future hires consist of individuals who have already received job offers and are scheduled to join the firm in six months
- Rounding is encouraged for the following calculations

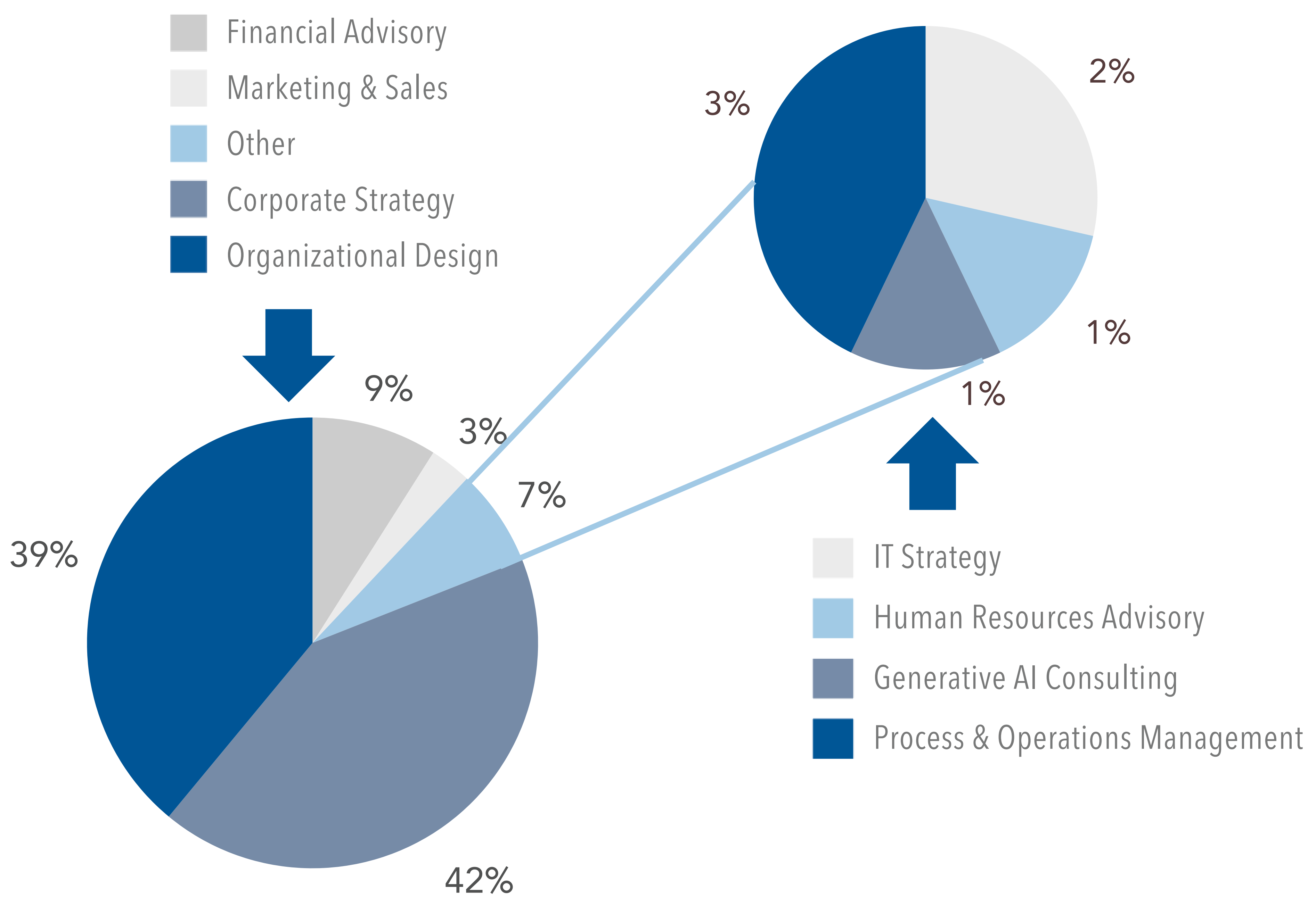
Formulas
Total Available Hours = Number of Employees * 40 hours/week * 50 weeks = Number of Employees * 2,000
Utilization = Billable Hours / Available Hours
Average Billable Hours/Staff = Total Billable Hours / Total Staff
Average Available Hours/Staff = Total Available Hours / Total Staff

Calculations	2019	2020	2021	2022	2023
Total Billable Hours	760	840	880	880	860
Total Available Hours	840	960	1,010	1,090	1,120
Utilization	90%	87.5%	87%	81%	77%
Average Billable Hours/Staff	1,800	1,750	1,750	1,600	1,500
Total Available Hours/Staff	2,000	2,000	2,000	2,000	2,000
Average Available Hours/Staff	90%	91%	87%	83%	81%

Moving forward: The candidate should recognize shrinking utilization of staff hours, which aligns with declining revenues. Move on to Exhibit 3.

EXHIBIT 3 Management Consulting Market Analysis

Total Market of Management Consulting in the U.S. $368.5B



GSC Product Mix

Category	Product Mix
Corporate Strategy	5%
Organizational Design	3%
Financial Advisory	20%
Marketing & Sales	10%
Process & Operations Management	45%
IT Strategy	5%
Human Resources Advisory	12%
Total	100%

Industry Breakdown in 2024 by Product

Category	Market %	Projected Growth 2024 %
Corporate Strategy	42.5%	5%
Organizational Design	39%	4%
Financial Advisory	9.1%	3%
Marketing & Sales	3.4%	2%
Process & Operations Management	2.8%	6%
IT Strategy	2.1%	4%
Human Resources Advisory	0.6%	3%
Generative AI Consulting	0.6%	7%
Total	100%	

EXHIBIT 3 - Guidance

Management Consulting Market Analysis

Prompt: See the preliminary research done on the current market. Where do you see opportunity for revenue growth?

Notes:

- Provide the interviewee with Exhibits 3, allowing enough time for thorough analysis. Additionally, inform the interviewee about the projected growth rates for each category covered in the exhibits.
- The interviewee should observe that a significant portion of GSC's revenue is derived from consulting categories characterized by smaller overall market sizes. This analysis will reveal that GSC's major revenue streams are potentially vulnerable to market saturation and limited growth opportunities. Additionally, the interviewee should recognize that GSC currently does not offer services in generative AI consulting, a category that not only shows substantial growth potential but is also projected to expand significantly compared to other sectors. This observation should highlight a strategic gap and an opportunity for GSC to diversify into high-growth areas to enhance its market positioning and future revenue prospects.

Moving forward: The candidate should conclude adding Generative AI Consulting into their product mix would bring more work to the firm. Move on to the brainstorm.

BRAINSTORMING

Question: What are some considerations the Global Strategy Consultants should think about before adding a new service, especially like AI to their portfolio?

Operational Considerations	Risk Considerations
Capabilities: • **Skills:** Assess the need for training or hiring to build expertise in Generative AI consulting. • **Resource Allocation:** Evaluate whether existing resources can handle this service without disrupting core business operations. **Service Delivery:** • **Integration:** Determine how to incorporate AI consulting into existing workflows without affecting service quality. • **Scalability:** Confirm the ability to scale Generative AI services as demand increases without overextending capacity. **Client Alignment:** • **Current Client Base:** Evaluate readiness of current clients to adopt AI services and identify gaps in their capabilities. • **Market Differentiation:** Strategize how to position this service uniquely to avoid market saturation.	**Financial Risks:** • **Investment Costs:** Risk of underestimating the required investment in talent, tools, and technology for AI services. • **Profitability Delays**: Risk that the new service doesn't generate the expected returns within the projected timeframe, affecting overall margins. **Market Risks:** • **Client Adoption:** Risk that clients may not be ready or willing to adopt AI services, limiting demand. • **Competitive Pressure:** Increased competition from other firms offering similar services may reduce market share or price points. **Regulatory and Ethical Risks:** • **Regulatory Changes:** Risk of non-compliance with emerging regulations in AI and data privacy. • **Ethical Concerns:** Risk of reputation damage due to improper use of AI, such as biased algorithms or privacy breaches.

Moving forward: Push the candidate to exhaust all ideas. Finally, move on to the final conclusion.

CONCLUSION

⟵ Back to Case List

Prompt: GSC's CEO will be joining us shortly to hear your analysis and recommendations. Could you summarize your findings and suggest what you believe is the best course of action?

Recommendation:

- Given the analysis, Global Strategy Consultants (GSC) should pursue the addition of Generative AI Consulting to its service portfolio. This new offering presents a significant growth opportunity, especially as clients increasingly seek innovative technologies to improve efficiency and decision-making processes.

Risks

- The interviewee may list any of the risks discussed in the previous brainstorm

Next Steps

- Talent Acquisition: Begin by hiring or upskilling a dedicated team of AI experts
- Pilot Projects: Start with pilot AI projects for select clients to refine service offerings, build case studies, and adjust the service delivery model before scaling
- Compliance Framework: Establish a robust compliance framework to manage regulatory and ethical risks related to AI technology

The Rose Ranch

Mergers & Acquisitions (M&A) | Agriculture

RICE | BUSINESS

THE ROSE RANCH Mergers & Acquisitions (M&A) | Agriculture

Case Prompt

The Rose Ranch is a large cattle operation in East Texas. The ranch is owned and operated by a family that has been in the cattle ranching business for over 60 years, and the owners employ multiple families that help feed, raise, and sell their cattle. In recent years, the Rose Ranch has been dramatically expanding its cattle operations as beef prices have skyrocketed due to supply issues in the beef market. The Rose Ranch is at a point where its cattle operations in the next year are going to outgrow its current land capacity, and it is trying to decide what it should do to ensure a growing, profitable, and healthy cattle herd in the coming years. Due to the closeness of the family and its historical working style, the ranch wants to keep all operations together under any circumstances. What should they be considering?

Clarifying Information (only provide if asked)

- *Business Model:* Rose Ranch makes money from its cattle by breeding the cattle, and then selling a portion of the new baby cows to the market.
- *Timeline:* Rose Ranch would like the strategy to be put in place as soon as possible, and they would like the herd to continue to grow for the next 5 years without running into capacity issues.
- *Geography:* Rose Ranch is currently located in Texas and would like to stay in Texas regardless of the solution. They are looking at moving their entire operation to one location versus having multiple locations.
- *Cows:* Cattle eat grass and prefer large open ranges with plenty of space and ample water. Predators are not an issue due to ranch hands and working dogs that live with the herd. Generally, female cattle will birth one calf per year, and bulls of good stock can breed with up to 50 female cows (heifers) in each season.
- *Financial Objectives:* To grow the ranch and achieve good profitability, Rose Ranch has allocated $40,000,000.00 to achieve this objective.

RICE | BUSINESS

FRAMEWORK

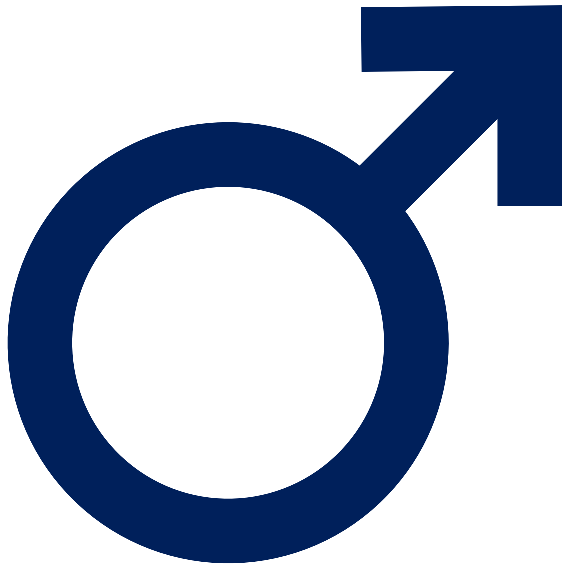
Case Type: Interviewee should immediately recognize that this is an M&A case (see key words of "…growing, profitable, and healthy cattle herd in the coming years…)
Framework: Interviewee should be pushing for looking into the following areas

**Exceptional interviewees will also consider the heritage/human capital of the ranch.*

Market Analysis	Synergies/Dis-synergies	Capabilities	Financials	Solutions
• Cattle/Ranching • Real Estate	• xxx	• xxx		

Moving forward: The interviewee should want to explore potential solutions and come to the natural conclusion that they need to know how much land is required by The Rose Ranch to be functional for the next 5 years. Push them until they ask this question (or similar) and then proceed.

EXHIBIT 1 Rose Ranch Current Cattle Herd

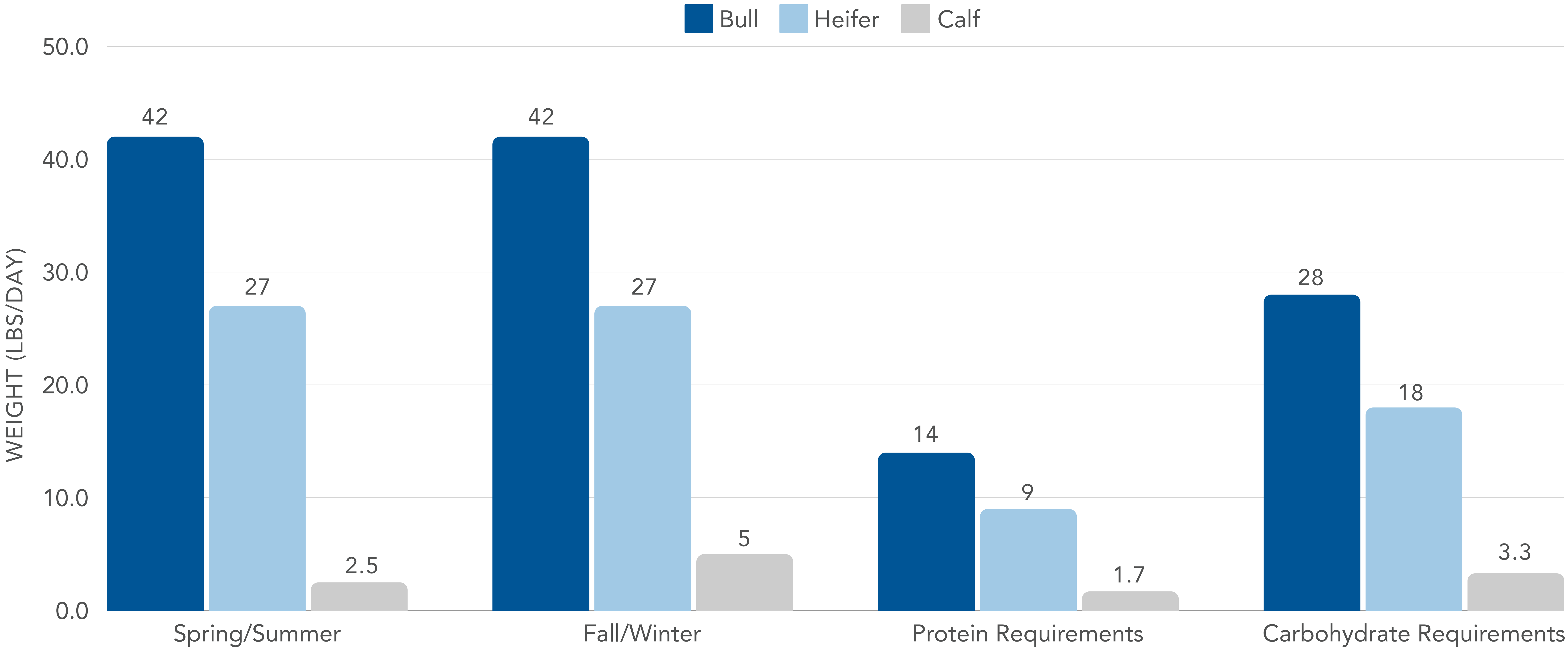
Bulls	Heifers	Calves
		
20	1000	0

Rose Ranch intends to keep half of its crop of calves every year. All of the calves kept will be heifers the following year.

Rose Ranch rotates bulls yearly for healthy genetics, and can acquire new bulls as necessary at no cost due to an FFA trade-out program.

Rose Ranch has historically had a 100% bull utilization rate, and it is expected to continue in the future.

EXHIBIT 2 Cattle Herd Grass Consumption



EXHIBITS 1 & 2 - Guidance

Current Cattle Herd & Grass Consumption

Notes:

- Provide Exhibit 1 and Exhibit 2 to the interviewee at the same time and allow them to digest.
- The interviewee should see that they can forecast the next 5 years population of the herd using exhibit one. At the end of this step, request interviewee to round to nearest 100 moving forward.
- The interviewee should then determine that they can find the required food amount and optimal nutrient breakdown for the herd. They may make iterative calculations, however only the year 5 calculation is needed to solve the case, and will be used later.
- The nutrient breakdown will also be used later to help determine optimal expansion location for Rose Ranch.

1

Rose Ranch 5-Year Herd Progression

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Y5 Rounded
Bulls	20	20	30	45	67.5	101.25	100
Heifers	1,000	1,000	1,500	2,250	3,375	5,062.5	5,000
Calves	0	500	750	1,125	1,687.5	2,531.3	2,500

Calculations

- Calculations should be performed from year 0 until year 5 and then rounded to nearest 100 at the end of year 5.
- Calculations are done as follows in this order.
  - Heifers = Original Heifers + Past Years Calves (except year 1 as calves need 1 year to mature to adulthood)
  - Calves = ½ Current Years Heifers
  - Bulls = Current Year Heifers/50
    - Bull Ratio is 1 Bull per every 50 Heifers

2.1

Daily Required Food

Year 5		
Bulls	Heifers	Calves
4,200	135,000	12,500

Interviewee should choose 5lbs from the "Fall/Winter" category for calf consumption as it is the upper required limit. They should not average or choose the lower limit.

2.2

Required Nutrient Ratio

	Bulls	Heifers	Calves
Protein	Bulls	Heifers	Calves
Carbohydrates	4,200	135,000	12,500

Interviewee should note that all cows require essentially the same breakdown of nutrients and that this ratio is 2/3 Carbohydrates and 1/3 Protein.

BRAINSTORMING Session 1

Question: After seeing the 5-year herd projection, the clients are trying to understand what potential costs may be associated with such an expansion, and how to potentially reduce those costs. Do you have any ideas on how they can accomplish this?

Brainstorming Session

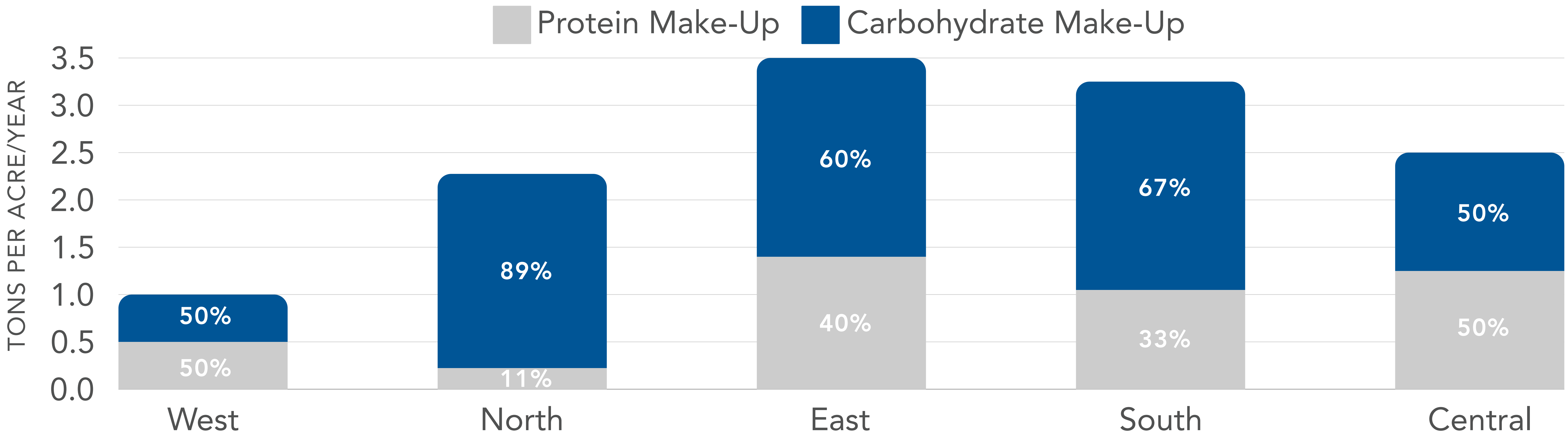
Costs:
- Variable Costs
- Fixed Costs

Solutions
- Technology
- Synergies
- Outsourcing
- Partnerships
- Increasing Efficiency

Notes: There are many different possible responses to this question, the below is only provided as a potential guide. Strong answers will be well structured, reasonable, and implementable by the client.

Moving forward: Once the interviewee has explored both cost types and has provided some potential solutions to reducing these costs, move on to Exhibit 3.

EXHIBIT 3 Texas Regional Grass Breakdown & Expansion Options



The Rose Ranch grazes its cattle 300 days a year, the rest of the days are spent in transport, working pens, or doing other non-grazing activities

Texas Ranch Options					
Region	West	North	East	South	Central
Acres (Size)	23,000	10,000	6,6000	9,000	9,050

EXHIBIT 3 - Guidance
Texas Regional Grass Breakdown

Prompt: Now that the clients feel confident in their ability to stay profitable, they are exploring five different properties that are in different regions of Texas. They would like you to help them understand what area or area(s) are best suited to their needs. They have pulled some data from Texas Parks & Wildlife and would like you to have a look.

Notes:

- Provide Exhibit 3 allow the interviewee time to digest.
- The interviewee should recognize that they can calculate the required size of each ranch in each region of Texas that is necessary to support the herd via the food calculation during Exhibit 1 & Exhibit 2. This number needs to be transformed into a yearly figure, and then transformed into tonnage.
- Once yearly tonnage of required food is found for year 5, the interviewee can then utilize the graph to understand the required acres to produce said tonnage per given area of Texas.
- Once this is done, they can then compare against the options available to understand that West, East, and South Texas ranches all fulfill the food requirement, and that the others do not.
- The interviewee should also note the breakdown of the nutrients in those areas and deduce that the only two viable properties are the South and the East.
- *Note – Protein/Carbohydrates breakdown is a qualitative component of this exercise, there is no need for them to calculate the acre's of protein/carbohydrates as that is not real-world relevant data, and is not needed for the final solution.*

Daily Required Food

1

Year 5				
	Bulls	Heifers	Calves	Total
lbs/year	1,260,000	40,500,00	3,750,000	45,510,000
tons/year	630	20,250	1,875	22,755

Expansion Evaluations

2

Region Requited Acreage for Successful Herd Feeding					
	West	North	East	South	Central
Acres Needed	22,755	10,113	6,501	7,002	9,102
Acres Available	23,000	10,000	6,600	9,000	9,050

Moving forward: Once the interviewee has narrowed down their options to either the South property or the East property, proceed to the last calculation step of the case.

FINANCIAL CALCULATIONS

Prompt: The owners of the Rose Ranch are confident in your analysis of either the South or East properties being the best candidates for expansion. The clients would like to look at the properties from a financial standpoint to help make the decision of which one to pick. The families have gathered market values on the property as well as strongly supported forward looking cattle prices five years out from now along with a growth rate on those prices. The information is as follows… (provide verbally)

- South Property
  - Cost per acre = $4,000.00
  - Anticipated yearly profit on cattle sold = $1,500,000.00
  - Anticipated Growth Rate = 6%
- East Property Cost per acre = $3,000.00
  - Anticipated yearly profit on cattle sold = $800,000.00
  - Anticipated Growth Rate = 6%
- ONLY GIVE IF REQUESTED
- Discount Rate = 8%

Answers to Calculations	
South Property	
Cost	$36,000,000
Income	$1,500,000
PVFCF	$75,000,000
NPV	$39,000,000
East Property	
Cost	$19,800,000
Income	$800,000
PVFCF	$40,000,000
NPV	$20,200,000

Assuming Rose Ranch quits growing the heard at year five and holds those numbers and the property in perpetuity, what is the value of the potential expansion properties?

Moving forward: It is not necessary for the interviewee to have the sales price of the current property, as it would be the same for both options. Just have them calculate NPV with the information they have. Once the interviewee has finished their NPV calculations and given their insights, proceed on to the final brainstorming session before the conclusion.

BRAINSTORMING Final Session

Question: The Rose Ranch likes the analysis you performed on both properties and was wondering on if you had any other ideas on what other factors may contribute to the desirability (good or bad) of either of the properties.

Brainstorming Session

- Employee pool
- Equipment availability
- Ease of market access
- Proximity to original property
- Soil
- Growing Season
- Weather

Notes: Up to this point the entire case has been around real estate and ultimately grass as food for cattle is the ultimate crux in the industry.

Moving forward: The interviewee should mention something regarding soil quality, weather, or rain as being external factors to consider for these areas. If they do, provide them Exhibit 5, if they do not, proceed to the conclusion.

EXHIBIT 4 Texas Regional Rainfall (Seasonal)

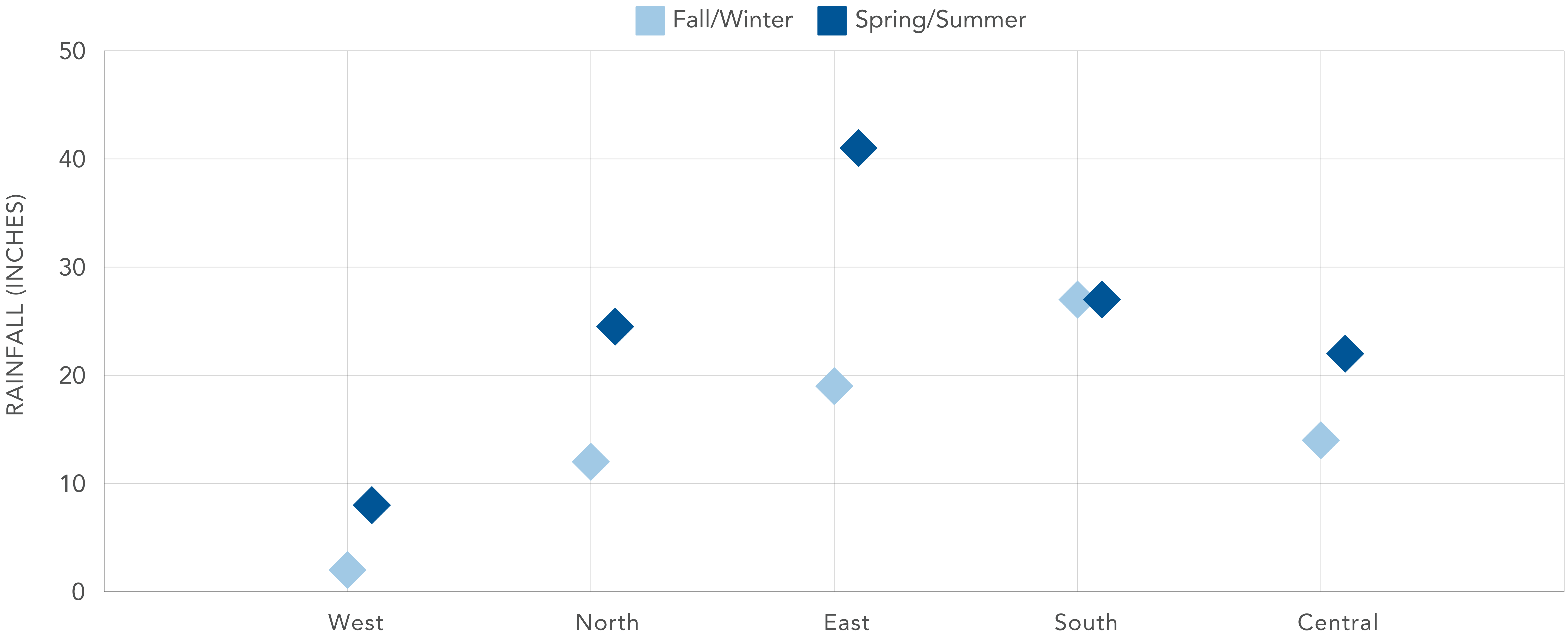


EXHIBIT 4 - Guidance

Texas Regional Rainfall (Seasonal)

Prompt: What can you conclude from the following weather conditions?

Notes:

- Exhibit 5 shows seasonal rainfall for each of the prospective property areas. The goal of this exhibit is for the interviewee to
    a. Identify that East and South regions have the overall best rainfall
    b. Remember back to the fact that calves require more food in the fall/winter parts of the year as they continue to grow
- If the interviewee remembers point (b), they will conclude that the South property is ultimately the best choice for Rose Ranch, however if they have a strong and defensible position for East property, that is fine as well

Moving forward: After the candidate decides on their property of choice, move on to final conclusion.

CONCLUSION

⟵ Back to Case List

Prompt: The client just reached the elevator and is on their way up now to receive your recommendation. Could you fill them in on what you believe the best course of action is?

Recommendation:

- The interviewee should answer succinctly with supporting points for whichever property they choose. This section should be no longer than a minute. The ultimately correct answer is to go with the South property; however, an argument can be made for the East property on the basis of lower initial cost. No other properties are acceptable answers.

Risks

- Higher initial investment required for the South property.
- Potential weather variability that could impact grazing conditions.

Next Steps

- Finalize the acquisition process for the South property.
- Begin expanding the herd in alignment with the projected growth model.
- Monitor environmental and operational factors closely to ensure profitability remains on track.

DevCo

Financial Analysis & Evaluation | Hospitality & Tourism

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DEVCO

Financial Analysis & Valuation | Hospitality & Tourism

★ ★ ★

Case Prompt

Our client is the CEO of a private equity real estate development conglomerate, DevCo. The company is well known in the Middle East and North Africa (MENA) region for developing villas, low-rise buildings, offices, and amusement parks. The CEO is deciding whether to invest in a theme park in Riyadh, Kingdom of Saudi Arabia (KSA). KSA, where the weather is hot and humid for most of the year, has seen strong growth and development over the past decade; however, the country still doesn't have an amusement park. DevCo has already been allocated 200,000 m^2 of land as part of a government program to encourage investments in the entertainment and hospitality industry. The land can only be used for developing entertainment or hospitality related projects. The CEO wants our recommendation on whether to proceed with building an amusement park or not.

Clarifying Information (only provide if asked)

- *Business Model:* If the candidate asks what the business model would look like, ask them what they think revenue streams are. Think of it as any simple amusement park that can be visited entirely in one day.
- *Client Objective:* The project will get approved if it has a positive NPV
- *WACC/Discount Rate:* 14% (our client considers this as a risky investment)
- *Expected Growth Rate:* 4% (market is growing)
- *Land Cost:* Zero, as the land was granted by the government for free to support the local economy and tourist attractions. However, DevCo needs to fund the actual development of the land.
- *Market:* There is NO existing market. We must deduce it from available information. DevCo has already conducted initial market research and has found that the people of KSA are very accepting of the introduction of an amusement park.
- *Existing Footprint of DevCo:* DevCo has a real estate portfolio worth several billion dollars in the Middle East, although it is their first time considering an amusement park development

INTERVIEWER GUIDANCE

This case tests the candidate's ability to navigate a medium-complexity multi-exhibit dump to determine the revenues and costs associated with an investment. Conversing with the Interviewer is critical to properly navigating the case, as several key assumptions need to be agreed upon at different stages.

Key Steps:

- Develop a structure to address the question, identifying the most important factors for assessing an investment
- Analyze exhibits to determine development costs and Free Cash Flow
- Exhibit 1: Development costs (Comparables based on $/m^2 for indoor vs outdoor developments. In the client's case, it is indoor, but this is to be discovered while discussing the exhibit)
- Exhibits 2 and 3: Number of visitors (Estimation from data)
- Exhibit 4: Revenue (Estimating ticket price and then adding modifier for food and beverage)
- Exhibit 5: FCF (Comparables utilizing revenue/FCF metric)
- Determine the value of the investment in perpetuity, then subtract development costs to calculate NPV

Let the candidate struggle throughout the case but guide them if they ask specific and related questions. The goal is to get them to be conversational.

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FRAMEWORK

Case Type: This is a clear go-no go case and the structure should reflect NPV discovery

Framework: The candidate should want to explore the following areas, as in any go-no go case

Investment Financial Analysis	Client Capabilities	Risks

• **Does this investment make financial sense?**
• **Revenues**
  ◦ Tickets
    ▪ Avg \$ per ticket x number of visits
  ◦ Food and beverage
    ▪ Avg \$ per visitor x number of visitor
• **Costs**
  ◦ Initial investment
  ◦ Operational costs
    ▪ Staff
    ▪ Utilities
    ▪ Insurance
    ▪ Marketing
    ▪ Etc.
	• **Operational**
	  ◦ Does the client have the right resources to operate this facility? And if not, can they obtain them?
	• **Financial**
	  ◦ Can the client fund this development?
		• **Can the client shoulder the risks involved with this move?**
		• **Business case risk**
		  ◦ What if assumptions are incorrect?
		• **Strategic risk**
		  ◦ What if KSA nationalizes private investments?
		• **Geopolitical landscape**

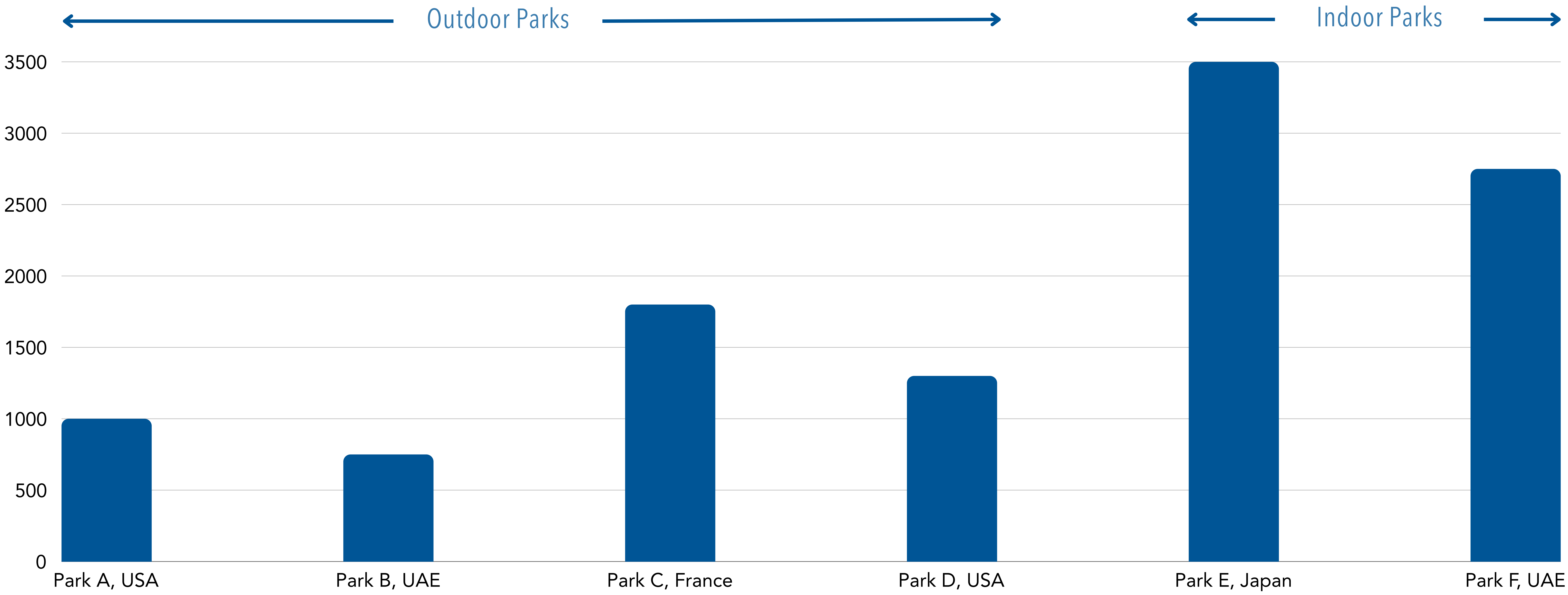
Note: This case has several possible structures. The critical elements are underlined above. The focus of the case is on the financial analysis of investments.

The candidate should drive towards determining the NPV of the business by evaluating the revenues, operating costs, and initial investment required to develop the land.

Press the candidate to explain how they would determine the demand for tickets, average ticket price, average spend per visitor on F&B, and initial investment, considering this investment is the first of its kind in this market. In this case, the key is to utilize comparables from similar developments in the region and abroad. If the candidate mentions "estimation," ask how they would estimate and drive towards comparables. Keep in mind that this is not an estimation case in a true sense.

Once the candidate drives toward comparables, please provide them with the five exhibits all at once and ask them how they would like to proceed. The candidate should quickly realize that they generally have all the information required to determine the NPV of the business. What remains is determining which comparables to utilize.

EXHIBIT 1 Development costs* ($/m²) per Park



*Excludes land costs

EXHIBIT 1 - Guidance

Development costs* ($/m^2) per Park

Notes:

- The exhibit displays the development costs ($/m) of similar projects for outdoor and indoor parks worldwide
- The goal of this exhibit is to calculate the development cost
- DevCo is looking to develop an indoor park as the weather is hot and humid most of the year
- If a candidate asks whether DevCo's development is indoors or outdoors, ask them what they think and why. Do not penalize the candidate if they do not recognize the development as an indoor park
- Great candidates will hypothesize on their own that DevCo is looking to develop an indoor park as weather information is given in the prompt
- Once a point on development type is made, ask the candidate to utilize $3000/m^2 as the development cost
- Calculation of development cost: $3,000/m^2 x 200,000 m^2 = $600,000,000

EXHIBIT 2 Population Statistics (Annual) - Riyadh

Group	Size
Permanent & long-term residents	6,000,000
Temporary labor workers	2,000,000
Tourism visitors	800,000
Business visitors	2,400,000

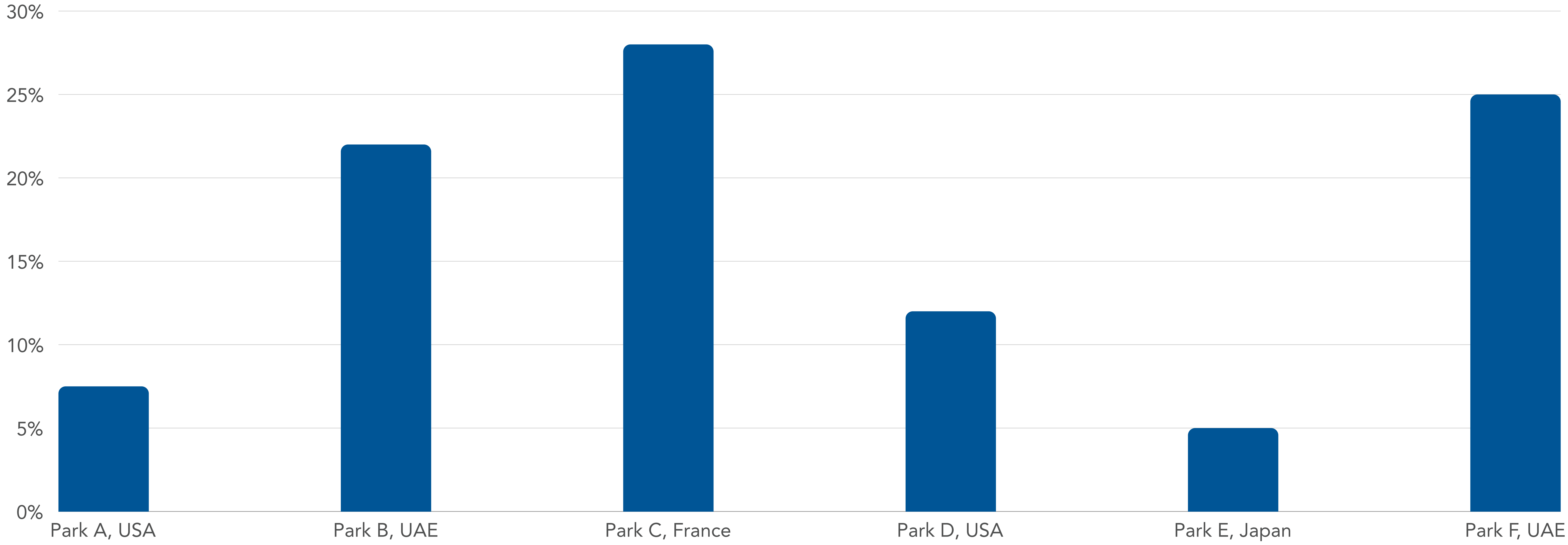
EXHIBIT 2 - Guidance

Population Statistics (Annual) - Riyadh

Notes:

- The exhibit displays the population statistics for Riyadh, KSA
- The goal of this exhibit is to determine the Total Addressable Market (TAM) to then leverage Exhibit 3 to calculate the number of tickets sold.
- Information on population categories (only provide information if asked):
  - Permanent and long-term residents: High earning power with means to visit the park
  - Temporary labor workers: Meager earning power with no means to visit the park
  - Tourism visitors: High earning power with means and time to visit the park
  - Business visitors: High earning power with means to visit the park; however, they typically visit Riyadh during the work week for 2-3 days, which does not provide them enough time to visit the park
- Drive towards utilizing the Permanent and long-term residents and Tourism visitors as the TAM
- Great candidates hypothesize that temporary labor workers and business visitors will be unlikely to visit the park and should be excluded from TAM

EXHIBIT 3 Yearly Tickets Sold as % of TAM* per Park



*Yearly tickets sold as % of TAM = Total tickets sold/Total number of potential yearly customers

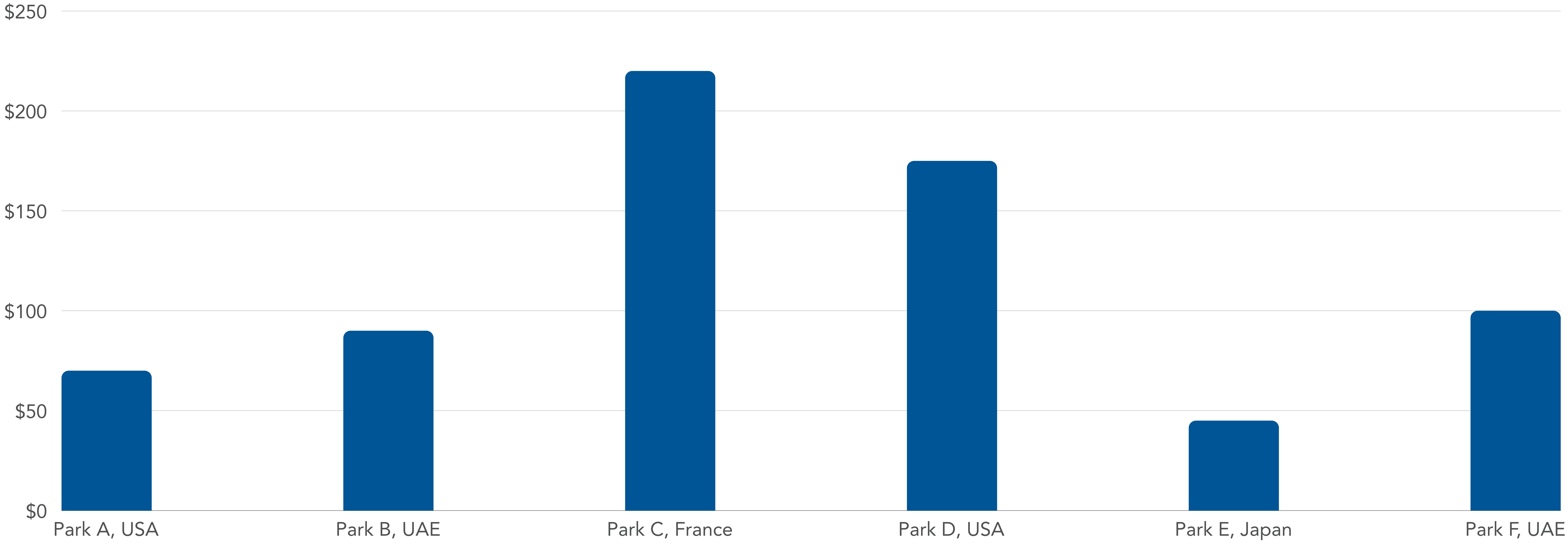
EXHIBIT 3 - Guidance

Yearly Tickets Sold as % of TAM* per Park

Notes:

- The exhibit displays the yearly tickets sold as a percentage of the TAM for similar projects across the globe. The goal of this exhibit is to calculate the tickets DevCo could expect to sell on a yearly basis
- Again, the goal of this case is to get the candidate to be conversational with the interviewer
- Information on the different parks (Only provide information if asked):
  - Parks A & D, USA: Consumers in the US can choose to visit numerous parks across the country; therefore, the yearly tickets sold as a percentage of the TAM is lower than what is observed in other countries
  - Parks B & F, UAE: The UAE has been seeing a massive increase in tourists and residents eager and willing to experience state-of-the-art amusement parks; therefore, the TAM is higher than observed in the USA
  - Park C, France: Park C is one of its kind in Europe; therefore, many visitors specifically visit the area in which Park C is located to visit the park
  - Park E, Japan: Park E is a kid's park; therefore, the yearly tickets sold as a percentage of the TAM is very low
- Ask the candidate which percentage they would choose for DevCo's development and why. Candidate should drive towards utilizing a percentage in the range of the UAE and France parks. Ask Candidates to use 22%
- Great candidates will hypothesize on their own that regional differences, such as the greater availability of amusement parks in the US and the level of concentrated tourism in the UAE, drive the ratio between the TAM and tickets sold
- Calculation of Yearly Tickets Sold = 22% * 6,800,000 = 1,496,000 tickets (No rounding!)

EXHIBIT 4 Ticket Prices per Park



Note: Visitors are expected to spend an additional 40% of the ticket price on food and beverage purchases

EXHIBIT 4 - Guidance Ticket Prices per Park

Notes:

- The exhibit displays the ticket prices for similar projects across the globe. The goal of this exhibit is to determine the ticket price to be utilized in the assessment.
- Again, the goal of this case is to get the candidate to be conversational with the interviewer.
- Information on the different parks (Only provide information if asked):
  - Park C, France, and Park D, USA: Multi-day tickets as amusement parks are enormous and require several days to visit.
  - All other parks: Single-day tickets
    - Note that Park E is the lowest due to its status as a kid's park (information given in Exhibit 3).
- Ask the candidate which ticket price they would choose for DevCo's park and why. The candidate should drive towards utilizing a value in the range of the UAE parks. Once the candidate gives an acceptable response, ask them to utilize $100 per ticket to determine the total yearly revenue expected.
- Total Expected Yearly Revenue = $100 * 1,496,000 tickets * 1.4 = 209,440,000 (allow rounding to $210,000,000)

EXHIBIT 5 Revenue to Free Cash Flow (FCF) Multiple per Park

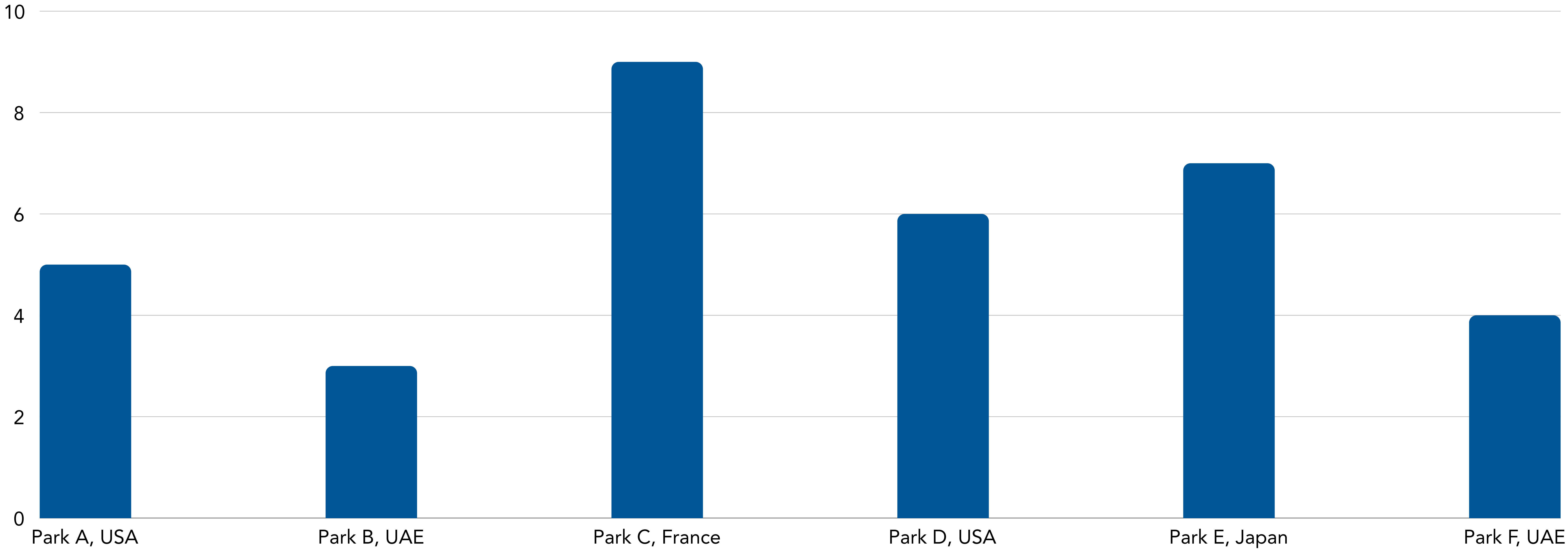


EXHIBIT 5 - Guidance

Revenue to Free Cash Flow (FCF) Multiple per Park

Notes:

- The exhibit displays the Revenue to Free Cash Flow multiple for similar projects across the globe. The goal of this exhibit is to calculate the yearly FCF expected by determining a R/FCF multiple then plugging in the Total Expected Yearly Revenue from Exhibit 4.
- Again, the goal of this case is to get the candidate to be conversational with the interviewer.
- Information on the different parks (Only provide information if asked):
  - Park C, France: Very high operating costs and corporate taxes driving a high R/FCF multiple
  - Parks A & D, USA, and Park E, Japan: lower operating costs and corporate taxes than France, but higher than in the UAE (and the Middle East).
  - Parks B & F, UAE: Lowest operating costs (cheap labor) and corporate taxes; therefore, the parks have the lowest R/FCF multiples.
- Ask the candidate which multiple they would choose for DevCo's park and why. The candidate should drive towards utilizing a value in the range of the UAE parks. Once the candidate gives an acceptable response, ask them to utilize a multiple of 4 (assume similar business environments, from a labor and taxation perspective, in KSA and UAE).
- Total Expected Yearly FCF = $210,000,000 / 4 = 52,500,000 (No rounding!)
- Immediately after calculating the yearly FCF, the candidate should calculate the NPV of the investment by utilizing the perpetuity formula. Both discount and growth rates should be requested at this point. Do not help candidates if they cannot drive the case forward; allow them to struggle before giving further guidance. NPV calculation:
- Value in Perpetuity: Yearly FCF / (WACC – Growth Rate) = $52,500,000 / (14% – 4%) = $525,000,000
- NPV = $525,000,000 - $600,000,000 = -$75,000,000 < 0
- Candidate should note that since NPV is less than zero, DevCo should NOT proceed with this development.

BRAINSTORMING

Question: What are some ways DevCo could seek to make this project feasible?

Increase Revenues	Decrease Costs

• **Charge more per ticket:**
  ◦ Run a consumer survey to understand the WTP better
  ◦ Different types of tickets (regular, fast pass, etc.)
• **Increase the number of yearly tickets**
  ◦ Offer additional amenities that could be attractive to TAM
    ▪ Water Park/Pool addition: Great candidates will connect back to the initial statement KSA is hot
• **Add additional revenue streams**
  ◦ Sell Merchandise: T-shirts, pictures, posters, etc.
  ◦ Host after-hour events: Birthday parties, company events, concerts
  ◦ Hotel Development with Park: Great candidates will connect to DevCo's other developments
	• **Seek cheaper financing – Good Answer**
	• **Ask for additional government subsidies – Good Answer**
	  ◦ Maybe in the government's best interest to provide additional funds or tax exemptions to help the development
	• **Reduce operational cost**
	  ◦ Energy cost: Negotiate price of electricity
	  ◦ Maintenace cost: In house maintenance vs. outsource maintenance
	  ◦ Labor related cost

The goal is to obtain a structured response from the candidate. If the candidate starts rambling responses (shooting from the hip),, stop them and ask them to think through the answer and respond using a structured approach.

CONCLUSION

⟵ Back to Case List

Prompt: The client just reached the elevator and is on their way up now to receive your recommendation. Could you fill them in on what you believe the best course of action is?

Recommendation:

- The candidate should answer succinctly on why DevCo should NOT proceed with the investment with the current inputs, but advise of any potential ways to make this investment appealing.
- The NPV calculation reveals that the project would result in a loss, with an NPV of -$75 million. Given that the project fails to meet the financial objective of a positive NPV, it is not advisable to move forward with the investment.

Risks

- Underestimating operational costs, leading to further financial strain
- Inaccurate market demand estimates could result in lower-than-expected attendance and revenues
- Potential geopolitical risks, such as changes in government support or taxation policies in Saudi Arabia

Next Steps

- Explore ways to improve profitability, such as increasing ticket prices, adding additional revenue streams, or negotiating for government subsidies or tax breaks
- Conduct further market research to better understand consumer willingness to pay and potential demand
- Investigate cheaper financing options or ways to reduce operational costs, including labor, maintenance, and energy

Brawndo Candy Company

Innovation & Disruption | Consumer Goods & Retail

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BRAWNDO CANDY COMPANY

Innovation & Disruption | Consumer Goods & Retail

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Case Prompt

Our client is Brawndo Candy Company, an established US candy manufacturer that produces a wide portfolio of individually packaged treats. A majority of Brawndo's portfolio of products uses corn syrup as the primary sweeting agent. In 2024, the US Congress responded to public outcry by passing a law that will levy a significant tax burden on corn syrup. The law will be in effect beginning in 2025. Brawndo has maintained a steady level of profitability and growth for many years and wishes to maintain or exceed the same level of profitable growth in 2025. Brawndo has come to you to find out what they should do.

Clarifying Information (only provide if asked)

- *Business Model:* Brawndo makes money by selling directly to brick-and-mortar retailers.
- *Corn Syrup:* corn syrup, an inexpensive and common sweetening ingredient found in many consumer-packaged goods such as breakfast foods, snacks, baked goods, treats, and beverages. It is sold in gallons (1 gallon = 1,000 grams).
- *Geography:* US manufacturing, US candy sales
- *Financial Objectives:* Maintain or exceed the same level of profitability of 50% in 2025 as in 2024.
- *Timeline:* The tax has an effective date of July 1, 2025.
- *Corn Syrup Tax:* $12.50 /5000 grams = $0.0025/ 1 gram

NOTE TO INTERVIEWER: In this case you will see "M" and "MM" used in place of thousands and millions.
"M" is the Roman numeral for thousands, "MM" for millions

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FRAMEWORK

Case Type: Interviewee should recognize that this is a profitability case
Framework: Interviewee should be pushing to look into the following areas

Revenue Enhancement Strategies	Exploring Costs	Other
• Pricing • Product line diversification	• Cost increases (Tax) • Cost savings measures	• The interviewee may provide additional buckets related to external growth, but an excellent candidate will focus on the disruption of the corn syrup tax on their existing product lines.

Moving forward: The interviewee should know that costs of corn syrup inputs will increase in 2025 and should ask for additional information on costs first. Push them until they ask for more information on costs.

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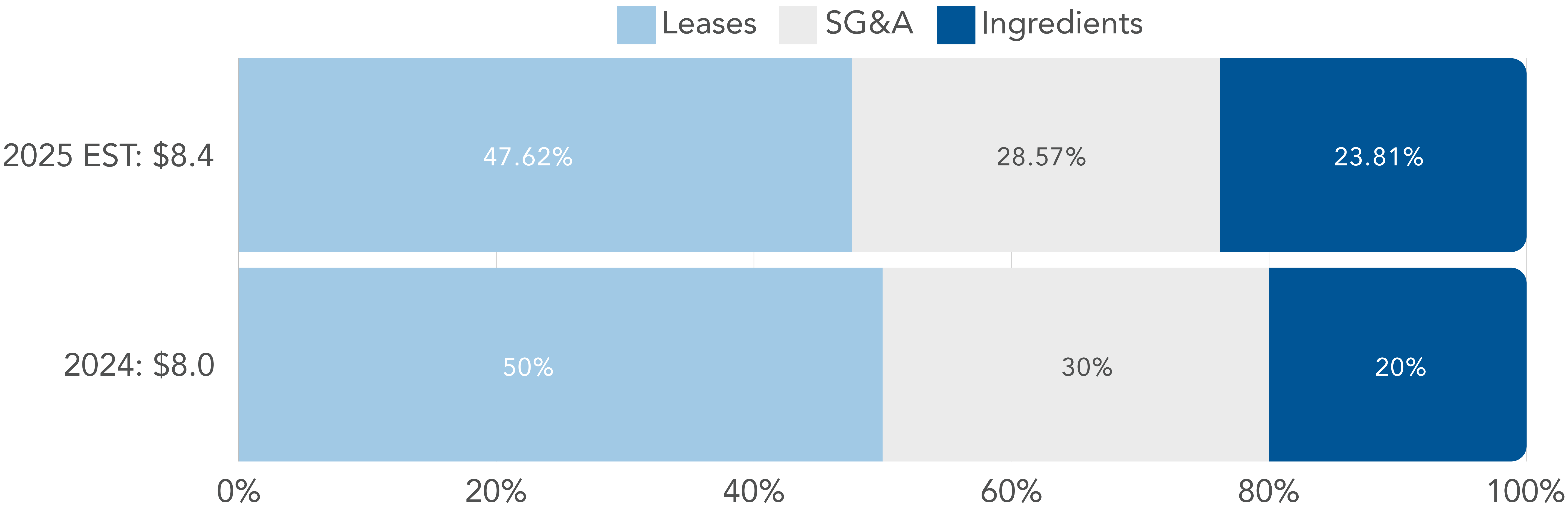
EXHIBIT 1 Brawndo's Annual Costs



Footnotes:

1. Costs are in millions (MM) USD.
2. Leases and SG&A are fixed costs and are estimated to remain constant from 2024 to 2025.
3. Annual sales assumed to remain constant from 2024 to 2025.

EXHIBIT 1 - Guidance

Brawndo's Annual Costs

Prompt: What is the estimated annual & quarterly cost impact of the corn syrup tax for 2025 if candy packages sold remains unchanged from 2024 to 2025?

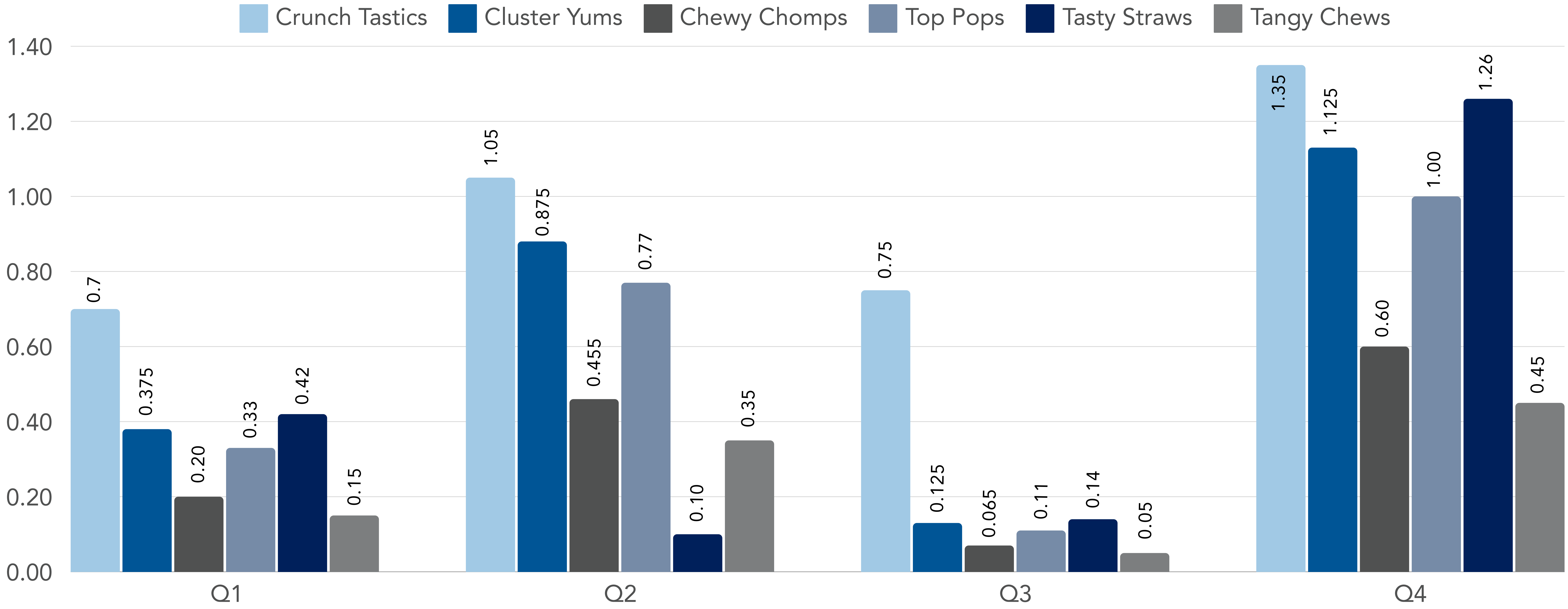
Notes:

- Provide Exhibit 1 to the interviewee and provide the following information:
- "Variable costs follow seasonal trends of candy sales. As a result, variable costs contribute 15% of the total in the 1st quarter, 35% in the 2nd quarter, 5% in the 3rd quarter, and 45% in the 4th quarter."
- The interviewee should calculate the following information (as necessary) in for 2024 and 2025:
  - Annual Cost Increase = $0.40 MM & Quarterly Increase = $0.06 MM (Q1); $0.14 MM (Q2); $0.02 MM (Q3); $0.18 MM (Q4)
  - An excellent candidate should not need to calculate anything but the values in bold to answer the question

	Leases	SG&A	Ingredients/Supplies	TOTAL
2024	50%	30%	20%	100%
	$4.0 MM	$2.4 MM	**$1.6 MM**	$8.0 MM
2025	47.62%	28.57%	23.81%	100%
	$4.0 MM	$2.4 MM	**$2.0 MM**	$8.4 MM

	Q1	Q2	Q3	Q4
Ingredients/Supplies 2024	15% * $1.6 MM **= $0.24 MM**	35% * $1.6 MM **= $0.56 MM**	5% * $1.6 MM **= $0.08 MM**	45% * $1.6 MM **= $0.72 MM**
Ingredients/Supplies 2025	15% * $2.0 MM **= $0.30 MM**	35% * $2.0 MM **= $0.70 MM**	5% * $2.0 MM **= $0.10 MM**	45% * $2.0 MM **= $0.90 MM**
SG&A	25% * $2.4 MM = $600 M each quarter			
Leases	25% * $4.0 MM = $1.0 MM each quarter			
Total 2024	$1.84 MM	$2.86 MM	$2.5 MM	$2.32 MM
Total 2025	$1.9 MM	$2.3 MM	$1.7 MM	$2.5 MM

EXHIBIT 2 Product Packages Sold 2024



Footnotes:

1. In millions (MM) of units.

EXHIBIT 2 - Guidance

Product Packages Sold 2024

Prompt: If Brawndo wants to maintain the same percent profit margin of 50% in 2024 as in 2025, how much revenue do they need to sell, and how many more units will they need to sell in 2025?

Notes:

- Provide Exhibit 2 to the interviewee and provide the following information:
  - "Each package of candy sold in 2024 is a 50 gram package, the wholesale price is $1.25 per package, and the cost per package is the same percentage as the annual costs."
- Answer #1: The interviewee can use Exhibit 1 to calculate the 2025 revenue.
  - 2025 estimated costs = $8.4 MM, therefore to maintain or exceed 50% profit margin (as in 2024), Brawndo will need 2025 sales to be a minimum of
  - **$16.8 MM.**
- Answer #2: Recommended Steps to Solve:
  - 1.The interviewee should add up all units sold from 2024 = 12.8 MM units
  - 2.The interviewee should calculate the number of units that need to be sold in 2025 to yield $16.8 MM sold by dividing $16.8 MM by $1.25 price per unit = 13.44 MM units.
  - 3.13.44 MM – 12.8 MM = **0.64 MM (or 640,000) more units need to be sold in 2025 than 2024.**
- An excellent candidate should arrive at this answers easily and should consider that 2025 sales for Brawndo's products may remain flat. They will need to increase their price if they can not sell additional units to maintain the same profit margin.

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BRAINSTORMING

Question: What are some levers we can pull to achieve Brawndo's profitability goals for 2025?

Brainstorming Session

- Increase price of final product (push costs onto the consumer)
- Sell more quantity (bundle products)
- Reduce candy size or quantity per package (maintain price)
- Change the portfolio mix of products (not all candy is made with corn syrup, is there a cheaper product mix?)
- Vertically integrate (buy corn syrup producers)
- Invest in R&D (does Brawndo have new product lines in the works that are cheaper to produce?)
- Replace corn syrup / return to older candy formulas (are sugar inputs now cheaper than corn syrup with the tax?

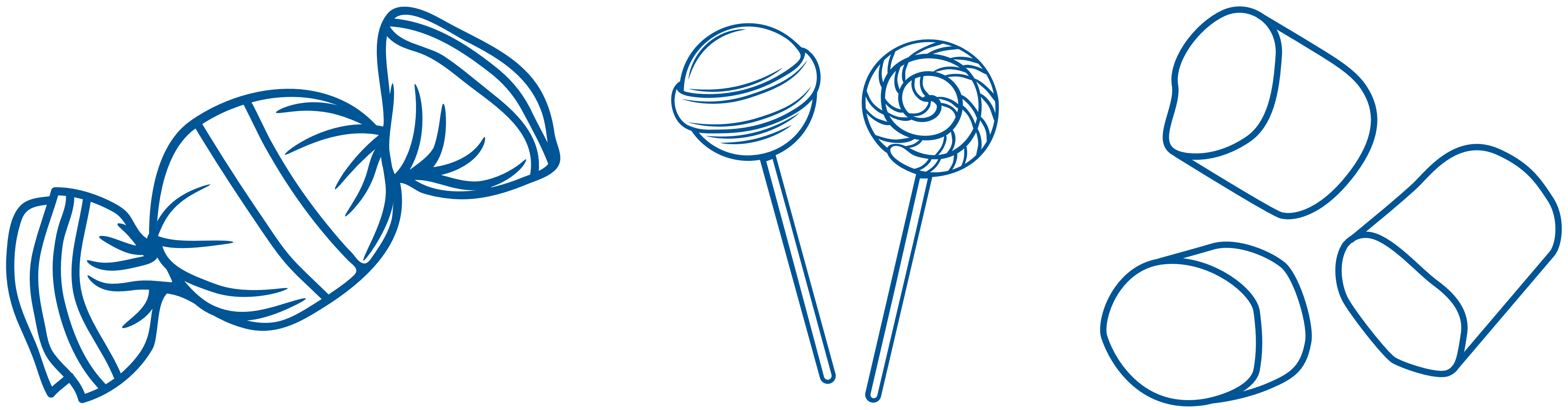
Notes: There are many possible responses to this question and to the left are some suggestions the interviewee may have already mentioned as part of their framework. Strong answers will be structured, reasonable, and implementable by the client

Guidance: If the interviewee does not mention changing the portfolio mix or changing the price of the package as a possible way to achieve the profitability target, push them to this thought.

EXHIBIT 3 Price Elasticity

Product Line	Corn Syrup per Package (Grams)
Crunch Tastics	0
Cluster Yums	0
Chewy Chomps	0
Top Pops	20
Tasty Straws	40
Tangy Chews	5

Wholesale Price	2025 Growth Potential
$1.25	Increase of 5% units sold
For every increase of $0.025	Decrease of 1% units sold



Footnotes:

1.The tax on corn syrup will be $12.50 for every 5,000 grams of corn syrup purchased and the effective date for the tax is on July 1, 2025 (6 months from today).

2. Decreases in growth assumes that competitors will respond to the corn syrup tax by raising prices at similar rates.

EXHIBIT 3 - Guidance

Price Elasticity

Prompt: How should Brawndo proceed to achieve profitable growth in 2025?

Notes:

- Provide Exhibit 3 to the interviewee and the following information:
  - "Brawndo plans to increase the price of their products containing corn syrup and wants to maintain a 50% profit margin across all product lines in 2025."

Calculations:

- Corn Syrup Tax: $12.50 /5000 grams = $0.0025/ 1 gram
- New Product Price beginning July 1, 2025:
  - Top Pops = 20 grams x $0.0025 = $0.05 (the cost) x 2 (the profit)= $0.10 + $1.25 = $1.35
  - Tasty Straws = 40 grams x $0.0025 = $0.10 x 2 = $0.20 + $1.25 = $1.45
  - Tangy Chews = 5 grams x $0.0025 = $0.0125 x 2 = $0.025 + $1.25 = $1.275
- Decrease in Units Sold:
  - Top Pops = $0.10/ $0.025 = 4 * 1% = 4% decrease (100%-4% = 96% of units sold in 2024)
  - Tasty Straws = $0.20 / $0.025 = 8 * 1% = 8% decrease (100%-8% = 92% of units sold in 2024)
  - Tangy Chews = $0.025 / $0.025 = 1 * 1% = 1% decrease (100%-1% = 99% of units sold in 2024
- The interviewee can approach the price increase beginning in Q1 and receive similar results numerically. However, an excellent candidate will realize that the tax does not apply until Q3 of 2025, and the 1% decrease in quantity sold in exhibit 3 is estimated based on the assumption that competitors will also change their prices beginning July 1, 2025. The price can remain conservative at $1.25 for Q1 and Q2 for all product lines to achieve maximum potential growth across and reduce the risk of a reduction in quantity sold which can also yield unsold inventory and losses.

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EXHIBIT 3 - Guidance (cont.) Price Elasticity

Product Line	Corn Syrup per Package (grams)	Corn Syrup Tax per Package *Beginning July 2025	July 2025 Wholesale Price at 50% Profit Margin	Q1 + Q2 Estimated Qty Sold: (5% increase) in qty sold	Q3 + Q4 Estimated Qty Sold: (1% decrease) in qty sold	2025 Estimated Sales	2025 Est. Costs
Crunch Tastics	0	$0	$1.25	(3 MM/ 2) x 105% = 1.575 MM	(3 MM/ 2) x 105% = 1.575 MM	3 MM x 105% x $1.25 **= $3.94 MM**	$1.97 MM
Cluster Yums	0	$0	$1.25	(2.5 MM/ 2) x 105% = 1.2135 MM	(2.5 MM/ 2) x 105% = 1.2135 MM	2.5 MM x 105% x $1.25 **= $3.28 MM**	$1.64 MM
Chewy Chomps	0	$0	$1.25	(1.3 MM/ 2) x 105% = 0.6825 MM	(1.3 MM/ 2) x 105% = 0.6825 MM	1.3 MM x 105% x $1.25 **= $1.71 MM**	$0.85 MM
Top Pops	20	$0.0025 x 20 grams **= $0.05**	$0.05 add'l cost + $0.05 add'l profit) **= $1.35**	(2.2 MM/ 2) x 105% = 1.155 MM	(2.2 MM/ 2) x 96% = 1.089 MM	1.155 MM x $1.25 + 1.089 MM x $1.35 **= $2.87 MM**	$1.43 MM
Tasty Straws	40	$0.0025 x 40 grams **= $0.10**	(see above calc) **= $1.45**	(2.8 MM/ 2) x 105% = 1.47 MM	(2.8 MM/ 2 x 92% = 1.288 MM	1.47 MM x $1.25 + 1.288 MM x $1.45 = **$3.71 MM**	$1.85 MM
Tangy Chews	5	$0.0025 x 5 grams = **$0.0125**	(see above calc) = **$1.275**	(1 MM/ 2) x 105% = 0.525 MM	(1 MM/ 2) x 99% = 0. 48 MM	1.525 MM x $1.25 + 1.48 MM x $1.275 **= $1. 29 MM**	$0.64 MM
Total				**6.72 MM**		**$16.79 MM**	**$8.39 MM**

CONCLUSION

⟵ Back to Case List

Prompt: The client is about to walk in. Can you please summarize your recommendation on what they should do?

Recommendation:

- The summary should start with a recommendation to increase the wholesale price to $1.35 for Top Pops, $1.45 for Tasty Straws, and $1.275 per unit for Tangy Chews beginning in Q3 of 2024.
- The interviewee should provide supporting evidence and financial justification
    - Annual costs are estimated to increase by $400,000 in 2025, and to maintain or exceed a 50% profit margin
    - Brawndo's revenues must increase by at least $800,000.
    - These 3 product lines use corn syrup inputs and are subject to cost increases by the corn syrup tax, and if all quantities sold remain flat for 2025, this pricing strategy will cause the least amount of decline in candy sales while still achieving the 50% profitability goal

Risks

- If the interviewee chose to change the price of the product line at the beginning of Q1 2025 instead, risks should be similar to "excellent candidate" guidance provided for Exhibit 3.
- We have assumed that quantities sold will remain flat for all 6 product lines in 2025 and that consumer demand is only tied to price elasticity instead of the rising health concern of consuming corn syrup
- Our competitors may not choose to pass corn syrup tax cost increases onto their consumers on the effective tax date or at all.
- We have assumed that all candy purchased on the effective tax date is subject to the cost increases.
- We have assumed that the costs of all other inputs will remain the same.

Next Steps

- Our firm can help Brawndo explore these risks further by:
    - Evaluating changes in consumer candy demands for candy based on the knowledge of corn syrup vs sugar inputs.
    - Researching competitor pricing trends
    - Look more closely at the life cycle of the corn syrup input (when the input is purchased to when it is sold as candy) to determine when Brawndo will actually be incurring this tax on sold candy
    - Evaluate the cost of corn syrup and all other inputs and negotiate with suppliers to reduce costs of inputs

Ricemetrics

Profitability Analysis | Energy & Utilities

RICE | BUSINESS

RICEMETRICS Profitability Analysis | Energy & Utillities

Case Prompt

Ricemetrics, an industrial manufacturer specializing in fluid meter equipment, is facing a decline in market share and financial health. The company hasn't innovated in 40 years, leading to outdated products and reducing competitiveness. Although recent cost reductions have maintained Ricemetrics as profitable, the CEO fears this is unsustainable. Their service department generates $100M in revenue in the US, which is a key component for high margins, but growth is now slowing. The CEO is in the hot seat and needs a turnaround plan executed within a 12-month period. He has hired your firm to determine the best course of action to improve gross margin and overall growth.

Clarifying Information (only provide if asked)

Since it's a quick turnaround period, the services department will be the focus; the manufacturing portion will be Phase II of the project, which the candidate should attempt to sell in their conclusion.

- *Business Model:* Ricemetrics primarily generates revenue by selling fluid meter equipment to O&G customers and other industrial sectors. The highest gross margins are achieved in the service department, where field service engineers maintain/service the equipment. Field engineers exclusively service Ricemetrics equipment only, there are only 5 product lines offered
- *Timeline:* 1-year turnaround plan
- *Geography:* Ricemetrics operates globally. However, the US is the biggest market and considering the quick turnaround plan, we will focus only on the US.
- *Financial Objectives:* This is a quick turnaround project, and the CEO wants to focus on driving the service department gross margin back to 50% or higher
    - The service department currently generates 30% gross margins on $100M revenue (in the US), which has declined from 50%, 2 years prior.
- *Competition:* It is strong, there are TWO main competitors, all of which have been innovative in the past years. They also have started servicing Ricementrics' equipment, which has led to a decrease in our growth and margins
- $100M in SERVICES revenue in the US.
- Services consists of a field service engineer going out to the customer site, and physically inspecting and certifying that the equipment is fully functional and operational

FRAMEWORK

Case Type: Interviewee should immediately recognize that this is a Profitability case
Framework: Interviewee should be pushing to look into the following areas

Market & Industry	Competitive Position & Growth Strategies	Profitability Analysis	Strategic Opportunities & Risk Management

• **Market Size & Growth:** Evaluate the current size, historical growth, and future potential
• **Geographies:** Key regions and their importance
• **Customer Segments:** Breakdown of core segments (e.g., O&G, Industrial, WWTP, Power Plants) and their specific needs
• **Trends & Regulations:** Key industry trends, innovations, and regulatory landscape
• **Competitive Landscape:** Competitor analysis, market share, and key differentiators
	• **Market Share & Positioning:** Company's current position vs. competitors, differentiators.
	• **Organic Growth:** Expanding market share through new offerings, geographies, or customer bases.
	• **Inorganic Growth:** M&A, partnerships, joint ventures, and synergies to scale quickly.
	• **Innovation:** New product and service launches (ex. AI, remote services) to stay competitive.
	• **Go-To-Market:** Strategies for entering and competing in markets.
		• **Revenue & Pricing Strategy:** Revenue streams, sales volume, and pricing power.
		• **Cost Structure:**
		  ◦ **Fixed Costs (FC):** Overheads, infrastructure, capital expenditures.
		  ◦ **Variable Costs (VC):** Production, direct labor, and materials.
		  ◦ **SG&A:** Selling, General & Administrative expenses.
		• **Profit Margins:** Gross, operating, and net margins.
		• **Efficiency Metrics**: Revenue per equipment, cost per engineer, operational efficiency.
			• **Barriers to Entry:** Challenges for new competitors, including capital and regulatory hurdles.
			• **Substitute Products/Services:** Alternatives that could impact market share.
			• **Long-Term Agreements:** Securing stable revenue through contracts and customer loyalty programs.
			• **Discount Bundles & Incentives:** Offering cost savings to customers through bundles.
			• **Risk Management:** Assessing and mitigating financial, operational, and market risks.

Moving forward: Candidate should be interested in current profitability. Guide them in that direction before moving to Exhibit 1.

EXHIBIT 1 3-Year Balance Sheet

	2021 (Y1)	2022 (Y2)	2023 (Y3)
Revenue ($M)	120	110	100
COGS ($M)	60	55	70
Gross Profit ($M)	60	55	30
SG&A ($M)	20	25	30
Other Costs ($M)	5	5	5
Operating Income ($M)	35	25	-5
Interest Expense ($M)	2	2	2
Tax Expense ($M)	5	4	0
Net Income ($M)	28	19	-7

EXHIBIT 1 - Guidance

Revenues and costs per committee (in millions)

Prompt: Given the financial information in Exhibit 1, what financial aspects should the CEO focus on to achieve a 50% gross margin if we assume a 10% increase in revenue?

Notes:

- The candidate should be able to identify the decrease in Revenues (due to competition), and increase in COGS (inflation). Thus, the candidate should only focus on the Gross Profit Margin, and ignore the remaining metrics. Allow the candidate to entertain the remaining metrics, which are irrelevant at this time.
- Once the candidate identifies that the COGS should be reduced to maintain the target Gross Profit Margin (GPM), **ask them to calculate the percentage decrease required for COGS**
  - Y4 Revenue = Current Revenue * (1+10%) = $100M * 1.1 = $110M
  - Y4 GPM = (Y4 Revenue - Y4 COGS) / Y4 Revenue. With a target of 50% GPM for Y4, an excellent candidate will know that the Y4 COGS will be equal to half of the Y4 Revenue. Therefore, Y4 COGS = $55M to meet the target Y4 GPM
  - The percentage decrease of Y4 COGS from Y3 COGS will be = 100% - ($55M/$70M) = 100% - ~80% = **~20%** (candidate is able to round)

Moving forward: Ask the candidate what they would like to evaluate next. The next step will be to evaluate competitors in Exhibit 2 before analyzing growth options and ways to reduce COGS.

EXHIBIT 2 Customer Perception Survey of Ricemetrics and Competitors Across Industries

	Competitor 1	Competitor 2	Ricemetrics
Service Support	◑	◔	◕
Price	◕	◔	○
New Offerings	◕	◔	◔
New Customers (Growth)	●	◔	◔

EXHIBIT 2 - Guidance

Customer Perception Survey of Ricemetrics and Competitors Across Industries

Prompt: What are your thoughts on Ricemetrics' current standings against competitors and what can they do differently?

Notes:

- The candidate should be able to identify that pricing is not a stronghold for Ricemetrics, however, challenge them on the anticipation of the 10% revenue increase calculated in Exhibit 1, how will they accomplish that?
  - Increasing prices without New Offerings or improvements to current offerings could lead to an increase in customer churn
- They should also be able to identify that New Customers and New Offerings are the best plausible approach - this is how Ricemetrics can justify any price increase
- The prompt stated that customers are in the O&G and other industrial sectors and New Customers should be identified based on industry trends
- Strong candidates should be able to pitch that New Offerings using new and efficient technology can be more cost efficient, which can help reduce the COGS and increase the Gross Profit Margin to reach its target

Moving forward: Once the candidate concludes to explore New Customers and New Offerings as ways to grow and increase revenue, move on to Exhibit 3 to analyze the new offering and customer segment combinations.

EXHIBIT 3 New Customer and New Offering Evaluation

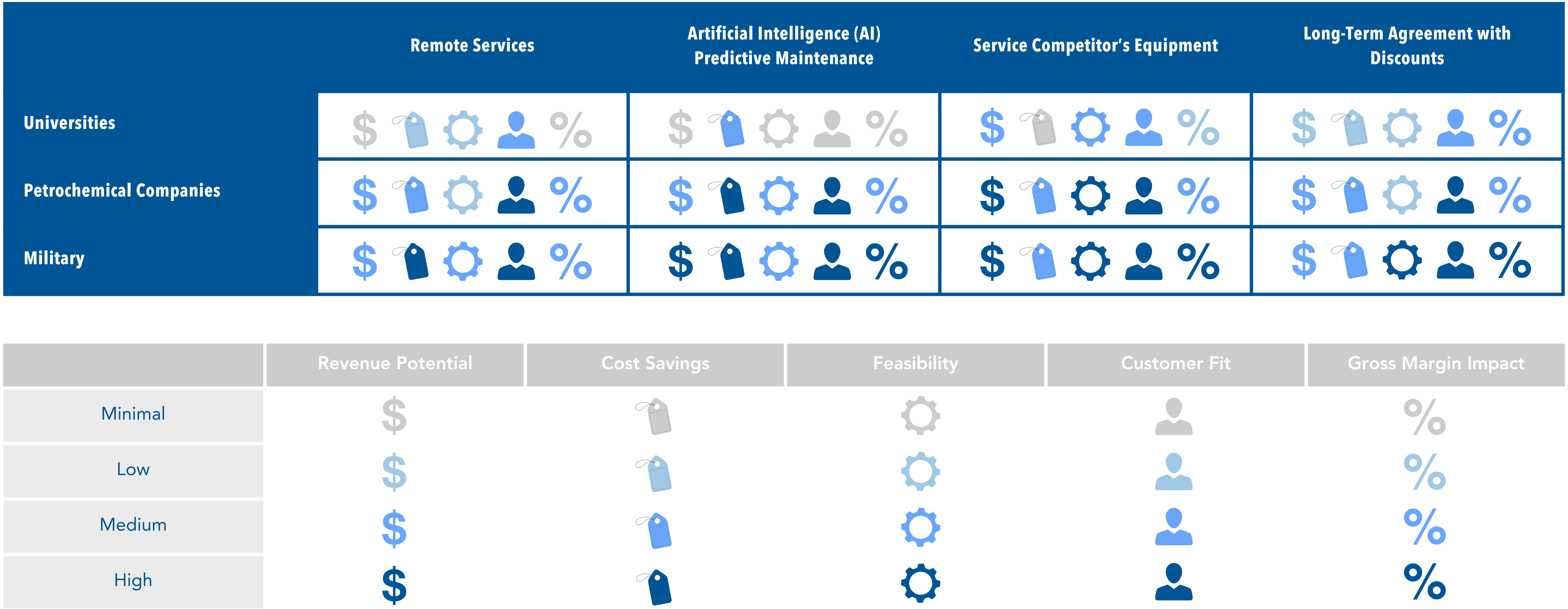


EXHIBIT 3 - Guidance

New Customer and New Offering Evaluation

Prompt: Please see the following matrix that outlines potential new customer segments and service offerings for Ricemetrics. Your task is to analyze the matrix and recommend the best approach to increase the number of customers and volume of equipment serviced, with the ultimate goal of improving gross margins.

Notes:

- *Revenue Potential:* Guide the candidate to recognize that servicing competitors' equipment in the Military sector presents a high-revenue opportunity. The military uses a wide range of equipment from various suppliers, so servicing non-Ricemetrics equipment can open large, stable contracts with high long-term revenue potential.
- *Cost Savings & COGS Reduction:* Prompt the candidate to acknowledge that while servicing competitors' equipment brings significant revenue, it does not directly result in substantial cost savings. To achieve the 20% reduction in COGS, the candidate should combine this strategy with AI predictive maintenance, which reduces costly emergency repairs and improves operational efficiency, contributing to lower service costs.
- *Strategic Fit:* Encourage the candidate to consider how AI predictive maintenance fits into Ricemetrics' overall strategy of improving service efficiency. The military sector, with its need for operational readiness and minimal downtime, would highly benefit from predictive maintenance solutions, making this a strategic complement to servicing non-Ricemetrics equipment.

Expected Strong Answer:

- *Best Approach:* The candidate should recognize that the optimal strategy is a combination of servicing competitors' equipment and implementing AI predictive maintenance. Servicing non-Ricemetrics equipment in the military will maximize revenue opportunities, while AI predictive maintenance provides the necessary cost savings to meet the 20% COGS reduction target.
- *Justification:* The candidate should explain that while servicing competitors' equipment provides high-revenue potential, it does not directly reduce operational costs. By introducing AI predictive maintenance alongside this strategy, Ricemetrics can enhance service efficiency, reduce unplanned maintenance costs, and lower COGS, thus meeting both financial and operational goals.

Moving forward: Once the candidate lands on the Military segment with Servicing Competitor's Equipment and AI-Predictive Maintenance, move on to the brainstorm.

BRAINSTORMING

Question: What are some other ways that Ricemetrics can lower COGS?

Internal	External
• **Route Optimization & Increase Service Density per Trip:** Implement software to optimize routes and ensure field engineers service multiple customers per trip. • **Cross-Training Technicians:** Train engineers to handle multiple types of equipment and service requests. • **Process Automation:** Automate scheduling, parts management, and invoicing to reduce administrative overhead. • **Digital Training Programs for Field Engineers:** Invest in digital platforms for ongoing training to keep skills up-to-date without costly in-person sessions. • **Just-In-Time (JIT) Inventory:** Implement a JIT system to reduce holding costs for parts and prevent excess inventory. • **Centralized Inventory Hub:** Establish a centralized location for parts distribution, reducing the operational costs of managing multiple smaller inventory locations.	• **Negotiate Better Terms with Suppliers:** Renegotiate contracts with suppliers to secure lower prices, better payment terms, or bulk discounts. This directly reduces material costs for parts and equipment used in servicing. • **Consolidate Purchases:** Reduce the number of suppliers by consolidating purchases with a few key vendors. This increases bargaining power and can lead to lower prices for parts and services, as well as improved terms. • **Outsource Low-Value Activities:** Outsource routine or non-core activities such as parts logistics and administrative tasks to third-party providers. This helps Ricemetrics focus on core operations while reducing fixed costs associated with in-house management of these functions.

CONCLUSION

⟵ Back to Case List

Prompt: The CEO is anxious for a solution and wants to meet sooner than expected. They want to hear your recommendations and how your plan will be executed in a 12-month period.

Recommendation:

- The candidate should recommend increasing gross margin by targeting the military as a new customer segment, servicing competitor's equipment to increase revenue, and introducing AI-predictive maintenance to reduce COGS. This should be based on the candidate's analysis of customer perception of the industry and the new offering and new customer segment evaluation

Risks

- Competition is strong and customers will find substitutes
- Customers unwillingness to accept new price
- Focusing on efficiency might take longer than that 12 months

Next Steps

- Perform a financial evaluation of the revenue increase and COGS decrease with the new initiatives
- Perform other due diligence

MedTech Solutions

Corporate Strategy & Growth | Healthcare & Pharmaceuticals

RICE | BUSINESS

MEDTECH SOLUTIONS

Corporate Strategy & Growth | Healthcare & Pharmaceuticals

★★★

Case Prompt

MedTech Solutions is a leading manufacturer of cardiovascular implantable devices, known for its innovation and quality. They want to evaluate their product portfolio by diversifying into the neurostimulation market and understand their internal capabilities and develop a strategic plan. They have a strong market position in the cardiovascular devices sector, with flagship products including pacemakers, defibrillators, and drug-eluting stents. However, the cardiovascular device market is becoming increasingly saturated with growing competition. Whereas the neurostimulation market, which includes devices used for pain management, epilepsy treatment, and Parkinson's disease management is valued at $5 billion and is growing at a compound annual growth rate (CAGR) of 10%. MedTech Solutions has strong R&D capabilities and a robust financial position, with an annual R&D budget of $150 million and significant cash reserves. The company is evaluating strategic options for entering the neurostimulation market. How would you approach this problem and develop a strategic plan for MedTech Solutions to enter the neurostimulation market?

Clarifying Information (only provide if asked)

- *Business Model:* Currently, MedTech Solutions manufactures and sells cardiovascular implantable devices to healthcare providers. They wish to develop and sell neurostimulation devices for pain management, epilepsy, and Parkinson's disease through similar channels
- *Geography:* Primary markets in North America and Europe. Emerging markets in Asia and Latin America
- *Financial Objectives:*
  - Revenue: Achieve $250M in annual neurostimulation revenue
  - Margins: Maintain Gross Margins of 20%+
  - Market Share: Capture 10% of the neurostimulation market
- *Timeline:* 5 years to achieve the financial objectives

FRAMEWORK

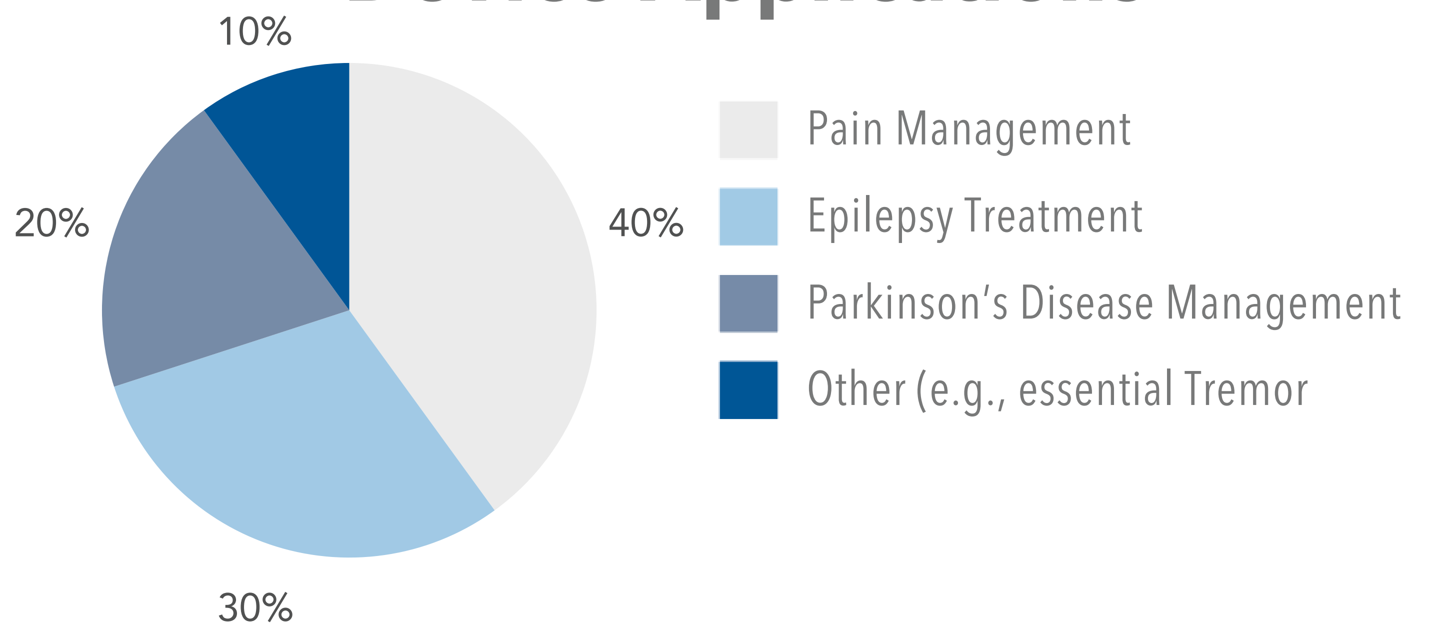
Case Type: Interviewee should recognize that this is a strategy/growth case ("...evaluate strategic options")
Framework: Interviewee should be pushing to look into the following areas

Market Analysis	Internal Capabilities	Financial Feasibility	Strategic Alignment
• Market size and growth rate • Market segmentation • Key regions for growth and regional trends • Key drivers of demand for neurological disorders, aging population, and technological advancements • Major customer segments and key patient demographics	• Existing R&D and manufacturing capabilities • Financial resources available for investment • Technological expertise that can be leveraged • Current distribution and sales channels/forces	• Expected revenue and required market share to meet financial targets • Estimated development, R&D, and scaling costs • Potential synergies or savings from existing resources • Expected return on investment and break-even timeline	• Fit with MedTech Solution's growth strategy and business objectives • How neurostimulation complements the existing product portfolio • Major risks (regulatory, technological) and strategies to mitigate them

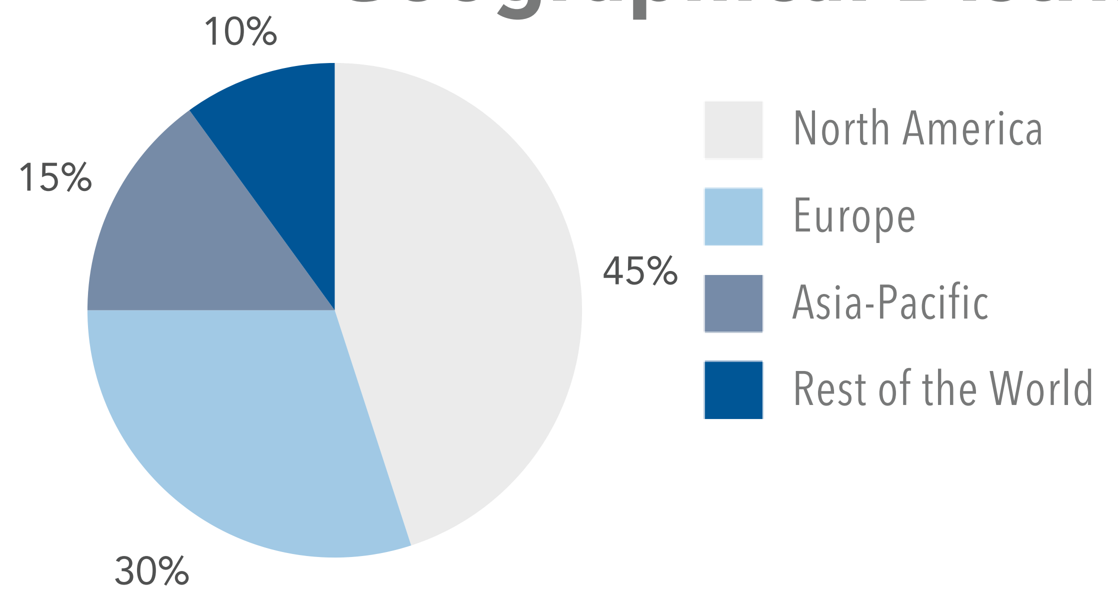
Moving forward: The interviewee should want to explore the neurostimulation market itself to see how viable it will be to enter the market either organically (in-house) R&D or through M&A/partnership. Exhibit 1 will help to calculate the market capture for in-house development.

EXHIBIT 1 Neurostimulation Market Analysis

Device Applications



Geographical Distribution



Current Market Size: $5B
Compound Annual Growth Rate: 10%

Segment	Total Market Size (Patients)	Device Applications				Geographical Distribution			
Annual Organic Market Penetration per segment: 1%		Pain Management	Epilepsy Treatment	Parkinson's Disease Mgmt	Others	North America	Europe	Asia-Pacific	Rest of the World
Patients with Chronic Pain	16 million	60%	20%	10%	10%	40%	30%	20%	10%
Patients with Neurological Disorders	12 million	30%	40%	25%	5%	35%	25%	25%	15%
Healthcare Providers	12 million	25%	30%	25%	20%	30%	30%	25%	15%
Other Patients	10 million	20%	30%	20%	30%	25%	30%	25%	20%
Totals & Averages	**50 million**	**33.75%**	**30%**	**20%**	**16.25%**	**32.5%**	**28.75%**	**23.75%**	**15%**

EXHIBIT 1 - Guidance

Neurostimulation Market Analysis

Prompt: The company is evaluating three strategic options for entering the neurostimulation market: organic growth through in-house R&D, or through an acquisition or partnership with established players. Considering the feasibilty of meeting their financial goals within 5 years, which do you think would be the best approach?

Notes:

- Provide Exhibit 1 to the interviewee and allow them to digest. Candidate should see that with a $5B market value and 50M patients served, the market value is 100x the number of patients
- Key Questions:
    - How would you calculate the future market size 5 years from now, considering a 10% compound annual growth rate?
        - Look for the candidate to give the formula below, but for the sake of time you may give them the answer of **$8.05B**
        - Future Market Size = Current Market Size * (1 + CAGR)^n = $5B * (1 + 0.10)^5 = **$8.05B -> Round to $8B for future calculations**
    - What market share must be captured for the company to meet its financial revenue goal? (already given: $250M annually by 5 years)
        - Required Market Share of Total Market to Achieve $250M Revenue = $250M/$8B = **3.125%**
    - What annual revenue amount does the company need to capture 10% of the market?
        - Revenue needed for 10% market share in 5 years = Future Total Market Size * 10% = $8B * 10% = **$800M**
    - Choose 1-2 target customer segments that show promising growth?
        - Candidate should identify that based on the highest concentration of the market is in the pain management and epilepsy treatment products, and the North America and Europe regions. The two customer segments that align with those markets are patients with Chronic Pain and Neurological Disorders.

Moving forward: "We just received word that the timeline for organically developing pain management and epilepsy treatment products will take 5 years to go through design, testing, manufacturing, and FDA approval. In order to meet the company's objectives for revenue and market share, our team is now considering only an acquisition or partnership."

EXHIBIT 2 Acquisition and Partnership Options

Company	NeuroWave	SynapseTech	BrainStim
Market Share	15%	12%	9%
Annual Revenue	$1.2B	$966M	$724M
R&D Expenditures	$120M annually (10% of revenue)	$145M annually (15% of revenue)	$72.4M annually (10% of revenue)
Number of Patents	150 active patents	120 active patents	100 active patents
Employees	5,000 total	4,000 total	3,500 total
R&D Staff	1,000	800	700
Recent Innovations	• Next-generation neurostimulator with closed-loop feedback systems • AI-driven algorithms for adaptive neurostimulation therapy	• Minimally invasive neurostimulator with extended battery life • Wearable neurostimulation devices for chronic pain management	• Compact, high-efficiency neurostimulator for epilepsy treatment • Research in brain-computer interfaces for advanced neurostimulation
Profit Margin	18%	20%	22%
Debt-to-Equity Ratio	0.25	0.3	0.2
Geographical Presence	Strong in North America and Europe, expanding in Asia-Pacific	Strong global distribution network, leading in Europe and North America	Strong presence in North America, significant market share in Europe

MedTech Solutions:

- Annual R&D Budget: $150M
- R&D Staff: 300 scientists & engineers

- Annual Revenue: $1.2B; Profit Margin: 20%; Cash reserves: $200M; Debt-to-Equity Ratio: 0.3
- Key strengths: Proven track record in developing cutting-edge medical devices; collaboration with top research institutions and universities; continuous investment in emerging technologies such as AI and machine learning for medical applications

EXHIBIT 2 - Guidance

Product Packages Sold 2024

Prompt: MedTech Solutions has evaluated 3 prospects for an acquisition or partnership. Based on the exhibit given, which do you think is the best option?

Notes:

- Provide Exhibit 2 to the interviewee and allow them to digest.
- The interviewee should analyze and then determine from the table below which company would be best for acquisition or partnership. While there are some quantitative parameters, this evaluation should mostly be qualitative
- Best target: SynapseTech, meets the financial objectives of capturing over 10% of the market, over $800M in revenue, and 20% profit margins (given in prompt)
  - Balanced strengths: SynapseTech offers a strong blend of innovation, financial health, and strategic alignment with MedTech Solution's objectives
  - High R&D Investment: Their significant focus on R&D ensures a continuous pipeline of innovative products
  - Global Reach: Established distribution networks facilitate market expansion
  - By acquiring SynapseTech, MedTech Solutions can leverage advanced neurostimulation technologies, strengthen their market position, and achieve long-term growth objectives in the neurostimulation market

Metric	NeuroWave	SynapseTech	BrainStim
Strengths	Largest market share, significant R&D investment, strong patent portfolio	High R&D expenditure relative to revenue, leading in minimally invasive and wearable neurostimulation devices	High profit margin, significant research in brain-computer interfaces
Financial Health	Healthy profit margin and low debt	Strong profit margin and moderate debt	Lowest debt-to-equity ratio, indicating strong financial stability
Strategic Fit	Advanced AI-driven neurostimulation solutions align with MedTech Solutions' technological focus	Innovation in wearable devices and chronic pain management complements MedTech Solution's goals	·Focus on epilepsy treatment and advanced neurostimulation technologies
Consideration	Higher acquisition cost due to size and market position	Balanced cost and strategic benefits, strong global distribution network	Lower acquisition cost, but smaller market share compared to competitors

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BRAINSTORMING

Question: After analyzing the competitive landscape, MedTech Solutions is eager to know whether they should consider an acquisition or partnership. What are the benefits and challenges of each approach?

Option	Benefits	Challenges
Acquisition	• **Full Control:** MedTech Solutions fully controls strategic direction, R&D priorities, and resource allocation. • **Intellectual Property:** Full ownership of patents, technologies, and innovations, enhancing competitive advantage. • **Market Share & Brand:** Immediate market presence, customer base expansion, and access to established brand.	• **High Cost:** Significant financial investment and integration costs. • **Integration Risks:** Challenges with cultural fit, management styles, and potential operational disruptions.
Partnership	• **Lower Financial Risk:** Reduced upfront costs; shared R&D, marketing, and distribution expenses. • **Flexibility:** Easier to modify or dissolve agreements with lower risk exposure. • **Access to Expertise:** Leverages partner's tech expertise, market presence, and collaborative innovation.	• **Limited Control:** Possible misalignment of strategic goals and limited influence over decisions. • **Intellectual Property Risks:** Complexities in IP ownership and the risk of the partner becoming a competitor. • **Dependency:** Reliance on partner's performance and difficulties in separation if the partnership ends.

Moving Forward: Once the interviewee has explored benefits and challenges of each approach, move on to final recommendation

CONCLUSION

⟵ Back to Case List

Prompt: The Senior Director of the Strategy team at MedTech Solutions just called to hear your thoughts. Please take a few seconds to prepare your recommendation.

Recommendation:

- The interviewee should answer succinctly with supporting points for whichever approach they choose. This section should be no longer than a minute.
- The correct answer is to approach a **partnership with SynapseTech**
  - Cost Efficiency: A partnership involves lower upfront costs and financial risk compared to an acquisition. MedTech Solutions can allocate resources more flexibly
  - Complementary Strengths: SynapseTech's innovation in wearable and minimally invasive devices complements MedTech Solution's technological expertise
  - Shared Innovation: Collaborative development can lead to innovative solutions while mitigating risks associated with full ownership and integration
  - Market Expansion: Leverage SynapseTech's established global distribution network to penetrate new markets more effectively
- An argument can be made for an acquisition, but SynapseTech must still be the target

Risks

- Regulatory Approvals and Compliance: The acquisition may face challenges in obtaining regulatory approvals, particularly in markets like the U.S. and Europe, where strict regulations govern medical device mergers and acquisitions. Delays or denials from regulatory bodies could impact the acquisition timeline and overall success.
- Acquisition Cost and Debt Load: The financial burden of acquiring SynapseTech, including the purchase price and potential debt, could strain MedTech Solutions' financial resources. If the expected synergies and revenue growth do not materialize as planned, this could negatively impact the company's financial stability.

Next Steps

- Financial, Operational, and Legal Review: Conduct a thorough due diligence process to assess SynapseTech's financial health, operational capabilities, and any potential legal or regulatory risks. This will help ensure that MedTech Solutions fully understands the risks and opportunities associated with the acquisition.
- Proactive Regulatory Planning: Develop a regulatory strategy that involves early engagement with regulatory bodies to understand potential concerns and requirements. This approach will help mitigate risks associated with obtaining necessary approvals and ensure compliance with all relevant regulations post-acquisition.

Sheep Happens

Profitability Analysis | Non-Profit

RICE | BUSINESS

SHEEP HAPPENS Profitability Analysis | Non-Profit

Case Prompt

The Harris County Rodeo (HCR), a hallmark event in Texas and one of the largest rodeos in the world, draws massive crowds each year and is a major source of funding for scholarships and community programs. Run primarily by volunteers, HCR is renowned for its substantial charitable contributions, especially through its Junior Livestock Auctions–the Show's most significant fundraising activity. Despite the event's continued popularity and success, the profitability of the Junior Livestock Auction segment has consistently failed to meet the Show's annual targets for the past four years. As a consultant, HCR has engaged you to identify the causes of this profitability gap and to develop strategies to address it. What steps would you take to evaluate this situation, and what solutions might you propose?

Clarifying Information (only provide if asked)

- *Business Model:* HCR enlists volunteers to fundraise money throughout the year (leading up to the Livestock Auctions in March) and to make sure buyers are present at the auctions to bid.
  - *Junior Livestock Auctions:* The livestock auction committees are separated into 4 categories: Cattle, Pig, Sheep & Goat, and Chicken, with about 250 volunteers in each. Volunteers on each committee fundraise a minimum amount depending on which committee they are on, and donors receive incentives depending on how much they contribute. The money fundraised, after expenses, is split between the junior exhibitors that participate in the show and the HCR General Education fund.
  - *Incentives:* Includes various benefits like meat packages, personalized blankets and belt buckles, tent passes for the HCR Chili Cook-Off, invitations to the Junior Livestock Auctions committee gala
- *Timeline:* As soon as possible
- *Geography:* The Harris County Rodeo operates out of Harris County, Texas and attracts visitors from all over the world.
- *Financial Objectives:* Each auction committee should have a 65% profit margin, pre-scholarship payout. The higher the profit margin, the more funds can be distributed back to the kids as scholarships

FRAMEWORK

Case Type: Interviewee should immediately recognize that this is a Profitability case
Framework: Interviewee should be pushing to look into the following areas

**Exceptional interviewees will also consider solutions/initiatives*

Revenues	Costs	Profit Margins
• **Auction Revenues:** Evaluate revenue streams from different livestock auctions (Cattle, Pig, Sheep & Goat, Chicken). Analyze trends, year-over-year changes, and compare against targets • **Donor Contributions:** Examine the size and frequency of donations, the effectiveness of fundraising efforts, and donor retention rates. Consider the impact of incentives on donations • **Enhancement of Revenue Channels*:** Explore new fundraising activities, enhance marketing strategies to increase donor engagement, and optimize auction dynamics to maximize bidding	• **Fixed:** Review costs that do not change with the level of activity within the rodeo, such as salaries for permanent staff (if any), rentals for venues, or yearly licensing fees • **Variable:** Analyze costs that vary with the rodeo's activity levels, including costs of hosting auctions, variable part of logistics, food, and materials directly related to the number of attendees or scale of auctions, donor incentives, volunteer incentives, and scholarships awarded • **Cost Rationalization*:** Develop strategies to reduce both fixed and variable costs. This might include negotiating better rates with suppliers, reducing waste, and optimizing volunteer efforts to lower unnecessary expenses	• **By Committee:** Break down profit margins by each auction committee to pinpoint areas where profitability targets are not being met • **Expense Management:** Identify inefficiencies in spending or areas where cost reductions could be implemented without compromising the quality of the events or the mission of HCR • **Incentive Alignment*:** Assess and potentially redesign donor incentives to ensure they are cost-effective and truly motivating for donors, helping to increase contributions while managing costs

Moving forward: The interviewee should want to explore potential solutions and ask for revenue/cost financials per committee, as well as over the past 4 years (4 years given in prompt).

EXHIBIT 1 Revenues and Costs per Committee (in Millions)

Committee (2024)	Cattle	Pig	Sheep & Goat	Chicken
Revenues	$8.00			
Costs	$2.80			
Profits				
65% Profit Margin				

EXHIBIT 1 - Guidance

Revenues and Costs per Committee (in Millions)

Prompt: We have some information on the revenues and costs for each fundraising committee to fill out the table in exhibit 1. The 2024 costs and revenues for Cattle are given. The 2024 revenues for Pig, Sheep & Goat, and Chicken are 80%, 50%, and 40% of Cattle revenues, respectively. The costs for Pig, Sheep & Goat, and Chicken are 75%, 60%, and 40% of Cattle costs, respectively. With this information, please determine which committee did not meet their financial objectives in 2024.

Notes:

- Provide Exhibit 1 to the interviewee and allow them to quickly digest.
- The interviewee should see that they need to calculate the revenues, costs, actual profits, and what a 65% profit margin would be.
- The interviewee should fill out the table and verbally talk through their mental math. The last row is where they should calculate what the value of a 65% profit margin would be (65% * Revenue) to determine if each committee is meeting the 65% minimum.
    - A good candidate can deduce Sheep & Goat as the probable committee that needs attention before doing calculations, as the cost percentage given (60%) is greater than the revenue percentage (50%) relative to the Cattle committee

EXHIBIT 1 - Guidance (cont.)

Revenues and Costs per Committee (in Millions)

Committee (2024)	Cattle	Pig	Sheep & Goat	Chicken
Revenues	$8.00	$6.40	$4.00	$3.20
% of Cattle		80%	50%	40%
Costs	$2.80	$2.10	$1.68	$1.12
% of Cattle		75%	60%	40%
Profits	$5.20	$4.30	$2.32	$2.08
65% Profit Margin	$5.20	$4.16	$2.60	$2.08

Revenues	Pig = 80% of Cattle = $8M – (2 * 10% * $8M) = $8M – (2 * $0.8M) = $8M - $1.6M = $6.4M	S&G = 50% of Cattle = $8M / 2 = $4M	Chicken = 40% of Cattle = 50% of Pig = $6.4M / 2 = $3.2M
Costs	Pig = 75% of Cattle = $2.8M * 3/4 = ($2.8M / 4) * 3 = $0.7M * 3 = $2.1M	S&G = 60% of Cattle = 50% * $2.8M + 10% * $2.8M = $1.4M + $0.28M = $1.68M	Chicken = 40% of Cattle = 50% * $2.8M – 10% * $2.8M = $1.4M – $0.28M = $1.12M

Profits = Revenue – Costs

65% Margin amount = 65% * Revenue = (50% * Rev) + (10% * Rev) + (5% * Rev)

Cattle = (50% +10%+5%) * $8M = $4M + $0.8M + $0.4M = $5.2M	Pig = (50%+10% +5%) * $6.4M = $3.2M + $0.64M + $0.32M = $4.16M	Sheep & Goat = ½ of Cattle = $2.6M OR (50%+10%+5%) * $4M = $2M + $0.4M + $0.2M = $2.6M	Chicken = ½ of Pig = $2.08M OR (50%+10%+5%) * $3.2M = $1.6M + $0.32M + $0.16M = $2.08M

Moving forward: The interviewee should identify Sheep & Goat as the one committee that is not meeting the 65% margin and ask for more information – move to exhibit 2

EXHIBIT 2 Sheep & Goat Committee's 4-year Total Financials ('000s)

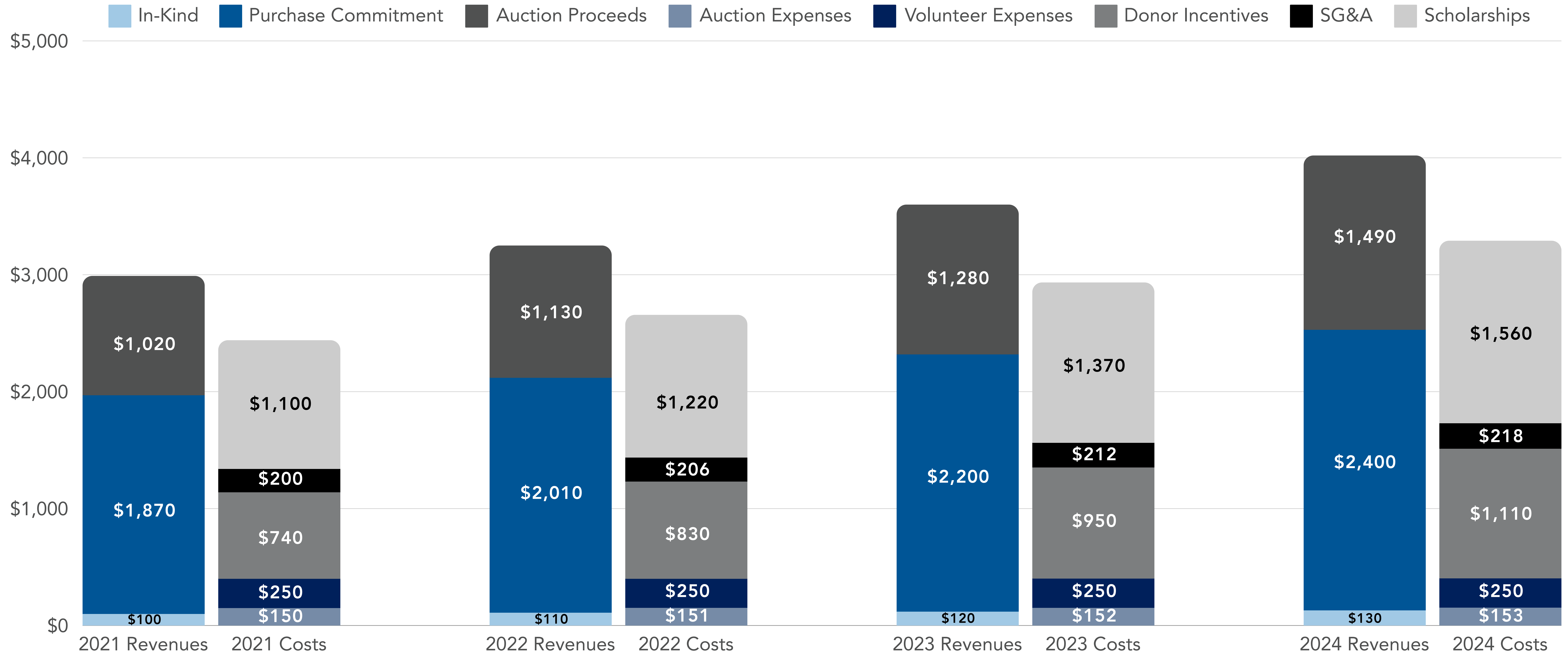

EXHIBIT 2 - Guidance

Sheep & Goat Committee's 4-year Total Financials ('000s)

Prompt: Great. Let's take a look into the breakdown of revenues and costs for the Sheep & Goat Committee.

Notes:

- Provide Exhibit 2 to the interviewee and allow them to digest.
- The scholarship amount is included as an expense in the exhibit, but is not to be calculated in the 65% profit margin (as given in the clarifying questions about HCR financial objectives)
- **Candidate should see that both Revenues and Costs are increasing each year but should conclude that Donor Incentives is the largest cost that should be investigated next (Exhibit 3).**
- The costs of Donor Incentives are increasing at a slightly higher rate than Revenues and Profits (pre-scholarship expense). Time-permitting, ask the candidate to calculate the 3-year growth of Total Revenues and Donor Incentives from 2021-2024
  - 3-year Total Revenue growth: ($4M-$3M)/$3M = $1M/$3M = 33%
  - 3-year Donor Incentive Cost growth: ($1.11M-$0.74M)/$0.74M = $0.37M/$0.74M = 50%
- **Before moving to Exhibit 3, we need to calculate how much extra HCR needs in Profits for 2025.** Ask the candidate to project 2025 Total Profit, the required 65% profit margin (pre-scholarship payout), and the difference between projected vs. required profits
  - 2025 Profit
    - **Revenues:** give candidate an estimated 10% overall growth for simplicity; $4M * 110% = **$4.4M**
    - **Expenses:** most of the increases can be deduced by the exhibit. For donor incentives specifically, give candidate an estimated 10% growth for simplicity
      - Auction expenses increase each year by $1K = $154K
      - Volunteer expenses remain the same each year = $250K
      - SG&A increases each year by $6k = $224K
      - Donor incentives increases 10% = $1.11M * 110% = $1.221M
      - Total expenses = $1.221M + $154K + $250K + $224K = **$1.849M (Round to $1.85M)**
    - **Profit (pre-scholarship payout):** $4.4M - $1.85M = **$2.55M**
  - **2025 required 65% profit margin:**
    - $4.4M * 65% = $4.4M * (50% + 10% + 5%) = $2.2M + $0.44M + $0.22M = $2.86M
    - Difference: $2.86M - $2.55M = **$310K**

Moving forward: Once the candidate calculates the required increase in profits as $310K, move to exhibit 3 for information about donor incentives.

EXHIBIT 3 Breakdown of Donor Incentives by Donation Level

Donor Contribution	Incentive	Number of Donors	Average Cost per Donor
$500+	1 Lamb Meat Package (FMV $365) or 1 Goat Meat Package (FMV $220) for every $500 donated	3,000	**$293**
$1,000+	Personalized HCR Sheep & Goat Auction Blanket (FMV $75)	700	**$660**
$1,500+	Personalized HCR Sheep & Goat Belt Auction Buckle (FMV $100)	575	**$1,253**
$2,000+	2 Passes to Sheep & Goat Auction's World-Championship Chili Cook-off Tent (FMV $200)	400	**$1,545**
$2,500+	Invitation for 2 to the Sheep & Goat Auction Gala (FMV $250)	324	**$2,088**

FMV: Fair Market Value (cost of incentive)

EXHIBIT 3 - Guidance

Breakdown of Donor Incentives by Donation Level

Prompt: We sent the Chairman of the Sheep & Goat Committee an email requesting more information about their donor incentives. She just responded, see the exhibit she attached below.

Notes:

- Provide Exhibit 3 to interviewee and allow them to digest. A brainstorming question will follow.
- Interviewer guidance: The average cost per donor calculation is accumulated ($1k+ cost per donor of $660 includes meat packages and blanket costs)
- Key observations:
  - Both the lamb and goat meat packages are given to donors at the $500 level, but the lamb has a higher FMV
  - The meat packages are given for every $500 donated. This may be excessive for higher-level donors
  - The cost per donor is over 50% of each tier's donation (specifically 59%, 66%, 84%, 77%, 84% respectively – not required to calculate)

Moving forward: This exhibit is to mainly give the candidate an understanding of what incentives are offered, which will help them navigate the brainstorm and Exhibit 4. Move on to the brainstorm.

BRAINSTORMING

Question: Based on your observations from the exhibit, in what ways can HCR increase profits?

Increase Revenues	Cut Costs
• Increase minimum donation for lamb package due to higher FMV • Increase minimum donation for all packages for higher return per incentive • Create tiered incentive packages that encourage higher contributions by adding exclusive experiences or limited edition items for higher donation levels	• Order packages based on previous percentage of the number of ordered vs. claimed packages • Limit the number of packages per donor, despite donation amount • Offer the donors an option to opt-out of physical incentives in favor of a donation acknowledgement • Review and negotiate vendor contracts • Conduct a detailed cost-benefit analysis of each incentive to determine their ROI in terms of donor engagement and additional funds raised. Discontinue or redesign incentives that do not justify their costs. • Increase the involvement of volunteers in managing and running incentive-related events, reducing the need for paid staff or external service providers.

EXHIBIT 4 Possible implementations to reach financial goals

1

Increase the minimum donation of a lamb package from $500 to $750

Donor Satisfaction rating	75%
Cost decrease	$0.00
Revenue increase	$500,000

2

Cap the number of meat packages a donor can receive at 4 total, regardless of donation amount

Donor Satisfaction rating	90%
Cost decrease	$94,770
Revenue increase	$0.00

3

3. Order incentives based on history of number claimed. Not all meat packages for donors that are ordered by HCR are claimed by the donors, leaving many wasted packages

Donor Satisfaction rating	80%
Cost decrease	$318,750
Revenue increase	$0.00

4

4. Limit meat packages to 3 maximum and raising minimum donations for every incentive level such that each donor receives less than 50% of their donation back in incentives

Donor Satisfaction rating	25%
Cost decrease	$306,540
Revenue increase	$1,787,000.00

EXHIBIT 4 - Guidance

Possible implementations to reach financial goals

Prompt: The Chairman of the Sheep & Goat Committee shared 4 initiatives they have considered to help their committee reach profitability goals. In your opinion, which option or combination of options is the best?

Notes:

- Provide Exhibit 4 to interviewee and allow them to digest
- Donor satisfaction is based on the upset of the change and how likely donors will return after the change is made
- The cost decreases and revenue increases are calculated without the loss in donors for the following year
- In order to meet the $310K goal, the candidate may justify the following:
  - Option 1 – the revenue increase will be over $310k even with 75% donor retention ($500K * 75% = $375K). The candidate should be able to calculate this and think about the ease of implementation; raising the price of the lamb package takes little effort
- Evaluating the other options:
  - Option 2 – the cost decrease does not meet $310K. The ease of implementation will be a little higher than Option 1
  - Option 3 – the cost decrease, after the 80% retention, does not meet the $310K. The ease of implementation will be a little higher than Option 1. This could result in under-ordering packages, leaving many donors upset without a meat package
  - Option 4 – the cost decreases and revenue increases do meet the $310K requirement (~$2M * 25% = ~$500K), but it is very unwise to lose such a large pool of donors

Moving forward: Once the candidate is firm upon one option as his or her answer, move forward to the final recommendation.

CONCLUSION

⟵ Back to Case List

Prompt: The CEO of HCR is interested to hear your recommendation of how to reach their goals for the livestock auctions this 2025 season.

Recommendation:

- The candidate should answer with supporting points. The ultimate correct answer is Option 1 – increasing the minimum donation of a lamb package

Risks

- Discuss the donor satisfaction rating that causes a loss of donors, projections could be wrong which could backfire on the profit margin objective
- Less meat package orders could affect relationships with meat vendors who do the sourcing and packaging

Next Steps

- Set up a meeting with the Sheep & Goat Committee leadership to discuss price change implementation and mitigating the risk of losing donors; comprehensive due diligence