

Ross Casebook 2024



CONSULTING CLUB AT ROSS

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Welcome to the Ross 2024 Casebook!

Dear CC@R Member,

Welcome to the Ross 2024 Casebook. This book focuses on the case-interview portion of the consulting interview and is to be used in conjunction with other case-oriented club training materials.

The elements tested in a case interview are core to firms' hiring decisions. These cases, or mini-business problems, are a glimpse into a consultant's life as they are frequently taken from real client experiences. Given practice and experience, cases become a natural way of thinking about how you would structure approaches and solutions to nearly any type of problem. Along the way, we hope you will find you enjoy solving problems in this manner and would enjoy performing this type of work for a living.

In order to facilitate your preparation, your fellow club members have created the following cases with customized frameworks and solution elements. These cases act as a strong reference point for what to expect during a consulting interview but are in no way all encompassing. Since each case comes down to a conversation between the interviewer and the candidate, it is very plausible that one candidate could receive the same case from two different interviewers and have two very different conversations about the business problem. In fact, we encourage this.

Finally, you may have noticed that you are reading this compilation in landscape format. This is intentional. Consultants think in terms of PowerPoint slides much more often than essay-style documents. They also constantly work to devise the most succinct way to illustrate and frame-out a problem, necessary action steps, and a solution.

Good luck, and remember your fellow club members are here to help!

2024-2025 Board
Consulting Club at Ross (CC@R)

How to Use the Ross 2024 Casebook

Case Structure

How to Case

Understand the Question (~1-2 minutes)

- **LISTEN**
- Summarize the problem statement to make sure you understand the situation and objectives
- Ask ~3-4 clarifying questions around the topic and/or metrics to be used for the analysis
- The questions posed should necessitate a short response

Develop Framework (~1-2 minutes)

- Ask for a moment to plan your structure
- Develop ~3-4 areas to analyze along with a few tailored sub-topics
- Structure the framework in a logical fashion – it should open with the most important topic and provide the interviewer with a roadmap of where you plan to take the case

Exhibits, Analysis, Brainstorming (~25 minutes)

- Refer back to the framework as you move through each of the main areas
- Tie back each piece of analysis to the main objective or problem statement
- Walk through the calculations /analysis, driving insights
- Answer brainstorming questions using structure
- Keep your notes on the page organized throughout the case!

Form Recommendation (~1-2 minutes)

- State your recommendation as a direct response to the problem/objective – it should not come as a surprise to the interviewer
- Incorporate key metrics/ findings as a part of your recommendation
- Include risks and next steps

Administering Cases

Great case experiences are not solely determined by strong candidates formulating frameworks and solving math. The interviewer's interaction with the candidate and ability to convey information will very easily change the style of a case. Given the interviewer's position of power in the discussion, there are several things to keep in mind prior to, during, and after a case interview.

Preparing for Interview

- Read the case over 2-3 times
- Familiarize yourself with the relevant numbers and details
- Prepare for how you will address irrelevant questions or requests for data you do not have

During Interview

- Track time (about 25 minutes is average)
 - balance finishing case and letting candidate struggle
- Candidates can often think of very different approaches to cases. Before discounting questions as wrong, ask the candidate for their thinking... if it makes sense, go with it
- Consider what a consultant would be looking for in the candidate
 - Presentation: can I put this person in front of a client?
 - Aptitude: can this person do the work?
 - Interest: does this person like what they are doing?

After Interview

- Provide feedback
 - This is possibly the most critical step of the case interview process
- Honestly let the candidate know strengths, but more importantly areas for improvement
- Without honest feedback and constructive criticism, it is very difficult to improve

Key Formulas

| Topic | Formula |
|--------------------------------|---|
| NPV or Valuing Money Over Time | $\text{Value to Perpetuity} = \frac{\text{Value of Asset}}{\text{Discount Rate}}$ $\text{NPV} = \sum_{t=0}^n \frac{\text{Annual Cash Flow}}{(1+r)^t}$ |
| Rule of 72 | $\text{Time for Invested Principle} = \frac{72}{r}$ <p>$r = \text{Rate of Return (\%)}$</p> |
| Little's Law | $\text{Inventory} = \text{Throughput} \times \text{Flow Time}$ |
| Inventory | $\text{Inventory Turns} = \frac{\text{COGS}}{\text{Average Inventory}}$ $\text{Days of Inventory} = \text{Inventory Turns} * 365$ |
| Profitability | $\pi = Q (P-VC) - FC$ |
| Breakeven | $\text{Breakeven} = \text{Investment Price} - \text{Cost}$ |
| Margin | $\text{Gross Margin} = \frac{\text{Revenue} - \text{Cost}}{\text{Revenue}}$ $\text{Net Margin} = \frac{\text{Net Income}}{\text{Sales Margin}}$ |
| Markup | $\text{Markup} = \frac{\text{Price} - \text{Cost}}{\text{Cost}}$ |

| Topic | Formula |
|---|--|
| Return on Assets (ROA) | $\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}}$ |
| Return on Equity (ROE) DuPont Analysis | $\text{ROE} = \frac{\text{Net Income}}{\text{Total Shareholders' Equity}}$ $\text{ROE} = \frac{\text{Net Profit}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}}$ <p>ROE = Operating Efficiency * Asset Utilization * Leverage</p> |
| Working Capital | $\text{ROI} = \frac{\pi}{K}$ <p>K = Capital Invested (Assets, Working Capital, etc.) Working Capital = Assets - Liability</p> |
| Income Statement | <p>Sales – COGS = Gross Profit -SG&A = EBITDA -Depreciation/Amortization = Operating Profit -Interest Expense = EBIT -Tax Expense = Net Income</p> |

Industry Overview

*Note: Please know that this industry reviews do not consider any impacts of COVID-19. Since case interviews are supposed to resemble real world conversations, we would recommend taking the pandemic into account and acknowledging how it may impact these industries.

Airlines

Key Ideas

- Consolidation in industry
- Low cost carriers and fare competition on competitive routes
- Online booking and check-in
- Expansion of domestic and international routes
- Capacity optimization (Load Factor)

Revenue Streams

- Ticket sales to economy and business passengers
- Charges for baggage and on-board services (up-selling)
- Cargo transportation
- In-flight purchases
- Credit cards and loyalty programs

Cost Drivers

- Aircraft purchases/leases
- Fuel
- Labor (often unionized)
- Marketing
- Aircraft maintenance
- Takeoff/landing fees
- Insurance/legal fees

Customer Segments

- Leisure travelers – (generally price sensitive)
- Business travelers – (very important to airlines due to margins and services purchased)
- Freight/Cargo transportation

Channels

- Internet - online travel sites, airline websites
- Airline sales team: call centers, online, or kiosk
- Travel management companies (TMCs) serving corporate clients, travel agents

Risk

- Changes in fuel prices have a major impact on profitability
- Macro-economic conditions greatly impact amount of leisure travelers
- Intensely competitive market with narrow margins; many airlines partly government subsidized

Key Economic Drivers

- World price of crude oil
- Trips by US residents
- Optimization of capacity
- Per capita disposable income

Key Companies

- Delta Airlines
- American Airlines
- United Airlines
- Southwest Airlines
- Emirates
- Air France
- KLM
- British Airways
- RyanAir
- AeroMexico
- Singapore Airlines

Automotive/Manufacturing

Key Ideas

- Automakers, Original Equipment Manufacturers (OEMs), replacement parts production, rubber fabrication
- Highly capital and labor intensive
- Extensive competition due to foreign automakers
- Unions

Revenue Streams

- New car sales
- Auto part sales
- Services offered with vehicle purchase
- Financing
- Extended warranties
- Leasing

Cost Drivers

- Labor
- Materials
- Advertising
- Financing costs
- Recall costs

Customer Segments

- Cars, vans, pickup trucks and SUVs
- Personal car buyers
- Rental car companies
- Commercial purchasers
- Government purchasers

Channels

- Automobile dealers
- Secondary automobile market
- Automotive parts/services outlets

Risk

- Globalization of the industry enables more ease of foreign competition
- Extensive competition impact on already low margins
- Changes in consumer trends and tastes

Key Economic Drivers

- GDP growth
- Income growth/disposable income
- Price of crude
- Steel prices
- Consumer confidence index
- Yield on Treasury note

Key Companies

- Ford
- General Motors
- Toyota
- Honda
- Tesla
- General Electric
- Boeing
- Airbus
- Embraer
- Lockheed Martin
- Siemens
- Honeywell

Commercial Banking

Key Ideas

- Consolidation/acquisitions
- Increased mobile banking
- Channel innovation in digital & physical channels
- Customer attrition rate
- Offshoring of call centers, back office functions
- Digitization of processes
- Cross-selling

Revenue Streams

- Loan interest
- Loan types
 - Real estate
 - Education
 - Auto
 - Personal
- Service fees
- Spread between interest rate charged & Fed rates
- Credit cards

Cost Drivers

- Wages
- Bad debt expense
- Interest rates on deposits
- Branch and compliance costs
- Overhead costs - paper fee; error rate costs for manual processing

Customer Segments

- Wealth: deposit balances, income
- By lifestyle: buying behavior
- Size: small businesses and consumers
- Age: under 35 adapt to technology better

Channels

- Savings and loan
- Credit union
- Traditional checking
- Online banking
- Microfinance

Risk

- Change in savings behavior
- Loan default, interest rates and federal funds rates

Key Economic Drivers

- Consumer confidence
- Household debt
- Employment statistics
- Urbanization
- Home and car buys
- Disposable income
- Interest rate
- Government regulation

Key Companies

- Wells Fargo
- Citicorp
- US Bank
- HSBC
- Bank of America
- JP Morgan Chase
- Barclays
- Deutsche Bank
- Credit Suisse
- Morgan Stanley

Health Care

Key Ideas

- Affordable Care Act
- Highly fragmented: top 50 organizations account for 15% revenues
- Employers pushing health care costs onto employees
- Aging Baby Boomer population driving increased revenues

Revenue Streams

- Hospital care
- Physician and clinical services
- Prescription drugs
- Nursing
- Dental services
- Research, equipment, investment

Cost Drivers

- Dependent on segment
- Significant costs related to new technology implementation
- Often inefficient organizational structures

Customer Segments

- Patients/consumers
- All generations and segments of the population require different products/services

Channels

- Hospitals
- Doctors offices
- Nursing homes
- Outpatient surgery centers
- Pharmacies
- Medical equipment

Risk

- New legislation (impact of Affordable Care Act still uncertain)
- Funding availability

Key Economic Drivers

- Regulation for health & medical insurance
- Federal funding for Medicare and Medicaid
- Aging population
- Advances in medical care and technology

Key Companies

- HCA Healthcare
- Ascension Health
- Trinity Health
- CommonSpirit Health
- Advent Health
- Dignity Health

IT/Infrastructure

Key Ideas

- Cloud based platforms vs on-premise infrastructure
- User centric IT solutions – IT depts want to enhance usage and productivity
- Open platforms / integrating and partnering with other providers

Revenue Streams

- Hardware sales
- Maintenance contracts
- Implementation consulting services
- SaaS

Cost Drivers

- Labor
 - R&D/Engineering of products
 - Sales/Marketing teams - huge front-end expense
- Hardware manufacturing

Customer Segments

- Enterprise (SME / Large)
- Consumer
- Third party resellers (SHI, CDW)

Channels

- Direct
- Partnership
- Reseller

Risk

- Startups and new entrants
- Bring your own device initiatives
- Tariffs

Key Economic Drivers

- Cyber security
- Demand for enterprises to go digital
- Mobility
- Data & Analytics

Key Companies

- Microsoft
- HP
- IBM
- Dell-EMC
- SAP
- Oracle

Non-profits

Key Ideas

Intended Impact

- Define success criteria
- Think big picture (e.g., society, people you are working for/with)
- Consider trade-offs
- Depth vs. breadth of reach
 - Quality vs. quantity of program initiative
 - Intended impact should align with strategic goals

Theory of Change

- Define specific actions steps to achieve the intended impact
- Define timelines, initiative priorities and ownership responsibilities

Implementation Feasibility

- Revenue impact (self sustaining model, grants)
- HR costs: creating new roles, hiring new staff, train existing and new staff, modify existing organization structure
- New infrastructure cost – IT systems, office space
- Indirect costs
 - Impact on culture of organization
 - Impact on scale on quality of outcomes

Performance Measures & Reporting Impact

- Measure performance vs. peers
- Set milestones for financial and operational goals
- Monitor and modify plan accordingly
- Consider performance during and after implementation of initiatives

Case Topics

- Growth through existing platforms
- Growth through new partnerships
- Growth driven by policy changes
- Thought sharing to strengthen the industry
- Growth using technology

Oil & Gas

Key Ideas

- Upstream, midstream, downstream
- PV-10
- Cost per gallon
- OPEC
- GDP growth
- Renewable energy
- Fracking

Revenue Streams

- Crude oil
- Gasoline
- Natural gas
- Refining products such as lubricants
- Gas stations: gasoline, food market, car wash

Cost Drivers

- Exploration: seismic studies, drilling rigs and labor
- Production: refining
- Pipelines
- Gas station: oil, labor, insurance, licenses

Customer Segments

- Petroleum refiners
- Electricity generators
- Domestic and commercial users
- Other industries

Channels

- Retail
- Wholesale
- Commercial

Risk

- Access to reserves
- Energy policies
- OPEC decisions
- Political pressures
- Substitutes/renewable energy

Key Economic Drivers

- Government regulation
- International oil production and demand

Key Companies

- Exxon Mobil
- Baker Hughes
- Saudi Aramco
- Gazprom
- Pemex
- Philips 66

Pharmaceutical

Key Ideas

- Affordable Care Act
- Aging population
- Patents and generics
- Research & Development
- Insurance
- FDA
- Market penetration
- Contract vs. in-house salesforce

Revenue Streams

- Insurance payments
- The federal government provides certain grants to subsidize R&D
- Due to significant R&D lead times revenue is highly volatile
- Seasonality is high on certain products (vaccines and cold medicine) and low on other products (pain medicines)

Cost Drivers

- Research & Development
- Manufacturing cost (the largest share of the industry's costs)
- Marketing costs
- Wages
- Liability insurance and legal fees

Customer Segments

- Medical patients
- Prescribing doctors
- Government insurance programs
- Health insurance companies

Channels

- Over-the-counter
- Prescription drugs: hospitals, pharmacies
- Mail order pharmacy: Express Scripts, Walgreens

Risk

- Generic manufacturers pose a major competitive threat following patent expiration
- Tariff barriers are no longer a relevant form of protection
- Unfavorable government healthcare regulations and CMS rates

Key Economic Drivers

- Median age of population
- Research and development expenditure
- Insurance and regulatory landscape
- Patent protection

Key Companies

- Roche
- Pfizer
- Johnson & Johnson
- Merck
- Novartis
- Abbvie

Private Equity & Hedge Funds

Key Ideas

- Components of the revenue charge
 - Invested capital
 - Transaction and advisory fees
 - Carried interest
- Divestitures

Revenue Streams

- Wages and profit-sharing
- Administrative costs (regulatory filings, record keeping, accounting and travel)
- Outsourcing of capital intensive IT functions for algorithmic trading

Cost Drivers

- Value creation: sell under-performing assets, optimize price, diversify customer base, operations efficiency
- Exit: strategic or IPO
- Synergies
- Stability of cash flows (IRR, NPV)
- Targeted returns ~ 40%+
- Un-invested capital vs. invested

Customer Segments

- Pension funds (largest share)
- Private investors (e.g. high net-worth individuals)
- Banks, sovereign funds and life insurance companies

Channels

- Large firms focus on deals ~ \$1.0B; middle market firms cover deals between \$15.0M- \$1.0B
- Average holding period before sale has increased from 3 years to 6 years in the past 15 years
- Borrowing can typically range from 65.0% to 85.0% of the purchase price of the firm

Risk

- New regulation -> compliance costs, Rising competition -> decreasing industry fees
- Competition also exists with sovereign wealth funds and corporate buyers
- Changes in tax structure

Key Economic Drivers

- Investor uncertainty/pension demand
- Access to credit/interest rates
- Regulations
- Exit opportunities
- GDP/investment returns

Key Companies

- Blackstone
- KKR
- CVC Capital Partners
- The Carlyle Group
- EQT
- TPG Capital

Retail

Key Ideas

- Same store sales
- Sales per square foot
- Inventory turnover
- Seasonality/recessions
- Trends

Revenue Streams

- Women's apparel sale
- Drugs & cosmetics
- Furniture & household appliances
- Children's apparel
- Men's apparel
- Toys
- Footwear
- Misc. items

Cost Drivers

- Cost of Goods Sold (74% of costs)
- Transportation
- Wages
- Rent and utilities
- Marketing

Customer Segments

- The industry is consumer-oriented and, due to the spectrum of products, its markets are generally segmented into different incomes, demographics and age groups

Channels

- Department stores/big box retailers
- Discount retailers
- Demographic retailers
- Shopping malls

Risk

- Changes in disposable income
- Demand and supply issues
- Overstock
- Easy entry invites competition

Key Economic Drivers

- Consumer confidence index
- Per capita disposable income
- International export/import
- Gross domestic product/inflation
- Households > \$100,000 income (luxury goods)
- Commodity prices (eg. gold price for jewelry)

Key Companies

- Walmart
- Target
- Costco
- CVS
- Walgreens
- Kroger

Telecommunications

Key Ideas

- Deregulation led to spur of new companies
- Bottlenecks: high capital, scarce operating skills and management experience
- Shift from telephones to internet based services for mobile
- Bundling of services

Revenue Streams

- Voice calls
- Additional lines/family plans
- Text and image communication
- Data subscriptions
- Accessories

Cost Drivers

- Infrastructure
- Wages
- Marketing and advertising

Customer Segments

- Residential and small business (price sensitive)
- Large multinationals (price insensitive)

Channels

- Retail stores - carriers and mass retailers
- Online

Risk

- Rapid development of technology
- High exit barriers
- Systems not reusable across industries

Key Economic Drivers

- Investment in rising technology services
- Number of subscriptions to additional services
- Number of broadband and mobile internet connections

Key Companies

- Verizon
- AT&T
- T-Mobile
- Vodafone
- NTT Corp
- Telefonica SA

Utilities

Key Ideas

- Increase in energy consumption
- High investment costs and regulations
- Industry structure disintegrating into smaller supplier segments
- Seasonality
- Gov. incentives for sustainable initiatives
- Bundling services w/renewable

Revenue Streams

- Transmitted electricity: base load and intermittent electricity
- Base load (95% of industry)
- Coal, natural gas, nuclear, other
- Intermittent: renewable energy

Cost Drivers

- Purchased power accounts (nearly half of total costs)
- Infrastructure
- Wages
- Marketing
- Maintenance contracts

Customer Segments

- Commercial and industrial
- Residential

Channels

- Transmission lines/pipelines
- Upstream electricity generators

Risk

- Clean energy threatens the future of traditional power generation methods
- Seasonal demand leads to uncertain estimates
- Energy efficient appliances decrease consumption

Key Economic Drivers

- Economies of scale
- Industrial production index
- Climate/seasonality

Key Companies

- PG&E
- AES
- Duke Energy
- Exelon
- National Grid
- Nextera Energy

Cases

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Big Ten Bivalves

Agriculture & Chemicals | Growth Strategy
Interviewee Led

Ratings: Quant - 2

Qual - 2

Overall - 2

Prompt

Your client is the CEO of Big Ten Bivalves (BTB), an oyster farm based on the east end of Long Island, New York. The company was founded only a few years ago but has quickly become a premium purveyor to New York City and The Hamptons' top chefs, with their oysters served at elite establishments such as Eleven Madison Park. Known for their sustainable farming practices and high-quality oysters, Big Ten has garnered significant demand. Their proximity to New York City means that their oysters are always fresh when they arrive to restaurants. However, as Big Ten's oysters have gained popularity, the company has struggled to keep up with demand and growth has stagnated.

Big Ten Bivalves has hired you to analyze the current market dynamics, the company's operational strengths and weaknesses, and potential strategic options. Your goal is to recommend a robust growth strategy that will enable Big Ten to scale effectively and meet their increasing demand while maintaining its reputation for quality and sustainability.

Clarifying Information

Last year, Big Ten had \$10 million in revenue. Their goal is to scale to \$5 million/year in five years' time.

- Big Ten has three main customer segments: Restaurants, Private Events, and Direct-to-Consumer Sales. Their customers are all located within New York City and Long Island (within 80 miles of the farm). Big Ten believes there is sufficient market demand to absorb their 5 million oysters/year.
- Big Ten Bivalves buys oyster “seed”, which are baby oysters about the size of a dime, from a hatchery each spring. There are a limited number of hatchery suppliers and pricing is competitive. Big Ten Bivalves then cultivates these oysters over the course of 12 months until they are about 3” in size and are ready to be sold to customers. Oysters grow in metal cages which sit at the bottom of the bay. About 2/3 of oysters survive from seed to market size. Big Ten Bivalves distributes all of its own oysters directly to clients.
- Big Ten Bivalves competes with other oyster farms around the country who distribute to NYC. Most of these farms are small mom-and-pop farmers who sell around 100k oysters per year, but there are 3 farms who are large players with established national brands and distribution.
- Big Ten Bivalves has considered branching out into other species, like clams or kelp, but for now is solely focused on scaling its oyster business.

Potential Framework

Raw materials (increase amount of seed)

- Expand supplier network
- Pay a price premium to gain access to more supply
- Vertical Integration
 - Build a hatchery
 - Buy a hatchery (M&A)

Work in progress (increase yield on seed)

- Increase survival rate / decrease mortality
- Shorten growing cycle
- Deploy more gear

Finished goods (increase delivery of oysters to customers)

- Distribute on behalf of other farms (white glove)
- Acquire another farm (horizontal integration)
- Increase logistics efficiency (is there a distribution issue?)

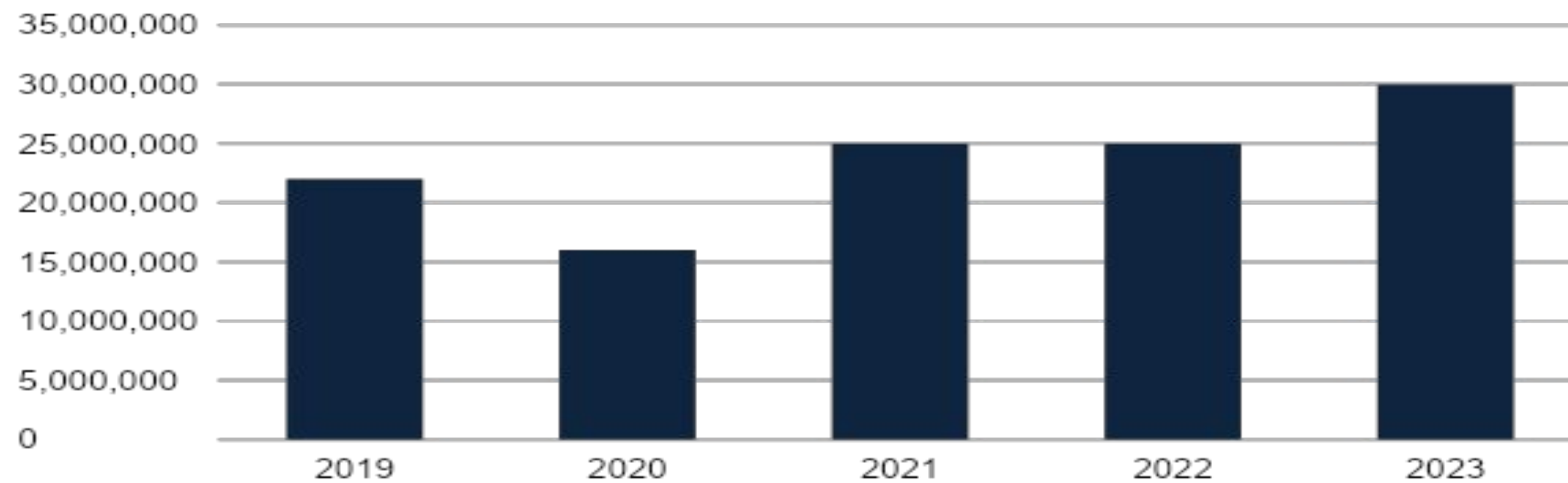
Notes / Advice to Interview / How to Move Forward:

The framework should focus on the supply side of growth: the prompt & clarifying questions should make it clear that demand is strong, but growth has been hindered by a lack of supply. After the candidate has presented their framework, let them request different sources of data until they hit on the idea of vertical integration and then provide them the following info:

“The owner of Big Ten’s seed supplier, Maize Marine Hatchery, is reaching retirement age and recently approached the CEO about buying her out of her business. Based on the following exhibit, evaluate whether this acquisition would enable Big Ten Bivalves to reach its growth goals.”

Exhibit 1

Maize Marine Hatchery
Quantity of seeds sold by year (all species)



Maize Marine Hatchery 2023 Customer Orders

| Customer Name | Seed Quantity |
|------------------|-------------------|
| Alpha Oysters | 8,000,000 |
| Beta Oysters | 5,000,000 |
| Gamma Oysters | 2,000,000 |
| Big Ten Bivalves | 1,875,000 |
| Delta Oysters | 1,250,000 |
| Epsilon Oysters | 1,000,000 |
| Zeta Oysters | 875,000 |
| Eta Oysters | 750,000 |
| Theta Oysters | 600,000 |
| Iota Oysters | 550,000 |
| Lambda Oysters | 500,000 |
| Mu Oysters | 400,000 |
| Nu Oysters | 250,000 |
| Omikron Oysters | 250,000 |
| Pi Oysters | 200,000 |
| Rho Oysters | 200,000 |
| Sigma Oysters | 200,000 |
| Tau Oysters | 100,000 |
| Kappa Clams | 6,000,000 |
| Total | 30,000,000 |

Exhibit 1 Guidance

Information Provided by Interviewer

Show interviewee Exhibit 1. The average price of an oyster sold by Big Ten Bivalves is \$0.80. The average mortality rate of an oyster from seed to market size is 1/3. (i.e. the survival rate is 2/3)

Solution From Interviewee

Yes, based on Maize Marine's 2023 seed sales, acquiring the hatchery would allow Big Ten Bivalves (BTB) to scale its revenue to \$5M/year.

How many oyster seeds does BTB currently purchase?

2023 BTB Revenue = \$1M / \$0.80 per oyster = 1.25M oysters sold (which implies 1.25M / (2/3 survival rate) = 1.875M seeds purchased, also shown in exhibit)

How many oyster seeds will BTB need to purchase to reach its \$5M revenue target?

Goal BTB Revenue = \$5M / \$0.80 per oyster = 6.25M oysters sold (which implies 6.25M / (2/3 survival rate) = 9.375M seeds needed)

- Need to sell (6.25M – 1.25M) = 5M additional oysters/year (which implies need for additional 9.375M – 1.875M = 7.5M seeds per year to reach goal)

Since access to seed is a key constraint on BTB's growth, control over the seed supply via vertical integration is an attractive path for growth. Maize Marine sells 24M oyster seed/year, of which it sells ~2M to BTB. The rest is sold to other farms, which, if vertically integrated, BTB could use to grow its oyster business. A great interviewee might also note:

- BTB would need to consider customer relationships and customer concentration risk if it starts taking a meaningful share of the seed output.
- Although the seed supply becomes available, this data alone doesn't tell us if BTB could actually scale up in 5 years' time to meet their goal.
- Selling seed (both oyster and clam) to third-party farms offers attractive revenue diversification, but also comes with additional operational risk.

Revenue Calculations

What would the combined revenue for both businesses be if Big Ten Bivalves achieves its growth goal through the acquisition?

Information Provided by Interviewer

Assume Maize Marine sells oyster seeds for \$0.02 and clam seeds for \$0.03 each.

Solution From Interviewee

The combined business's revenue would be \$5.4725M (approximately \$5.5M), since the oyster sales revenue would be \$5M (BTB goal revenue) and the seed sales revenue would be \$472,500 (calculation below). This seed sales revenue number accounts for the fact that the hatchery will no longer earn revenue on the seeds it uses internally for BTB (which were previously sold to external customers).

| | 2023 Quantity | Goal Quantity | Unit Price | Revenue |
|-----------------|-------------------|-------------------|------------|-------------------|
| BTB Oysters | 1,875,000 | 9,375,000 | \$ 0.00 | \$ 0 |
| Non-BTB Oysters | 22,125,000 | 14,625,000 | \$ 0.02 | \$ 292,500 |
| Clams | 6,000,000 | 6,000,000 | \$ 0.03 | \$ 180,000 |
| Total | 30,000,000 | 30,000,000 | | \$ 472,500 |

A great interviewee will note that this assumes the hatchery maintains its output levels and does not lose any customers due to the acquisition.

Market Sizing

Finally, as part of the analysis, Big Ten Bivalves wants to better understand the size of the New York City oyster market to determine if they will need to focus their expansion beyond the city. How would you size the NYC restaurant market?

Solution From Interviewee

The actual market size number that the interviewee gets to is less important than their ability to structure and size a very abstract market and the conclusions they draw from this size relative to the client's goals.

Below are two potential approaches to the market sizing exercise:

8 million people in NYC * average of 12 oysters eaten per person per year * \$4 price of oyster in restaurant = \$384 million

or

24,000 restaurants in NYC * 10% of them serve oysters * average 30 dozen oysters sold per night * 360 days per year = \$311 million

In either case, BTB's \$5M in sales/year would represent 1-2% of the market, which is reasonable. Again, the final numbers generated by the candidate are less important than their ability to structure an ambiguous problem with limited data.

Conclusion

Recommendation

Big Ten Bivalves should move forward with the acquisition of its supplier, Maize Marine, to achieve its revenue goal of \$5M/year. With this vertical integration, BTB will gain access to adequate seed supply to fuel its growth, which is its current constraint. The New York City market is plenty big for BTB to become a larger player.

Risks

- The valuation on Maize Marine is too high.
- There could be M&A integration challenges: Does BTB have the expertise to run a hatchery? Can they retain Maize Marine's employees? Will other hatchery customers continue to buy from the new entity?
- Time to goal: while acquiring Maize Marine should provide the access to seed needed to expand 5x, the growth goal is lofty and we haven't yet explored if the timeline is realistic.

Next Steps

- Continue performing due diligence and determine an appropriate valuation for Maize Marine.
- Establish an M&A integration plan.
- Create a detailed financial model to map the 5-year growth plan with the vertical integration.

Maize and Blue Cement

Engineering/Construction | Profitability / Cost Optimization

Interviewee Led

Ratings: Quant - 1

Qual - 2

Overall - 1

Prompt

A cement manufacturer, Maize and Blue Cement (MBC), operates in Country X. Over the last three years, their profitability has stagnated, and MBC is currently under pressure to increase it.

MBC has three main customer segments: private-owned general contractors, government/state-owned general contractors, and retail. The reason for differentiating between private-owned and state-owned general contractors in Country X is that it is generally believed to be necessary to provide special treatment when dealing with government/state-owned companies officially.

The CEO believes that an opportunity lies in their distribution strategy, particularly in transitioning from using third-party service providers to an in-house approach. Should they pursue this change?

Clarifying Information

- Third party service providers handle end-to-end logistics once the product leaves the MBC's distribution center to hardware stores and the sales and relationship with hardware stores is done by the third party
- Revenue per channel: Retail: 10%, Private-owned contractors: 40%, State-owned contractors: 50%
- There is no single industry standard for distribution. One big competitor does the distribution by themselves, whereas another big competitor also uses third party services.
- There is no specific profitability target. Any increase of profitability with reasonable risk is accepted.

Potential Framework

Financial Analysis

Expected change in cost

- Increase in salaries and transportation
- Reduced commission/fees to third party

Projected revenue change

- Potentially higher revenue through better distribution and relationship with customers

Planned capex

- Potential capex for vehicles and sales equipment, etc.

Strategic Value

New opportunities

- Geographic expansion not limited to third party coverage

Advantages in operations

- More flexibility, potential shorter lead times

Improvement in customer experience

- Potentially stronger relationship with customers

Better understanding of customers

Risk

Financial risks

- Lack of scale
- Overestimate revenue / underestimate cost projection

Operational risks

- Long time to develop capabilities
- Unable to get favorable funding for investment

Profitability Calculation

Prompt: How much extra profit from private-owned general contractors segment will MBC get by converting the distribution to inhouse?

Information Provided by Interviewer

MBC wants to focus on the private-owned general contractors at the moment as they believe they have a competitive advantage in this segment in the good relationship of the CEO with the contractors. Their internal analysis indicates that by doing end-to-end distribution process in this segment will impact the financials as follow:

| Financial Impact | |
|--|--|
| <ul style="list-style-type: none">● Increase the segment revenue by 35% as current third party does not focus on this customer segment.● Current commission paid to third party: 10% of segment revenue● Extra cost for internal operations: \$7M.● Current total revenue: \$100M● Current revenue Proportion per Segment: Retail: 10%, Private-owned contractors: 40%, State-owned contractors: 50% | <p>Important note if prompted by candidate: Currently third-party service provider handle all distribution process for all segments</p> |

Solution From Interviewee

Additional profit = Revenue Increase – Additional Cost = $(35\% * 40\% * \$100M) - [\$7M - (10\% * 40\% * \$100M)] = \$11M$

Brainstorming Question

Prompt: What would be major risks in continuing with the plan?

Note for Interviewer

Good interviewee should notice that the dependency to the current third party service provider is very high, therefore the current third party service provider has high bargaining position that taking away some of their business may risk in their services in other segments.

Solution From Interviewee

As third party service provider may not be happy with the new distribution strategy, it will risk MBC's business in the other 2 segments, especially the State-owned contractors segment which is bigger and require very good customer relationship that currently being managed by the third party

Revenue increase may be lower than expected and/or cost increase may be higher than expected

MBC may not be able to execute the operational distribution channel smoothly which may bring disruption to the private-owned contractor segment

Strategic Analysis

Prompt: Assess the feasibility of the new plan.

Information Provided by Interviewer

MBC CEO is afraid taking some of the current third-party service provider revenue will make them turn away to work together with other competitor that will result in lower revenue of the state-owned contractors segment by 50%. After consulting with internal experts, it is believed that the most optimal distribution model for this segment is to do sales and customer relationship inhouse, while keeping the physical logistics operation handled by third party. According to initial analysis, the new model will impact the financials as follow:

Financial Impact

- Increase of the segment revenue remains at 35%
- New commission paid to third party: 9% of segment revenue, decreased from currently at 10% of the segment revenue
- Extra cost for internal operations: \$5M.
- Current total revenue: \$100M
- Current revenue Proportion per Segment: Retail: 10%, Private-owned contractors: 40%, State-owned contractors: 50%

Solution from Interviewee

- Additional MBC profit = Revenue Increase – Additional Cost =
 $(35\% * 40\% * \$100M) - [\$5M + (9\% * 40\% * \$100M * 1.35) - (10\% * 40\% * \$100M)] = \mathbf{\$8.14M}$
- Change in third-party service provider revenue =
 $(9\% * 40\% * \$100M * 1.35) - (10\% * 40\% * \$100M) = \mathbf{\$0.86M}$

The new plan is feasible as MBC still get additional profit of \$8.14M and third-party service provider get additional revenue of \$0.86M and therefore there is no risk in undermining other segments by implementing this plan.

Conclusion

Answer First

- We would like to recommend for MBC to go ahead and make transition in private-owned contractors segment to do sales and customer relationship inhouse, while keeping the physical logistics operation handled by third party.
- Reasoning
 - Despite the additional cost, the revenue will increase more significantly and therefore will result in higher profit of \$8.14M
 - It will also reduce MBC dependency with current third party service provider

Risks

Risks

- Current lack of distribution expertise
- Competitive response from third party distributors

Next Steps

- Confirm analysis assumption
- Put together acquisition target attribute list
- Conduct due diligence
- Establish or strengthen government affairs division within DonatellaCo to keep abreast of further sustainability reporting requirements

Household Cleaners Growth

CPG | Growth Strategy

Interviewee Led

Ratings: Quant - 2

Qual - 2

Overall - 2

General Information:

- This case is similar a Bain case. It follows their typical format of a company looking to grow and needing multiple different avenues to get there: organic growth and inorganic growth.
- Strong candidates will consistently identify the revenue deficit and use it as a waypoint to know if they have achieved the client's goal or not. Even stronger candidates will get into the nuances of the client and why certain acquisitions are or are not a good fit.

Exhibit Summary

- Exhibit 1: Two potential acquisitions

Prompt

Your client is a global consumer packaged goods company — Grime Co.

Grime Co. makes paper products (like paper towels), home cleaning products, and laundry care products. The company's Board of Directors has set an aggressive revenue target of \$2 billion four years from now. Currently, revenues are \$1 billion. The CEO has come to you to ask for help. Specifically, our client would like you evaluate the company's position and to help develop a strategy to deliver top-line results of \$2 billion in 4 years.

Clarifying Information

The company has a strong stance in favor of sustainability

- Sales are divided evenly between the three categories — 33%
- Net sales: Retail sales minus trade spend. Trade spend is what manufacturers pay distributors or retailers to incentivize them to sell their products to end consumers.
- If the candidate asks which growth strategies Grime Co. has considered, the interviewer should prompt them to brainstorm various options — see next slide.

Potential Framework

Market Growth

Growth through maintaining market share in a growing market

Organic Growth

Actions taken within the organization to drive revenue. Ex:

- Price adjustments to drive volume
- Increased advertising
- Vertical integration
- Promotions and deals
- **New products**

Interviewer should steer candidate to explore new products

In-organic Growth

Growth through acquisition or joint venture

Notes / Advice to Interview / How to Move Forward:

When the candidate asks or mentions market growth, **reveal that market growth alone will bring sales to \$1.5 billion in 4 years.**

If the candidate asks about categories, tell him or her that growth is about the same in all three.

The candidate **must cite new products**: it is the only organic growth strategy that is viable for our client in this case. The interviewer should provide logical reasons to why the other options are not available at this time.

Our client has a new toilet cleaning product in development that analysts believe will do well.

The candidate must identify **growth through acquisition**: our client's Corporate Development department has **identified two high-priority acquisition targets** —Organoclean and Home Defense Inc. (See slide 4 for detailed information)

Market Growth & New Product Calculation

Prompt: Our client has a new toilet cleaning product in development that analysts believe will do well. The product can be sold for \$5 per unit, and we expect 20% trade spend. Based on our analysis, we believe we can sell 40 million units per year. The product will launch in 3 years.

| | | | |
|---------------------------|---------------|----------------------------------|-------------------------------|
| Current Net Sales | \$1 Billion | Price | \$5 per unit |
| Net Sales in 2025* | \$1.5 Billion | Profit: Trade Spend – 20% | \$4 per unit (\$5 - \$1) |
| Deficit | \$500 Million | = X Avg. units per year | 40 Million |
| | | Net sales | \$160 Million (\$4 * 40M) |
| | | Deficit | \$500 Million |
| | | New Deficit | \$340 Million (\$500 - \$160) |

* \$500 Million achieved through incremental market growth, as cited on the previous slide
 Trade spend is what manufacturers pay distributors or retailers to incentivize them to sell their products to end consumers.
Note: Market Growth assumptions are built into new product calculations

Acquisition Calculation

Prompt: Our client's Corporate Development department has **identified two high-priority acquisition targets** —Organoclean and Home Defense Inc.

Verbally give this information to the candidate

| Target | Organoclean (Private) | Home Defense Inc. (Public) |
|--------------------|----------------------------|---------------------------------|
| Products | Organic Household Cleaners | Household cleaners, bug control |
| Sales | \$150 million | \$200 million |
| Growth Rate | 10% | 20% |

Do not give this information – this is what the candidate should calculate

| | | |
|--|---|---|
| 2021 Sales Instruct candidate to round to the nearest \$10 million | \$165 million \$181.5 million \$199.65 million \$219.615 million | \$240 million \$288 million \$345.6 million \$414.72 million |
| Rounded 4-year sales | \$220 million | \$410 million |

With a deficit to the 2025 sales target of \$340 million, the candidate might be tempted to choose Home Defense Inc as the better acquisition target. If asked, confirm that our client can only buy one.

However, the candidate must also consider positive and negative synergies before choosing a target...

Brainstorming question

Prompt: What other factors would you consider when thinking about an acquisition for Grime Co.?
Candidate should brainstorm synergies and calculate financial impact.

A good interviewee will cite several of these as potential synergies. Great candidates will not even need the prompt and will brainstorm without the question. Push the candidate along until he or she lands on both distribution and values:

POSITIVE

- Distribution synergies
- Procurement synergies
- Manufacturing synergies
- Back-office synergies
- Co-branding new products
- Scale synergies

Synergies impacting Organoclean

Synergies impacting HomeDefense

*Candidate can consider year 1 today

NEGATIVE

- Mission or values clash
- Brand dilution
- Corporate culture mismatch
- Anti-trust issues

Organoclean

Our client believes it can leverage its Europe distribution network to generate additional sales:

- \$40 million year one* \$500 million deficit
 - Should triple in 4 years - \$160 million new product
 - \$200 million Organoclean 2025
 - \$120 million Europe sales
-
- = \$0 deficit to 4 year target

Home Defense Inc.

Our client will not sell harmful chemicals, and all of Home Defense's bug killers fall into this category. They cannot be reformulated or sold. Our client would have to discontinue these products.

- 25% of sales are bug killers - \$500 million deficit
 - \$160 million new product
 - \$410 million Home Defense 2025
 - \$102.5 million lost sales
-
- = \$32.5 million deficit to 4 year target

Conclusion

At this point, the candidate should realize that Organoclean is the best option between the two, and that together with the launch of the new product and market growth, Grime Co. will hit its 4 year net sales target of \$2 billion

Recommendation

- Although market growth and the launch of a new toilet product should get Grime Co. to \$1.66 billion in net sales by 2025, the \$2 billion net sales target will not be met. Therefore, Grime Co. will also have to pursue growth through acquisition. Of the two targets preferred by the client — and since Grime Co. can only buy one — we recommend purchasing Organoclean. The growth of the company coupled with positive distribution synergies will allow Grime Co. to reach its 2025 target.

Risks

- Growth trajectory of target could change
- Price of target could be too high to afford
- Target could be unprofitable — risk of sales focus
- Doubling in size itself could be a risk — too fast

Next Steps

- Verify assumptions and assign roles
- Draft pre-diligence plan
- Establish contact with target
- Conduct detailed valuation and determine BATNA
- Roll out new product

Melt that Snow

Government & Public Sector | Go-to-Market Strategy

Interviewee Led

Ratings: Quant - 2

Qual - 2

Overall - 2

Prompt

The city of Holland, Michigan, is considering building a heated walkway with 690,000 sqft of heated sidewalks and streets complementing the already existing 190,000 sqft of private walkways. Through this project, it is aiming to establish the largest publicly-owned snowmelt system in North-America

Holland is famous for its tulip festival, which attracts up to 2 million visitors during the summer weeks. However, the winter weather can be harsh, sometimes dropping to 20 F. With the new snowmelt system the city is looking to increase tourism year-round. The city believes that its 3 main winter events (Magic at the Mill, Kerstmarkt, Parade of Lights) will attract at least 3000 new visitors per week during each of these events, and 100 visitors per day during non-event weeks. This will increase the taxes collected in the city as it improves economic activity. The city wants us to evaluate the potential of this initiative.

Clarification

- **Objective:** The objective of the city is to break-even its investment in 6 years.
- **Current system:** The current system uses snow removal with plowing. However, snowmelt systems offer a more efficient, reliable, and sustainable solution for snow/ice removal compared to traditional snow plowing methods which costs 10¢/sqft
- **Current revenues for Holland:** Hotel, restaurant and tourist shopping, tourism event revenue generation.

Sample Framework

Revenue

- Event ticket sale revenues
- Increase in tax revenues
- Shopping, entertainment, food revenues
- Cost savings from plowing or snow removal

Costs

- Upfront cost
 - Land/lease costs
 - Construction costs
 - Materials
 - Labor
 - Legal costs
- Cost of maintenance & repairs
- Energy consumption costs

Market

- Economic development
- Increase in employment opportunities
- Increase in safety & accessibility
- Community engagement
- Enhanced city experience

Notes / How to move forward

- Prompt candidate to consider costs incurred when setting up this system
- Once the candidate has brainstormed provide cost information as per the questions they ask:
 - *Upfront cost: \$10M*
 - *Yearly maintenance costs: \$50,000*
 - *Construction period: 1 year (no revenue generated during construction period)*

Revenue Calculation

Prompt: How much additional revenue can the government make from this initiative?

If the candidate is unable to specify the streams of revenue, the interviewer can probe further and arrive at four main sources of streams or any others they creatively brainstormed.

The candidate should divide the revenue into four main streams:

- Event Weeks
- Non-event days
- Royalties collected from stores if any
- Cost savings from not implementing other plowing mechanisms

Assumptions to be provided by interviewer:

- **Event weeks:**
 - *The season has a total of three event weeks*
 - *Assume 3000 visitors per event (also mentioned in prompt), 70% are outsiders and need lodging*
 - *Average length of stay: 3 days*
 - *Ignore different ticket pricing for child and adult to reduce complexity*
- **Non event weeks:** *Attracting 100 new visitors per day for 120 days (assuming runs only in the winter neglect event days as they are minimal compared to 120), spend 100\$ per day*
- **Other:** *200 stores accessing heated walkway pay 250 \$ yearly royalties*

Note: The idea of this case is to not have any exhibits but more quantitative information given by the interviewer to the candidate as more companies are moving towards non-traditional cases.

Revenue Calculation (cont.)

Total revenue generated during **event weeks**:

For each event:

New visitors staying in hotels: $3,000 \times 0.7 = \mathbf{2,100}$

Assuming each stay for 3 nights, with two people sharing a room, and the average room rate is \$200 per night, with a 30% tax rate.

- $Revenue = (2,100 \div 2) \times 200 \times 3 \times 0.3 = \mathbf{\$63,000}$

New visitors spending on average \$100 per day for 3 days, with a 30% tax rate.

- $Revenue = 3,000 \times 100 \times 3 \times 0.3 = \mathbf{\$270,000}$

Event ticket sales: \$20 per ticket for 3,000 new visitors per event.

- $Revenue = 3,000 \times 20 = \mathbf{\$60,000}$

Total revenue from three events: $\$63,000 + \$270,000 + \$60,000 = \$393,000 * 3 = \mathbf{\$1,179,000}$ (can round to **\$1.2M**)

Total revenue generated during **non-event days**: Attracting 100 new visitors per day for 120 days.

New visitors staying in hotels:

- $Revenue = (100 \div 2) \times 200 \times 3 \times 0.3 \times 120 = \mathbf{\$252,000}$

New visitors spending on average \$100 per day for 120 days, with a 30% tax rate.

- $Revenue = 100 \times 100 \times 3 \times 0.3 \times 120 = \mathbf{\$360,000}$

Total taxes from non-event days:

- $TotalRevenue = 252,000 + 360,000 = \mathbf{\$612,000}$

Revenue Calculation (cont.)

Additional **royalties collected from stores for accessing heated walkway**

Number of stores * \$250 tax collected yearly = $200 * 250 = \mathbf{\$50,000}$

Cost savings in plowing

Plowing takes 0.10\$ per sq ft (mentioned in clarifying questions) = $0.1 * 690000 = \mathbf{\$69,000}$

69000 sq ft mentioned in the prompt - candidate should identify this

Total revenue for the govt: $69000 + 612000 + 1179000 + 50000 = 1910000$ (approximate to 2M\$)

Break even = Total fixed costs / (Yearly Revenue - yearly maintenance costs) = $10M / (2M - 50000) = \mathbf{\text{approximately 5 years}}$

Brainstorming Question

Prompt: Due to the 1 year construction period, Holland will be cutting it very close on their required breakeven point of six years. Ask the candidate to assess what additional factors they might consider when deciding to move forward with the heated sidewalks project

Benefits

- Environmental benefits
 - Reduced use of de-icing chemicals
 - Reduction in usage of trucks and emissions required in plowing
- Job creation
 - Initial construction project
 - Increased seasonal jobs during the winter
- Political benefits
 - City councilmembers can point to tangible benefits

Risks

- Setback leads to longer construction period or cost overruns
- NIMBYism: Residential backlash to extensive construction in their local area
- Energy Consumption: Snowmelt systems require continuous energy input for operation, potentially increasing local energy prices and greenhouse gas emissions.
- Pollution: Heating elements within pavements may degrade over time, releasing harmful chemicals or heavy metals into the environment.

Provide a sample summary and conclusion for the case.

Considering that the government will be able to achieve its objective by breaking even within 6 years, it should proceed with this initiative.

Some risks can be highlighted with potential next steps:

-

Next steps: (1 or 2 from the list are sufficient)

- Explore public-private partnerships to share the financial burden of the initial investment or implement phased construction
- Invest in energy-efficient heating technologies and systems to reduce long-term operating costs.
- Conduct environmental impact assessments to identify potential risks and implement mitigation measures.
- Adopt eco-friendly practices, such as using non-toxic de-icing agents and incorporating green infrastructure elements, to minimize environmental harm.
- Showcase successful case studies and testimonials from other cities that have implemented similar snowmelt systems to build confidence and trust among residents.

Conclusion

Recommendation

- Because we are so close to the breakeven point on an experimental infrastructure project, the candidate can respond either way depending on their understanding of the risks
- *Ex.:* Considering that the government will be able to achieve its objective by breaking even within 6 years, it should proceed with this initiative.

Risks

- High Initial Costs
- Environmental Impact
- Increase in Energy Consumption
- Maintenance and Repairs
- Public Perception and Acceptance

Next Steps

- Explore public-private partnerships to share the financial burden of the initial investment or implement phased construction
- Invest in energy-efficient heating technologies and systems to reduce long-term operating costs.
- Conduct environmental impact assessments to identify potential risks and implement mitigation measures.
- Showcase successful case studies and testimonials from other cities that have implemented similar snowmelt systems to build confidence and trust among residents.

Malaria Remedy

Healthcare | Go-to-Market Strategy

Interviewee Led

Ratings: Quant - 3

Qual - 2

Overall - 2

Prompt

A team of university researchers based out of Uganda has developed a new vaccine to cure malaria. While there are existing vaccines out there for malaria, the researchers believe that this product has what it takes to be competitive with others in terms of price, accuracy, and reach. They are talking to a pharmaceutical manufacturer named David-Wilson Limited, based out of Ghana, for a potential partnership. In this partnership, David-Wilson will oversee manufacturing and distributing the product, and the researchers will provide the IP rights. David-Wilson Limited has also agreed with the university researchers that it will aim to operate this product at breakeven, to offer the product at the lowest possible price and maximize the number of lives saved. Should the researchers launch the product?

Clarifying Information

What is the business objective of the researchers?

Save the greatest number of lives while breaking even in 3 years

Which market are they interested in entering?

Their focus will be in the African market

What stage of development & approval is the vaccine currently at?

Vaccine has been approved by the equivalent of the FDA in several African countries

What does David-Wilson Limited's supply chain look like?

Their raw materials all come from China, and their factories are all based out of Uganda. They currently ship all their products via trucks

Exhibit 1

| | Annual malaria cases | Contribution Margin | Fixed Set-up Costs |
|--------------|----------------------|---------------------|--------------------|
| Ghana | 1,200,000 | 40 | 30,000,000 |
| South Africa | 250,000 | 7 | 50,000,000 |
| Uganda | 1,500,000 | 60 | 72,000,000 |
| Tanzania | 2,100,000 | 36 | 90,000,000 |

Market Sizing

Prompt: David-Wilson's vaccine has currently been approved in five African countries. Determine which countries they should consider launching the product in.

Information Provided by Interviewer

Assume that 33% of people with malaria cases purchase a vaccine

Assume 1 vaccine is sufficient to treat a malaria case

Candidate may notice something odd about the numbers in the exhibit. If they do not, prompt them by noting there is no dollar sign next to the numbers and ask them what units they believe the numbers are in. The candidate is expected to convert the numbers into USD to be able to compare between countries

- 1 USD = 20 Ghanaian cedi
- 1 USD = 40 Ugandan shilling
- 1 USD = 30 Tanzanian shilling
- 1 USD = 10 South African rand

| | Annual malaria cases | Contribution Margin | Fixed Set-up Costs |
|--------------|----------------------|---------------------|--------------------|
| Ghana | 1,200,000 | \$2.00 | \$1,500,000 |
| South Africa | 250,000 | \$0.70 | \$5,000,000 |
| Uganda | 1,500,000 | \$1.50 | \$1,800,000 |
| Tanzania | 2,100,000 | \$1.20 | \$3,000,000 |

Market Sizing (cont.)

Prompt: David-Wilson's vaccine has currently been approved in f African countries. Determine which countries they should consider launching the product in.

Solution From Interviewee

Ghana: $(1.2\text{M cases} \times 33\%) = 400,000$ total vaccines purchased annually. Need to sell $(\$1,500,000 / \$2) = 750,000$ vaccines over 3 years to breakeven. That is a $(750,000 / 400,000 \times 3) = \sim 62.5\%$ annual average market share needed. Realistic – keep this market!

Uganda: $(1.5\text{M cases} \times 33\%) = 500,000$ total vaccines purchased annually. Need to sell $(\$1,800,000 / \$1.50) = 1,200,000$ vaccines over 3 years to breakeven. That is a $(1.2\text{M} / 500,000 \times 3) = \sim 80\%$ average market share needed. Maybe a little aggressive, but keep this market.

Candidate should realize that, with the lowest malaria population and contribution margin and highest fixed set up costs, **South Africa** is not an attractive market. This is an opportunity for the candidate to “sense-check” what they are solving for, rather than mechanically going through mathematical calculations - interviewer can prompt candidate if they do not immediately get this insight.

Tanzania: $(2.1\text{M cases} \times 33\%) = 700,000$ total vaccines purchased annually. Need to sell $(\$3,000,000 / \$1.20) = 2,500,000$ vaccines over 3 years to breakeven. That is a $(2,500,000 / 700,000 \times 3) = \sim 119\%$ annual average market share needed, which is impossible. Do not launch here.

Hence, consider launching in Ghana and Uganda.

Ask candidate what other factors they need to consider when entering a new market. When they mention competition, show them exhibit 2.

Competitive Analysis

Prompt: How competitive is the product in Ghana and Uganda?

Exhibit 2

Price

| | Competitor A | Competitor B | Our product |
|--------|--------------|--------------|-------------|
| Ghana | \$4.00 | \$5.25 | \$4.80 |
| Uganda | \$4.50 | \$4.25 | \$6.00 |

Vaccine Effectiveness

| Competitor A | Competitor B | Our product |
|--------------|--------------|-------------|
| 87% | 80% | 95% |

Solution From Interviewee

Ghana: Our product is priced right between Competitor A and Competitor B – however, it has the highest vaccine effectiveness. Thus, from a pricing and efficacy standpoint, the product is competitive to other products. But there is uncertainty around achieving a 62.5% average annual market share that is required to breakeven. We should still keep this market as a potential entry

Uganda: Our product has the highest price point compared to Competitor A and B – however, there is still the merit of having the best vaccine effectiveness out of all three. There is potential to capture high market share as a premium product, but there is even more uncertainty around the 80% average annual market share that is required. Do not keep this market as a potential entry.

Brainstorming

Prompt: Can you think of any ways to make this product more feasible/attractive?

Branding as the highest efficacy: Market the product for its premium quality and efficacy over the competitors

Collaborate with health authorities and organizations: The governments and other NGOs might be interested in the propagation of a new, superior product that will save lives. Collaborate with them to gain funding, networks, and knowledge to help launch a successful product

Look into other potential partners in Uganda: The price of the product in Uganda is a competitive weakness. Hence, maybe look for partners with operations out of Uganda, and only use David-Wilson for Ghana operations

Provide a sample summary and conclusion for the case.

Based on market sizing, the product is realistic to be launched in Ghana, and to a lesser extent, Uganda. In terms of product competitiveness, pricing remains an issue, while the quality of the product is top-notch.

Next steps: Do more research into the market penetration estimates to see if the required average annual market shares of 62.5% in Ghana and 80% in Uganda are realistic, and look for partnerships and methods to reduce costs (NGO/governmental funding...)

Risks: Geopolitical (launching the product in other nations), safety (some routes & nations have risks of terrorism and product theft), supply chain (materials are from China), partnership (philosophy around product etc), regulatory

Conclusion

Recommendation

- Based on market sizing, the product is realistic to be launched in Ghana, and to a lesser extent, Uganda. In terms of product competitiveness, pricing remains an issue, while the quality of the product is top-notch.

Risks

- Geopolitical (launching the product in other nations, nationalism leads to lower penetration rate outside of Uganda)
- Safety (some routes & nations have risks of terrorism and product theft)
- Supply chain (materials are from China)
- Partnership (philosophy around product etc)
- Regulatory

Next Steps

- Do more research into the market penetration estimates to see if the required average annual market shares of 62.5% in Ghana and 80% in Uganda are realistic
- Look for partnerships and methods to reduce costs (NGO/governmental funding...)
- Identify additional countries that could be competitive if vaccine is approved

Donatella Co.

CPG | Growth Strategy

Interviewee Led

Ratings:

Quant - 2

Qual - 2

Overall - 2

General Information:

- This case takes a less traditional approach, asking the candidate to brainstorm solution to a sustainability problem
- Candidates will likely feel lost at first given the openness of the prompt, and may need some help knowing where the case will go. That said, the correct avenue to choose is not hard to find

Roadmap

- Exhibit 1: Calculate the GHG emissions per brand
- Exhibit 2: Benchmark against the industry
- Brainstorming: How can DonatellaCo improve their sustainability?
- Exhibit 3: Compare potential acquisition targets

Prompt

Donatella Co is an Italian-based, global fashion house with four luxury brands worldwide. As many of the brand's designs are inspired by the beauty of the natural world, the CEO, Gianni, has become increasingly concerned with the company's broader impact on the world, particularly the environmental impact. Further, Donatella Co's Chief Sustainability Officer recently made him aware of new legislation in the EU called the Corporate Sustainability Reporting Directive.

Gianni wants the company to be prepared for these new reporting requirements and to increase its sustainability within Donatella Co and its' supply chain. He has contacted the amazing consulting firm, RossCo to help. Where should they start?

Clarifying Information

- Last year they did €1 billion in revenues across their brands.
- This legislation requires that all EU companies with more than €40M in annual revenue or non-EU companies with more than €150M in revenue in Europe start publishing detailed information on sustainability.
- Competitors will be addressed later
- Looking at improvements in the short-term horizon
- Customers are located globally, with largest markets in North America, Western Europe, and a fast-growing Asia customer base.

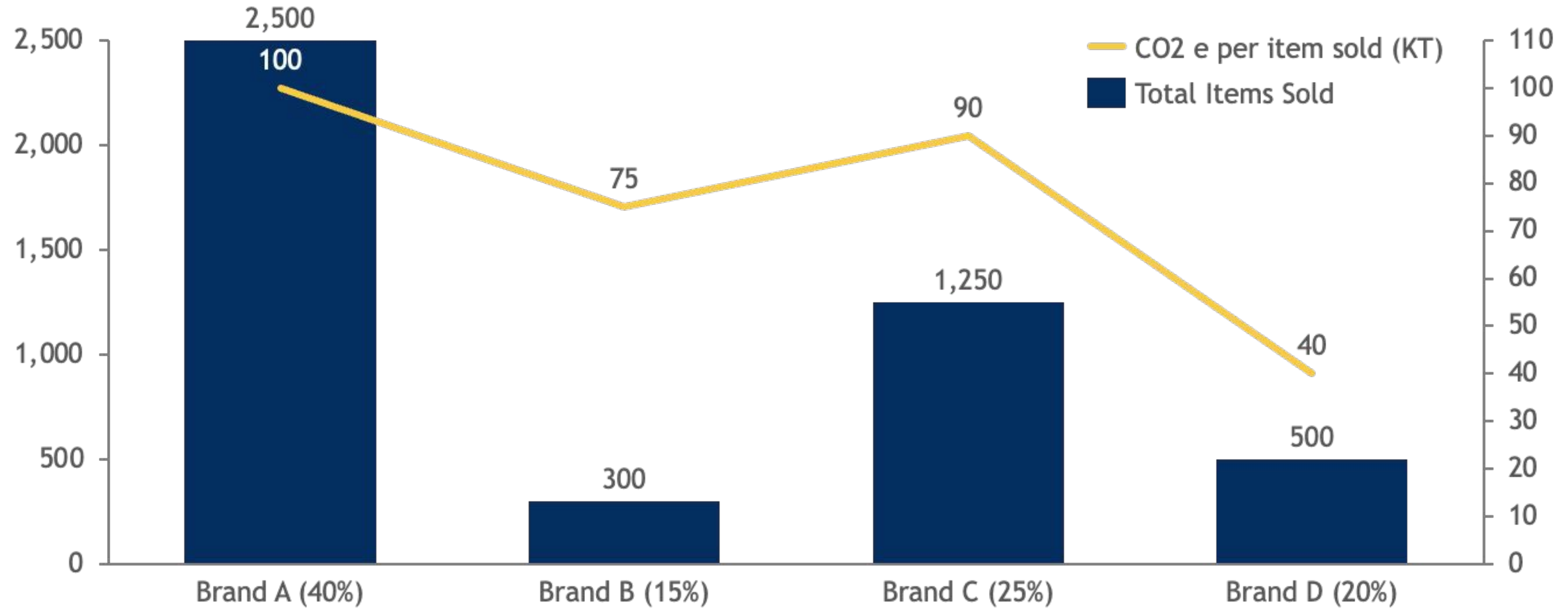
Potential Framework

| Sustainability | Costs | Market |
|---|--|--|
| <p>Operations</p> <ul style="list-style-type: none">•Transportation/GHG <p>Sourcing</p> <ul style="list-style-type: none">•Chemicals/dyes•Materials/recyclability <p>Business Practices</p> <ul style="list-style-type: none">•Labor Practices <p>Disposal</p> | <p>Fixed Costs</p> <ul style="list-style-type: none">•Initial investment costs <p>Variable Costs</p> <ul style="list-style-type: none">•Labor•Materials/fabrics•Dyes <p>Legal costs for non-compliance</p> | <ul style="list-style-type: none">•Customers: How much do our customers care? Will their willingness to pay change?•Competition: what are our competitors doing? Is there a way to distinguish ourselves?•Regulators: what will the new legislation require? |

Notes / How to move forward

- Last year they did €1 billion in revenues across their brands.
- We'll start by exploring sustainability, specifically operations and understanding CO2 emissions across sub-brands owned by Donatella, Co. If the casers doesn't immediately think to go here, nudge them in the right directions or ask them to brainstorm what areas of sustainability they think might be most relevant to Donatella.

Exhibit 1



Note: CO2e means Carbon Dioxide Equivalent. This is how GHG emissions are measured.

Exhibit 1 Guidance

Exhibit 1 Math:

| DonatellaCo Brands | % of DonatellaCo Revenue | Revenue Per Brand in \$ | Total Items Sold | CO2e per Item Sold (KT) | CO2e per Brand | % of Total CO2e |
|--------------------|--------------------------|-------------------------|--|-------------------------|----------------|-----------------|
| Brand A | 40% | 400,000 | 2,500 | 100 | 250,000 | 61.7% |
| Brand B | 15% | 150,000 | 300 | 75 | 22,500 | 5.6% |
| Brand C | 25% | 250,000 | 1,250 | 90 | 112,500 | 27.8% |
| Brand D | 20% | 200,000 | 500 | 40 | 20,000 | 4.9% |
| Total | 100% | 1,000,000 | Total CO2e Across Donatella Co Brands | | 405,000 | |

- The goal of the exhibit is to help the caser compare each brand by their contribution to DonatellaCo’s revenue and GHG emissions footprint.
- The total revenue of \$1B was given in the prompt, but you can remind them if necessary. Using that information they will be able to find the revenue per brand. Then, using total items sold per brand and the CO2e per item sold, they’ll be able to find the CO2e per brand.
- Allow and encourage them to round to find the % of total CO2e that each brand contributes.
- Good candidates will compare the revenue and emissions for each brand, weighing tradeoffs.

Exhibit 2 - Benchmarking Against Industry

Spend on Sustainability vs. CO2e Emissions

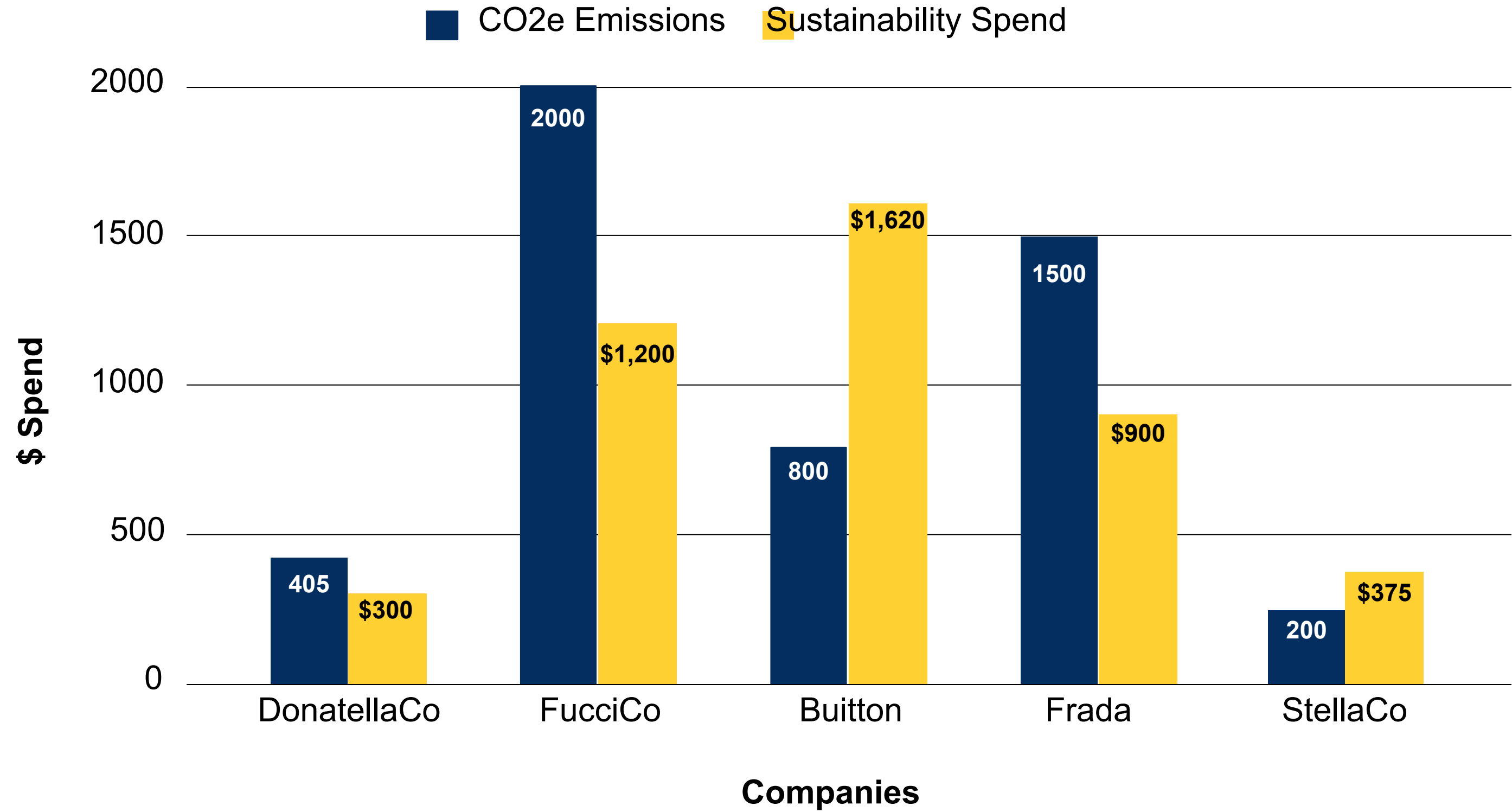


Exhibit 2 Guidance

Exhibit 2 shows DonatellaCo stacked against their competitors on one axis, with their spend in sustainability efforts on the other axis.

| Companies | CO2e Emissions (KT) (in ,000) | Sustainability Spend (in ,000) | \$/emission |
|-------------|-------------------------------|--------------------------------|-------------|
| DonatellaCo | 405 | \$300 | ~\$0.75 |
| FucciCo | 2,000 | \$1,200 | \$0.60 |
| Buitton | 800 | \$1,600 | \$2.00 |
| Frada | 1,500 | \$900 | \$0.60 |
| StellaCo | 250 | \$375 | \$1.50 |

Candidates should attempt to calculate the \$/emission spent (calculations shown on the left).

Candidates should find that DonatelloCo has lower emissions and their spend is moderate relative to its competitors.

Brainstorming

Prompt: How can DonatellaCo improve the sustainability of their portfolio of brands?

Buckets could include things like improving operations (improves costs and GHG emission), acquiring a super sustainable brand, selling a brand that is a laggard in sustainability, or buying carbon offsets.

Internal

- Transportation (space between, sustainability practices)
- Labor practices
- Water recycling
- Circularity improvements

External

- Purchase carbon offsets
- Donations to environmental
- Acquisitions of sustainable companies

Exhibit 3 - Acquisition Target

Potential Acquisition Targets' Revenue and CO2e

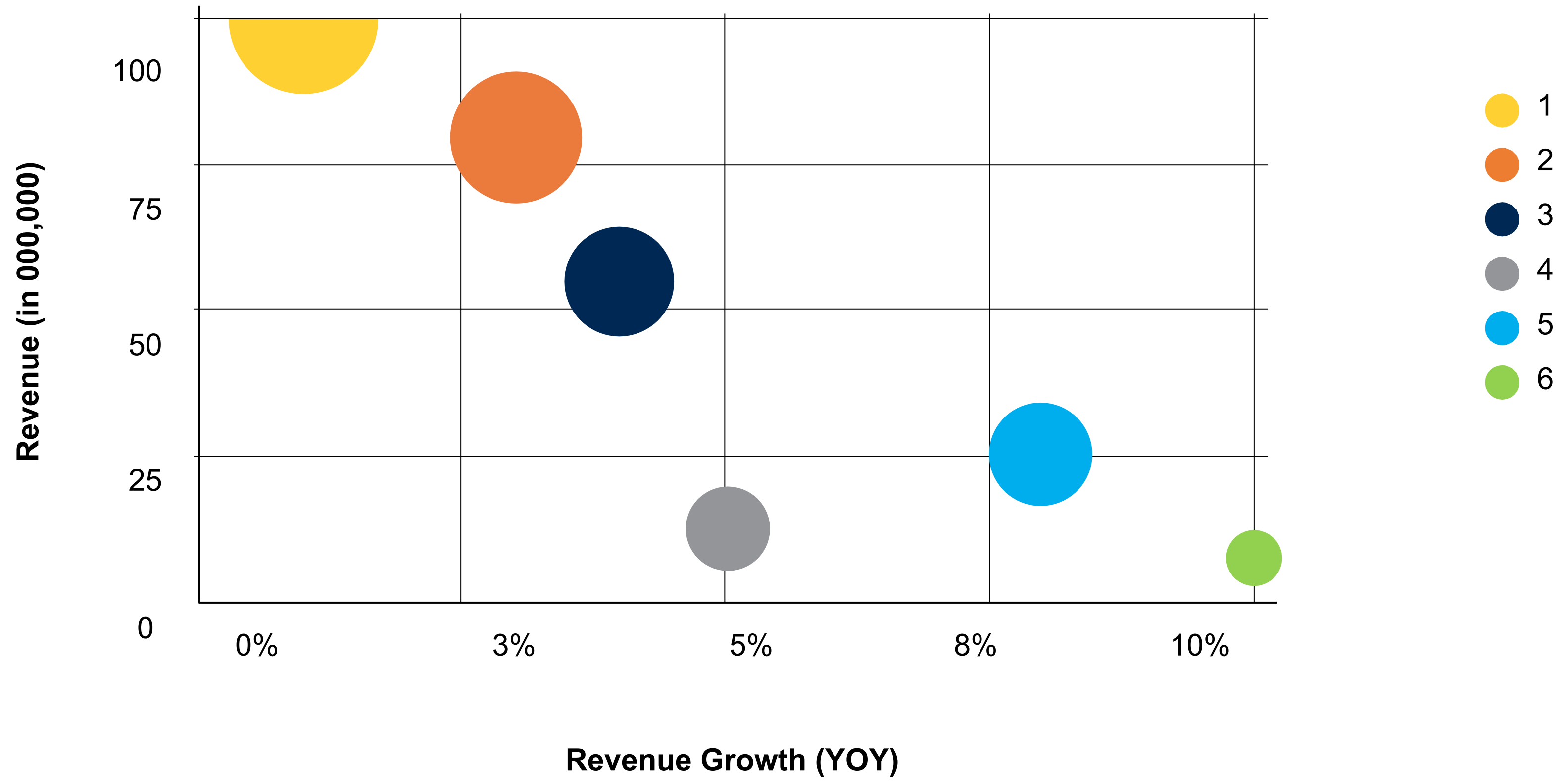


Exhibit 3 Guidance

Candidate should consider the revenue as compared to the four business lines identified in Exhibit 1 and the existing and potential target emissions discussed in Exhibit 2.

Target companies 5 should be recommendation of company given strong revenue growth and relatively small CO2e emissions compared to revenue size

Conclusion

Answer First

- Recommend an acquisition target as a short-term solution for both growth and portfolio emissions improvement.
- Review key findings from the analysis conduction.

Assumption and Risks

Assumptions

- Data is point in time, with no trending information
- “Sustainability” does not mean the same to everyone; will need more information to make an apples-to-apples comparison across firms

Risks

- Additional or quickly changing sustainability reporting requirements
- Capital limitations for acquisition / high interest rates
- Poor consumer communication of changes / fear of greenwashing

Next Steps

- Confirm analysis assumption
- Put together acquisition target attribute list
- Conduct due diligence
- Establish or strengthen government affairs division within DonatellaCo to keep abreast of further sustainability reporting requirements

GasCo Goes the Distance

Oil & Gas | Market Entry/Profitability
Interviewee Led

Ratings:
Quant - 1
Qual - 3
Overall - 2

General Information

- This case is based off a final round interview with a partner who worked in O&G.
- This case is meant to be qualitative and test the candidate to see how creative they can be during brainstorming.

Exhibit Summary

- Exhibit 1: Proposed Entry Points Global Map – to show the two options presented and understand distance from US headquarters

Brainstorming question:

- What conditions might affect profitability when entering a foreign market?

Prompt

Your client is GasCo, a US-based natural gas company. In the last year, natural gas prices in the US have declined while prices in APAC and EMEA have increased. GasCo currently has managed to develop a new way to transport gas. The new technology significantly lowers the cost of transportation. Due to the new technology, GasCo would like to expand in the global market.

GasCo would like to know if they should enter the APAC, EMEA, or both regions?

APAC - Asia Pacific & China

EMEA - Europe, Middle East, and Africa

Clarifying Information

- GasCo's new technology is unique to their company and no other competitors have this technology. The new technology significantly lowers the cost to transport gas. Gas normally has to be shipped in large containers, but now the gas is able to be liquified and then transported, significantly reducing cost of transportation.
- GasCo's main concern is overall profitability when entering the market.
- GasCo is worried about 1) whether there will be demand in the region and 2) which market is more profitable
- GasCo has 2 major customers: 1 in China and 1 in Japan

Potential Framework

1. Financials

Revenue

- Market Share
- Expected Pricing

Costs

- Cost of transportation □ mileage/ distance, # of days
- Other fixed costs □ Storage, labor, stocking, increased production

2. Competition

- Number of competitors in the market currently
- Expected entry of new competitors

3. Customers

- Existing customer relationships & ability to create new relationships
- Brand image / awareness
- Forecasted future demand

Exhibit 1

Potential EMEA and APAC Market Entries

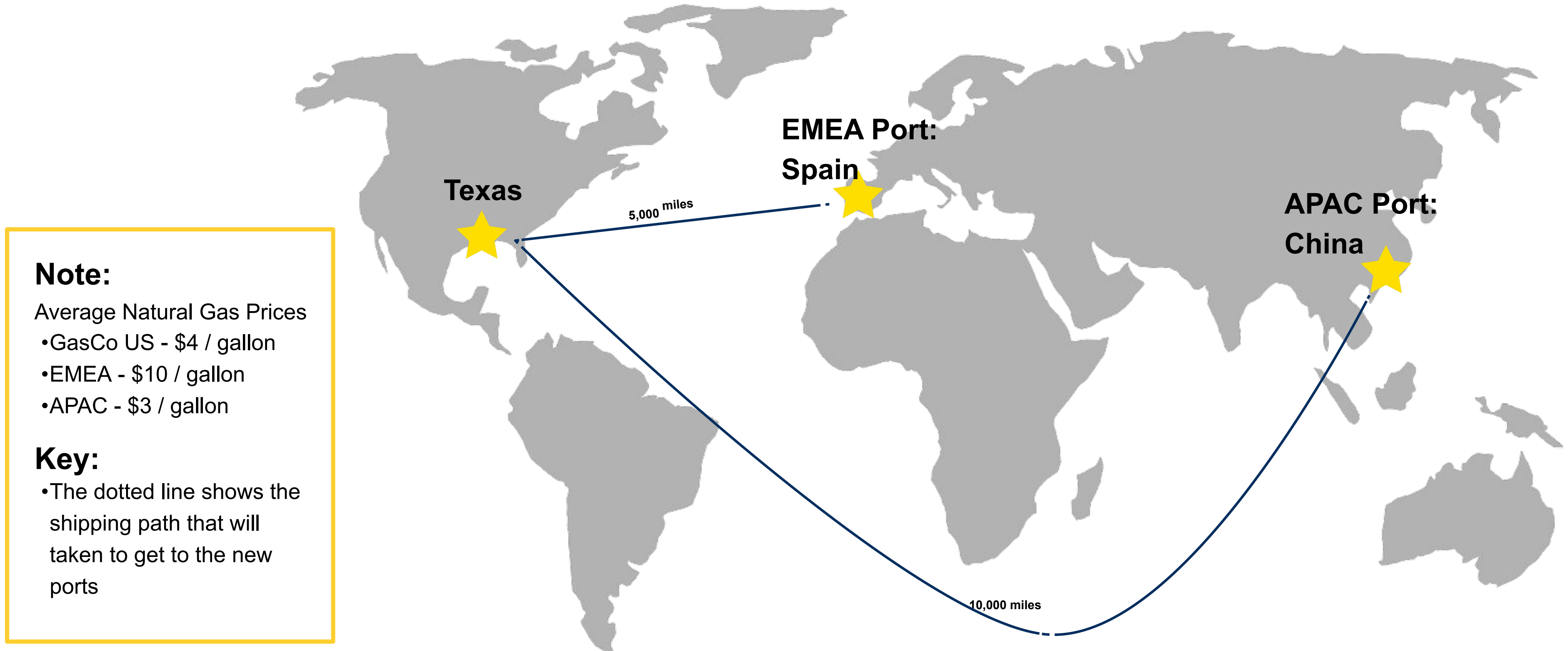


Exhibit 1 Guidance

Potential EMEA and APAC Market Entries

Questions for Candidates:

- What can you gather from this map?
- What is the estimated cost to transport gas to Spain vs China? (calculation on next slide – interviewer will need to provide the candidate with some information)

Question/Exhibit Guidance:

- Candidate should recognize: 1) closer distance from US to Europe, but, 2) China is the furthest distance but has large potential to capture more market share
- Strong candidates will: 1) notice that Europe is the closest to the US and the gas prices are high which is likely due in-part to the conflict in Ukraine and supply shortages from Russian natural gas supply. This could present a good opportunity to undercut existing suppliers for Europe 2) China's population is far greater than the European population and there could be greater sales potential in the China/ APAC region
- Also, an extremely strong candidate will remember that 2 of GasCo's major customers are based in Asia and is a reason to consider APAC over EMEA

Exhibit 1 Guidance

Potential EMEA and APAC Market Entries

When candidate asks for information provide the candidate with the following:

| | Spain | China |
|--|---------|---------|
| Distance | 5,000 | 10,000 |
| Cost/Mile | \$10 | \$5.50 |
| # of days at sea | 7 | 20 |
| Cost/Day | 750 | 550 |
| Est. Unit Sales | 120,000 | 250,000 |
| Projected GasCo Sales Price/unit sold | \$6 | \$3 |

Calculations

| | Spain | China |
|--------------------------|----------|----------|
| Cost | | |
| Distance | 5,000 | 10,000 |
| Cost/Mile | \$10 | \$5.50 |
| Cost for distance | \$50,000 | \$55,000 |
| # of days | 7 | 20 |
| Cost/Day | \$750 | \$550 |
| Cost for trip length | \$5,250 | \$11,000 |
| Total cost | \$55,250 | \$66,000 |
| Revenue | | |
| Est. unit sales | 120,000 | 250,000 |
| Sales price / gallon | \$6 | \$3 |
| Potential Revenue | 720,000 | 750,000 |

Brainstorming

What conditions might affect profitability when entering a foreign market?

Brainstorming Guidance:

- Market factors – change in natural gas prices across the market
- Competitor reaction – price war in market with local or regional companies
- Government response – potential tariffs or higher import tax
- Internal company capabilities – sales team, etc.
- Local technological development (more likely for competitors to catch up in tech focused market)

Good candidates will:

- Recognize that there are external and internal factors to consider

Conclusion

Recommendation

- The candidate can recommend either region but must have a sound reasoning for why they should enter that market:
- For APAC:** Although the total cost for China is higher, GasCo's 2 major customers are based in APAC and will allow GasCo to better serve their customers as well as have an opportunity to capture more market share in the long term.
- For EMEA:** Given the lower transportation costs and length of travel, GasCo. Can more quickly take advantage of market opportunities. Given the current high price of natural gas in Europe, there is a great opportunity to take advantage of our new technology here.

Risks

- Competitor response: Might lower prices in either region and create a price war
- Government response: might impose high tariffs or taxes on imported US gas
- Change in market demand due to alternative gas products available in the market
- Resolution of Russian / Ukraine conflict would drive natural gas prices lower

Next Steps

- Conduct a thorough market analysis to better understand competition in China and competitor response
- Put together an internal team to begin developing a market entry plan

Rubicon

Airlines | Post – Acquisition Profitability
Co.

Interviewee Led

Ratings:

Quant - 2

Qual - 2

Overall - 2

General Information

- This case is an interviewee led case looking for candidates to explore ways to improve profitability post acquisitions.

Exhibit Summary

- Exhibit 1: Pre & Post Acquisition Financials
[Candidate should prompt interviewer to share this exhibit]
- Exhibit 2: Northwest Region Route Comparison
[Candidate will likely require this exhibit to be handed without prompt after exhibit 1]

Prompt

Your client is Rubicon Co, a low-cost airline operating in the US. A couple of years ago, Rubicon Co acquired Scarlet Air, an airline based primarily on the West Coast. The post-acquisition profits do not meet the executive committee's expectations, and the CEO of Rubicon Co has brought you in to understand the causes and improve profitability.

Clarifying Information

- The CEO wants to increase profit by \$100M
- Assume Rubicon Co operates a single aircraft type across their fleet with similar seat layouts
- Rubicon Co is an all economy airline, not looking to change the business model
- At this point Rubicon Co is not looking to expand operations internationally
- The industry has remained relatively stable, with single digit profit % growth YoY

Revenue (Synergies)

- Ticketing (all metrics should \geq the combined metrics of the individual airlines)
 - # of tickets sold
 - Price of tickets
 - Dependent on routes
 - Consolidation should decrease competition, resulting in increased prices
 - Seasonality
- Fees (all metrics should \geq the combined metrics of the individual airlines)
 - On board
 - Wifi
 - Food & bev
 - Luggage
 - Ancillary
 - Change fees

Cost (Synergies)

- Variable Costs (all metrics should \leq the combined metrics of the individual airlines)
 - Hourly Labor
 - Aircraft operations
 - Fuel
 - Maintenance & Servicing
 - Parking/Storage
 - Landing fees
- Fixed Costs
 - Central functions
 - Marketing
 - IT
 - HR
 - Etc
 - Plant, Property, Equipment
 - Airport gate rental agreements
 - Corporate building rentals
 - Hangar space

Competitive Response

- Other airlines consolidating in the space could lead to greater pricing pressure as cost structures are reduced
- Alternatively, less players in the space could lead to more favorable pricing as consumers have less choice

Notes / Advice to Interview / How to Move Forward:

- Candidate should look to understand the financials of the airline(s) pre and post merger – if asked, provide Exhibit #1
- Alternatively, the candidate may ask to look at competitors financials as a comparable – if asked, let candidate know that pre-merger Rubicon Co. and Scarlet both met industry averages on financials
- Ensure the candidate mentions that airline routes differ in terms of profitability – if not, ask candidate to think about how the metrics for a flight from DTW to JFK are different than JFK to LAX

Exhibit 1

Pre and post acquisition financials

| <i>In Millions of Dollars</i> | Rubicon Co (Pre) | Scarlet Air (Pre) | Rubicon Co (Post) |
|-------------------------------|------------------|-------------------|-------------------|
| Revenue (Tickets) | 749 | 690 | 1439 |
| Revenue (Non-Tickets) | 251 | 210 | 461 |
| Operations, Variable | 650 | 605 | 1255 |
| Marketing | 50 | 40 | 90 |
| IT | 75 | 70 | 145 |
| HR | 20 | 14 | 25.5 |
| PPE (Airport Slots, offices) | 115 | 90 | 153.75 |

Exhibit 1 Guidance

Pre and post acquisition financials

Questions for Candidates about Exhibit that the Interview should ask:

- Are there areas of opportunity to positively impact profitability?
- If candidate is struggling, ask: although VC may need to remain at that level, does FC of the combined entity need to be the combined individual FCs?

Question/Exhibit Guidance:

- Candidate should recognize that while synergies were found in HR and Property costs, Marketing and IT costs are equivalent to the sum of the original airline line items – these are two opportunities for cost cutting
- Strong candidates will recognize that the combined company was able to find 25% net cost savings in property and HR – this can be used as a rough baseline for potential cost savings in the IT and marketing buckets. If they do not recognize this, let them know that the company can have a net cost savings of 25% in marketing and IT, like we see in HR & PPE.

Exhibit 1 Guidance

Pre and post acquisition financials

| <i>In Millions of Dollars</i> | Rubicon Co (Pre) | Scarlet Air (Pre) | Rubicon Co (Post) | Rubicon Co (Post) w/ Potential Synergy Gains |
|------------------------------------|------------------|-------------------|-------------------------|--|
| Revenue (Tickets) | \$749 | \$690 | \$1439 | Same |
| Revenue (Non-Tickets) | \$251 | \$210 | \$461 | Same |
| Operations | \$650 | \$605 | \$1255 | Same |
| Marketing | \$50 | \$40 | \$90 | \$67.50 (.75*\$90) |
| IT | \$75 | \$70 | \$145 | \$108.75 (.75*\$145) |
| HR | \$20 | \$14 | \$25.50 (.75*\$34) | Reductions Already Made |
| Property (Airport, offices) | \$115 | \$90 | \$153.75 (.75*205) | Reductions Already Made |
| Total Revenue | \$1,000 | \$900 | \$1,900 | \$1,900 |
| Total Cost | \$910 | \$819 | \$1,669.25 | \$1,610 |
| Profit | \$90 | \$81 | \$230.75 | \$289.50 |
| Margin | 9.00% | 9.00% | 12.14% | 15.24% |
| | | | Increased Profitability | \$58.75 |

Note:

- Case is looking for profitability in terms of dollars.
Percentages are given as a nice to have

Brainstorming

Now that we have identified a potential for cost reductions in the Marketing and IT functions, what are some ways this can be accomplished?

Brainstorming Guidance:

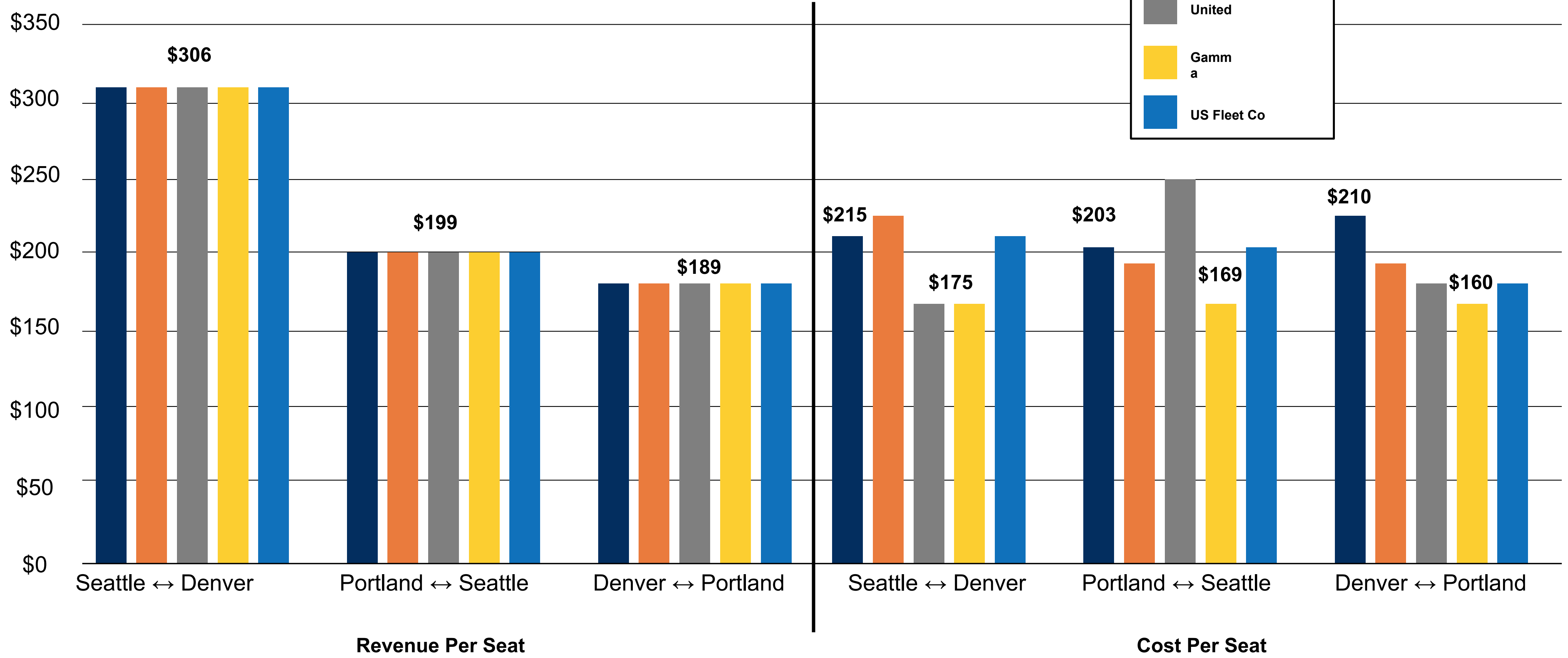
- Candidates should list a few (2 – 3) ways costs could be reduced in each area
- Marketing: Reduce headcount, leverage digital solutions to streamline campaigns, outsource specific functions
- IT: Reduce headcount, outsource specific functions, merge disparate systems

Best candidates will:

- Identify risks associated with their recommendations and plan mitigation steps
- Notice that roughly half of the \$100MM improvement target has been achieved, will organically think about other areas to find profit

Exhibit 2

Northwest Region Route Comparison



**Rubicon Co flies ~500k passengers per route per year

Exhibit 2 Guidance

Northwest Region Route Comparison

Questions for Candidates:

- One of our analysts flagged the Pacific NW as an area of concern. What are your initial thoughts on the routes?

Question/Exhibit Guidance:

- Candidates should recognize that Portland ↔ Seattle and Denver ↔ Portland are not profitable.
- Strong candidates will calculate the annual profit/loss the airline experiences from the routes and suggest trying to cut costs and match competitors cost structure across all three routes

Exhibit 2 Guidance

Northwest Region Route Comparison

| | Profit(Loss) Per seat | Total Passenger Volume | Net Profit (Loss) | Profit Potential (if matching most profitable competitors) | Net Profit | |
|---------------------------|----------------------------|------------------------------|---|--|--|-----------------------------------|
| Seattle ↔ Denver | $\$306 - 215 = \91 | 500,000 | $\$91 * 500,000 =$ $\$45,500,000$ | $\$306 - \$175 =$ $\$131$ | $\$131 * 500,000 =$ $\$65,500,000$ | |
| Portland ↔ Seattle | $\$199 -$ $203 = (\$4)$ | 500,000 | $\$4 * 500,000 =$ $(\$2,000,000)$ | $\$199 - \$169 =$ $\$30$ | $\$30 * 500,000 =$ $\$15,000,000$ | |
| Denver ↔ Portland | $\$189 - 210 = (\$21)$ | 500,000 | $\$21 * 500,000 =$ $(\$10,500,000)$ | $\$189 - \$160 = \$29$ | $\$29 * 500,000 =$ $\$14,500,000$ | Net Improvement |
| | | Total | $\$45,500,000 -$ $12,500,000 =$ $\\$33,000,000$ | | $\\$95,000,000$ | $\\$62,000,000$ |

Brainstorming

Prompt: While Rubicon Co. is considering options to lower costs on these routes, some within the company are thinking of cutting the loss-making routes completely. What concerns do you have with this?

Brainstorming Guidance:

- Candidates can think about the issue in terms of qualitative and quantitative buckets
 - Quantitative:**
 - Loss of revenue from fees, inflight purchases, freight/shipping
 - Qualitative:**
 - Knockback effect -> passengers flying these routes may be connecting to other profit positive flights, and cutting routes may make other routes less attractive
 - Political issues with city leadership
 - Airport contractual obligations

Best candidates will:

- Think about potential changes in demand for the routes, and ask the airline to consider that before trimming routes

Conclusion

Recommendation

- To achieve the target profitability improvement, Rubicon Co should reduce costs in Marketing & IT to match synergies achieved in other departments. In addition, the airline should look to reduce costs on their Pacific NW routes to match competitors' cost structure

Risks

- Detriment in morale with headcount reductions/outourcing
- Changes in demand on routes, impacting pricing and profitability

Next Steps

- Research competitors' cost basis for PNW routes and begin matching methodology
- Consider cross training employees to reduce volume of layoffs
- Identify strategy to reduce costs in marketing and IT by 25%

Banana Heaven

Public Sector | Profitability

Interviewer Led

Ratings:

Quant - 1

Qual - 3

Overall - 2

General Information:

- This is a McKinsey interviewer-led case. However, it is not a typical business case. The candidate has to jump out of the business framework and apply the concepts to the public sector.
- Strong candidates should be able to identify the importance of externalities in this case. Even stronger candidates will get into different ways that the government can support the farmers to adopt the alternative solution and explain the nuances of the solutions.

Exhibit & Quant Summary

- Quant
- Exhibit 1: Three Types of Crops

Prompt

The government of Banana Heaven (an island in the Indian ocean) is predominantly an agricultural economy. Majority of the population is involved in the farming of paddy (rice).

Once grown on the farm, paddy is then bought by the government at a predefined price called as the Minimum Selling Price (MSP). Banana haven is going through a crisis of depleting groundwater (water that is used for agriculture). Since paddy uses a lot of water in its cultivation stage, the water level is reducing by ~ 50 feet every year. This is a major cause of concern on the island and the government is planning to introduce a crop diversification program as a pilot to incentivize farmers to shift from paddy to other crops that use less groundwater. What should be the government's plan of action to conduct a successful pilot and replicate the program in the whole island nation?

Clarifying Information:

- The government does not have a specific goal in mind, just want to reduce the general water usage in the country.
- Currently, only a small portion of the farmers are growing crops other than paddy in Banana Haven.
- The country is not capable of moving into another economic structure.
- The farmers will sell the paddy to the government at a fixed price, and the government will sell them both domestically and for export.

Potential Framework

| Financial/Economics | Market/External Factors | Risks |
|--|--|--|
| <ul style="list-style-type: none">• Farmers<ul style="list-style-type: none">• Profit from new crop• Profit from old crop• Government<ul style="list-style-type: none">• Actual ground water reduction• Subsidy to be given to make up for loss | <ul style="list-style-type: none">• Market for alternate crop<ul style="list-style-type: none">• Market Size/Demand trend• Existing players• Soil/Climate<ul style="list-style-type: none">• Does the country have the right soil/climate for the crop• Other factors like crop damage, wild animals etc. | <ul style="list-style-type: none">• Operations<ul style="list-style-type: none">• Technical knowledge to the farmers to shift• Implementation<ul style="list-style-type: none">• Supply chain of new crop• Government budget• Adoption by farmers• Scaling<ul style="list-style-type: none">• Resources to scale |

Notes / Advice to Interview / How to Move Forward:

Expectations of a good candidate:




- Ability to identify that the project can be successful only when it makes economic sense to the farmers. The new crop plus government subsidy should ensure that the farmers make at least the same they were making earlier
- Keeping in mind the objective to reduce ground water

Expectations of an outstanding candidate:

- Taking into account external factors like soil/climate
- Being creative on ways to ensure adoption of the new pilot. Giving incentives to farmers through subsidy
- Introduce gamification/tech for review and monitoring of the pilot and keeping in mind the challenges faced during scaling




Financial Analysis of Crop Options

Prompt: Our client has the choice of growing maize and pulse as alternatives to paddy. The table below shows the cost and revenue per acre for each type of crops in terms of dollar value, and the percentage of groundwater saved. **Which type of crop should the government encourage the farmers to switch to, and how much subsidy the government need to provide?**

| Crop | Cost/acre (\$) | Revenue/acre (\$) | Ground water saved (%) |
|---|----------------|-------------------|------------------------|
|  Paddy | 200 | 500 | – |
|  Maize | 150 | 300 | 50% |
|  Pulse | 300 | 400 | 40% |

- Total farmers - 1k
- Average acres per farmer - 500 acre

Interviewer Guidance for Solving Exhibit 1

| Crop | Cost/acre (\$) | Revenue/acre (\$) | Profit/acre (\$) |
|---|----------------|-------------------|------------------|
|  Paddy | 200 | 500 | 300 |
|  Maize | 150 | 300 | 150 |
|  Pulse | 300 | 400 | 100 |

Comparing the profit/acre (\$) and % water saved, the government should encourage the farmers to switch to **maize**.

Cost to government for shifting from Paddy to maize:
 Total profit (Paddy) = $300 * 1k * 500 = \$150 \text{ M}$
 Total profit (Maize) = $150 * 1k * 500 = \$75\text{M}$ Extra \$75M
 budget needed from government for subsidy.

Each farmer to be given at least **\$150/acre** to shift from paddy to maize

Expectations of a good candidate:

- Calculating profits directly from the data for all the 3 sources
- Combining the profit with information about groundwater reduction and deciding to go ahead with maize as an alternate crop
- Calculate the total profit. Multiplying the profit/acre with total number of acres and total number of farmers

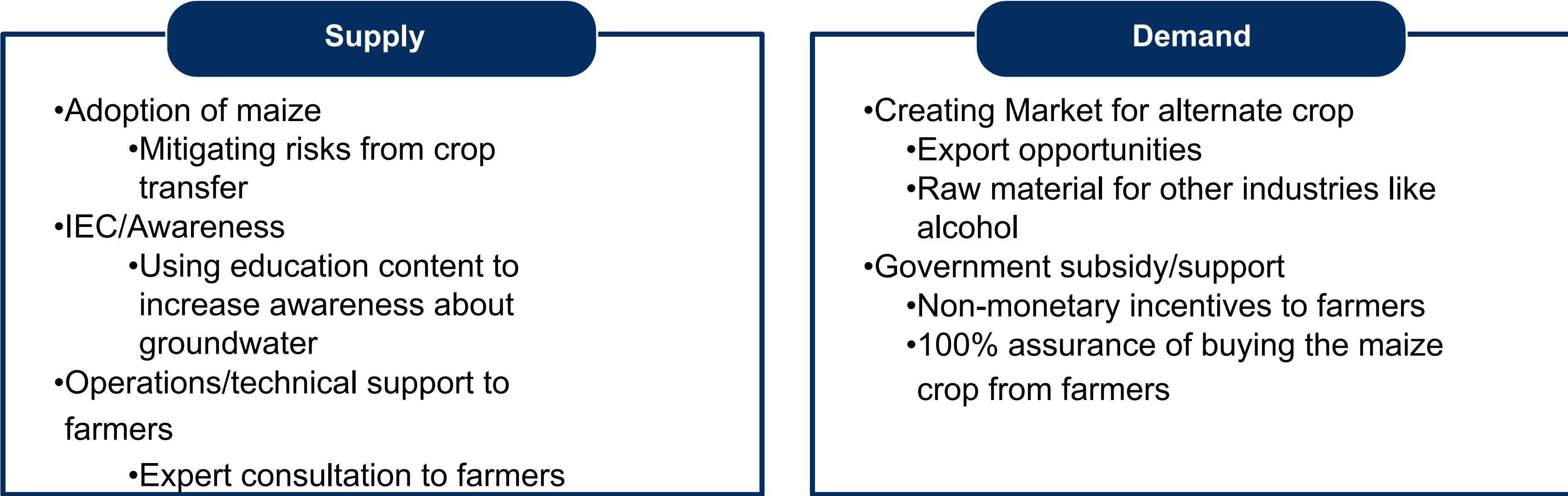
Expectations of an outstanding candidate:

- Understanding that there is a difference of 150 profit/acre that needs to be filled by the government
- Calculating the budget needed from the government. Multiplying the gap in profit (\$150/acre) and multiplying the profit/acre with total number of acres and total number of farmers to get the yearly budget for the government

Brainstorming Question

Prompt: After 6 months, the pilot project was successful, and the government now plans to rollout the pilot to all the 100k farmers in the island. What should the government consider to successfully scale the project from 1k farmers to all the 100k farmers in the island nation of banana heaven?

Solution



Conclusion

Recommendation

- Government should go ahead with the pilot with maize as a possible alternative to current paddy cultivation to tackle groundwater depletion

Risks

- Financial burden - Extra budget of \$75M needs to be given to the pilot to make economic sense to the farmers
- Dependence on rice - If country is dependent on rice for domestic use, then alternate sources need to be figured out
- Soil/Climate needs might not be optimum for maize production

Next Steps

- Due diligence on the existing market for maize including exports. Any possible ways to increased demand
- Analysis of soil/climate conditions to identify potential land areas for pilot implementation
- Creating a plan for scaling the pilot

One Tree Hill

Non Profits | Micro-Economics, Financing
Interviewee Led

Ratings:
Quant - 3
Qual - 3
Overall - 3

General Information:

- This case is similar to a Bain case. It follows their typical format of a company looking to grow and needing multiple different avenues to get there: organic growth and inorganic growth.
- Strong candidates will consistently identify the revenue deficit and use it as a waypoint to know if they have achieved the client's goal or not. Even stronger candidates will get into the nuances of the client and why certain acquisitions are or are not a good fit.

Exhibit & Quant Summary

- Quant
- Exhibit 1: Two potential acquisitions

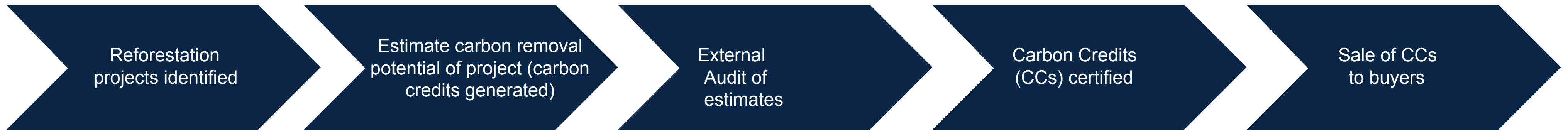
Prompt

The nonprofit organization, One Tree Hill (OTH), has a mission of restoring forest cover globally. They typically give grants (donations) to local NGOs, communities, or startups that reforest (i.e., plant trees) in a given area. Due to the limited supply of grant funds in recent times, and in order to enter a very lucrative market, OTH is looking for ways to fund some reforestation projects through the sale of carbon credits (CC), also called “carbon financing”. They have a portfolio of projects in need of funding, and they would like to select a few for carbon financing. Should OTH pursue carbon financing, and if yes, for which projects?

Clarifications (provide only if asked for):

- A carbon credit (CC) is a tradable certificate that provides the holder of the credit the right to emit greenhouse gases, typically 1 ton of carbon dioxide equivalents. Corporations and countries purchase carbon credits to “offset” their emissions above allowable limits.
- If the candidate asks about the process for selling carbon credits, show them the flowchart in Exhibit 1 (this is just meant to help them understand the process, candidate is not expected to draw insights from this)
- There is no target amount to be raised for funding these projects (there are many). The case is about whether financing a project via generating and selling carbon credits is a feasible option. If feasible, OTH will proceed with that project.
- The customers are typically the corporations or countries wanting to offset emissions from their operations.
- This is a forward-looking analysis, i.e., only for new projects. We can ignore any past planted trees or projects.

Exhibit 1: Process for Selling Carbon Credits



- 1 ton of CO₂ removed by trees = 1 carbon credit generated
- Done by external agencies/certification bodies

Potential Framework

Financial Factors

- Cost of carbon financing
 - Costs of certification
 - External audit
 - Commissions to CC issuing body tree planting & maintenance costs
 - Labor
- Revenue generating potential
 - Price at which carbon credits are sold
 - Customer demand for purchasing CCs
 - Market trends – nascent vs growing
- Opportunity cost
 - Does this preclude projects from other forms of funding or other revenue sources (e.g.: sustainable timber sales)

Logistical Factors

- Resources & Capacity to execute
 - Manpower, technical assistance, on-field resources, etc. for data collection and ongoing monitoring
- Execution timeline

Legal & Regulation Factors

- Geography of project – national policy on CCs?
Who can you sell to?
- Any unique taxation policies to consider?
- CC Regulatory bodies like the UNFCCC – what is their role?

Notes / Advice to Interview / How to Move Forward

Expectations of a good candidate:

- Identify that the process in Exhibit 1 involves many costs, and the final goal is to find the projects that are "profitable".
- The framework will reflect that this case boils down to doing a cost-benefit analysis.

Expectations of an outstanding candidate:

- On top of what a good candidate can identify, also identify the variety of other factors that can go into this decision, such as the timeline, national climate policy, etc.
- Bring in knowledge and examples from this subject in the real world.

Cost Breakdown

After the framework, the candidate should ask for data on the costs of the various steps – tell them the information in **Table 1**. If they do not ask, guide the interviewee towards thinking about how an organization can generate carbon credits, who would issue these, certify them, etc.

Do not show this information to the candidate, only read the data to them.

Table 1

Fixed costs (do not change with size of project):

1. Audit cost = \$325,000
2. Project certification cost = \$175,000

Variable costs:

1. Carbon Credit issuance fee = \$2 per CC issued
2. Tree planting & maintenance cost = \$5 per tree (throughout the tree's lifetime)

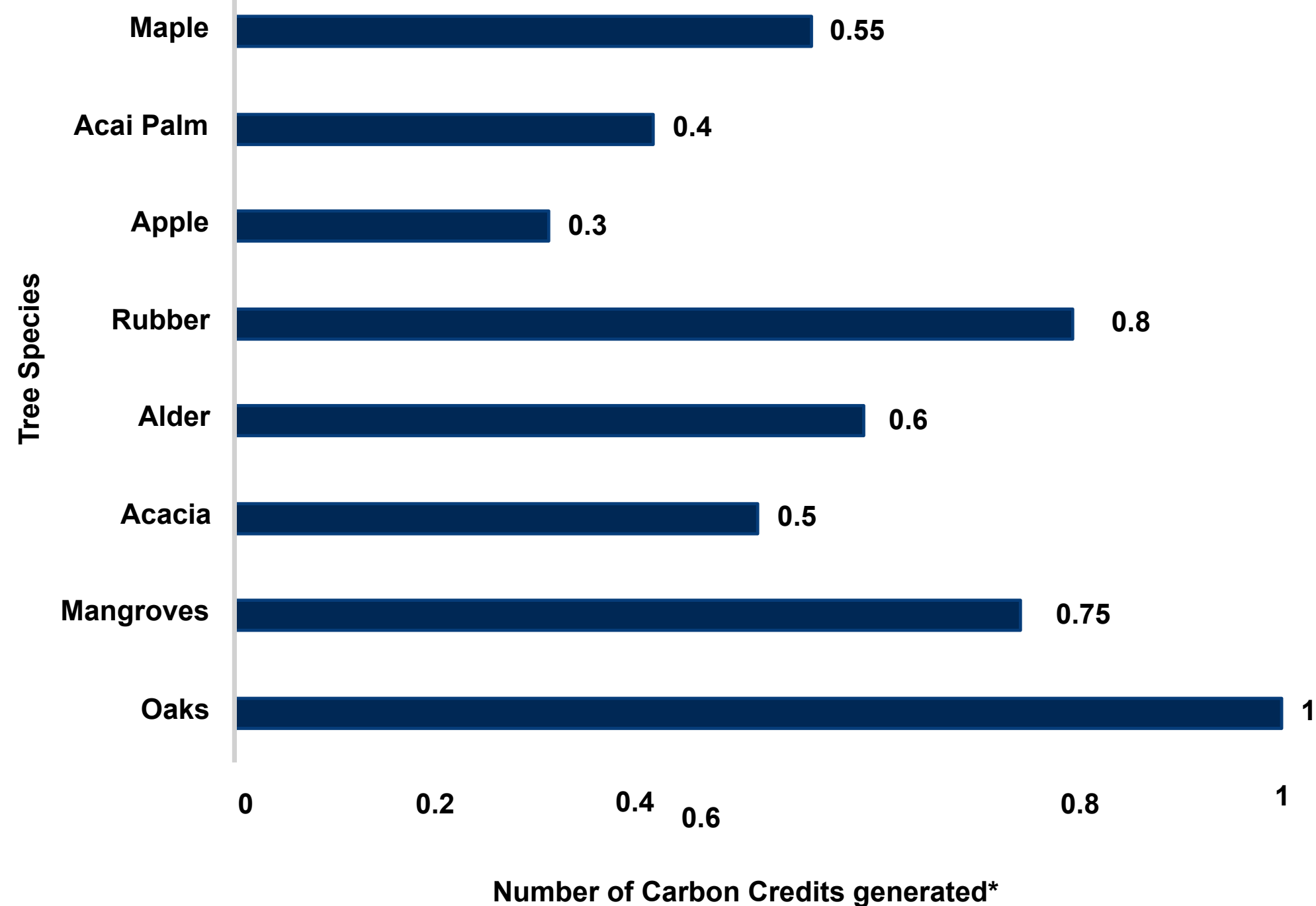
Price of CC sold in the market:

\$10 per CC

After receiving Table 1 information, the candidate should realize that the costs are variable and should seek information on the number of trees in various projects and the number of carbon credits that can be sold. **Show them Exhibit 2**

Exhibit 2: Data by Tree Type

Carbon Credit Potential Per Tree



| Project | # of trees | Tree Species | Location |
|---------|------------|--------------|-----------|
| A | 3,000,000 | Oaks | France |
| B | 7,000,000 | Mangroves | India |
| C | 4,000,000 | Acacia | Ghana |
| D | 3,000,000 | Alder | Peru |
| E | 350,000 | Rubber | Venezuela |
| F | 2,000,000 | Apple | Turkey |
| G | 3,000,000 | Acai Palm | Brazil |
| H | 4,000,000 | Maple | Canada |

*Carbon credits generated are over the tree's lifetime of 30 years, not annually

Cost Breakdown – Solution

(Time value of money can be ignored)

Method 1: Candidates can solve this in the traditional method of calculating variable costs for each of the projects, add fixed costs, then subtract total cost from revenue to find if it's profitable. However, this is extremely lengthy and not advised.

[Example for Project A: Total CCs generated = Number of trees*CC potential per tree = 3M * 1 = 3M

Total revenue = Total CCs generated * \$10 per CC = 30M; Variable costs = \$2 * Number of trees + \$5 * CCs generated =

\$21M; Total costs = \$21M + \$0.5M (Fixed cost) = \$21.5M; Profit = Revenue - Cost = \$8.5M. Hence, this project breaks even]

| Project | Number of trees | Tree species | Location | Total CCs | Total revenue | Variable costs | Fixed costs | Total costs | Profit |
|---------|-----------------|--------------|-----------|-----------|---------------|----------------|-------------|-------------|----------|
| A | 3000000 | Oaks | France | 3000000 | 30000000 | 21000000 | 500000 | 21500000 | 8500000 |
| B | 7000000 | Mangroves | India | 5250000 | 52500000 | 45500000 | 500000 | 46000000 | 6500000 |
| C | 4000000 | Acacia | Ghana | 2000000 | 20000000 | 24000000 | 500000 | 24500000 | -4500000 |
| D | 3000000 | Alder | Peru | 1800000 | 18000000 | 18600000 | 500000 | 19100000 | -1100000 |
| E | 350000 | Rubber | Venezuela | 280000 | 2800000 | 2310000 | 500000 | 2810000 | -10000 |
| F | 2000000 | Apple | Turkey | 600000 | 6000000 | 11200000 | 500000 | 11700000 | -5700000 |
| G | 3000000 | Acai Palm | Brazil | 1200000 | 12000000 | 17400000 | 500000 | 17900000 | -5900000 |
| H | 4000000 | Maple | Canada | 2200000 | 22000000 | 24400000 | 500000 | 24900000 | -2900000 |

Method 2: Instead, candidate should take a unit economics approach – what is the minimum carbon credit potential per tree beyond which it becomes profitable? (if candidate is struggling, ask them this question as a hint).

Let “x” be the Carbon Credit potential/ number of CCs per tree (0.5, 0,6, 1, etc).

Our break-even equation **per tree** then becomes: $2x + 5 = 10x$ [We converted all costs and revenues to a per tree basis;

$2x = \text{Cost per CC} * \text{number of CC per tree} = \text{Cost per tree}$; 5 is the planting cost per tree; $10x = \text{Price of CC} * \text{CC per tree} = \text{Price per tree}$]

Solving this, we get $x = 0.625$. Projects with CC potential per tree > 0.625 could breakeven, depending on fixed costs (Projects A, B, E). Now candidate can perform the calculations shown above only for these 3 projects and find that Projects A & B are profitable!

Brainstorming

What other factors would you consider when evaluating if OTH should proceed with carbon financing of Projects A & B?

Question

Expected Answer:

Candidate should provide a structured list of factors other than financial feasibility to be considered when evaluating this decision, including but not limited to:

- a) Legal ramifications of selling carbon credits generated in reforested areas
- b) Double counting of carbon credits with national commitments of reforestation
- c) Availability of manpower to perform the tasks required
- d) Timeline of cash flows – when does the money from sale of CCs come in?
Does this overlap with the requirement of funds?
- e) Availability of grant capital in the country – we may want to explore CCs in regions where grants are limited

Interviewer Guidance for Exhibit 3

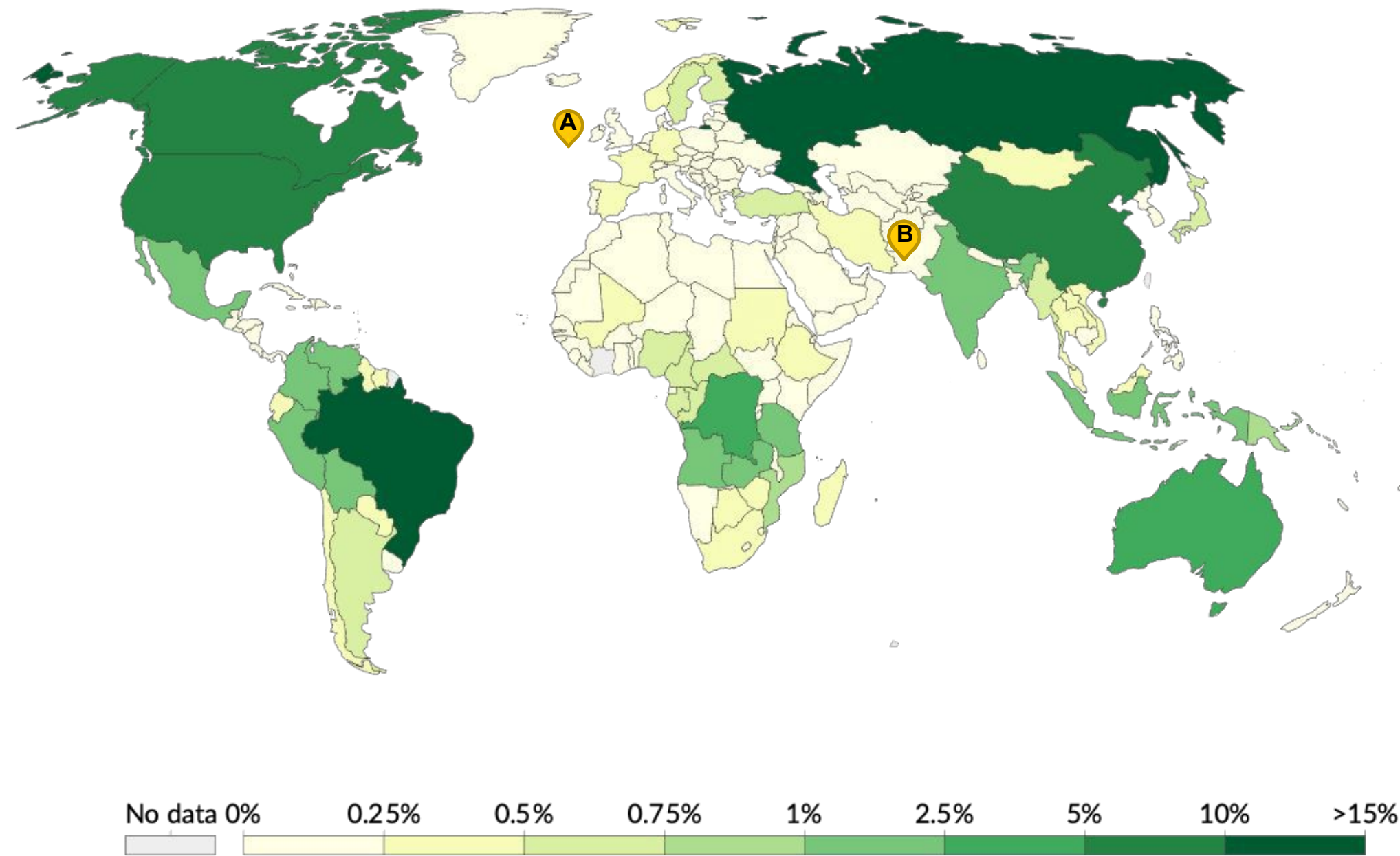
Once candidate lists a few factors, show them Exhibit 3 and ask for their thoughts. The chart and map in Exhibit 3 is intentionally ambiguous. While India (Project B) has lower availability of grant funding capital and hence may need to do carbon financing more, it has fewer forest protection services available – which makes implementation very difficult. Similarly, existing forest cover and density is very different for both projects.

There is no “right” conclusion from Exhibit 3, it is meant to test the candidate’s ability to interpret ambiguous data. Any reasonable conclusion is accepted.

Exhibit 3: Global Forest Data

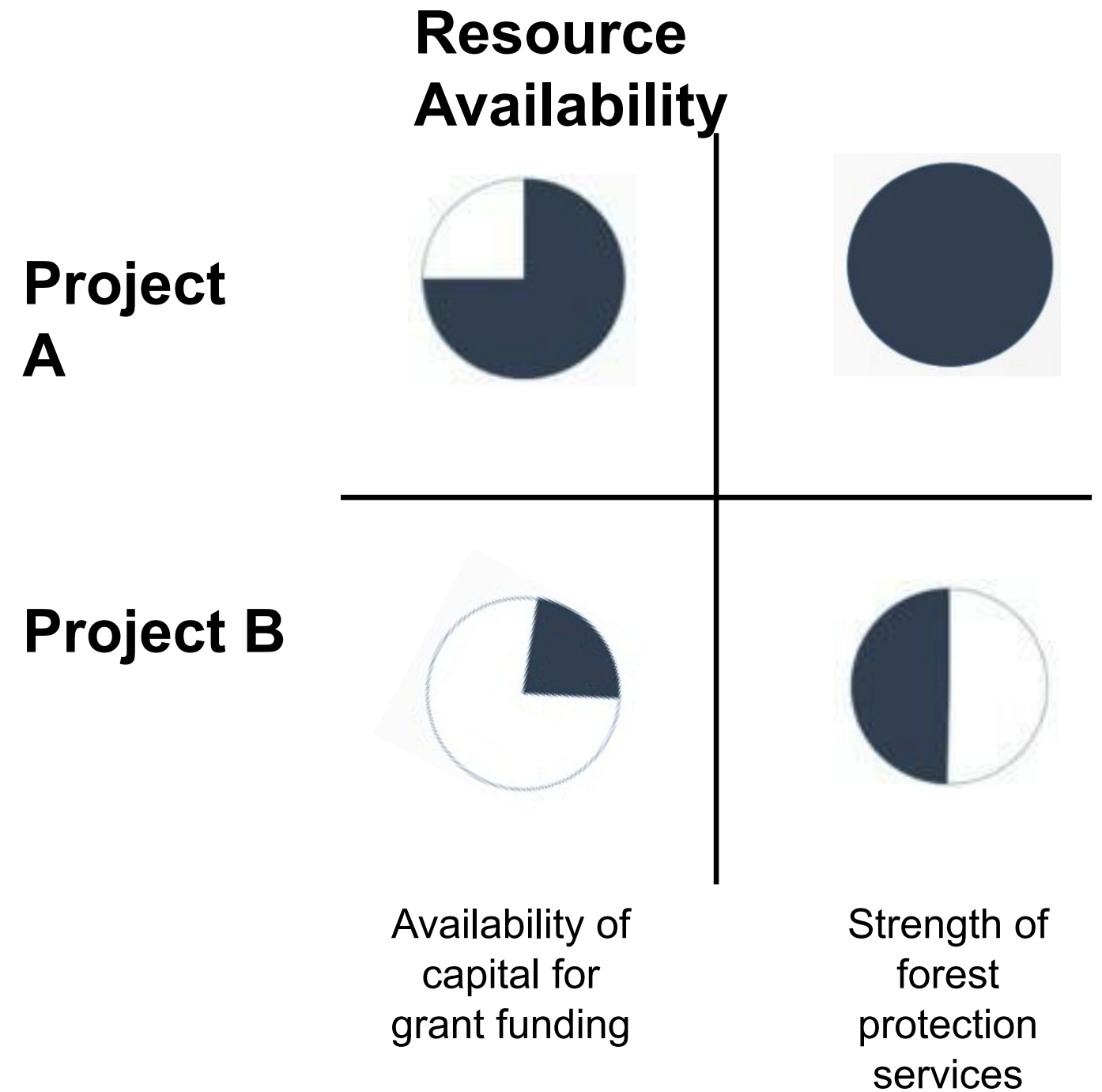
Share of global forest area, 2020

Source:



Source: UN Food and Agriculture Organization (FAO). Forest Resources Assessment.

OurWorldInData.org/forests • CC BY



Recommendation

- There can be multiple reasonable recommendations for this case. Project A and B are both profitable, however they differ significantly on other factors. Candidate can recommend to proceed with both projects or either one, but they should give a sound justification for their choice. The justification should summarize all the areas that were covered in this case (financial feasibility, geography, resource availability, and any others from framework/brainstorming).

Risks

- We have ignored the time value of money in our calculations. \$8.5M over a significantly long project period could mean very little returns on a yearly basis to the project.
- The source of revenue is sale of carbon credits in the future. Upfront capital is still required to plant trees and kickstart the project, so OTH will have to find other sources of cash for that purpose.
- Any regional limitations/ policy risk/ other area covered in brainstorming

Next Steps

- Source start up capital for projects to begin planting of trees
- Work with French and/or Indian governments to understand carbon sale rights, policy, and other legal ramifications of this project
- Gauge interest from potential corporate customers for carbon credits

Let's

Vrooom

Sports | Profitability, Pricing
Interviewee Led

Ratings:
Quant - 3
Qual - 2
Overall - 2

General Information:

- The case will start with brainstorming the various revenue and cost heads for each type of race. The key is to identify the direct v/s indirect (allocated) costs associated with each type of race.
- The case prompt suggests a potential recommendation to shut down a part of the business but exceptional candidates will recognize that instead of shutting it down, we could change the pricing

Exhibit & Quant Summary

- Exhibit 1: Income statement for each race format
- Exhibit 2: Ticket prices for different types of races

Prompt

Your client is Race Co, a racing track company in Chicago. They hold 3 kinds of races in their track- small, medium and big. The client feels that they should stop the small race format since it has been struggling with profitability over the last 3 years. What would you recommend?

Clarifying Information

- They only host racing events in their track, no other racing track in Chicago
- The land is leased, with long-term rental contracts
- Classification of small/ medium/ large races depends on the brands of the drivers who come in to participate (more popular contestants are clubbed into large races)
- Business model- people buy tickets to come and watch the game. Tickets are available for single races.
- Tickets available- through their website, inside the stadium
- Metric of success- they want to decide if they should continue the small race format or not

Potential Framework

Revenue

- Ticket revenue
- Concessions (foods and drinks etc)
- Advertisements

Cost

Variable:

- Salaries
- Concessions cost
- SG&A
- Marketing

Fixed:

- Lease

Industry Trends

- Industry is booming
- Demand rising
- Competition: other sports options such as football, hockey, baseball etc available in the area; no other racing track in Chicago

What is acceptable performance?

- The candidate should be able to identify these various buckets of revenues and costs, brainstorm till they get to all of these, after which the exhibits with detailed numbers to be shared

Exhibit 1: Income Statement

| | Small race | Medium Race | Big race |
|----------------------|----------------|----------------|----------------|
| # Races/ year | 50 | 30 | 20 |
| Occupancy | 100% | 75% | 65% |
| Revenues | | | |
| Rev/ ticket | 15 | 40 | 60 |
| Concessions/ person | 10 | 20 | 30 |
| Ad Revenues/ race | 5000 | 20000 | 35000 |
| Costs | | | |
| Annual Rental * | 1000000 | 450000 | 260000 |
| Salaries/ race | 25000 | 30000 | 45000 |
| Concessions cost | 40% | 40% | 40% |
| SG&A (per race) | 2000 | 2500 | 3000 |
| Marketing (per race) | 5000 | 8000 | 10000 |
| Net Profit | -250000 | 1275000 | 1308000 |

Total seats= 2000

*Rental costs allocated on the basis of #viewers in each race

Exhibit 1: Guidance

Candidates should recognize

1. Small races have the maximum occupancy due to lower ticket prices
2. Revenue/ ticket is disproportionately lower for small races
3. Candidates should be able to identify that the small type race has positive operational profit, and the net profit for this race is negative because of higher allocation of fixed costs. Removing this format will bring down the overall profitability of the company.

Best candidates will recognize

1. Small race type has 100% occupancy. They should further try to deep dive into pricing to improve profitability for small race.

| | Small race | Medium Race | Big race |
|----------------------------------|----------------|----------------|----------------|
| # tickets sold | 100000 | 45000 | 26000 |
| Revenues: | | | |
| Tickets | 1500000 | 1800000 | 1560000 |
| Concessions | 1000000 | 900000 | 780000 |
| Advertisement | 250000 | 600000 | 700000 |
| Total revenue | 2750000 | 3300000 | 3040000 |
| Costs: | | | |
| Rental | 1000000 | 450000 | 260000 |
| Salaries | 1250000 | 900000 | 900000 |
| Concessions | 400000 | 360000 | 312000 |
| SG&A | 100000 | 75000 | 60000 |
| Marketing | 250000 | 240000 | 200000 |
| Operating Cost (variable) | 2000000 | 1575000 | 1472000 |
| Total Cost | 3000000 | 2025000 | 1732000 |
| Operating Profit | 750000 | 1725000 | 1568000 |
| Net Profit | -250000 | 1275000 | 1308000 |

All values in \$, Use the above calculations to verify candidate calculations

Brainstorming

Once the candidate has identified that the small race format should be retained, follow up with a brainstorming on potential ways to improve profitability

Guidance for brainstorming:

Revenue:

1. Pricing of tickets
2. Pricing for concessions
3. New channels for selling tickets- such as online events platforms like stubhub
4. Passes for race instead of single event ticketing
5. Long term revenue partnerships

Costs:

1. Marketing – can move to digital for more targeted marketing
2. Concessions- renegotiations of contracts/ introducing new items with higher margins
3. SG&A- potential for automation of manual processes selling/ validation of tickets etc
4. Reworking the accounting principles

Once candidate has identified some of the above mentioned action areas for improving profitability, guide them to Exhibit 2 for ticket pricing.

Exhibit 2: Ticket Pricing

| Race Type | Price on website | Price on Stubhub |
|-----------|------------------|------------------|
| Small | 15 | 25 |
| Medium | 40 | 45 |
| Large | 60 | 65 |

*All values in \$/
ticket

Exhibit 2: Guidance

Candidates should recognize

1. Small races prices can be increased because they're in high demand (as indicated by 100% occupancy and the high scalping price)

Candidate should then rework the calculations for operating and net profits for the small race type to recognise that raising ticket price will lead to positive net profit in this format.

Exceptional candidates will also address/ brainstorm the possibility to increase ticket prices for other 2 formats and the elasticity of purchase for these race formats.

For Small race type:

| | |
|---------------------------|---------------|
| Revised tickets revenue | 2500000 |
| Revised total revenue | 3750000 |
| Revised operating profit | 1750000 |
| Revised net profit | 750000 |

Conclusion

Recommendation

Race Co should NOT stop the small race format since it has positive operating profit and adds to the overall profitability for the client.

They should look to increase their ticket prices for this format to make this format profitable

Risks

With increased prices, there could be an immediate impact on sales of tickets through their formal channels- website and in the stadium, they might have to look into marketing

Possible partnership with new channels to sell tickets

Next Steps

Assess the best way to increase ticket prices

DoWork

Technology & Real Estate | Growth

Interviewee Led

Ratings:

Quant - 2

Qual - 3

Overall - 3

General Information:

- This case follows a typical format of a company looking to grow making sure the profitability is not taking a hit. The framework should include growth ideas as well as profitability tree.
- Strong candidates will identify in Exhibit 2 that the calculation is not required. They will also form and communicate the right structure for identifying the right initiative to implement.

Exhibit & Quant Summary

- Exhibit 1: Competitive landscape and how can the client capture market share from its competitors
- Exhibit 2: Calculation to check if profitability is increasing from the additional revenue streams
- Exhibit 3: Prioritize between the data collected for 4 tech initiatives

Prompt

DoWork is a provider of coworking spaces (both physical and virtual) and uses Technology solutions to run a lean and efficient operation. The company went through acute financial stress post Covid but has since recovered with increasing number of people returning to office and companies opting for more flexible lease arrangements due to hybrid work. The CEO has approached you to explore new growth frontiers while maintaining a strong focus on profitability.

Clarifications (provide only if asked for):

- What is our client's **business model**? Or How does our **client make money**? - Our client makes money by renting office places at a cheap rate by signing long term contracts and renting them out at higher rates to enterprises and start-ups. It has recently started exploring providing technology enabled services for lease and commercial space management
- What is the **current revenue and profitability**? - Revenue is at around 1 BN and Profit Margin is at 15%
- What is the **growth target**? What **timelines**? - Double revenue in 3 years, increase or maintain profitability
- What is the **market or geography** in consideration? - US
- What does **virtual coworking space mean**? - Virtual meeting software solutions

Potential Framework

Revenue Growth Opportunities

- Organic:
 - Price increase
 - Increase # customers
 - New customers, same products (segmentation and marketing)
 - Same customers, new products (R&D, pricing and marketing)
 - New customers, new products (riskier bet)
- Inorganic:
 - Acquire a competitor
 - Expand geographically

Profitability

- Revenue
- Cost
 - Fixed Cost: Long term lease, labor
 - Variable Cost: negligible but limited to consumables like food and beverages, stationary etc

What is acceptable performance?

- A good response will mention growth opportunities and profitability framework

Market

- Competition
- Covid and related challenges
- Real estate cost
- Leasing vs. upfront purchase

What is expected from an exceptional performance?

- An exceptional framework will have the acceptable framework with structured market conditions/other considerations to consider for growth and profitability

Exhibit 1

Exhibit 1a: US Revenue in BN \$ for 3 largest commercial lessors

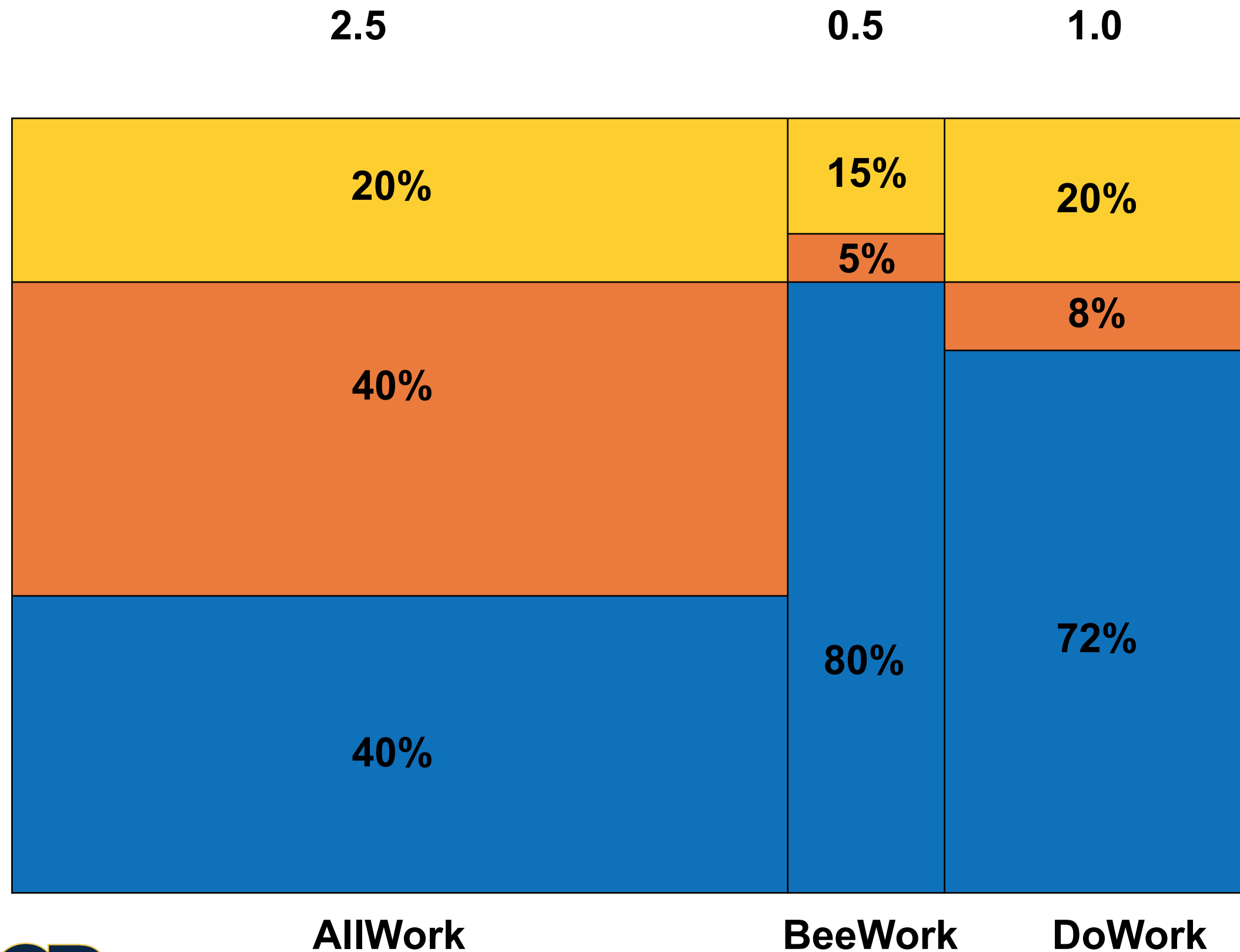


Exhibit 1b: Revenue share that can be captured by DoWork organically

| | AllWork | BeeWork |
|-----------------------|---------|---------|
| SMEs | 10% | 20% |
| Big Corporates | 25% | 10% |
| Startups | 30% | 20% |

- SMEs
- Big Corporates
- Startups

Interviewer Guidance - Exhibit 1

Calculate incremental revenue using both the tables

Guidance for the Interviewer

Once Exhibit 1 is presented, the interviewer should move forward by guiding that organic expansion is the right way to go to meet the company objectives. The interviewee calculates the incremental revenue using the table 1 and 2, the interviewer should ask for additional observations/inferences (if any) from the Exhibits and follow up with questions on other key considerations (profitability) that the client should consider.

What should a good response look like?

- **Exhibit 1a:** Candidate should be able to call out key observations and risks basis revenue and market share number for each competitor
- **Exhibit 1b:** Candidate should be able to calculate incremental revenue gain for DoWork

What should an excellent response look like?

A candidate should call out considerations around profitability (case objective) and capacity (does DoWork have existing capacity to meet additional demand or does it need further investments which can impact profitability)

Interviewer Guidance - Exhibit 1

Calculate incremental revenue using both the tables

| | AllWork | BeeWork | DoWork |
|----------------|---------|---------|--------|
| Revenue | 2.5 | 0.5 | 1.0 |
| SMEs | 20% | 15% | 20% |
| Big Corporates | 40% | 5% | 8% |
| Startups | 40% | 80% | 72% |

| | AllWork | BeeWork |
|----------------|---------|---------|
| SMEs | 10% | 20% |
| Big Corporates | 25% | 10% |
| Startups | 30% | 20% |

Objective is to double revenue from 1 to 2 BN USD.

Incremental Revenue:

From SMEs: $20\% \times 2.5 \times 10\% + 15\% \times 0.5 \times 20\% = \$ 65 \text{ MN}$

From Big Corporates: $40\% \times 2.5 \times 25\% + 5\% \times 0.5 \times 10\% = \252.5 MN

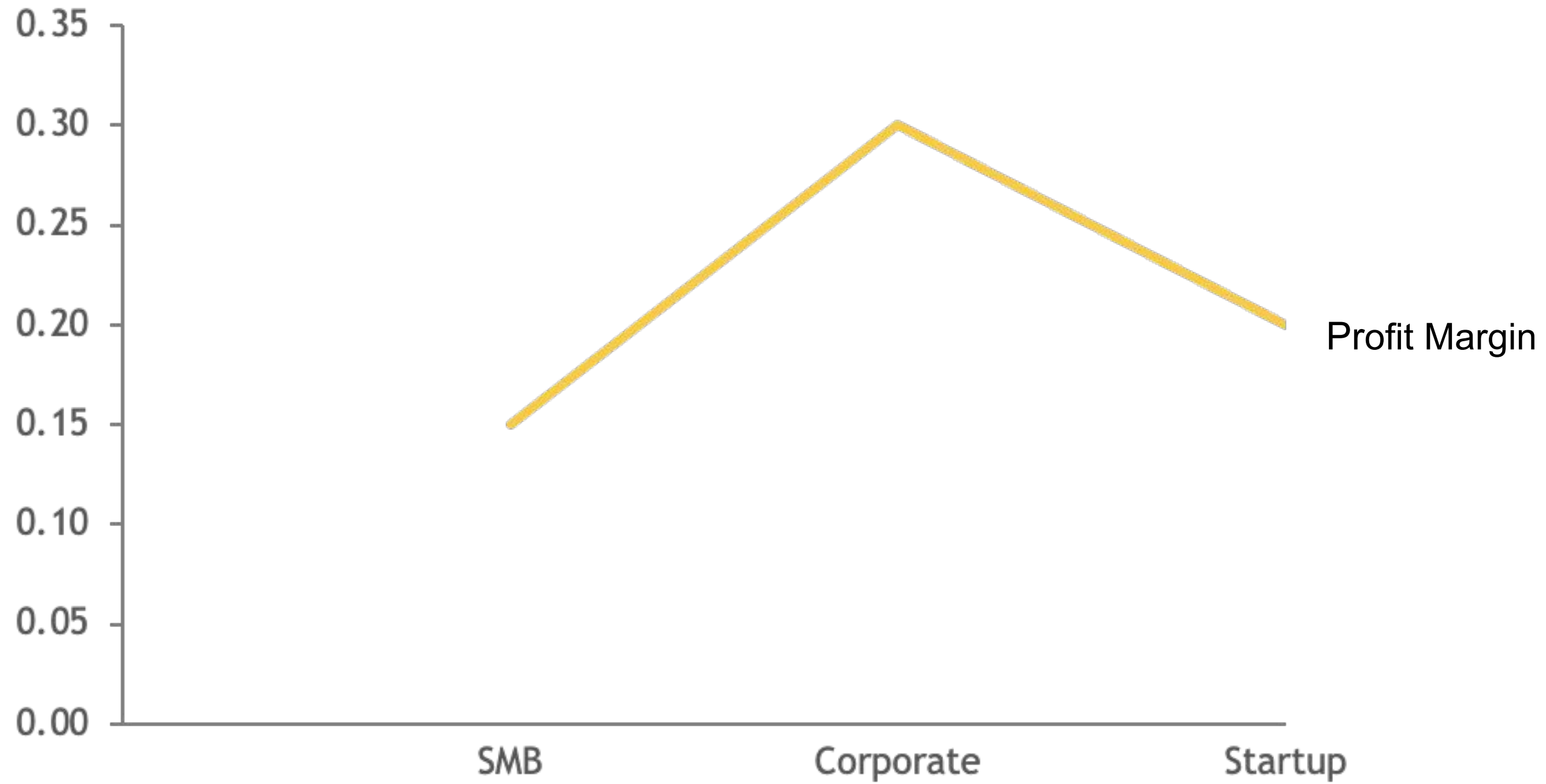
From Startups: $40\% \times 2.5 \times 30\% + 80\% \times 0.5 \times 20\% = \380 MN

Total incremental Revenue : ~700 MN (ok to approximate)

However, this is falling short by 300 MN. Hence, the interviewer should follow up with a brainstorming session on meeting the 300 M shortfall only after guiding the candidate through the profitability exhibit.

Exhibit 2

Net profit margin by segment post organic expansion



Interviewer Guidance - Exhibit 2

Calculation to check if profit margins will increase with incremental revenue

| Segment | Profit Margin |
|----------------|---------------|
| SMEs | 15% |
| Big Corporates | 30% |
| Startups | 20% |

Objective is to maintain or increase profitability.

Incremental Revenue and Profit:

From SMEs: $20\% \times 2.5 \times 10\% + 15\% \times 0.5 \times 20\% = \$ 65 \text{ MN}$ | Profit: ~ \$ 10 MN

From Big Corporates: $40\% \times 2.5 \times 25\% + 5\% \times 0.5 \times 10\% = \252.5 MN | Profit: ~ \$

75 MN From Startups: $40\% \times 2.5 \times 30\% + 80\% \times 0.5 \times 20\% = \380 MN | Profit: ~ \$ 76 MN

Total incremental Revenue and Profit: ~700 MN (ok to approximate) | Profit : ~ \$

160 MN New Profit Margin : $(150 + 160) / 1.7 = 18\%$ which is more than 15%

Alternatively, an exceptional candidate should be able to infer from the graph that since each segment's profit margin is more than 15% the overall margin would stay above 15%.

Interviewer should guide the discussion towards technology solutions and ideas that the client can pursue to further increase their revenue from existing customers.

Prompt

- What are some tech led initiatives that Do-Work can pursue to make customers feel safe about in-person work?

Potential Solutions

- Autonomous Cleaning Solutions
- Zero touch and voice enabled tech
- Mobile and App based accessibility
- Remote Collab Tools
- People Counting sensors and over crowding alerts
- Attendance management
- Lease management for B2B enterprises

Exhibit 3

Tech initiatives for incremental revenue generation

| Idea Name | Implementation Timeline | Implementation Cost | Incremental Revenue (in USD) | Operational Cost (in USD) | Risk* | Lead Time to Revenue Realization post Implementation |
|---------------------------------------|-------------------------|---------------------|------------------------------|---------------------------|--------|--|
| Attendance management for enterprises | 2 years | NA | 150 MN | 10 MN | Medium | .5 years |
| CRM management | 1 year | NA | 200MN | 50MN | High | 1 year |
| Lease management SaaS | 1.5 years | NA | 300MN | 5MN | High | 2 years |
| Voice enabled Technology | 1 year | NA | 350MN | 50MN | High | 2 years |

*Riskiness of a project is a function of internal parameters.

Due to internal controls DoWork is not able to execute more than one High risk project at any given point of time.

Interviewer Guidance - Exhibit 3

Prioritize between the 4 options as to what suits best for business

Objective is to increase revenue by 300 MN in the next 3 years

- First initiative has an implementation + lead time of 2.5 years and incremental revenue of 150 MN which is short of 300 M
- Second initiative has an implementation + lead time of 2 years and incremental revenue of 200 MN which is short of 300 M
- Third initiative has an implementation + lead time of 3.5 years and hence not eligible
- Fourth initiative has an implementation + lead time of 3 years and incremental revenue of 350 MN: this initiative should be prioritized over other

Since these initiatives don't have a fixed cost component there is no impact on the profitability of the enterprise during implementation and lead time.

Also, since operational cost is negligible compared to revenue profit margin improves considerably.

Conclusion

Recommendation

- DoWork should focus on capturing more market share from competitors using aggressive marketing techniques to grow its market share and focus on the most profitable segment i.e. Big Corporate
- DoWork should also implement technology led initiatives to boost revenue and cost-saving

Risks

- Covid can cause further disruption and hinder growth
- Rising real estate costs in major cities can increase long term lease rentals

Next Steps

- Hire a dedicated marketing and research team for competitor analysis and growth marketing

Spice Up Your Life

Private Equity, Food/Retail | M&A, Valuation, Chart
Analysis

Interviewee Led

Ratings:

Quant - 2

Qual - 1

Overall - 2

General Information:

- This case tests quantitative skills but also the candidate's ability to remain organized as data from one exhibit often needs to be compared to another for important insights. Strong candidates will be using their notes to not have to ask the interviewer constantly to re-show an exhibit.
- The case topic should be easily relatable for most candidates, so pay attention to the candidate's soft skills and ability to be conversational.

Exhibit & Quant Summary

- Exhibit 1: Income Statement and Industry Comparison
- Exhibit 2: Revenue and Cost by product mix
- Exhibit 3: Projected Revenue
- Quant - Total Projected Value from Investment

Prompt

Our client, Seasoned Investors (SI), is a private equity firm that has just launched a new fund focused on investments in the food industry. For their first investment, they are considering acquiring Favored Flavors (FF), a spice company specializing in premium organic spices.

Favored Flavors is asking for \$75M, and the offer is final. Should Seasoned Investors pursue this acquisition?

Clarifying Information:

- Financial Targets: SI seeks a Multiple of Invested Capital (MOIC) of 2x (i.e. it seeks to earn double the value of its investment by the end of the holding period). MOIC does not involve time value of money, so a discounted cash flow analysis is not needed. (If the interviewee begins to discuss a DCF and/or discount rate)
- The fund has a holding period of 4 years, at which point the fund will sell the business. SI is confident that they will be able to sell the business at 10x EBITDA.
- FF does not have any debt.
- FF sells primarily to grocery store wholesalers (not an important part of this case).
- A couple SI managing directors have significant experience in this industry, but SI does not currently have any other portfolio companies in the food/beverage market.

Potential Framework

Company

Profitability/Cash Flow Analysis

- Revenue
 - Price
 - Quantity
- Cost
 - Variable:
 - Raw Materials
 - Packaging
 - Shipping
 - Fixed:
 - Manufacturing Plant
 - Labor
 - Other SG&A Costs
- Company Leadership/
Capabilities

PE Firm

- Fund objectives
- Synergies/Improvements
 - Future bolt-on acquisitions
- Investment-light revenue growth opportunities
- Cost optimization
- Firm expertise in industry
- Fund restrictions
- Financing the acquisition
- Exit strategy

Market

- Market Size, Growth
- Competition
- Trends:
 - ESG: Fair wages for farmers, ethically sourced spices, sustainability in packaging
 - Customer trends: desire for more exotic foods, healthier eating, more online grocery
 - Regulations: Trade restrictions, import/export regulations

Valuation

- Cash flow during holding period
- Exit value
 - Multiples

Note/Advice to Interviewer/ How to move forward

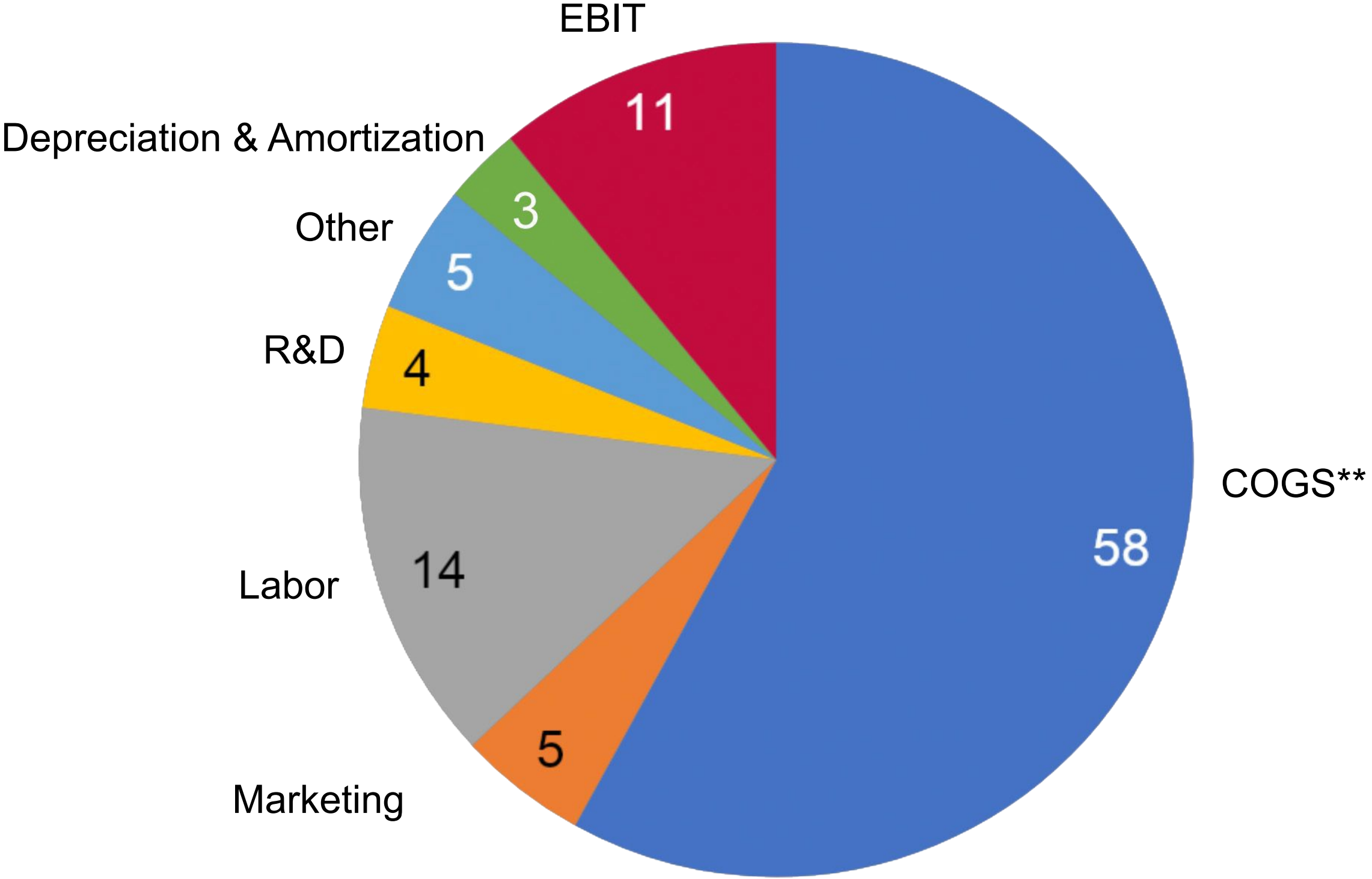
- Handover exhibits on profitability of FF and market analysis. Next, handover exhibit on product mix
- A strong candidate will set up an equation to evaluate the transaction, such as: $2 \times \text{Purchase Price} \leq \text{Sum of FCFs} + \text{Sale of Business}$
- Once candidate has set up this equation, share exhibit on projected revenue growth

Exhibit 1: FF Income Statement & Industry Benchmark

| FF 2020 Income Statement | |
|--|-------|
| Revenue (\$M) | 50 |
| COGS (\$M) | 33 |
| SG&A* (% of revenue) | 23% |
| EBITDA (Revenue – COGS – SG&A) (\$M) | 5 |
| Free Cash Flow (% of EBITDA) | 62.5% |

*SG&A includes labor, marketing, R&D, and other costs

Industry Average Cost Breakdown



**Industry average breakdown for COGS is 90% raw material and 10% packaging.

Questions for Candidates

“Favored Flavors provided us with a summary of their most recent annual income statement. Your consulting team also pulled some industry average cost data for comparison. What insights do you get from this data?”

Candidates should recognize:

- FF’s EBITDA is 4% less than the industry average of 14% (EBIT of 11% + Depreciation and Amortization of 3%)
- FF’s COGS ($33/50=66\%$) is 8% higher than the industry average. This could be because of the higher quality of the spices, but there may still be opportunities to optimize.
- FF’s SG&A ($11.5/50=23\%$) is 4% less than the industry average, which could be a competitive advantage. From here, candidates should drive the case forward by asking for more information on COGS.

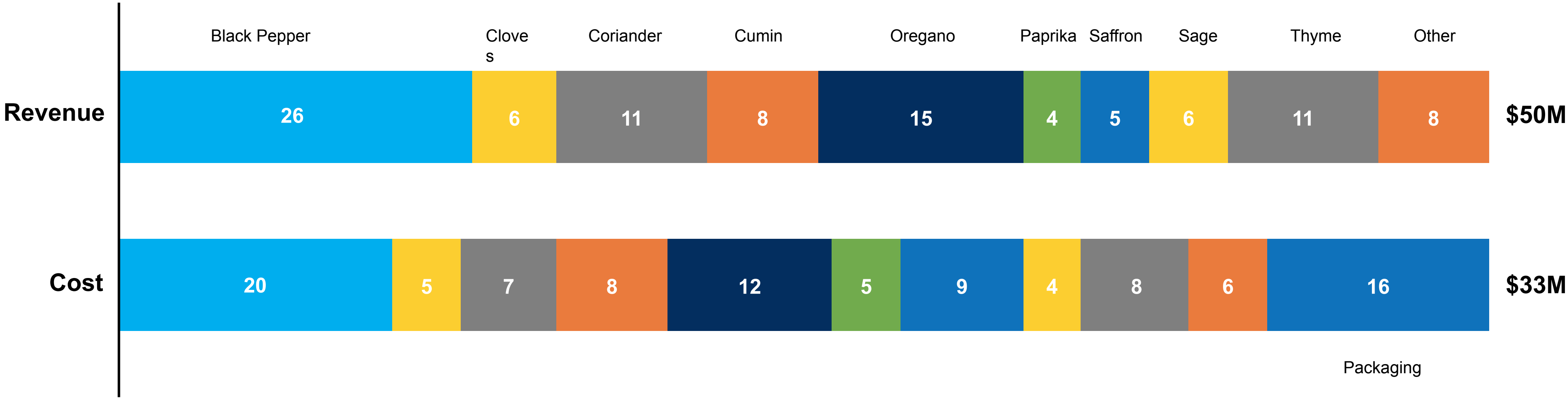
Notes/Advice to Interviewer:

- If the candidate has questions around net income or free cash flow, explain that free cash flow is the cash flow available to funding providers (i.e., the amount the PE firm will receive from the business each year)
- If candidate asks for the company’s EBIT or Depreciation and Amortization expense, simply state that FF did not provide those line items.

Revenue & Cost for FF by Product

Case 13 – Spice Up Your Life

%,
Total



Cost Savings Calculation

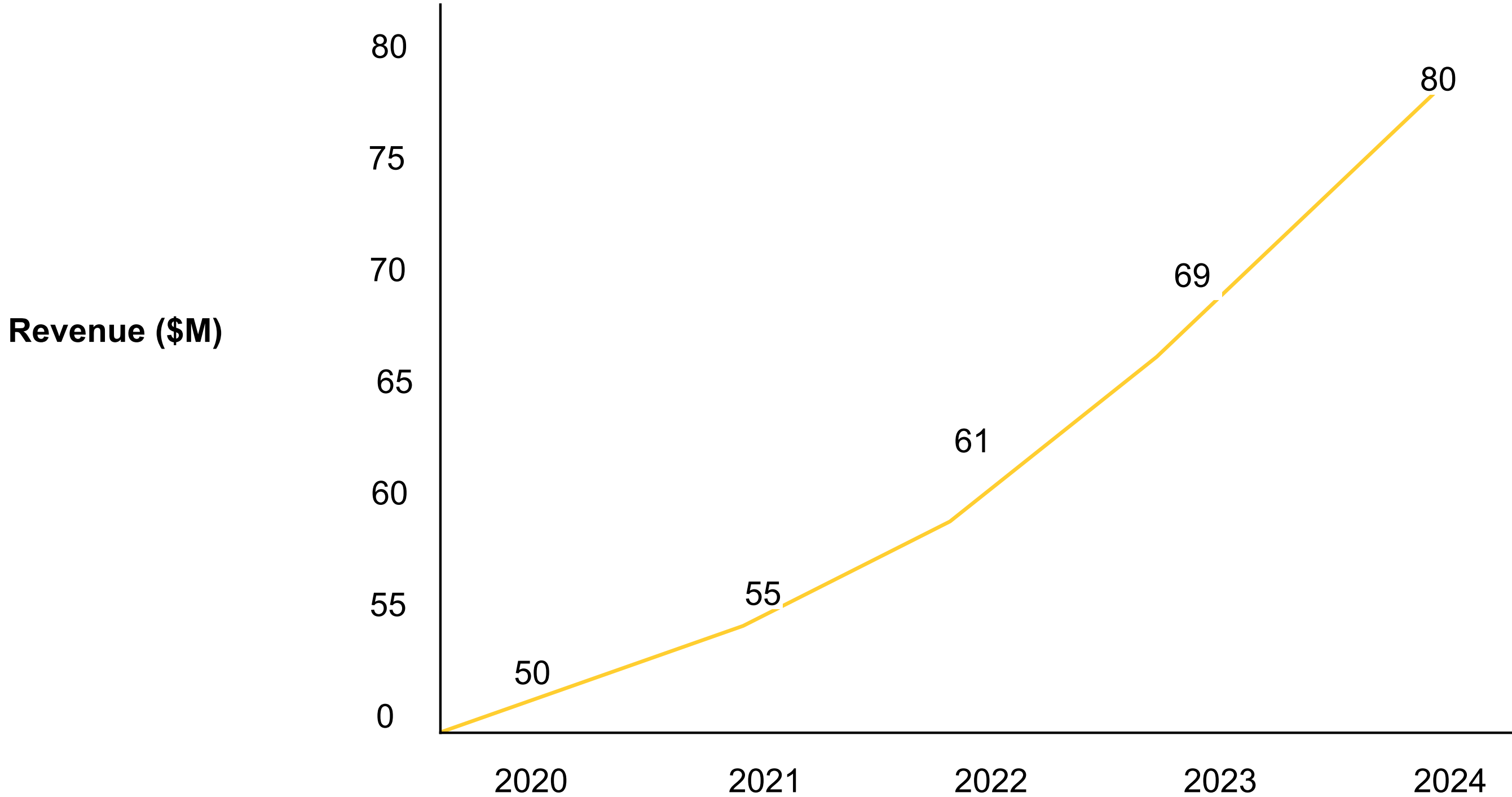
Revenue and Cost by Product Mix

Questions for Candidates about Exhibit that the Interview should ask:

Ask the candidate if they have any insights on the exhibit.

- Candidates should also note that packaging is significant at 16% of total cost, which is higher than the industry average of 10%. If necessary, **prompt the candidate to calculate the cost savings that would come from bringing the packaging cost down to the industry average.**
 - Solution: $6\% * 33M = \$1.98M$ (rounding to \$2M is fine)
- Candidates should also note that Saffron is currently losing money ($\$50M * 5\% = \$2.5M$ in revenue, $\$33 * 9\% = \$2.97M$ in costs (tell the candidate they can round to \$3M in cost). **Once the candidate reaches this insight, share that your team believes this cost can be reduced by 1/3rd.**
 - Solution: $9\% * (1/3) = 3\%$ change. $3\% * \$33M = \$0.99M$ (rounding to \$1M is fine)
- Total gain in profit/EBITDA = \$3M. Prompt the candidate to calculate the free cash flow for 2020 if these changes were made if the candidate does not automatically do so.
 - Solution: $\$5M + \$3M = \$8M$ in EBITDA. $8 * 62.5\%$ (or $5/8$) = \$5M.
 - Strong candidates will note that EBITDA is now 16%, higher than the industry average, and that FCF is 10% of revenue.

Projected Revenue Growth



Total Projected Value Calculation

Projected Revenue Growth

Question/Exhibit Guidance

- Candidates should use this graph to calculate the future free cash flows for the business, using the new profit margins that they calculated from the first 2 exhibits, i.e., FCF is 10% of revenue.
- When the candidate asks about the value of the business at the sale or terminal value, mention that SI believes they will be able to sell the company at 10x EBITDA in 2024.**
- By adding each year’s FCF and the terminal value, the total projected value of the business should be \$154.50, which is greater than the 2x MOIC requirement of \$150. Once the candidate has reached this point, ask the candidate to prepare a conclusion for the client.

Free Cash Flow

| Analysis | 2021 | 2022 | 2023 | 2024 |
|------------------------|------|------|------|----------------|
| Revenue (\$M) | 55 | 61 | 69 | 80 |
| FCF (10% of Rev) | 5.5 | 6.1 | 6.9 | 8 |
| Total FCF (\$M) | | | | \$26.50 |

Total Projected Value Analysis

| | |
|------------------------------------|-----------------|
| EBITDA (16% of revenue) | 12.8 |
| EV/EBITDA multiple of 10x (\$M) | \$128 |
| Total FCF (\$M) | \$26.5 |
| Total Projected Value (\$M) | \$154.50 |

*Note: no discounting needed. If candidate asks about discounting, remind them of the 2x MOIC requirement

Conclusion

At this point, the candidate should realize that the projected value of the investment will result in an MOIC greater than 2x within the 4-year holding period.

Recommendation

- Seasoned Investors should move forward with the acquisition of Favored Flavors, as the projected value of \$154.50M is greater than twice the investment cost of \$75M.

Risks

- Candidates could list a variety of risks, including but not limited to any of the factors included in the framework.
Examples:
 - Disruptions in the market (e.g., shift to online and grocery delivery services, customer preference for more sustainable spices etc.)
 - Changes in the macro landscape (e.g., rise in interest rates/ borrowing costs) which limits exit opportunities

Next Steps

- Next Steps should either directly relate to mitigating risks or to exploring additional workstreams
- Conduct more thorough market analysis to identify emerging trends
- Conduct primary customer research
- Prepare a plan for most acquisition, specifically how to reduce costs for packaging and select spices

Apogee Bank

Financial Services | Growth Strategy
Interviewee Led

Ratings:

Quant - 2

Qual - 2

Overall - 2

General Information:

- This case is a good fit to understand the business model of banks. The case tests the candidate's ability to draw second and third level insights from exhibits to get to the root cause of the client problem and make recommendations.
- Strong candidates will consistently look for growth drivers that would make business sense for a bank (financial services company). Even stronger candidates will get into the nuances of the client through the insight gathered from the exhibits.

Exhibit & Quant Summary

- Exhibit 1: Average Revenue Per Account (ARPA) by Product
- Exhibit 2: Summary of email survey conducted on churning customers
- Exhibit 3: Partner with WizardTech or Buy Finvest Inc

Prompt

Our client Apogee bank, a regional bank with 700 branches in US Midwest, has seen a declining trend in revenues in the past 2 years. Blake Moran, the CEO of Apogee bank, hired you to identify the reasons for falling revenues and recommend ways to grow revenues.

Clarifying Information:

- Apogee Bank offers checking and savings accounts, as well as personal, mortgage and auto loans.
- On the checking and savings accounts, Apogee bank makes money from service charges and account maintenance fees and earns interests on loans.
- Apogee bank provides services through both brick-and-mortar branches and online applications.
- The candidate doesn't need to know any other information about the client's business or the retail banking industry to solve this case. If the candidate asks for any more clarification at this point, reverse the question to ask why that specific information is needed for the case.

Potential Framework

Revenues falling (Internal Factors)

ARPU decreasing

- Volume of services used by customers decreasing
- Mix of transactions shifting to low value products
- Asset/deposit base shrinking
- Decrease in branch/ATM walk ins

of customers decreasing

- Customer experience issues
- Lack of online capabilities impacting serviceability and scale
- Trust/Security/Convenience concerns
- No financial education resources
- Lack of rewards/benefits

Change in Market Dynamics (External Factors)

Competition

- New regional banks in the area
- Better interest rates offered by regional or online competitors
- Increased consolidation amongst regional banks

Customer Trends

- Less interest in traditional/regional banks amongst the millennial/GenZ userbase
- Inclining towards non-banking companies/ challenger banks for banking needs
- Lack of rewards/benefits

Government/Regulatory Reasons

- New caps on reserves limiting lending power
- Additional onboarding paperwork limiting new account opening user base
- Inclining towards non-banking companies/ challenger banks for banking needs
- Lack of rewards/benefits

Growth Opportunities

Organic

- Play with Price
- Market expansion - acquire new accounts
- Market penetration - focus on cross selling
- Diversification - adding new products for new & existing customers

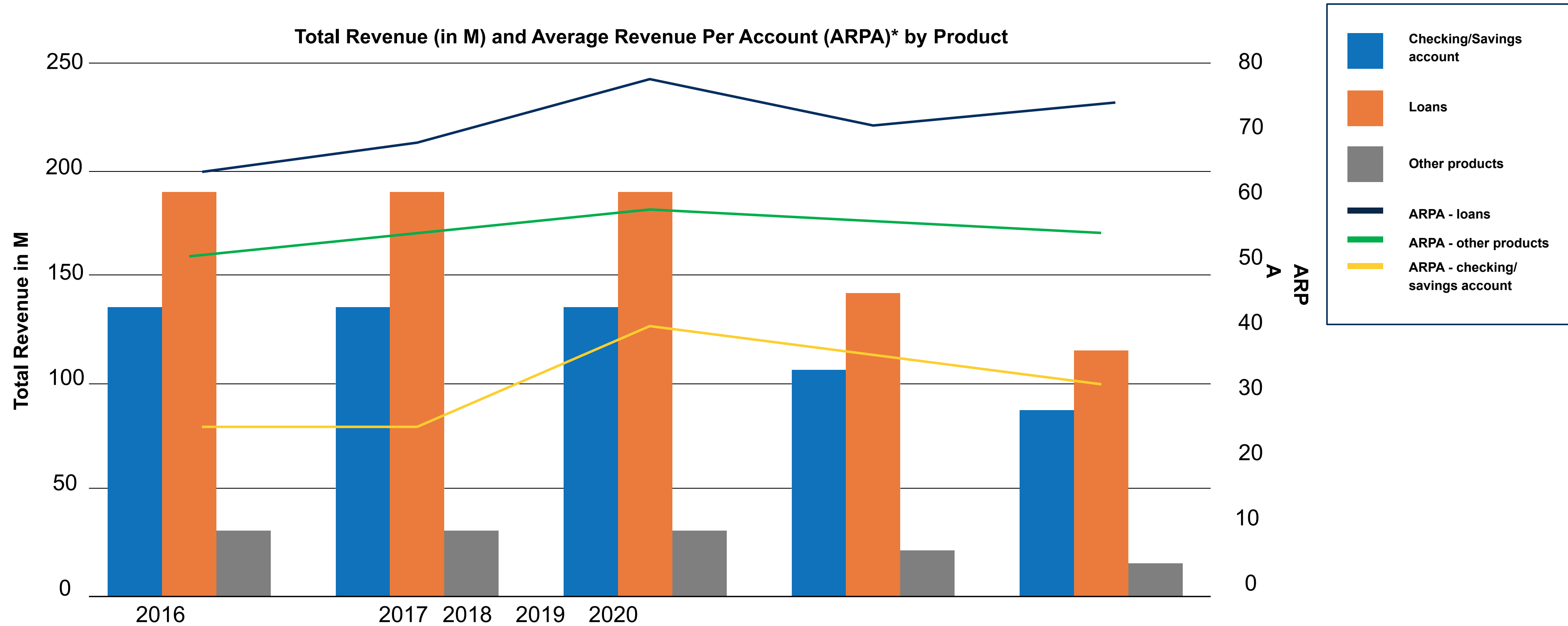
Inorganic

- Buy market share - acquire fintechs/other banks

Notes/Advice to Interview/ How to Move Forward:

- Candidate should recognize that this is a revenue problem
- Hand Exhibit 1 if the candidate mentions revenues as the area of initial focus
- If the candidate mentions costs or profitability, ask why and then direct the candidate to focus on revenues

Exhibit 1: Average Revenue Per Account (ARPA) by Product



**Note: # Accounts per customer and the mix and volume of transactions within each account type have remained almost the same across all products in the last 5 years*

Exhibit 1 Guidance

Questions for Candidates about Exhibit that the Interview should ask:

What additional insight does this chart provide on the potential root causes behind falling revenues at Apogee?

- Once the candidate recognizes falling # of accounts or deactivation of accounts in the last 2 years as the reason, ask him or her how this trend translates into # of users active on the platform? (Highlight the footnote if the candidate doesn't acknowledge it)
- Once the candidate figures out the primary reason (Customer Churn) behind the fall in revenues in the last 2 years, brainstorm on potential ways to identify reasons for churn and then move to Exhibit 2 after sufficient brainstorming

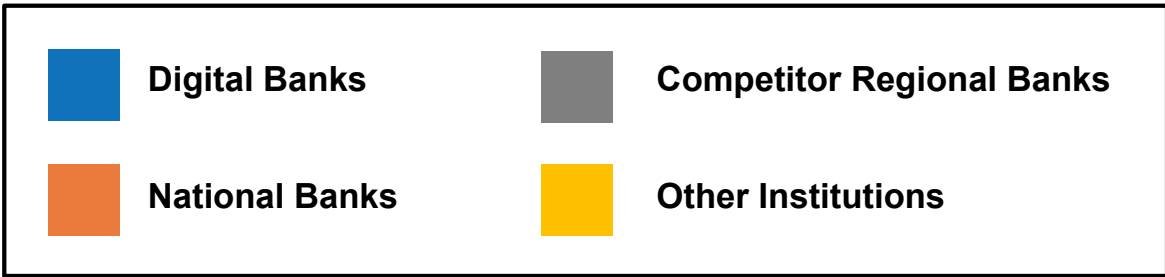
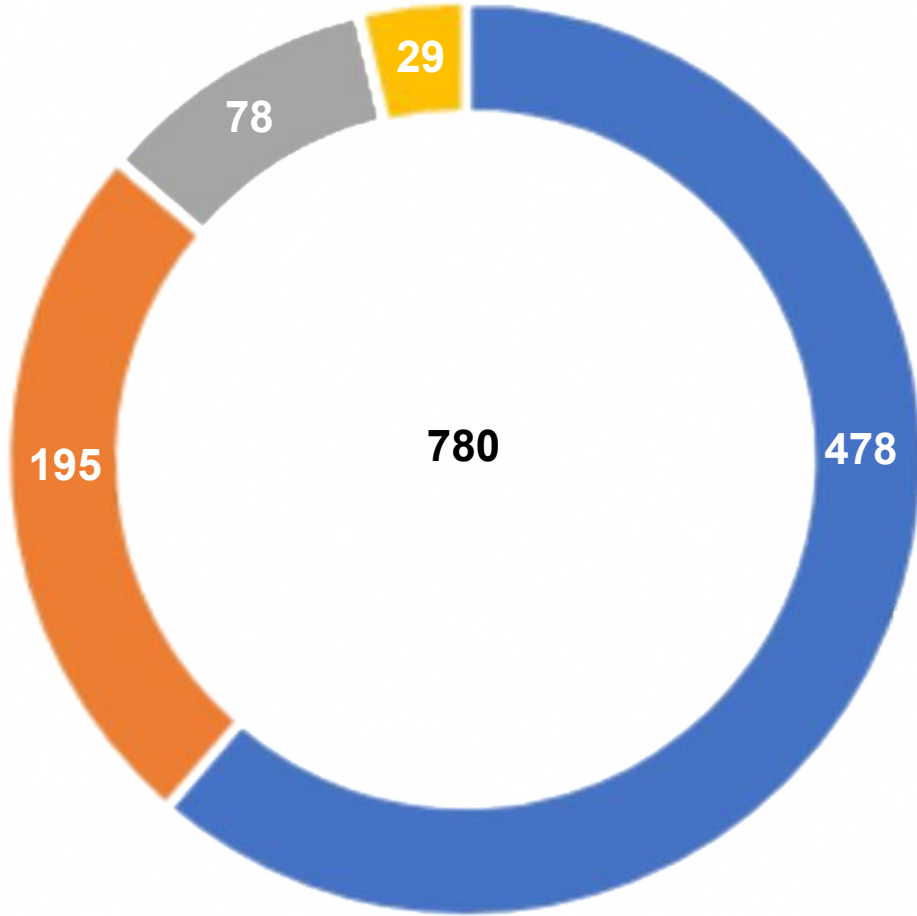
Question/Exhibit Guidance

- **Candidate should recognize:** Falling revenues across all products, ARPA remaining constant -> Volumes decreasing
- **Strong candidates will:**
 - Recognize the relation between ARPA and ARPU (Average Revenue Per User) -> $ARPU = ARPA * \# \text{ of Accounts per user}$. Since the # of Accounts per user has not changed (as mentioned in the footnote), it can be deduced that customers are leaving the bank
 - Start brainstorming reasons for why customers could be churning and what are the best ways to identify reasons for churn i.e. surveys

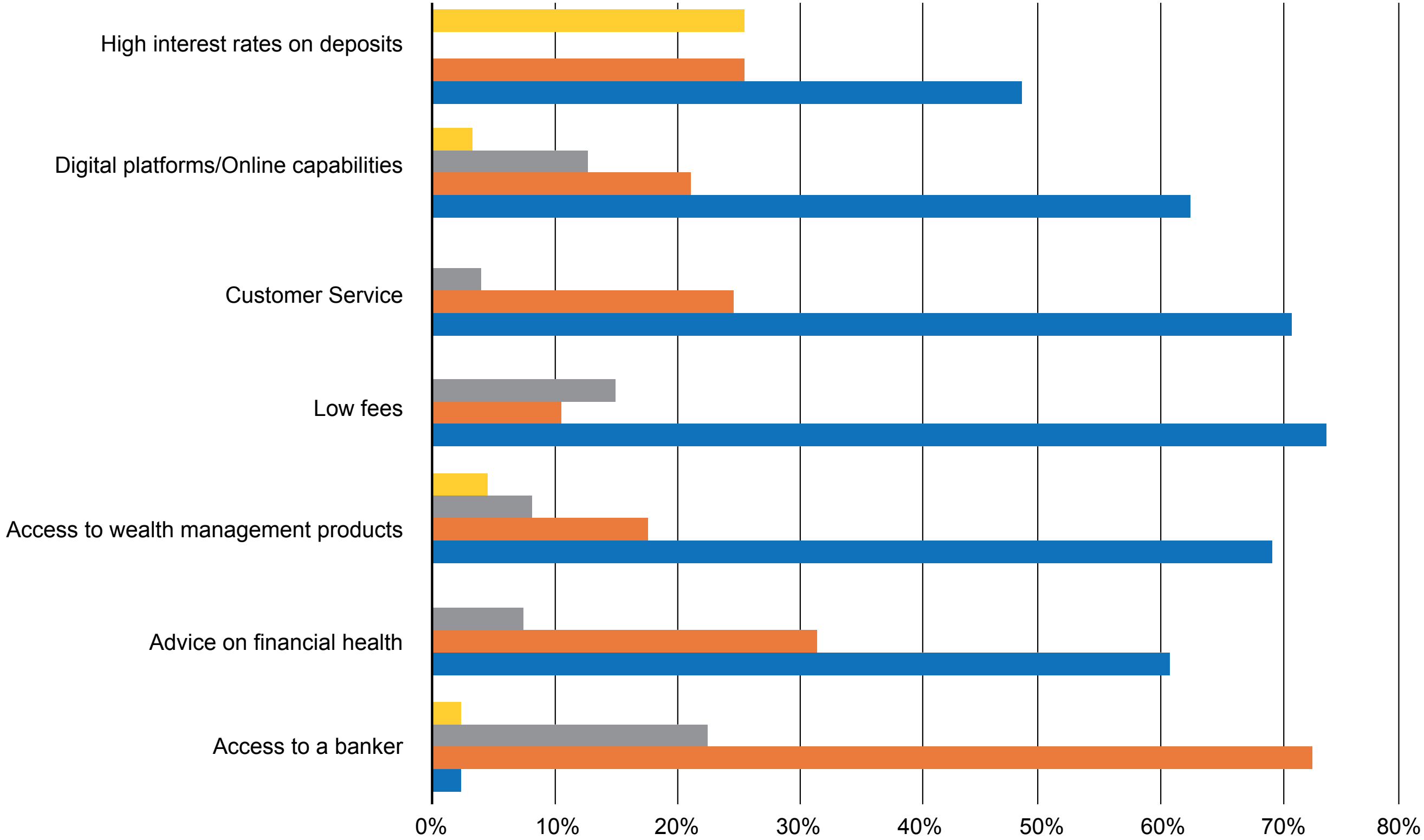
Exhibit 2: Churning Customers

Survey Summary

Where did the survey respondents switch to?



Reasons for switching



Questions for Candidates about Exhibit that the Interview should ask:

What additional insight does this chart provide on the reasons for recent increase in customer churn?

- Once the candidate identifies the key reasons for churn, push him/her to brainstorm ideas for next steps – adding new investment products.
- After sufficient brainstorming, hand out Exhibit 3 to the candidate.

Question/Exhibit Guidance

- **Candidate should recognize:** Lack of investment/personal finance products offered digitally as the primary reason for churn as can be deduced from: High interest in digital/challenger banks, and mention of digital investment platforms, access to wealth management products and financial advice as the primary reasons for switching to a different platform.
- **Strong candidates will:** consolidate all the key takeaways to recommend next steps (acting on not having enough personal finance products to offer)

Partner or Buy

| Partner with WizardTech | |
|--|-------------|
| B2B tech company offering white labelled investment products & services to retail financial services companies | |
| Setup cost | \$2,800,000 |
| Annual maintenance cost | \$750,000 |
| Price charged to Apogee for every user onboarded | \$14 |
| Average Revenue Per User (ARPU) | \$23 |
| Estimated new users | 125,000 |

| Buy Finvest Inc. | |
|---|-------------|
| New Jersey based FinTech startup offering personal wealth management services | |
| Buy Price | \$5,000,000 |
| Annual Revenue | \$800,000 |
| Annual Fixed Cost | \$150,000 |
| Contribution Margin | \$4 |
| Current Userbase of Finvest | 100,000 |
| Estimated new users | 125,000 |

Apogee bank expects Finvest to immediately save 6% on fixed costs and improve contribution margin by 5% if the deal goes through

Partner or Buy - Calculation

Calculations

- The client here wants to finalize which mode of launch makes more financial sense for the bank
- Steer towards calculating payback/breakeven period if the candidate doesn't move in that direction
- Candidate can assume that cost synergies as mentioned in the footnote can be realized from inception
- Strong candidates will: recognize cost synergies, structure profitability calculations separately and suggest calculating payback period without prompting

| Partner with WizardTech | | |
|----------------------------|--------------------------|-----------|
| Total yearly cost | $750,000 + 14 * 125,000$ | 2,500,000 |
| Total yearly revenue | $23 * 125,000$ | 2,875,000 |
| Yearly incremental profits | $2,875,000 - 2,500,000$ | 375,000 |
| Payback (in years) | $2,800,000/375,000$ | 7.5 |

| Buy Finvest Inc. | | |
|----------------------------|-------------------------------|-------------|
| Total Fixed Cost | $150,000 * (1 - 6\%)$ | \$141,000 |
| Unit Revenue | $800,000/100,000$ | \$8 |
| Unit Variable Cost | $8 - 4 * (1 - 5\%)$ | \$3.8 |
| Total Variable Cost | $(125,000 + 100,000) * 3.8$ | \$855,000 |
| Total Revenue | $8 * (125,000 + 100,000)$ | \$1,800,000 |
| Yearly incremental profits | $180,000 - 141,000 - 855,000$ | \$804,000 |
| Payback (in years) | $5,000,000/804,000$ | 6.2 |

Brainstorming Question

Prompt: What are some other pros and cons of acquiring Fininvest Inc. over partnering with WizardTech?

Pros:

- New resources and competencies - access to additional customers as well as employees, assets and IP
- Reduced entry barriers to launch wealth management services
- Increase bottom line profitability once entities have completed the acquisition
- Increased market power; better positioned to fight competition
- See immediate and long-term tax advantages

Cons:

- High initial capital for acquisition
- Risk losing key employees and customers if combining the two companies is not executed carefully and effectively
- Risk financial detriment if the company being acquired turns out not to have enough value to justify the investment
- Longer implementation time and distraction from day-to-day operations
- Any regulations that limit the acquisition
- Any other logical reason is also acceptable

Conclusion

At this point, the candidate should realize that the buy option is more attractive for Apogee Bank and share the risks and next steps associated with that acquisition.

Recommendation

- Acquire Finvest Inc. at \$5M for a payback in 6.2 years
- Extend Finvest's investment product offerings to all customers of Apogee Bank

Risks

- The acquisition might not provide the expected benefits due to a mismanaged or prolonged integration
- With no experience in selling wealth management products earlier, there may be hiccups that Apogee Bank can face in marketing and opening new investment accounts
- Finvest's unstated intent to sell and the confidence in maintaining its current financials
- Customer adoption to these new products by Apogee Bank could be slow

Next Steps

- Ensure appropriate liquid funds are available to fund the acquisition
- Plan an integration strategy to merge with Finvest and to roll-out investment products in phases
- Explore ways to realize additional synergies post acquisition

Marie's Café

Food | Profitability

Interviewer Led

Ratings:

Quant - 2

Qual - 3

Overall - 3

General Information:

- This case is like a BCG case. It follows their typical format of a company looking to increase profits and ready to use multiple avenues to get there: both external and internal factors
- Strong candidates will identify the difference among profits of various products use it as a waypoint to achieve the target. Strong candidates will also think about diversification of products and ways to improve operational efficiency.

Exhibit Summary

- Exhibit 1: Products, Costs, and Customer Split
- Exhibit 2: Demand of coffee per hour

Prompt

Marie's Café is a small local coffee shop that serves coffee. Marie's has been around for decades and is known for its high quality drinks and cozy atmosphere. The café has seen declining profits over the last few quarters, and the owner has hired you to increase its profits.

Clarifying Information

- There are two other coffee shops nearby that sell coffees and pastries.
(There is no further information on these competitors.)
- Marie's currently serves two items (coffee and latte) in three different sizes.

Potential Framework

External Factors

Market

- Market growth
- Changing consumer preferences (Product, atmosphere)

Competition

- New low cost competitors
- New substitutes (restaurants or fast food chains close-by)

Internal Factors

Company

- Foot traffic in the coffee store (Increase number of customers)
- Process Efficiency (average time to cater to each customer)
- Capacity of the café

Product

- Product diversification (limited product range)
- Price sensitivity of customers
- Complimentary products and services (wireless services)
- Quality of products/brand image (building on brand)

Notes / Advice to Interview/How to Move Forward:

- If the candidate touches on prices or costs, show Exhibit 1 and ask to calculate avg. profit / customer
- Next give candidate the relevant data points including Exhibit 2 and ask to calculate avg. profit / day

Exhibit 1

Products, Costs, and Customer Splits

| Product | Price | % of Customer Purchases |
|-----------------------|--------|-------------------------|
| Coffee, 8 oz. | \$1.00 | 15% |
| Coffee, 12 oz. | \$1.50 | 15% |
| Coffee, 16 oz. | \$2.00 | 15% |
| Latte, 8 oz. | \$3.00 | 20% |
| Latte, 12 oz. | \$4.00 | 20% |
| Latte, 16 oz. | \$5.00 | 15% |

| Product | Cost |
|------------------------|--------|
| Cup, 8 oz. | \$0.30 |
| Cup, 12 oz. | \$0.40 |
| Cup, 16 oz. | \$0.50 |
| 4 oz. of coffee | \$0.10 |
| 4 oz. of latte | \$0.50 |

Note: Food and packaging costs are separate.

Exhibit 1 Guidance

Questions to ask candidate:

- *How much profit does Marie’s cafe currently make per customer?*
- Assume each customer only purchases one drink per visit. (*Show Exhibit 1*)

Guidance:

- Strong candidates will point out the larger sizes yield larger gross profit, and suggest new profit increasing strategies (promoting sales of larger sizes, introducing a 20 oz size, eliminating 8 oz sizes). Profit here does not include baristas.
- Avg Profit = \$1.50 / customer.
See Calculations to the right.

| Product | Price | Cost | Unit Profit | % of Customer Purchases | Profits per Customer |
|-----------------------|--------|--------|-------------|-------------------------|----------------------|
| Coffee, 8 oz. | \$1.00 | \$0.50 | \$0.50 | 15% | \$0.08 |
| Coffee, 12 oz. | \$1.50 | \$0.70 | \$0.80 | 15% | \$0.12 |
| Coffee, 16 oz. | \$2.00 | \$0.90 | \$1.10 | 15% | \$0.17 |
| Latte, 8 oz. | \$3.00 | \$1.30 | \$1.70 | 20% | \$0.34 |
| Latte, 12 oz. | \$4.00 | \$1.90 | \$2.10 | 20% | \$0.42 |
| Latte, 16 oz. | \$5.00 | \$2.50 | \$2.50 | 15% | \$0.38 |
| Average Profit | | | | | \$1.50 |

Exhibit 2

Demand of coffee per hour

| Time | Average Demand per Hour |
|-------------|-------------------------|
| 7AM to 10AM | 100 |
| 10AM to 1PM | 80 |
| 1PM to 4PM | 60 |
| 4PM to 7PM | 40 |
| 7PM to 10PM | 15 |

Exhibit 2 Guidance

Questions to ask candidate:

What is the average profit that Marie’s Café earns per day?

- Each customer purchases exactly one beverage
- Two baristas are working at any given time. Baristas are paid \$15/hr
- Hours: 7am to 10pm, Monday through Friday. Closed on weekends
- The number of customers per hour is listed below. Customers leave if they cannot be served quickly
- On average, it takes 2 minutes for a barista to complete an order
- *Show Exhibit 2

Guidance:

- Candidate should realize that the café is losing money in the evening hours. Candidate should suggest adding or subtracting baristas based on demand. Assuming 2 baristas per hour, the average profitability per day would be \$607.50. By adding a third barista to the morning shift and reducing one at night, the new profit would be \$787.50

| Time | Demand per Hour | Served | Current Profit | Optimal Baristas | Optimal Served | Optimal Profit |
|--------------------|-----------------|--------|-----------------|------------------|----------------|-----------------|
| 7AM to 10PM | 100 | 60 | 180 | 3 | 90 | 270 |
| 10AM to 1PM | 80 | 60 | 180 | 3 | 80 | 225 |
| 1PM to 4PM | 60 | 60 | 180 | 2 | 60 | 180 |
| 4PM to 7PM | 40 | 40 | 90 | 1 or 2 | 30 or 40 | 90 |
| 7PM to 10PM | 15 | 15 | -22.5 | 1 | 15 | 22.5 |
| | | | \$607.50 | | | \$787.50 |

Question 3

If candidate mentions that competitor sells pastries, while Marie’s Café does not: follow up by asking, “what factors should Marie’s Café consider before purchasing an oven to sell pastries?”

Brainstorming Guidance

Revenue

- Doughnut sales, increased synergies with coffee/volume of customers

Costs

- Fixed costs – purchasing/maintaining oven, setting up display case, storage, advertising
- Variable costs – ingredients, hiring/training staff

Capacity

- Room in café for oven and ingredients
- Baristas available to accommodate for increase in demand

Brand Image – Marie’s is known for its coffee and atmosphere; adding pastries may change image and drive away loyal customers, especially if they are low quality

Competition – Price and quality compared to competitors

Alternative Opportunities – Purchasing doughnuts from somewhere else

Brainstorming

Question

A new espresso machine, priced at \$2000, can greatly decrease the time it takes to make a latte. The average time it takes to complete an average customer’s order decreases from 2 minutes to 90 seconds. How long would it take to pay back the machine?

Math Solution:

- Daily Profit shown below, calculated with the optimal number of baristas
- Machine would be paid back in 14.8 days
- $(2000 / (922.5 - 787.5))$ from Question 3)
- Baristas in the 7-10AM would also yield similar profits with the advantage of turning away few customers

| Time | Demand per Hour | Served | Profit | Optimal Baristas | Optimal Served | Optimal Profit |
|--------------------|-----------------|--------|-----------------|------------------|----------------|-----------------|
| 7AM to 10PM | 100 | 80 | 270 | 3 | 100 | 315 |
| 10AM to 1PM | 80 | 80 | 270 | 2 | 80 | 270 |
| 1PM to 4PM | 60 | 60 | 180 | 2 | 60 | 180 |
| 4PM to 7PM | 40 | 40 | 90 | 1 | 40 | 135 |
| 7PM to 10PM | 15 | 15 | -22.5 | 1 | 15 | 22.5 |
| | | | \$607.50 | | | \$922.50 |

Conclusion

Recommendation

- Focus on driving profits through larger size of coffee due to higher gross profit per transaction
- Schedule 4 baristas during peak times and 2 baristas during slower periods
- Offer complimentary add on services such as wireless services
- Diversify product range by including food.

Risks

- Offering wireless services might make customers stay for longer and the capacity of the cafe might not be enough to hold the customers.
- Baristas unable to accommodate demands

Next Steps

- Hire 4 baristas for peak time or use the new machine.
- Sell food along with coffee. As baristas are currently limited, think about buying food/ pastries from wholesaler.

Excellent Case Answers

- An excellent caser will provide both the pros and cons of starting wireless services. He/She would also be able to highlight capacity and process optimization issues.

Midwest Hospital

Healthcare | Profitability

Interviewer Led

Ratings:

Quant - 2

Qual - 3

Overall - 3

Interviewer Information

General Information:

- The case of a turnaround of a loss-making business to a profitable business. It would require the candidate to understand customer mix of the client and understand competitive benchmarking.
- Strong candidates should identify the competitive advantage of client's competition. Strong candidate should also understand the difference between gross profit and net profit to decide the way forward.

Exhibit Summary

- Exhibit 1: Patient Mix
- Exhibit 2: Joint Replacement Department P&L
- Exhibit 3: Competitive Benchmark

Prompt

Midwest Hospital is a research-based hospital and takes pride in its joint replacement surgery department. Recently Midwest Hospital did a P&L analysis for all departments and found that the joint replacement surgery department is providing losses. The CEO has asked us to help out.

Clarifying Information

- There are no financial targets.
- Focus of this case is only on joint replacement surgery.
- Give the exhibits in the subsequent slides only when the candidate asks for the relevant data.

Potential Framework

| Revenue | Cost | Competition | Customers |
|--|---|--|---|
| <ul style="list-style-type: none">•No. of Surgeries•Complexity of surgery•Patient Mix•Price•Other Charges (bed, medicines)•Post Surgery (visits, medicines) | <ul style="list-style-type: none">•Fixed Costs<ul style="list-style-type: none">•Hospital•Doctors•Equipment•Insurance•License•Variable Costs<ul style="list-style-type: none">•Visiting Doctors/Surgeons•Govt. regulation | <ul style="list-style-type: none">•Price•Patient Mix•Better facilities/equipment | <ul style="list-style-type: none">•Age group•Paying with insurance |

Notes / Advice to Interview / How to Move Forward:

- At some point near the start of the case, interviewer should take the lead.
- Make Exhibit 1 and 2 available for the interviewee ahead of question 1 and 2.

Exhibit 1

Patient Mix

| Payer Type | # Surgeries | List Price | Invoiced Price |
|-----------------------------|-------------|------------|----------------|
| Commercial (Enterprises) | 100 | \$40,000 | \$40,000 |
| Insurance | 300 | \$40,000 | \$20,000 |
| Medicare (Government) | 600 | \$40,000 | \$15,000 |

Exhibit 2

Joint Replacement Department P&L

| Header | | \$Mn |
|----------------------|------------|----------------|
| Revenue | | \$19Mn |
| Variable Cost | Physician | \$5Mn |
| | Materials | \$5Mn |
| | Others | \$4Mn |
| Fixed Cost | Facilities | \$3.5Mn |
| | Others | \$3.5Mn |
| Total Costs | | \$21Mn |
| Profit | | (\$2Mn) |

Question 1

Would it be advisable to not cater to Medicare patients (assuming no backlash)? (Show Exhibit 1 & 2)

Solution:

- On a fully cost allocated basis, Medicare patients are unprofitable but they are still paying \$1k above the variable cost (marginal cost). This helps cover the fixed costs of the department. So, it is not recommended to stop conducting surgeries for Medicare patients.
- Total Cost / # of Surgeries = $\$21\text{M} / 1000 = \mathbf{\$21,000 / surgery}$
- Marginal Cost / # of Surgeries = $\$14\text{M} / 1000 = \mathbf{\$14,000 / surgery}$
- Revenue per Medicare patient = $\mathbf{\$15,000 / surgery}$

Question 2

What is the number of surgeries that Midwest needs to conduct in a year to breakeven?

Solution:

- Average revenue per patient is 19k. Average variable cost is 14k. Gross margin per patient is 5k. Fixed cost are 7M, so 1400 surgeries are required to breakeven. Assuming same proportion as in Exhibit 1 the hospital requires 140 commercial, 420 insurance, and 840 Medicare Patients

Avg. Revenue Per Surgery = Total Revenue / # of surgeries = \$19M / 1000 = **\$19,000 per patient**

Avg. Variable Cost = Total Variable Cost / # of Surgeries = **\$14,000 per patient**

Fixed Costs = **\$7M**

Breakeven = $FC / (Rev - VC) = \$7M / (\$19000 - \$14000) = 1400$ **Surgeries Patient Mix:**

Commercial = 10% * 1400 = **140 surgeries per year**

Insurance = 30% * 1400 = **420 surgeries per year**

Medicare = 60% * 1400 = **840 surgeries per year**

Percentages based on share of surgeries from Exhibit 1

Exhibit 3

Competitive Benchmark

| | Surgeries | Commercial | HMO | Medicare | Profitable |
|------------------|-----------|------------|-----|----------|------------|
| Midwest Hospital | 1000 | 10% | 30% | 60% | No |
| Comp A | 1200 | 20% | 20% | 40% | Yes |
| Comp B | 800 | 30% | 20% | 50% | Yes |
| Comp C | 900 | 10% | 20% | 70% | Yes |
| Comp D | 1000 | 5% | 25% | 75% | Yes |

Question 3

Why is Competitor D able to stay profitable despite having fewer patients and unfavourable patient mix?
(Show Exhibit 3)

Solution:

- Competitor D might have a lower cost structure or was able to negotiate better pricing from payers.

Question 4

Evaluate potential risks to increasing the number of surgeries.

Brainstorming Guidance:

- There might not be enough market demand and increasing surgeries would mean stealing marketing share from competitors
- The competitors might reduce the price and enter a price war
 - Quality of surgery may be reduced, impacting reputation.
 - Surgeons may resent higher workload

Conclusion

Recommendation

- Increase total number of patients to cover
- Change mix of patients to have a higher proportion of commercial and insured customers
- See if you can negotiate with insurers and Medicare for higher reimbursement.

Risks

- Those gained from brainstorming

Next Steps

- Analyze scope for cost reduction, starting with competitive benchmarking
- Analyze scope for increase in price, starting with competitive benchmarking
- Analyze profitability of post care services
- Start conversations with reimbursement providers

Excellent Case Answers

- Star candidates quickly identify that competitor D has a similar patient mix but is still profitable.
- Candidate should provide a reason as to why the client should not eliminate medicare patients
- Candidate should bring up the idea that joint replacement department may be a loss leader and provides synergies with other department offerings

Jab We Profit

Telecom | New Product

Interviewee Led

Ratings:

Quant - 2

Qual - 2

Overall - 2

Interviewer Information

General Information:

- This case is about an Indian telecom organization creating a new product offering, with the caser looking to develop a pricing model and ultimately conducting a breakeven analysis to determine if this is a strong opportunity.
- Drive the interviewee towards a financial analysis of the overarching opportunity

Case Flow:

1. Interviewer reads the prompt and answers any clarifying questions
2. Candidate develops a framework referencing revenues and costs (among other possible things). Let the candidate pick if they want to start with revenues or costs (the order isn't important).
3. Revenue side steps:
 - Ask candidate what they would need to estimate potential revenue
 - The candidate needs to know the market size, estimated market share and pricing per year. The market size will be given in Exhibit 1; the market share will be given in Exhibit 2; pricing will be given by the interviewer when asked (flat \$4 / yr pricing for long-distance plans)
 - Have the candidate estimate revenue.
4. Cost side steps:
 - When the candidate asks about costs, read them the cost information, share Exhibit 3
 - Have the candidate estimate total costs from this information.
5. Break-even analysis:
 - With the revenue and cost analysis done, the candidate can put it together to estimate the breakeven timeline
6. Final brainstorm: If the company does not invest this money in the new product, what else should they consider doing instead to revitalize the company?
7. Final recommendation

Note that all values are given in US\$ throughout the case. Assume constant terms (no need to factor in inflation).

Prompt

Telecom Co, a large Indian telecom service, has a new CEO who is determined to revive the struggling company. He has come up with the idea to launch a new, unlimited long-distance minutes cell plan called 'Geet' to attract new customers. This is a big strategic risk at a time the company is under intense scrutiny from shareholders and the general public, so he has hired us to evaluate if this product is a good idea. Should he launch this product or not?

Clarifications

- Telecom Co has operations only in India
- Telecom Co only has B2B and B2C subscriptions. We'll treat it as one pool of subscriptions.
- Telecom Co does not currently have an unlimited minutes plan; customers looking to make long distance calls must pay per minute.
- Telecom Co's main business is providing mobile communication services (e.g., data and minutes). It has some smaller investments in areas such as television and home internet, but these are minor parts of the business.
- There are several telecom players in India; our client is the fourth largest.
- The CEO needs the investment to break even by the end of the 2nd year, due to pressure from investors to see improvement to the company's performance.

Expected Framework

Good Framework

- Revenues from launching product
 - Number of prospective customers
 - Price
- Costs from launching product
 - Fixed
 - Variable
- Other Considerations
 - Alternatives to launching this products
 - Competition

Great Framework

- Break-even analysis
 - Projected revenues (market size * share * price)
 - Projected costs (fixed, variable, overhead)
- Market factors
 - Short-term view (do consumers want this product? how big is the market today?)
 - Long-term view (is the market growing? are competing technologies like FaceTime on the horizon?)
 - Competitors (how fragmented is the market? how powerful are competitors?)
- Risks
 - Cannibalization (will this product cannibalize our existing customers?)
 - Competitive response (can competitors just copy this product?)

Brainstorming Question

Prompt: How would you estimate the potential revenues for this product?

Note: it is not necessary to do math just yet - just discuss what inputs would be needed. The interviewer will give the candidate information in the subsequent exhibits.

Solution

Revenue is equal to the market size * the market share * the price of the product Thus, you would want to know the number of consumers, the share we think we can get, and the price we plan to charge annually.

Tips

To keep it simple, consider only B2C, consumer cell phone plans (e.g., do not need to factor in work-issued cell phones)

Exhibit 1

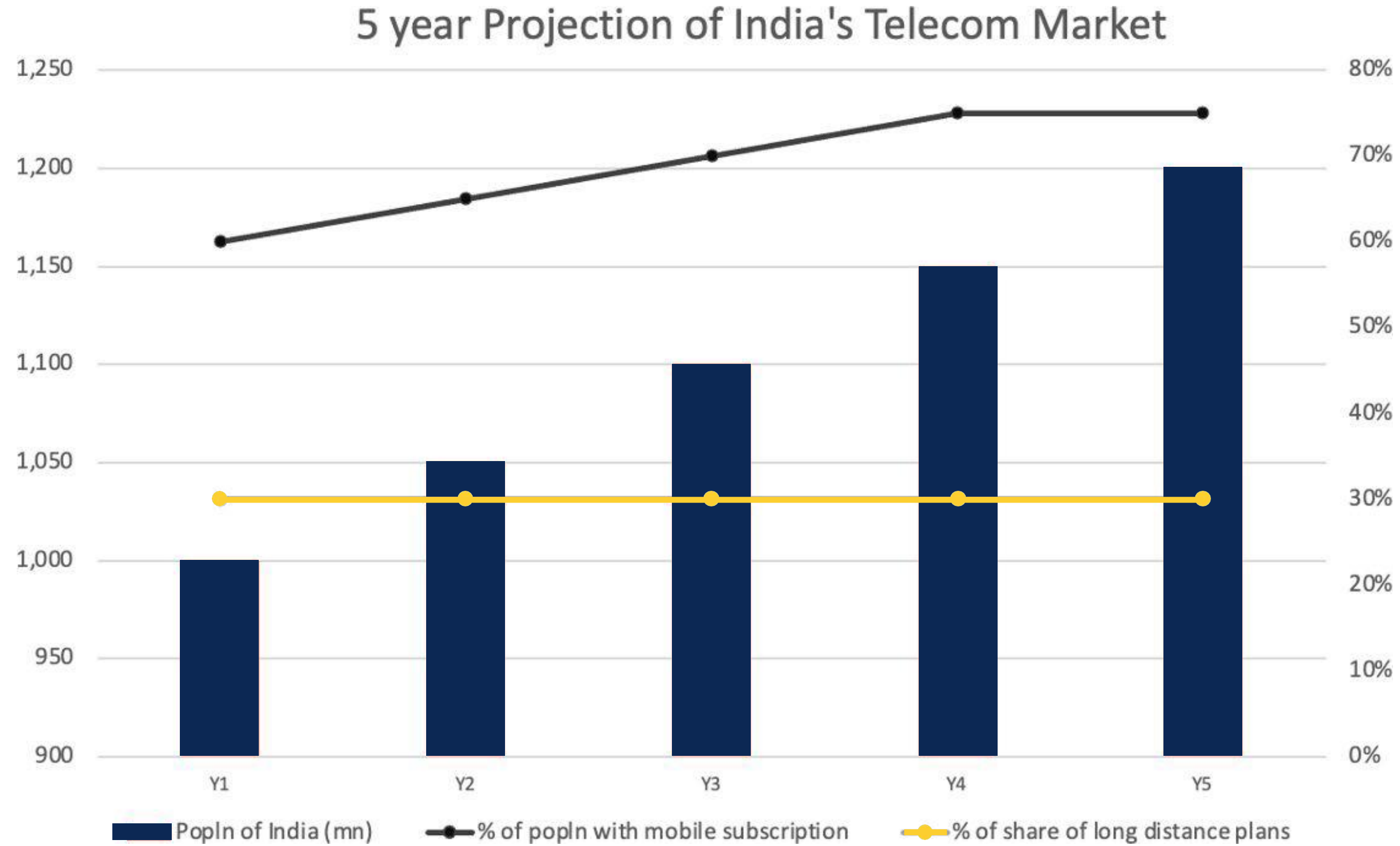
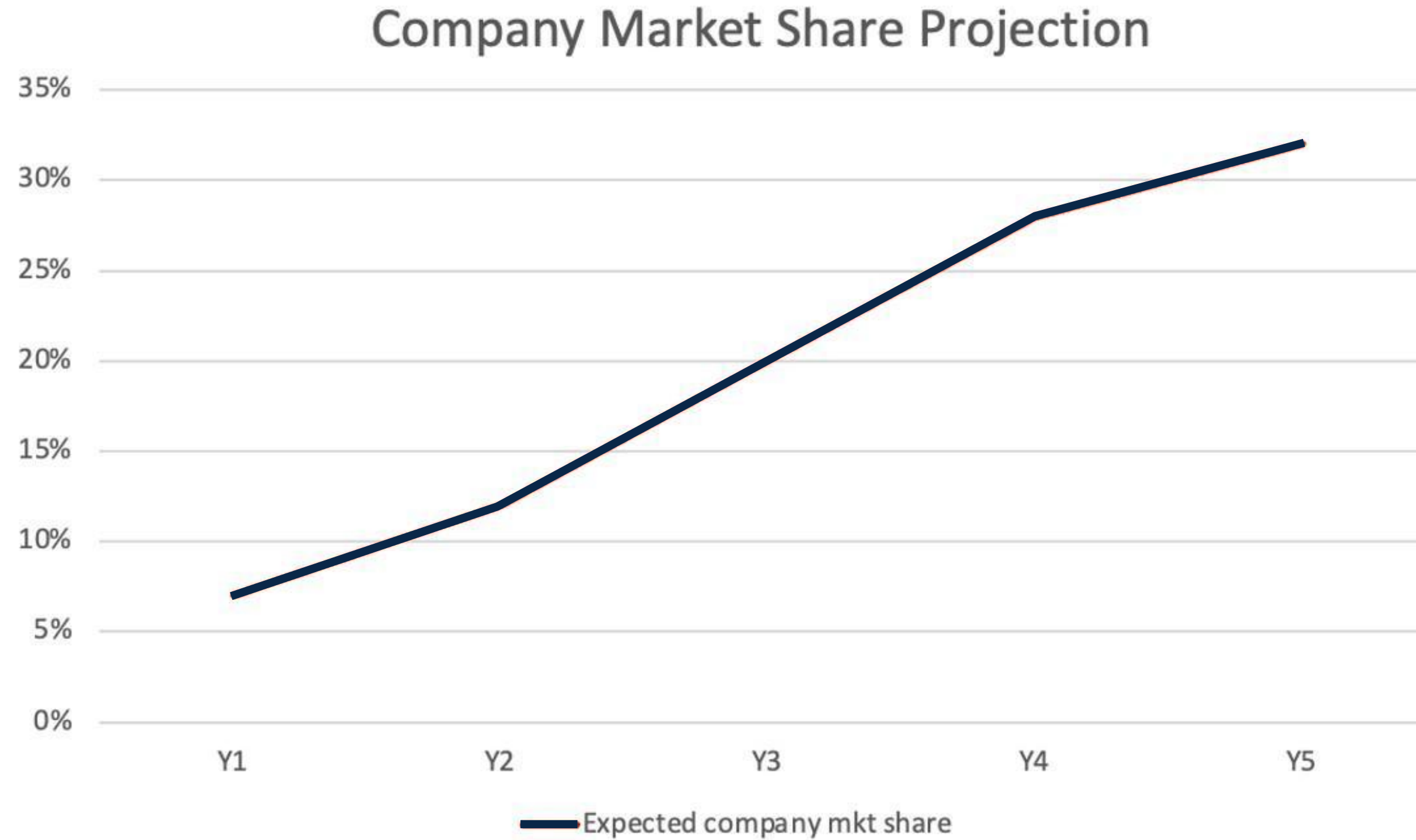


Exhibit 2



Note: the company expects cannibalization in market share from existing products; 3% in Y1, 2% in Y2 and 1% in Y3

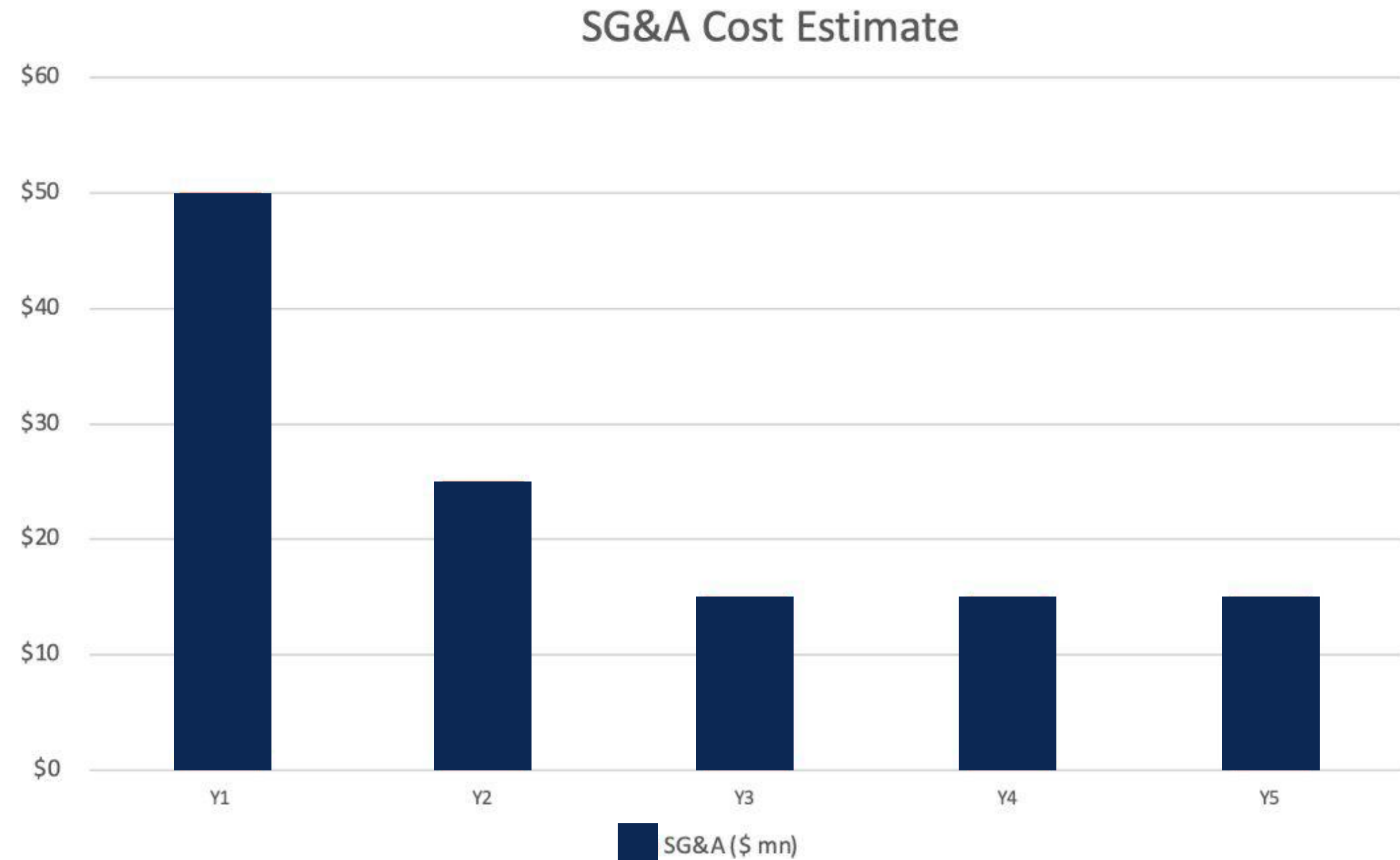
Exhibit 3

Fixed Costs:

- Leasing bandwidth: \$500 mn over 5 years
- Operating costs: \$125 mn over 5 years

Variable Costs:

- Annual maintenance costs of \$7.5 mn/yr for 5 years



Brainstorming Question

Prompt: If Telecom Co does not decide to move forward with the new, unlimited long distance minutes product, what else should they consider to try to revive the company?

Solution

There are several ways the candidate can approach this. Two options are given below, though they are not the only possible ideas. It is important that the candidate is structured in their response.

Improve core business:

- Evaluate if existing costs can be lowered to improve profitability on existing customers
- Try to steal share of phone subscriptions from other competitors (via lower pricing, better customer service, more convenient locations, etc)
- Try to reach first-time mobile phone customers to grow share of consumers that use mobile phones

Expand beyond the core business:

- Expand into adjacent businesses (home internet, digital streaming services)
- Expand into adjacent geographies
- Expand into selling other types of electronics in addition to phones, such as laptops, tvs, and appliances

Recommendation

- Two options:
 - The candidate can argue that Telecom Co should move forward with the product because it should become profitable in the medium term, although it will not deliver the quick win the CEO is looking for.
 - The candidate can argue that Telecom Co should not move forward with the product because it will not break even within the two years the CEO is looking for.
- Good candidates will note that because the biggest cost is the fixed cost (leasing broadband), the revenue estimates would need to be dramatically different to make it work (e.g., this is not a case of an assumption being a little wrong).
- Strong candidates will offer alternatives the company could invest in instead.

Risks

- Risks could include:
 - Chance that a competitor launches a competing long distance product, since there is not much moat
 - Chance that long distance calling becomes obsolete as other technologies (such as Skype, Zoom, FaceTime) come into the mainstream

Next Steps

- Next steps should draw from the brainstorm, and include items such as:
 - Work to steal share from competitors to grow (via competing on price or differentiating the product)
 - Work to grow the share of consumers that use mobile phones
 - Expand into adjacent products, such as home internet and entertainment streaming

WolverineHomes

Energy, Utilities, and Mining | Sustainability

Interviewee Led

Ratings: Quant - 2

Qual - 2

Overall - 2

Prompt

WolverineHomes owns and manages over 200 single-family homes in the Ann Arbor, Ypsi, and Jackson areas. Recently, severe weather events have caused numerous power outages across their properties, resulting negative tenant experiences and decreased revenue from bad reviews left about properties managed by Wolverine, and tenants leaving their properties.

They've come to us to help them understand how they can create a better tenant experience knowing severe weather storms are only projected to get worse.

Clarifying Information

Their current rating is at 3.0 stars, and they'd like to get to 4.5 stars. Over the last 12 months, they have lost 20 tenants that they haven't been able to replace. Each house typically costs \$4K/ month to rent. They would like to mitigate these loses as much as possible.

Candidate can assume 6-month average since tenants left in different months

Candidate should be able to calculate: $20 * \$4K * 6 \text{ months} = \$480K$ revenue lost

They haven't conducted an analysis to understand the increasing likelihood of increasingly severe weather events but they are frustrated with the seeming increase in severe weather events

*Candidate can assume 1 tenant = 1 single-family home throughout case

Overarching question: how can Wolverine create a better tenant experience despite increasing negative weather events?

Risk analysis

- How at risk at their current homes?
- How much more revenue should they expect to lose?

Alternate Options

- Battery powered appliances
- Back-up generators

Alternative Options

- Could they sell current properties & purchase new?
- Appease tenants in other ways - e.g. 1 month free if power lost for > 24 hours

Notes / Advice to Interview / How to Move Forward:

Ensure candidate knows there is a revenue goal prior to moving on (see clarifying questions). Keep pressing if they aren't asking about a goal with questions like "how might you think about measuring the impact of our results?"

Risk Assessment

Prompt: The client likes the idea of doing a risk assessment. What information do you need to know to understand how much revenue they will lose in the future?

Information to know:

- Likelihood of severe weather events and projected tenant loss

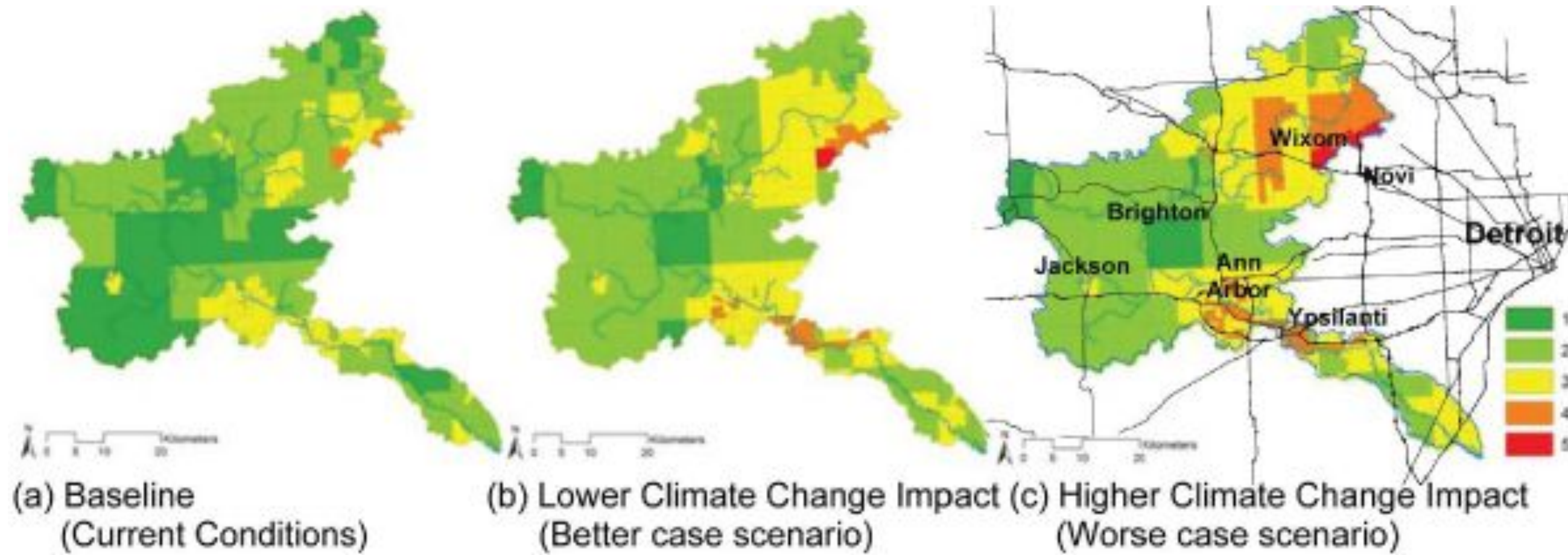
Show candidate exhibit 1 once they have determined the correct information.

The hardest part of this exhibit will be knowing to multiply the likelihood of each event occurring to determine the final projection

| Exhibit 1 - Baseline | |
|---|--------------------|
| Homes Owned (given) | 200 |
| Revenue / Home / Month (given) | \$4,000 |
| Total Revenue / Month (4K * 200) | \$800,000 |
| Total Revenue Loss / Month (10% * 800K) | \$80,000 |
| Total Revenue Loss / Year (80K * 12) | \$960,000 |
| Total Loss in 5 Years (960K * 5) | \$4,800,000 |
| Exhibit 1 - High Impact | |
| Homes Owned (given) | 200 |
| Revenue / Home / Month (given) | \$4,000 |
| Total Revenue / Month (4K * 200) | \$800,000 |
| Total Revenue Loss / Month (30% * 800K) | \$240,000 |
| Total Revenue Loss / Year (240K * 12) | \$2,880,000 |
| Total Loss in 5 Years (2.88M * 5) | \$14,400,000 |
| Total Projected Revenue Loss (.5 * 4.8M + .4 * 14.4M + .1 * 0) | \$8,160,000 |

Exhibit 1

Risk assessment on revenue in next 5 years



SOURCE: Huron River Watershed Council, 2024

| | Baseline | Lower Impact | Higher Impact |
|-----------------------|----------|--------------|---------------|
| Chance of occurring | 50% | 10% | 40% |
| Projected Tenant Loss | 10% | 0% | 30% |

Brainstorm

Prompt: Given there is a 90% chance that either baseline or worse impact occurs, we want to analyze what options Wolverine can consider. What can you think of that might solve their projected revenue losses?

Invest in new Technology

- Back-up generators

- Battery powered appliances

Sell homes in at-risk areas in Ann Arbor & Ypsi and re-purchase more homes in Jackson (exhibit 2)

Re-evaluate insurance options

Partner with local businesses to provide tenants with discounts or services during outages

Collaborate with local utility companies to improve resilience against outages

Offer discounts or credits to tenants affected by outages to encourage them to stay

If candidate can't think of many options, press with "what else" at least twice.

Profitability Analysis

Prompt: The client wants to explore what it would look like to sell all homes in Ann Arbor and re-purchase homes in Jackson.

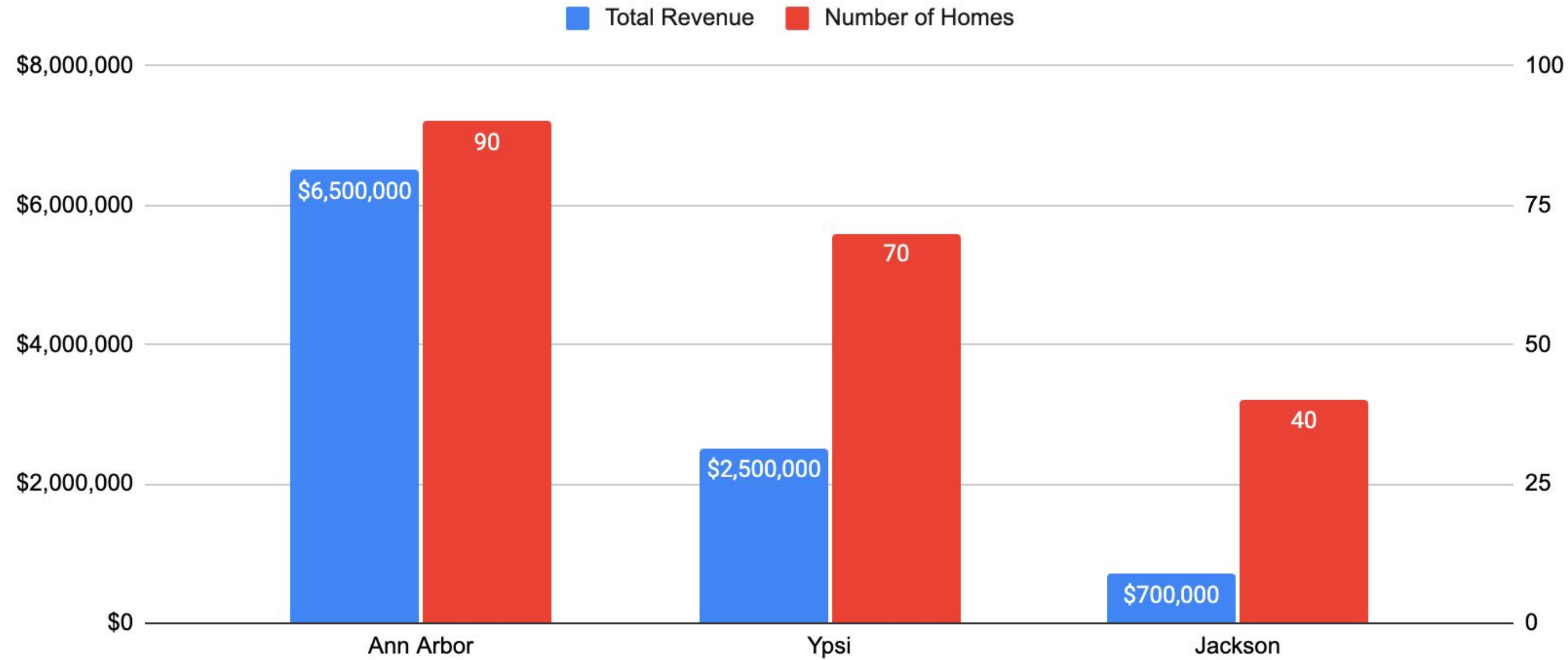
Show candidate exhibit 2. Candidate can assume that due to climate change impact on real estate market, the client will breakeven from selling 90 houses in Ann Arbor and re-purchasing 90 houses in Jackson.

| Total Current Annual Revenue = \$6.5M + \$2.5M + \$.7M = \$9.7M | | | | |
|---|---|--------------------|---------------------|-----------------------|
| | Avg Rent / Month | NEW # Homes | Totals | Rounded Totals |
| Ann Arbor | \$6,000 | 0 | \$0 | 0 |
| Ypsi | \$3,000 | 70 | \$2,520,000 | \$2.5M |
| Jackson | \$1,200 | 130 | \$1,872,000 | \$2.0M |
| | Total NEW Revenue | | \$4,392,000 | \$4.5M |
| | Total Loss / Year (total from exhibit 2 - \$4.3) | | \$5,184,000 | \$5M |
| | Total Revenue Loss in 5 Years | | \$25,920,000 | \$25M |

If candidate rounds their final answer, press them to ask which direction the rounding error will occur in (i.e. do they expect their answer to be higher or lower than the actual answer)

Candidate should realize that losing \$25M is worse than losing \$8M that was calculated from exhibit 1 and suggest a new route to go down. Push the candidate towards investing in new technology (exhibit 3).

Exhibit 2



NOTE: Average rent per month in Ann Arbor, Ypsi, and Jackson are \$6,000; \$3,000; and \$1,200 respectively.

Profitability Analysis

Prompt: Take a look at exhibit 3 – do you think this could be a helpful solution to our client’s problem? The government is currently offering \$2,000 in tax credits to help offset the cost of energy-saving appliances and it will cost \$1K / house to install.

Candidate should do quick math with this exhibit

\$6K to purchase – \$2K in tax credits = \$4K / house + \$1K / house to install = **\$5K total / house**

90 houses in Ann Arbor + 70 houses in Ypsi = **160 houses total**

Total Investment = \$800K (160 * \$5K)

Yes, this seems like a smart investment! The client could mitigate the negative reviews and \$8.5M projected lost revenue.

Exhibit 3



Pre-Order: Charlie

Channing Street Copper Company

QUANTITY

>

\$100.00

Sold Out

The world's first energy storage equipped induction electric range. Get off of gas and onto the high performance induction, all without rewiring your kitchen.

Charlie has a full power, four burner cooktop plus convection oven. It plugs into a standard 120v plug, no additional installation required. During a power outage, the onboard battery lets you cook and run a fridge or other appliance.

Your \$100 deposit goes toward the final total purchase price of \$5,999. The balance of \$5,899 is due when your range ships. Your \$100 deposit is fully refundable until the final purchase is completed.

Conclusion

Recommendation

Candidate should recommend that client invests in new battery-powered appliances. After performing a risk analysis, the client could potentially lose ~\$8M due to the increasing impacts of climate change and selling properties and repurchasing in Jackson would only make these losses worse. Investing in new technology could mitigate losses, and help make Wolverine's current clients happy and less likely to leave negative reviews, bringing them closer to their 4.5 star goal.

Risks

Need to do a diligence on the company to ensure quality and longevity of appliances (i.e. would there be added costs for repairs etc.) and ensure that the new appliances would solve reasons customers are leaving bad reviews.

Next Steps

- Look at battery powered appliance market to see what other competitors exist to beat Channing St. Copper on price/quality
- Determine test segment of homes to install new equipment
- Conduct consumer surveys to ensure that new appliances are solving their problems when severe weather hits

TW

Technology | Market Entry
Tech Interviewee Led

Ratings:

Quant - 2

Qual - 1

Overall - 2

Interviewer Information

General Information:

- This case is about market entry and thinking about the operational and customer dynamics for entering a new type of market with the same product. The case will be pushed to think about differences in GTM strategies and heavily gauged qualitatively.

Case Flow:

1. Interviewer reads the prompt and answers any clarifying questions
2. Candidate develops a framework referencing market attractiveness and the financial health of the market. Other considerations and risks would be a great options
3. Brainstorm 1
 - Push the candidate to be simple in the size of the market but discover ways on how the market would work different and how those considerations would impact the market size.
 - Have the candidate provide the approach and gauge them on their structure and detail
4. Exhibit 1 – the candidate should immediately recognize they have the ability to now calculate a market share estimate from this chart. Their initial hunch should be to assess how entering the B2C market would impact its market share.
5. Break-even analysis:
 - Once they have assessed the market share provide the numbers for the break-even analysis numbers and ask them to complete the math
 - Great candidates will gauge the feasibility of achieving this and how to optimize the opportunity and streamline the process.
6. Final recommendation

Note that all values are given in US\$ throughout the case. Assume constant terms (no need to factor in inflation).

TW Tech is a technology conglomerate that has a strong brand name in hardware and targets on enterprise customers. In the past three years, TW Tech has transformed itself and invested in a software product, a video conference platform with a gross margin of 60%. Recently, the CEO of TW Tech saw fierce competition in B2B and is considering to enter the B2C video conferencing market.

How would you advise her?

Clarifications (provide only if asked for)

- Product portfolio:
 - Hardware: network products and wireless systems
 - Software: video conference platform
- Strategic goals:
 - Global video conferencing market saw a booming trend after pandemic, and the CEO wanted to seize growth opportunities.
 - Yet its B2B video conferencing sector faced strong competition, and hence the CEO is considering to tap into the B2C sector.
 - If asked: growth rate of global video conferencing market is 120% across B2B and B2C.
- Financial goal: Positive profitability (more details on break-even later in the case).

For interviewers: if asked break-even period, guide interviewees towards a goal as soon as possible, or a 1-year goal – 1) to seize the current market trend and react to recent B2B competition; 2) software capabilities built took 3 years, tapping into a new customer segment with an existing product could be faster.
- Competitor landscape: 3 major competitors in the video conferencing market; 1 focuses on B2B, and the other 2 operates in both B2B and B2C market.

Expected Framework

Market Attractiveness

- B2C market size & growth rate
- Competitor response (e.g. consider product ecosystem such as current native solutions to add video meeting link directly from email portal)
- Product differentiation (e.g. employ new technology like generative AI)
- Customer acquisition (e.g. switching cost & network effect)

Financial Analysis

- Revenue stream: software subscription plan, pricing
- Cost structure: Fixed costs (R&D, infrastructure, salaries, sales & customer acquisition), variable costs (e.g. maintenance)
- Synergies with the existing portfolio of hardware (e.g. revenue synergy to cross-sell customer database)

Risks

- Regulation (e.g. privacy)
- Opportunity cost / alternative (e.g. Invest in a new technology for B2B instead of entering B2C market)

Entry Plan

- Entry method (e.g. Internal R&D, M&A, strategic partnership)
- Roadmap such as a pilot

- **Acceptable performance** – Evaluate market attractiveness and financial gains
- **Exceptional performance?** – Consider 1) competitor response, 2) risks, and 3) user behavior of a platform product (e.g. network effect)

Brainstorming Question

Prompt: What key factors would you include to estimate the market size of global video conferencing market?

Potential Solutions

Note that the question asks overall video conferencing market, not only for B2C.

Prompt interviewee to consider subscription pricing before moving on to the next question.

- Customer segment:
 - By size – individuals, SMEs, large enterprises
 - By industry – IT & telecom, Education Institutions (e.g. remote learning), Government, Healthcare (e.g. telehealth), Financial services (e.g. digitization trend) etc
 - By geographical regions
- Revenue scheme:
 - Pricing plan (\$)
 - Subscription pricing (monthly or annual charge) & freemium
 - Usage-based pricing (pay-as-you-go)
 - On premise (one-time installation)
 - Maintenance & product service fees (\$)
 - Average Product lifecycle & maintenance frequency (#)

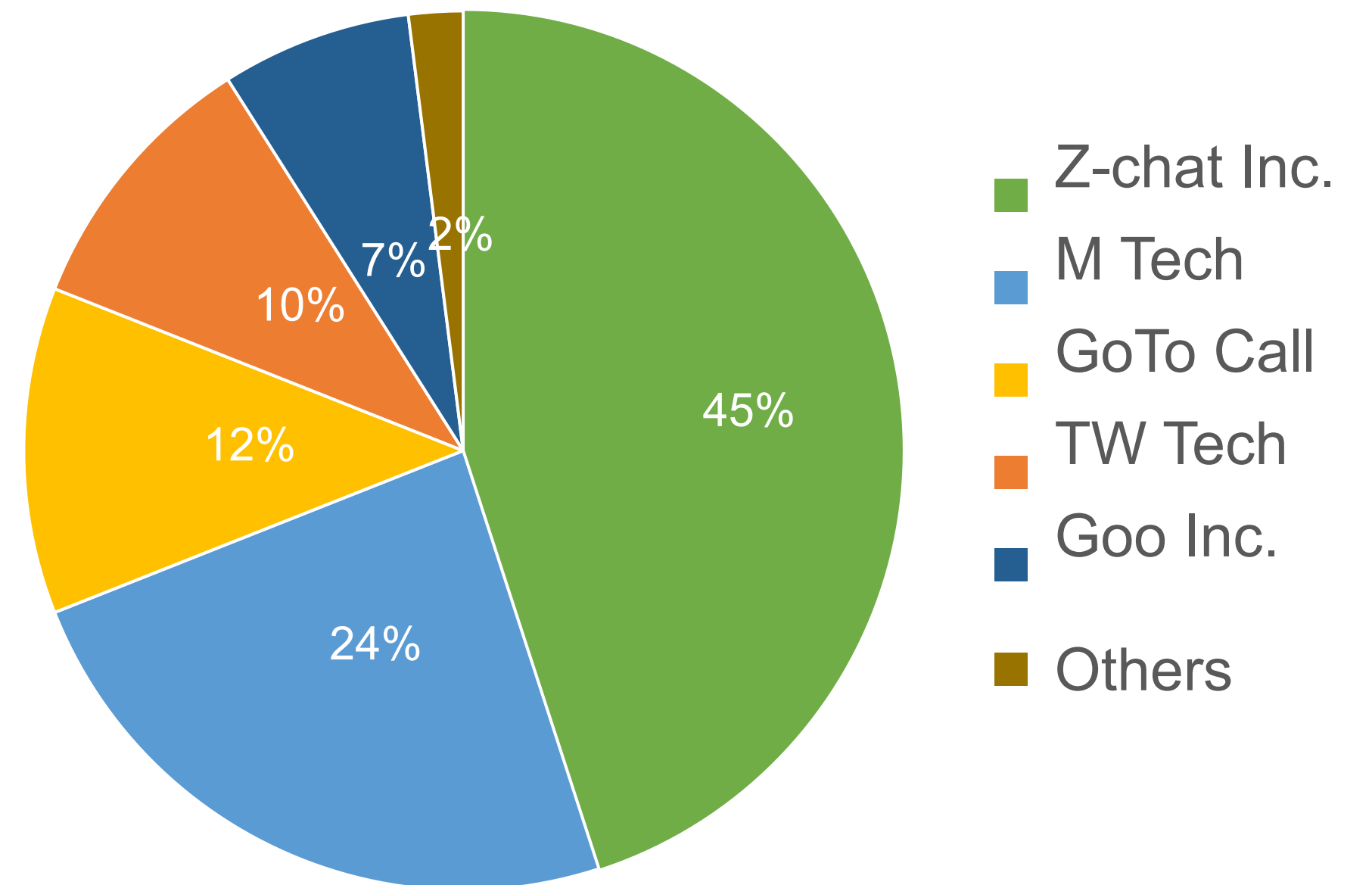
Exhibit 1

What is the market size of global video conferencing market?

In millions

| | |
|--------------------------------------|-------|
| Total annual subscription plans sold | 1000 |
| % corporate plans | 20% |
| % consumers - freemium plans | 80% |
| % of freemium conversion | 10% |
| \$ corporate pricing | \$160 |
| \$ freemium pricing | \$100 |

Global video conferencing market players*



**Market share across B2B and B2C*

Exhibit 1 Guidance

In millions

| | | | |
|---------------------------------------|-------|--------------------------------|----------|
| Total annual subscription planes sold | 1000 | | |
| % corporate plans | 20% | # Corporate plan sold | 200 |
| % consumers - freemium plans | 80% | # Consumer plan | 800 |
| % of freemium conversion | 10% | # Consumer freemium plans sold | 80 |
| \$ corporate pricing | \$160 | Total B2B market | \$32,000 |
| | | \$ freemium pricing | \$100 |
| | | Total B2C Market | \$8,000 |
| | | Global Market Size | \$40,000 |

Global market size = \$40B, with 25% of B2C market. Candidates can justify whether B2C sector is attractive (\$8B vs \$40B, ~25%).

From the market share graph, currently TW Tech owns 10% share all from the B2B market.

Candidates should then request what market share TW Tech is able to acquire from B2C – move on to the next break-even question.

Excellent interviewees will request information about whether other players operate in B2B and/or B2C markets. Only given if asked:

- M Tech operates in only B2B.
- Z-chat and GoTo call operate in both B2B and B2C (*if asked: Goo Inc. also operates in both B2B and B2C*).
- No further information on the exact split of B2B and B2C per market player.

Excellent interviewees will notice the top three players account for > 80% market share and consider potential competitor response.

- While a big tech conglomerate like TW Tech could have resources to enter a new market, TW Tech will be better positioned in a fragmented market rather than one with major players, who could collaborate and fend off new comers to B2C market.

Math Questions & Solutions

Question

What would be the global market share required for TW Tech to break even?

| | |
|--------------------------------------|--------|
| Annual subscription pricing per plan | \$120 |
| Variable cost per plan | \$60 |
| Fixed cost | \$480M |

Solution

Contribution margin = \$60

Required subscription plans sold per year = $\$480\text{M} / \$60 = 8\text{M plans}$

Total market share required to break even in the first year = $(8\text{M} * \$120) / \$40\text{B} = 2.4\%$ (~12% B2C market share)

Interviewees should evaluate the feasibility of market share acquisition considering 1) competitor landscape 2) timeline

- 2.4% on top of TW Tech's current 10% market share indicates a ~25% growth rate in one year, an aggressive target
- Two out of three competitors operate in both B2B and B2C and account for >80% market share globally; our client can face strong competition and trigger further competitor response
- Spreading out 2.4% customer acquisition beyond 1 year break even is not ideal for a software product in the fast-moving tech industry (1) TW Tech aims to seize the current market growth but recently faced strong competition in B2B; 2) 3 years as a

benchmark for the initial capability built of software v.s. tapping into B2C with the existing product could be faster)

Gross margin of 50% ($\$60/\120) is not favorable compared to TW Tech's existing 60% gross margin

Conclusion

Recommendation

- TW Tech should not enter the B2C market as 2.4% market share is an ambitious target to break even in the first year; gross margin is not favorable (50% vs average software industry of 60%)

Risks

- Strong competition in B2B video conferencing market
- Missing out market growth opportunity

Next Steps

- Improve product differentiation e.g. invest in technology for B2B
- Develop a compatible platform with other competitor products to overcome network effect
- Build portfolio synergies – e.g. bundle with hardware products and cross sell customer database

- TW Tech should enter the B2C market as 2.4% market share is achievable with TW Tech's resources and with a great gross margin (50% vs average industry figure of ~15%-20%)

- A lack of experience in B2C
- Failure to acquire B2C customers
- Strong competition in B2C video conferencing market

- Determine entry method and build a roadmap such as a pilot
- Invest in customer acquisition budget & plan
- Improve product differentiation
- Develop compatible platform with other competitor products to overcome network effect
- Build portfolio synergies – e.g. cross sell hardware to consumers

If no go

If go



CONSULTING CLUB AT ROSS