



2023-2024 EDITION | DUKE MBA CONSULTING CLUB

# The Fuqua Casebook



# Welcome Message

Hi Team Fuqua,

*Things sure do look different, don't they?*

For years, the Fuqua Casebook has been known across MBA programs as a premiere resource to prepare students for the rigors of case interviews thanks to its seamless layout and excellent case writing. However, this year's casebook leads decided that it was time to level-up. The Fuqua Casebook: 2023-2024 Edition brings an entirely new format to the table; one that we hope aids both candidates and interviewers in simulating a true case interview experience. Despite the overhaul, we've kept the structure that makes Fuqua's books incredibly intuitive to use while introducing new elements.

This year, we've included 12 brand new cases. This casebook was a collective effort and wouldn't have been possible without the cases provided by our wonderful classmates. These cases represent a diverse array of industries, case types, firms, and business scenarios that will prove invaluable throughout your casing journey.

To everyone who is currently preparing for their case interviews, whether you're a member of the Fuqua Class of 2025 or someone still using this book years into the future, we wish you the best of luck! Work hard, be diligent, and stay inspired.

Lastly, to students from other MBA programs using this casebook during their journey, welcome to Team Fuqua!

**Good luck!**



**Darian Aghili (Fuqua '24) and Vann Vicente (Fuqua '24)**  
Editors-in-Chief, The Fuqua Casebook: 2023-2024 Edition

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<a href="#">Goodbye Horses</a>	2016-2017	Healthcare	Decision Analysis	Medium	Difficult	152
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# Case Types 101

This section is intended to give you a brief down of different case types you will see in case interviews and sample cases, along with initial framework structures you should consider when encountering these cases.

# Common Case Types

Case Type	Description
<u>Profitability</u>	Analyzing causes for a recent drop in profits or ways to increase profits
<u>Growth Strategy</u>	Determining optimal way to grow a company
<u>Market Entry</u>	Analyzing a firm's opportunity to expand into a new business
<u>Market Sizing</u>	Determining the size, usually in terms of a firm's revenue potential, of a market
<u>Opportunity Assessment</u>	Examining the potential purchase/sale of a new or existing business or installation/abandonment of infrastructure
<u>Merger / Acquisition</u>	Evaluating whether a firm should merge or purchase another company
<u>Product Launch</u>	Assessing a new product offering
<u>Pricing</u>	Deciding how to price a product or service
<u>Private Equity</u>	Deciding whether to invest in a target company with the goal of extracting a financial return from the company to resell by a certain time

# Framework Guidance – Profitability

Revenue

Costs

External  
Factors

## Why These Buckets May Be Relevant

- To help determine why profitability is down it is important to consider the following:
  - Is price too high? What are customers' willingness to pay? What are competitors charging?
  - Is the company not selling enough volume?
  - Are Fixed and Variable Costs rising? Are these costs higher than the revenue the company is generating?
  - How do external factors play into the company's profitability? What is the current state of the economy? Is the industry as a whole experiencing challenges?

## Tips to Consider

- The profitability framework mimics the profit equation and thus to ensure your framework is unique it will be key to tailor your sub-bullets to the industry/case (i.e., what FC/VC would you see in the oil & gas industry?)
- Always break variable costs into volume and cost per unit. This helps you think about both in discrete terms.
- **Profit = Revenue - Costs**

# Framework Guidance – Growth Strategy

Organic

Inorganic

Internal  
Capabilities

Market Factors

## Why These Buckets May Be Relevant

- To help determine potential growth options it is important to consider the following:
  - Explore different options for growth internally within the organization (organic) or through acquisitions, mergers, or partnerships (inorganic)
  - Review the current capabilities of the client
  - Understand how it would fit with the external environment

## Tips to Consider

- Important to evaluate the value of each option; and determine the strategic fit and implementation feasibility
- Valuation methodologies: payback period, NPV, Comparable, IRR (pay attention to finance)

# Framework Guidance – Market Entry

Target Market

Capabilities

ROI

Competitive  
Response

## Why These Buckets May Be Relevant

- To help determine potential market entry options it is important to consider the following:
  - It's important to understand if the market your client is looking to enter into is profitable by evaluating the size, growth, and potential market share they may want to gain
  - Understanding your client's capabilities helps you see any potential barriers to entry and technical skill sets needed to be successful
  - Looking at the return on investment (ROI) allows you to calculate if entering into this market is worth it based on the client's financial objectives
  - Seeing how competitors may response or how you want to response to competitors helps consider risks

## Tips to Consider

- If a market has potential, you will likely need to calculate the ROI, payback period, or total costs
- Consider including in an entry strategy if your hypothesis is to enter the market

# Framework Guidance – Market Sizing

Market  
Conditions

Financials

Product Launch

Competitive  
Landscape

## Why These Buckets May Be Relevant

- To help market sizing efforts it is important to consider the following:
  - Market sizing may often be a part of a larger case. It is important to assess whether it needs an independent framework or may be part of a large framework (either as a bucket or a sub-bucket)
  - Market sizing is typically used to assess if a particular market is attractive. It can be an essential approach to understanding if objectives (like revenue, market leadership, product launch, or market expansion) can be met

## Tips to Consider

- Ask close-ended clarifying questions and ensure you have the units of measurement right
- Structure your approach and think about segmentation
- Make guesses/estimates – be sure to back them up with some reasons/anecdotes
- Sense check the numbers!

# Framework Guidance – Opportunity Assessment

Market  
Attractiveness

Target  
Financials

Internal  
Capabilities

Alternatives

## Why These Buckets May Be Relevant

- To help evaluate an opportunity it is important to consider the following:
  - Usually a standard set of activities is associated with an assessment, starting from a myopic opportunity analysis and moving up to a macro analysis of the broader market
  - Expansion opportunities still warrant an analysis of the broader market to ensure it's a good space to play in, and will usually also entail an analysis of internal capabilities and preparedness to pull off that expansion
  - Usually require a financial analysis to make sure the client's goals are met, such as a breakeven point or a payback period

## Tips to Consider

- Consider molding frameworks to start off with a smaller perspective (such as target/opportunity analysis) and then move up to a broader perspective (such as market/external factors) to have a meaningful progression between the buckets.
- Opportunities can be bad! Consider the status quo if we don't go with this opportunity. Are there alternatives we can consider?

# Framework Guidance – Merger & Acquisition (M&A)

Financials

Industry/Market Trends

Risks

Integration/Fit

## Why These Buckets May Be Relevant

- To help evaluate an M&A opportunity it is important to consider the following:
  - Evaluate from a financial standpoint whether the investment makes sense through revenue and cost synergies
  - Dive into competitor analysis to benchmark externally
  - Understand operational and business fit

## Tips to Consider

- Good financials do not imply successful M&A (operational risk, economic risk, and integration risk)
- Valuation methodologies: multiples, comparables, DCF (pay attention in core finance)

# Framework Guidance – Product Launch

## Market Assessment

## Product Financials

## Company Capabilities

## Launch Strategy

### Why These Buckets May Be Relevant

- To help evaluate a product launch opportunity it is important to consider the following:
  - The product's market size, availability (penetration rate), competitive landscape, and customer preferences are integral to the value of the product
  - Consider the product's investment cost, pricing strategy, and projected margins
  - The company's current capabilities/brand have implications on the feasibility of the launch
  - Consider the launch strategy – build, buy, or borrow

### Tips to Consider

- Use context from the prompt and apply to your framework – e.g., if resources are already in place for production, launch strategy may be unnecessary
- Structures from other case types, like market sizing or profitability, will be relevant here

# Framework Guidance – Pricing

Pricing Models

Product/Service

Customers

Competition

## Why These Buckets May Be Relevant

- To help evaluate a pricing strategy it is important to consider the following:
  - Different ways to price something (Cost-based, Value-based, benchmarking etc.)
  - Need to understand product positioning in the marketplace
  - Information about customers, product differentiators, and competition will inform differentiators and value proposition

## Tips to Consider

- These cases are rarer and will ask about pricing directly
- 3 C's or 4 P's from the Core Marketing Course are good structures for frameworks
- Focus on price not profitability or growth in recommendation and analysis

# Framework Guidance – Private Equity

Target Value

Market

Acquiring Firm /  
Exit Strategy

External  
Factors

## Why These Buckets May Be Relevant

- To help evaluate a private equity decision it is important to consider the following:
  - At the core of analyzing the attractiveness of a PE acquisition are three things:
    - > The value of the target company and the methods to achieve a valuation
    - > The size and growth outlook of the market the target company is in
    - > The private equity firm looking to acquire, their investment thesis, portfolio, and available capital
  - You can analyze other pertinent external factors, like regulatory risks and barriers, the economy, etc.

## Tips to Consider

- Like M&A, use various valuation methodologies: multiples, comparables, and DCF
- Don't forget about potential cost and revenue synergies in assessing the value
- PE cases often involve a market size – when working through your "market" bucket, list out aspects that could go into that sizing exercise (geography, demographics, product usage, etc.)

# The Fuqua Casebook

This section includes 12 brand new cases across a variety of dimensions, including case type, industry, firm style, and difficulty.



# Born for Beauty

<b>Industry</b>	Retail
<b>Case Type</b>	Growth
<b>Firm Style</b>	Bain
<b>Quantitative Difficulty</b>	Easy
<b>Qualitative Difficulty</b>	Easy

**Author:** Vann Vicente (Fuqua '24)

## Prompt

Your client is BFB or Born for Beauty, a leading Korean beauty marketplace that sells a variety of Korean cosmetics, including makeup, skincare, haircare, and fragrances. Their biggest market is the U.S., but they also sell in Latin America, Europe, and Australia.

Despite being the market leader in the U.S., they have been facing slowing growth in the last few years. BFB is in danger of losing their current market position.

The CEO, Sunny Jung, has asked for your help to retain their market leadership and increase sales in the next few years. **What should BFB do to improve growth?**

**Note:** This case is fairly straightforward and designed to be good casing practice across all skill levels. Enjoy!

## Interviewer Guidance

- **Case Steps**

- Exhibit #1: User ratings
- Exhibit #2: Competitive product mix
- Brainstorm: New product factors
- Exhibit #3: Product launches
- Recommendations and next steps

- **Clarifying Information (If Prompted)**

- BFB is primarily e-commerce, with a handful of physical stores. In this growth exercise, they are focused on the US.
- They are primarily a distributor, and do not manufacture their own products.
- They source 90% of products from Korea and 10% from Japan.
- Annual revenues are currently \$90m globally, at a growth rate of 4%. Their goal is to double that growth rate. (**Provide after framework if not asked**)

# Sample Framework

## Organic Growth

- **Product**
  - Expand product range
  - Introduce private label
  - Pricing
- **Marketing**
  - Target new demos
  - Campaigns
  - Promotions
- **Channels**
  - Improve fulfillment or customer service
  - Revamp platform

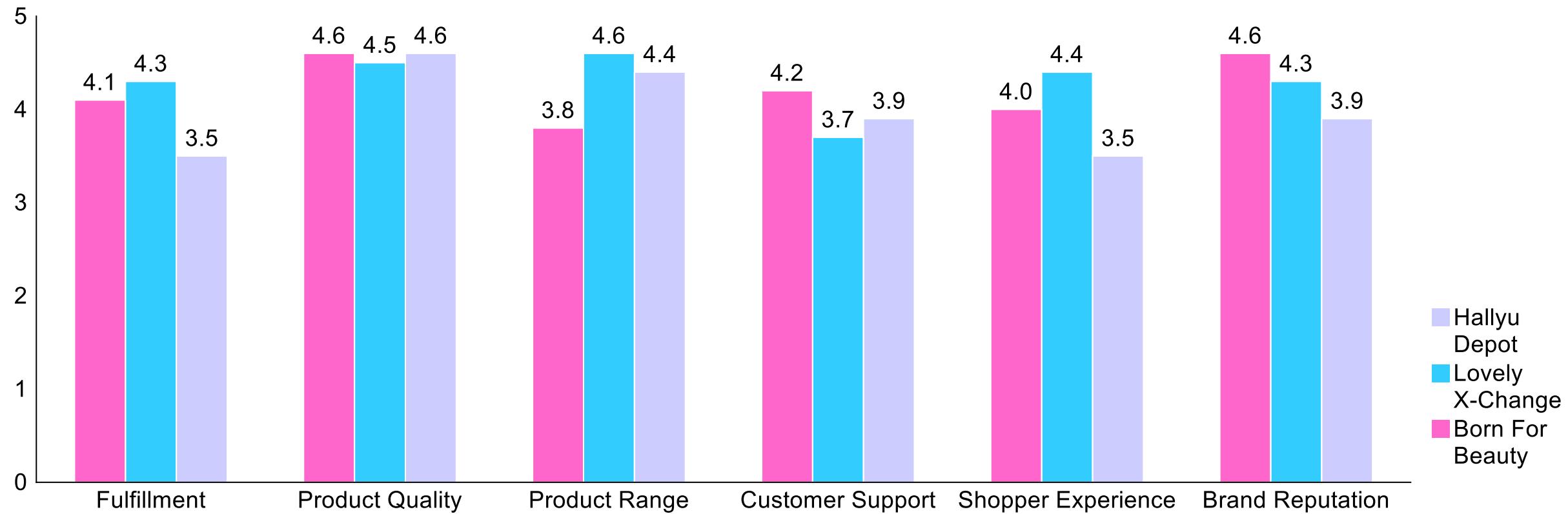
## Inorganic Growth

- **Acquisition**
  - Smaller stores
  - Independent makeup brand (converted to in-house)
- **Joint venture**
  - Competitors
  - Make-up brands
  - Media companies

## Market

- **Competitors**
  - Korean beauty stores
  - Sephora
  - Instagram stores
- **Industry trends**
  - Overall Korean skincare boom
- **Consumer trends**
  - Move to organics
  - Influence of media

# Exhibit #1 – Site ratings



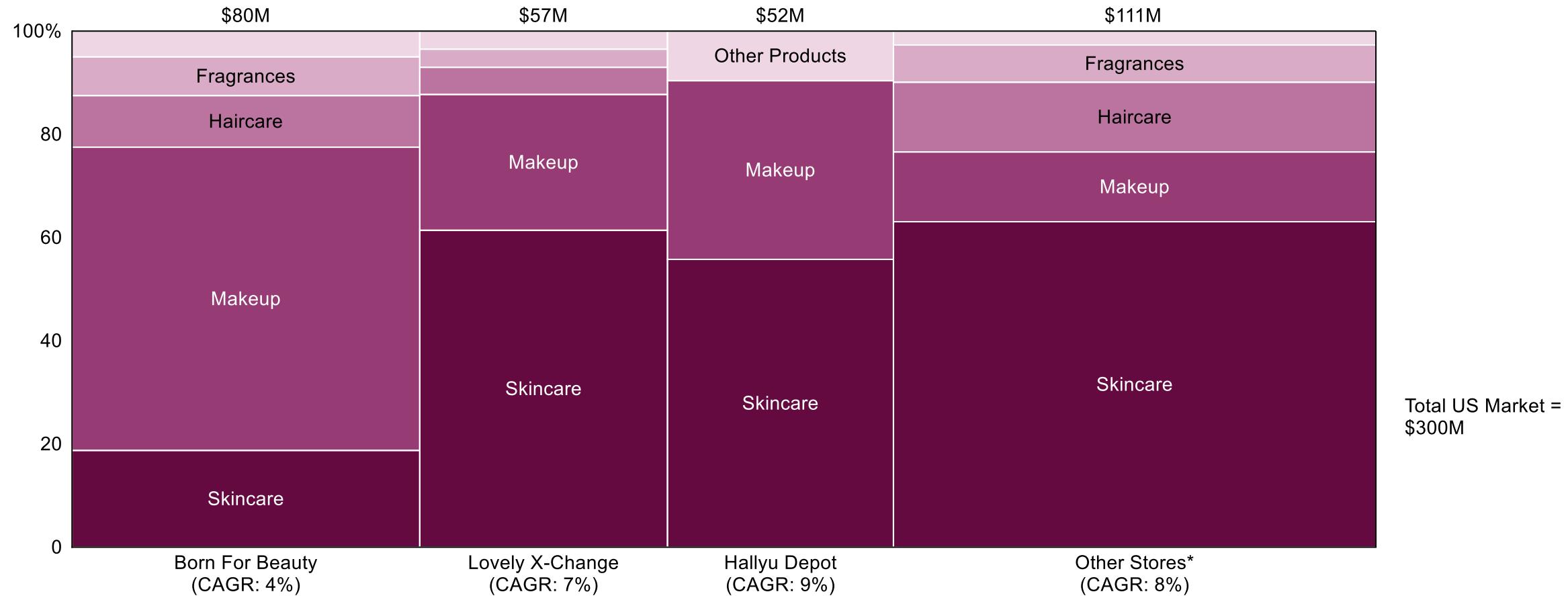
Note: Data is taken from a survey (n=1,000) of markets where all three companies operate in, including the US and Europe. Respondents were qualified as having had purchase experiences with all three companies.

# Exhibit #1 – Interviewer guidance

## Exhibit Notes

- The goal of this exhibit is to uncover which areas Born for Beauty is falling behind relative to their competitors, and address that to solve their stagnant growth.
- The candidate should immediately identify that there are two areas where Born for Beauty falls behind relative to some of their competitors, which are **Product Range and Shopper Experience**.
- The candidate should hone into **Product Range**, which is both its lowest rating and its worst aspect relative to both major competitors. Therefore, they should drive towards exploring ways to improve the product portfolio.

# Exhibit #2 – Korean beauty product mix (U.S.)



# Exhibit #2 – Interviewer guidance

## Exhibit Notes

- The goal of this exhibit is to find identify areas where the product range of Born for Beauty falls behind relative to their competitors and the rest of the market.
- The candidate should immediately identify that Born for Beauty's portfolio is heavy on makeup products and **lacking in skincare products**, whereas their competitors are heavy on skincare.
  - Strong candidates will tie this observation back to their framework or provide insights on the growth of skincare as a product category in recent times – therefore explaining the lagging growth.
- The candidate should drive to adding additional products into the product portfolio, which leads into the next brainstorm segment.

# Brainstorm #1 – Factors for buying skincare

## Exhibit Notes

- **Prompt:** What do you think are some factors that should go into selecting the right products to add to the skincare portfolio at Born for Beauty?

- **Product Factors**
  - > **Quality/Features:** Quality of formulation and chemistry, minimal allergic reactions, effectiveness
  - > **Certifications:** Non-GMO, cruelty-free, etc.
  - > **Compatibility:** Whether a product comes as part of a set/range of products, and can be bundled together
  - > **Brand:** Brand recognition and popularity
  - > **Price:** Price relative to other products on the market
- **Operational Factors**
  - > **Availability:** Important to minimizing stockouts
  - > **Supplier Range:** Whether a brand can ship multiple products at once, reducing shipping costs
  - > **Storage Requirements:** Shelf space requirements, expiry, and cooling needs

## Quantitative Analysis

- The list on the left is non-exhaustive and answers can go in many directions; this brainstorm is intended to test the candidate's creative thinking.
- A **strong candidate** will structure their brainstorm ideas and provide insights into each of them.
  - Candidates with knowledge of the industry will go into more complex factors, such as skin types, formulations, allergens, and product bundles
  - Steer candidates towards thinking about operational factors (availability, suppliers) as well
- On completing the brainstorm, the candidate should steer to the next exhibit on product options.

# Exhibit #3 – Product options / math exercise

## Exhibit Figures

- Once the candidate suggests exploring specific products to add to the portfolio, read the below aloud without showing them the figures.
- Prompt:** Three cosmetics companies are interested in adding their skincare products to their portfolio. These are:

Company	Skincare products	Est. yearly sales per product	Avg. price per product
SM Cosmetics	30	4,000	\$15
YG Skin Co	15	3,000	\$20
JYP Care	20	1,500	\$40

- If the candidate has forgotten, provide them the following information: BFB annual revenues are currently \$90m globally, at a growth rate of 4%. Their goal is to double that growth rate. (**\$90m x 4% = \$3.6m in additional revenue**)
- This should drive the candidate towards a calculation of total sales that can be gained from each product.

## Interviewer Guidance + Quant Analysis

- The formula to get total sales is: products \* yearly sales per product \* average price per product.

Company	Skincare products	Est. yearly sales per product	Avg. price per product	Total sales
SM Cosmetics	30	4,000	\$15	\$1.8m
YG Skin Co	15	3,000	\$20	\$900k
JYP Care	20	1,500	\$40	\$1.2m
<b>TOTAL</b>				<b>\$3.9m</b>

- The candidate should realize that it is necessary to add **all three** companies' products to the portfolio, and that just one or two does not meet the target additional revenue. (\$3.6m)

# Recommendation & Next Steps

## Recommendation

- **Prompt:** Born for Beauty and Sunny Jung have set up a meeting with your team at the annual Korean Cosmetics conference in Los Angeles. What do you tell her during your meeting?
- Born for Beauty is experiencing slowing growth due to a limited product range, so they should add more skincare products to their portfolio.
- We've identified three companies who want to add their products BFB. These products will add an estimated \$3.9m of revenue per year, enabling us to achieve our additional revenue target of \$3.6m.

## Risks & Next Steps

- **Risks**
  - These are only estimates, and we may fall short of target due to inaccurate projections.
  - Since these are Korean skincare products, there is always a chance that they are not fully compatible with skin types in other markets.
  - We risk lagging behind the market in terms of adding skincare products (other competitors may already be adding new, innovative formulations) so we need to act quickly.
- **Next Steps**
  - Perform a market study to validate our estimated sales for these products.
  - Understand product positioning, especially how best to add these products to the digital storefront.
  - Embark on a marketing campaign to promote the expansion of the skincare range on BFB.



# Oat About It

<b>Industry</b>	Consumer
<b>Case Type</b>	Growth
<b>Firm Style</b>	BCG
<b>Quantitative Difficulty</b>	Easy
<b>Qualitative Difficulty</b>	Easy

**Author:** Madeline Johnson (Fuqua '24)

# Case Overview

## Prompt

Our Client is Oat Co., a certified B-Corp based in the United States that exclusively produces Oat Milk. They offer a single product, Standard Barista Oat, which is the leading alternative milk used by baristas in coffee shops across the United States.

While Oat Co. has enjoyed consistent profitability over the past several years, their revenue has been stagnant and they are looking for ways to revitalize.

- **Case Steps**

- Exhibit #1: Alternative milk market
- Brainstorm #1: Market entry strategy
- Exhibit #2: Market entry options
- Recommendations and next steps

## Interviewer Guidance

- **Clarifying Information (If Prompted)**
  - **Target:** Oat Co. is looking to boost revenue by 20% by 2026 (3 years from now). Their total revenue in 2022 was \$450k. [Looking for \$540k or greater].
  - **The Product:** Oat Milk is "Alternative Milk" product made from Oats. It is popular in coffee shops around the world as a non-dairy option to animal milk. Oat Milk can be used as a milk substitute in recipes and baking, or enjoyed on its own. Oat Milk is included in the "Alternative Milk" category competing against non-dairy milks (soy, nut, pea, etc.)
  - **Production:** Oat Co. produces oat milk at 2 separate facilities, one in upstate NY and one in California. Oat Co. believes that their current cost of production and shipping of their Standard Barista Oat is optimized so they are only focused on revenue.
  - **The customer & sales channel:** Oat Co's primary sales channel is B-2-B, selling to coffee shops and some restaurants. Oat Co. partners with local and national food distributors to ship and deliver products. Oat Co. also operates a small online store to sell individual cartons directly to at-home baristas.

# Sample Framework

## Growth Opportunities

- **Grow Standard Barista Oat product**
  - Increase Price
  - Increase volume through new customers or new markets
- **Introduce new Oat Milk product**
  - New customer demographics
  - Potential revenue
  - New Product Launch costs
- **Inorganic growth via Acquisition**
  - Opportunity assessment / Financials
  - Synergies

## Alternative Milk Market

- **Competitive landscape**
  - Key players
  - Products in market
  - Competitor's pricing
- **Market size by distribution channels**
  - Coffee shops / restaurants
  - Grocery stores / Retail
- **Consumer Trends**
  - Impact of diet fads
  - Animal rights
  - Organic product positioning

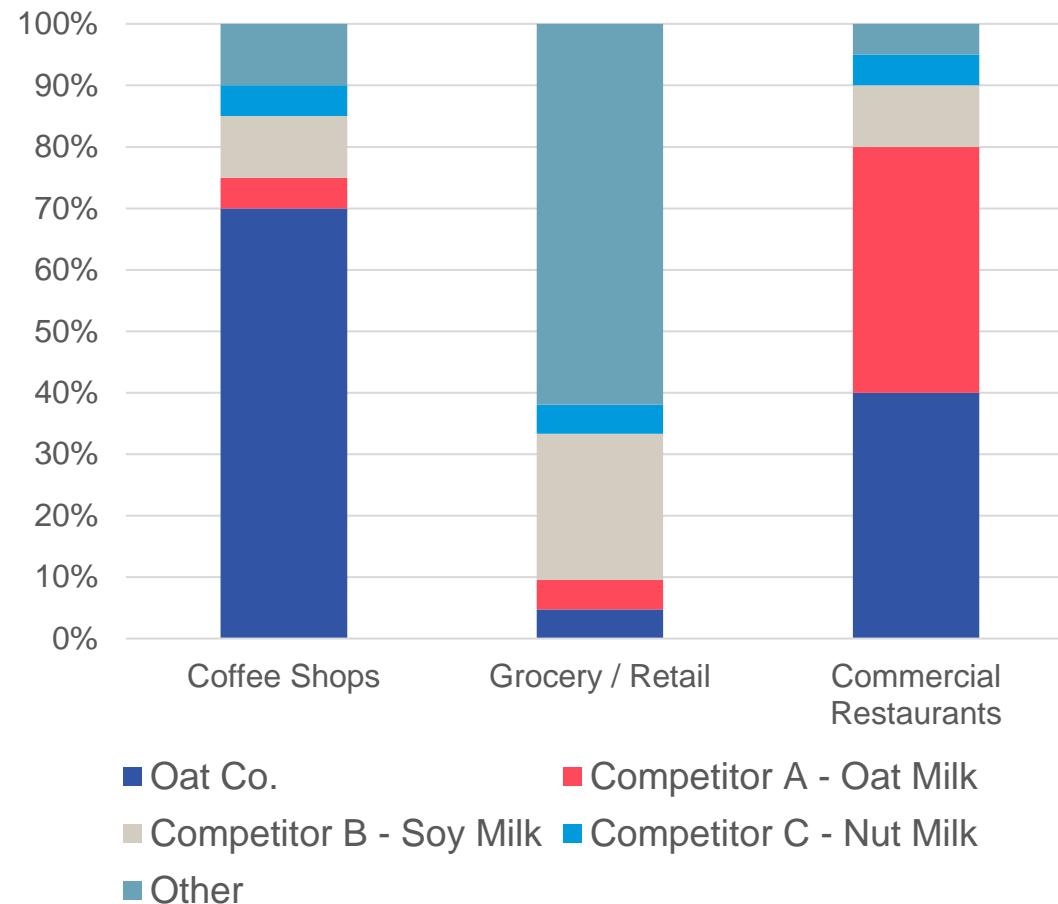
## Risks

- Supply chain stability
- Pressure on distributors
- Public opinion on value prop such as B-corp
- Cannibalization of online store

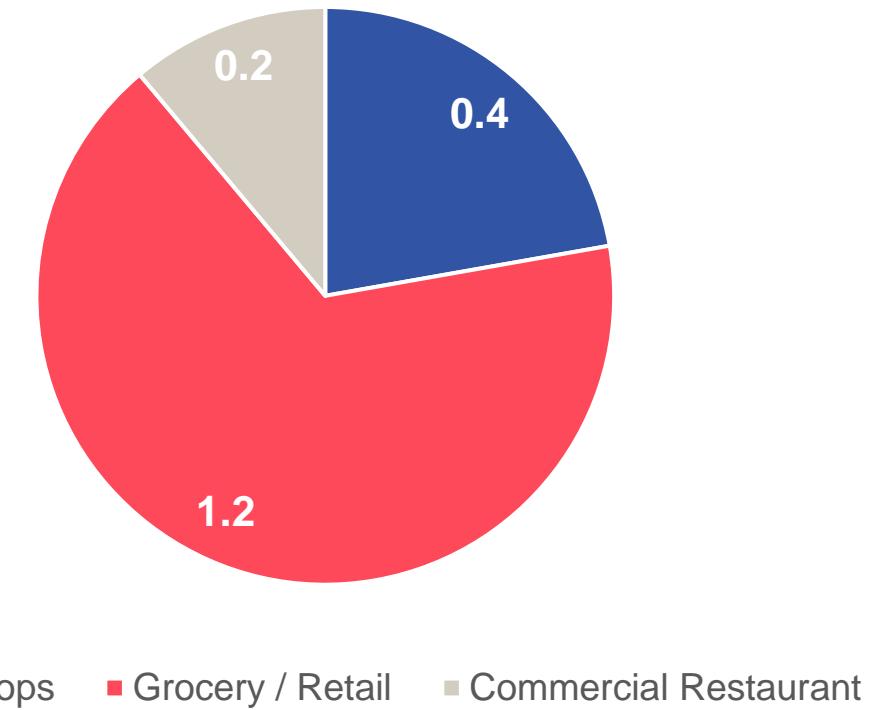
## Interviewer Guidance

→ Candidate should recognize that as leader in the space, likely that existing product has tapped price & market. Push towards introduction of new product, starting with market size of alternative milk channels

# Exhibit #1 – Alternative milk market in the U.S.



Projected 2026 Revenue in Alternative Milk Market (\$M)



# Exhibit #1 – Interviewer guidance

## Exhibit Notes

- Candidate should notice that market sizes are different with grocery / retail leading
- Should notice that Oat Co. has little presence in the largest market (grocery/retail) and that the space is highly fragmented
- Candidate should note that the grocery/retail category is worth \$1.2M
- Should recognize that the commercial restaurant market is small in comparison, and should provide thoughts on why (ex. Most restaurants in the US are already purchasing dairy milk and have little motivation to switch to a non-dairy option)
- **→ Candidate should recommend entering grocery / retail category, launching into brainstorm (see next page)**

# Brainstorm #1 – Market entry strategy

## Brainstorm Prompt

- **Prompt:** What should Oat Co. consider when thinking about entering the grocery/retail market?
  - **Financial**
    - > Development costs
    - > Cost to increase production facility capacity
    - > Cannibalization of online store sales
    - > Possible pay-to-play grocery placement contracts
  - **Non-Financial**
    - > Marketing campaign to educate consumers on retail product
    - > Response / retaliation from competitors
    - > Consumer flavor testing
    - > Process to ensure green / organic certification of product

## Interviewer Guidance

- The list on the left is non-exhaustive and answers can go in many directions; this brainstorm is intended to test the candidate's creative thinking.
- A **strong candidate** will structure their answers and provide use that as the basis to brainstorm.
- An alternative to the structure on the left is to use an operations/non-operations structure, as follows:
  - **Operations**
    - > Product formula testing
    - > Production capacity within existing facilities
    - > Distribution partnerships for Grocery
  - **Non-Operations**
    - > Marketing campaign to educate consumers
    - > Response / retaliation from competitors
    - > Staffing needs to support new business

# Exhibit #2

- Oat Co. is excited to penetrate the retail / grocery market and is considering launching one of two new products: Oat Lite or Oat Organic, both formulated specifically for at-home oat milk drinkers.

	Oat Lite	Oat Organic
Sales Price	\$12 / Carton	\$14 / Carton
Anticipated share of Alt Milk market over 3 years	40%	35%
Production Cost	\$24 / Palette*	\$24 / Palette*

\* 6 Cartons in Palette

# Exhibit #2 – Interviewer guidance

## Exhibit Notes

- Candidate should use data from Exhibit #1 and #2 to determine revenue generated by each product; Direct candidate to determine total profitability of each option.
- A great candidate will recognize that both options vastly exceed the revenue target when adding in revenue from coffee shop channel (70% of 400k market)
- **Optional Brainstorm:**
  - What are other considerations for Oat Co. when making this decision?
  - Marketing costs, risk of cannibalization, brand awareness, organic premium and market growth over time

## Quantitative Analysis

	Oat Lite	Oat Organic
Sales Price	\$12 / Carton	\$14 / Carton
Market Share over 3 years*	40%	35%
Production Cost	\$24 / Palette**	\$24 / Palette**
Total Revenue	= Market Share * Grocery Market size 40% * 1.2M = \$480k	= Market Share * Grocery Market size 35% * 1.2M = \$420k
# of Cartons Sold	= Revenue / Price = \$480k / \$12 = 30k Cartons Sold	Revenue / Price = \$420k / \$14 = 30k cartons sold
Cost per Carton	Palette Price / # of Cartons in Palette = \$24 / 6 = \$4 per carton	= \$24 / 6 = \$4 per carton
Profit over 3 years	= Cartons Sold * Profit per Carton = 40k cartons * (\$12-\$4) <b>= \$320K</b>	= Cartons sold * profit per carton = 30k cartons * (\$14-\$4) <b>= \$300k</b>

# Recommendation & Next Steps

## Recommendation

- **Prompt:** We are meeting with the CEO and Chief Strategy Officer of Oat Co. later today. What is your recommendation?
- After identifying large opportunity in Grocery market due to high fragmentation and \$1.2M projected market in 2026, and \$320k potential revenue, candidate should recommend launching Oat Lite which well exceeds target.
- A great candidate will note that launching Oat Organic will also meet / exceed target and suggest exploring launching both products in the future.

## Risks & Next Steps

- **Risks**
  - Risks include cannibalization of online sales, competitive response, security of distribution contracts, reliance on grocery partners in a highly competitive grocery space. A good candidate will provide 1-2 risks, a great candidate will provide 2-3.
- **Next Steps**
  - Consumer preference testing, developing marketing campaign, ensuring production capacity in existing facilities, securing distribution partners. A good candidate will provide 1 next step, a great candidate will provide 2-3.



# Bumpers R Us

**Industry** Manufacturing

**Case Type** Operations

**Firm Style** Kearney (*Interviewer-Led*)

**Quantitative Difficulty** Easy

**Qualitative Difficulty** Medium

**Author:** Helen Birdsong (Fuqua '24)

# Case Overview

## Prompt

Your client is Bumpers-R-Us, a manufacturer of plastic automotive bumpers. Bumpers-R-Us is a Tier-1 supplier for a major global OEM called CNW and is based in the southeastern United States. The client receives raw materials from around the world, which are then used in its plant to produce the plastic bumpers. The bumpers are shipped by truck 360 miles away to the local CNW plant.

Bumpers-R-Us has been a Tier-1 supplier to CNW for over 5 years, but over the past 6 months, the client has seen an increase in the amount of time it takes for parts to arrive at the CNW plant. CNW has issued a warning of potential fines and loss of future contracts if the lead time is not returned to the previous levels. Bumpers-R-Us is eager to find the source of the change in lead time and fix the issue as soon as possible.

*Note: This case is interviewer-led.*

## Interviewer Guidance

- **Case Steps**

- Exhibit #1: Manufacturing process
- Brainstorm #1: Process improvement
- Exhibit #2: Strategic initiatives
- Recommendations and next steps

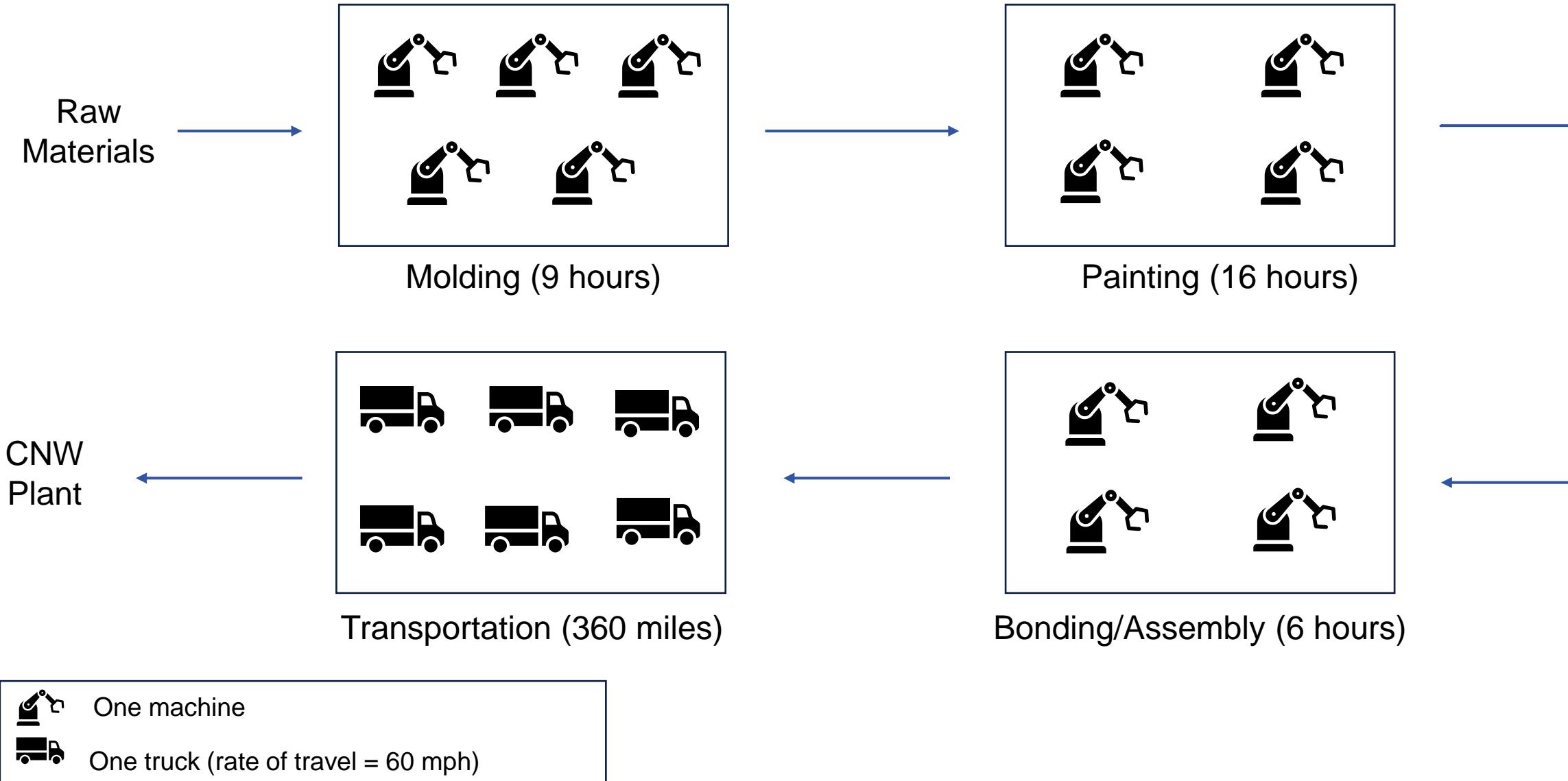
- **Clarifying Information (If Prompted)**

- Bumpers-R-Us is a domestic supplier that purchases raw materials from around the world and supplies solely to the local CNW plant.
- The client profited \$25M last year, with \$10M in costs.
- The manufacturing process consists of four stages: molding of plastic parts from raw materials, painting of molded parts, the bonding & assembly of the bumpers (Bonding/Assembly), and the shipment between the manufacturer and CNW.
- The pre-6 month lead time was 29 hours.
- The General Manager of the plant has directed a budget of up to \$5M be dedicated to addressing the lead time issue.

# Sample Framework

Internal	External	Market
<ul style="list-style-type: none"><li><b>Process</b><ul style="list-style-type: none"><li>- Stage with longest lead time</li><li>- Stage with longest machine</li><li>- Problem with machine</li></ul></li><li><b>Labor</b><ul style="list-style-type: none"><li>- Current number of employees</li><li>- Current number of shifts</li></ul></li></ul>	<ul style="list-style-type: none"><li>CNW</li><li>Demand (number of parts ordered)</li><li>Type of parts ordered</li><li>Suppliers</li><li>Raw materials</li><li>Availability</li><li>Prices</li></ul>	<ul style="list-style-type: none"><li>Competitors</li><li>Customers</li><li>Consumer trends</li></ul>
		<ul style="list-style-type: none"><li>Suitable frameworks should address both internal and external factors potentially affecting the manufacturing process.</li><li>The interviewer should briefly discuss points of interest in the framework before asking the interviewee to identify an area of focus.</li><li>The interviewee should identify the process, machines used in the process, or amount of time spent in each stage before the interviewer moves to Exhibit #1.</li></ul>

# Exhibit #1 – Manufacturing process



# Exhibit #1 – Interviewer guidance

## Exhibit Notes

- Interviewee should identify Transportation as the area with the most machines (in this case, vehicles), with the most time spent in the Painting stage.
- A good candidate will identify Painting as a potential area of concern.
- Candidates should calculate the current lead time to be 37 hours based on given information. Transportation time should be calculated to be 6 hours ( $360 \text{ miles}/60 \text{ mph} = 6 \text{ hours}$ ).
- **Once Painting is identified as an area of concern, the interviewer should prompt the candidate to brainstorm potential areas for improvement in the process.**

# Brainstorm #1 – Improvement initiatives

## Brainstorm Prompt

- **Prompt:** What are some potential initiatives for improvement in the current manufacturing process?

- **Machines**

- > Purchasing additional machines
  - > Upgrade or update existing machines

- **Labor**

- > Hiring additional workers
  - > Adding another shift
  - > Creating reward system for greater outputs
  - > Outsource certain tasks

## Interviewer Guidance

- The list on the left is non-exhaustive and answers can go in many directions; this brainstorm is intended to test the candidate's creative thinking.
- Once the brainstorm is complete, the interviewer should steer the interviewee to ask about initiatives considered by the client.

# Exhibit #2 – Strategic initiatives

- After brainstorming solutions, the interviewer should bring the candidate back to the General Manager's initial budget of \$5M for strategic initiatives. The following have been proposed; **the interviewer should read these to the interviewee without giving them the exhibit:**

Initiative		Potential Reduction of Lead Time	Purchase Cost	Additional Information (only read when asked)
1	Replace oldest paint line robot	3 hours	\$3.5M	<ul style="list-style-type: none"> <li>The oldest paint line robot has been in use for 8 years, with most plants using these robots for up to 10 years.</li> </ul>
2	Upgrade software for paint line robots	5 hours	\$1.5M	<ul style="list-style-type: none"> <li>The software for the paint line robots was upgraded 3 years ago and is the second most recent version of software for these robots.</li> </ul>
3	Add one additional paint line robot	4 hours	\$5M	<ul style="list-style-type: none"> <li>There is space to add an additional paint line robot.</li> </ul>
4	Add a third shift to the existing paint line	8 hours	\$6.5M	<ul style="list-style-type: none"> <li>There is currently only a first and second shift on the paint line, with no existing third shift.</li> <li>No other stages currently operate a 3rd shift; most time will be spent on clearing molded products waiting from the first &amp; second shifts</li> </ul>
5	Outsource painting of partial shipment of bumpers	2 hours	\$2M	N/A

# Exhibit #2– Interviewer guidance

## Exhibit Notes

- **Good candidates should recommend replacing the oldest pain line robot and upgrading the paint line software- this reduces the lead time from 37 to 29 hours (the target lead time) and remains within the \$5M budget set by the General Manager.**
- Great candidates will refer back to any connections between the brainstorm and these initiatives.
- Candidates should steer away from adding an additional paint line robot or a third shift due to not reaching the targeted lead time of 29 hours and the costs exceeding the \$5M budget.

## Quantitative Analysis

Initiative	Potential Reduction of Lead Time	Purchase Cost
Replace oldest paint line robot	3 hours	\$3.5M
Upgrade software for paint line robots	5 hours	\$1.5M
Add one additional paint line robot	4 hours	\$5M
Add a third shift to the existing paint line	8 hours	\$6.5M
Outsource painting of partial shipment of bumpers	2 hours	\$2M

# Recommendation & Next Steps

## Recommendation

- **Prompt:** The General Manager of Bumpers-R-Us will enter the room shortly; the candidate should be prompted to give their recommendation.
- Good candidates should recommend the two strategic initiatives from the second math portion.
- Great candidates will reference the lead time and budget targets being met.

## Risks & Next Steps

- **Risks**
  - Potential risks a good candidate may provide include: increased costs of initiatives, unexpected maintenance of existing machines, the time needed to install software and potential delays of production based on software installation.
- **Next Steps**
  - Potential next steps a good candidate may provide include: requesting quotes for paint robots from multiple suppliers and requesting more information on the time required for a software upgrade.



# Colombian Hippos

**Industry** Non-Profit

**Case Type** Decision Analysis

**Firm Style** McKinsey (*Interviewer-Led*)

**Quantitative Difficulty** Easy

**Qualitative Difficulty** Medium

**Author:** Juan Pablo Quintero (Fuqua '24)

# Colombian Hippos Case Overview

## Prompt

At the height of his criminal activity in the 1980s, Pablo Escobar imported a menagerie of exotic animals to Colombia to show off at his personal zoo. Since then, many of the animals have escaped and are wreaking havoc on the countryside.

Notably, Escobar's hippos present the highest concern as they are known to attack humans, damage local ecosystems, and have no natural predators to keep their population in check. Experts estimate that the population of 50 escaped hippos will grow to 250 if left unchecked.

**Your client is the new president of Colombia, who ran a strong-on-hippo campaign and must now deliver results.** Her administration has hired your firm to understand the key considerations of the problem and present potential solutions.

*(This is interviewer-led, so the framework will not follow through the rest of the case. Each section is standalone.)*

## Interviewer Guidance

- **Case Steps**
  - Exhibit: Hippo options
  - Recommendations and next steps
- **Clarifying Information (If Prompted)**
  - A strong candidate will want to assess the scope of the damage, the stakeholders affected, and potential solutions/risks.
  - The government has a deep budget to address the hippo problem. However, the client would still be interested in solutions that are cost-neutral / revenue-generating.
  - Hippos are dangerous animals who have been known to attack humans. An average hippo eats 88 pounds of vegetation per day and will eat both wild plants and human-grown crops.
  - Only hippos are in-scope for this case. Disregard other animals.
  - The rate of hippo population growth is not an important assumption and will not factor into the case.

## Impact of Hippos

- **Environmental**
  - Destroys habitat
  - Eats other animals' food
  - Hippo waste
- **Social**
  - Dangerous to humans
  - Eats farmer crops
- **Financial**
  - Cost of hippo damage
- **Trends**
  - Impact will increase geometrically if hippos reproduce
  - May expand outside of current habitat and terrorize neighboring zones

## Logistics

- **Hippo capture**
  - Safety of animals
  - Employee safety
- **Transportation / storage**
  - Sourcing heavy-duty vehicles to move hippos
  - Finding suitable habitat for hippos
- **Hippo care**
  - Veterinary checkup and sterilization
  - Sourcing hippo food
- **Hippo value**
  - Is there a way we can extract value from the hippos?

## External Considerations

- **Political backlash**
  - Community groups
  - Animal welfare activists
  - International nonprofits
- **Financial**
  - Cost of capturing and containing hippos
  - Potential cost of inaction
- **Human resources**
  - Sourcing expertise: animal experts, conservationists, etc.

# Exhibit – Hippo relocation options

- The client has an opportunity to relocate the hippos to a local sanctuary, using them as a tourist attraction in Colombia
- Duke University offered to house some hippos, converting part of the Duke Lemur Center into a hippo research facility
- Which opportunity should the client pursue? Calculate for a five-year period. For the purposes of this case, the options are mutually exclusive – the client can only pursue one. (**Do not show the candidate the below exhibit, read aloud**)

## Option 1: Colombian Hippo Campus

- Capacity: 50 hippos
- Colombian government would open a hippo sanctuary and sell tickets to tourists. Govt would keep all profit
- It costs \$15,000 to capture and tag each hippo
- Annual maintenance cost is \$5,000 for each hippo
- Construction costs expected to be \$2 million. Overhead for sanctuary will be \$100,000 yearly
- Expect 50k – 60k tourists visit per year, at ticket price of \$20

## Option 2: Duke Lemur & Hippo Center

- Capacity: 30 hippos
- The DLHC would provide a research grant of \$1 million upfront plus \$10,000 per hippo per year
- Transportation costs from Colombia to North Carolina would be \$15,000 per hippo
- DLHC would cover hippo maintenance costs and keep hippos permanently after 5-year lease period

# Exhibit – Interviewer guidance

## Option 1: Colombian Hippo Campus

- **One-time costs:**
  - Sanctuary Construction: \$2 million
  - Hippo Acquisition (\$15k/capture \* 50 hippos): \$750k
- **Recurring Revenue:**
  - Ticket Sales low (50k tourists \* \$20/ticket \* 5 years): \$5 million
  - Ticket Sales high (60k tourists \* \$20/ticket \* 5 years): \$6 million
- **Recurring Costs:**
  - Hippo maintenance (\$5k/yr x 50 hippos \* 5 years)
  - Overhead (\$100k/yr \* 5 years)
- **Net Profit: \$500k – \$1.5 million**

## Option 2: Duke Lemur & Hippo Center

- **One-time revenue:**
  - Research grant: \$1 million
- **One-time costs:**
  - Hippo Acquisition (\$15 k/capture + \$15 k/transport \* 30 hippos): \$900k
- **Recurring Revenue:**
  - Hippo lease (\$10 k/hippo \* 30 hippos \* 5 years): \$1.5 million
- **Net Profit: \$1.6 million**

# Exhibit – Interviewer guidance

## Exhibit Notes

- Candidate should notice that hippos would also need to be captured in DLHC scenario and factor cost in their calculations
- A strong candidate will notice that DLC can only accommodate 30 hippos – what will our client do with the other 20? There may be additional costs that are not captured in our analysis
- A strong candidate will calculate the low and high ranges of the Sanctuary scenario and make an assumption about which figure to use
- There is no definitively correct answer to the exhibit. This exercise will challenge the candidate to think creatively about the problem.
  - E.g., What are the non-financial benefits of keeping the hippos in Colombia? Consider the potential benefits of creating a cultural attraction, the economic benefit to the surrounding region, opportunity to create local jobs, developing academic & research assets. Can we increase price of tickets? Will attendance change over time?
  - What are the sensitivities in the analysis? Will the recommendation change depending on whether ticket sales are on the low/high end of the range provided? The client is a government so choosing a sub-optimal financial option may still be a good approach since profitability is not the main concern.
- Ask the candidate to recommend one option and present risks & benefits of their proposed solution



# iPhone X-Change

<b>Industry</b>	Consumer Goods
<b>Case Type</b>	Market Sizing
<b>Firm Style</b>	LEK
<b>Quantitative Difficulty</b>	Medium
<b>Qualitative Difficulty</b>	Easy

**Author:** Darian Aghili (Fuqua '24)

## Prompt

Our client, Electronics Co., is a U.S. based distributor of secondhand consumer electronic devices, i.e., phones, tablets, laptops, etc.

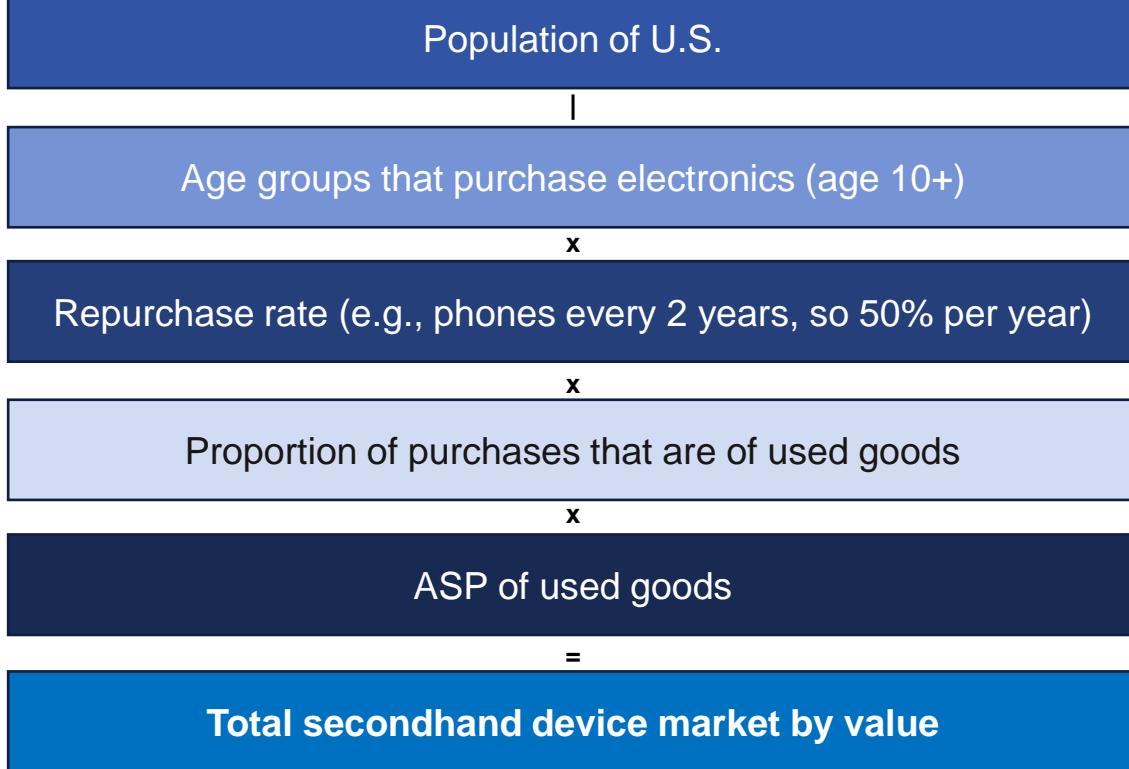
**Electronics Co. would like our help to analyze the total market size of various used consumer electronics verticals to provide them an outlook of their total market opportunity.**

## Interviewer Guidance

- **Case Steps**
  - Brainstorm #1: Market sizing methodology
  - Exhibit #1: Market sizing data
  - Brainstorm #2: Market insight
  - Risks
- **Clarifying Information (If Prompted)**
  - **Objective:** Electronics Co. would like to understand the market size for secondhand electronic devices
  - **Model:** Electronics Co. purchases used electronic devices from consumers and then sells them via their online, DTC platform
  - **Geography:** Electronics Co. operations are based in U.S.
  - **Timeline:** ASAP

# Exhibit #1 – Market size

## Sample Methodology



## Quantitative Analysis

Total Addressable Market (TAM)*			
	Phones	Tablets	Laptops
Volume sold	1.25B	160M	220M
Proportion used	20%	15%	5%
Proportion U.S.	10%	8.3%	9.1%
ASP	\$50	\$150	\$200
<b>Market size</b>	<b>\$1.25B</b>	<b>\$300M</b>	<b>\$200M</b>

- \* Market for all electronics in Other (e.g., headphones, gaming consoles, cameras, etc.) is 20% of Phones, Tablets, and Laptops market combined.
  - **Market size of Other = \$350M**
- Candidate should calculate market size for each device vertical, along with overall market size. Interviewer provides volume sold, proportion used, proportion U.S., and ASP.
- TAM = \$2.1B**

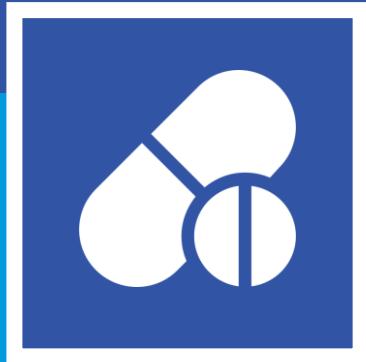
# Brainstorm #2 – Market insights & risks

## Brainstorm Prompt

- **Prompt:** Electronics Co.'s CEO would like a summary of your market insights.
- A strong candidate should be able to clearly structure their thoughts on the market based on the TAM and general understanding of the consumer electronics space.
  - Sizeable market with geographic scalability
  - Phone sales are strong and further penetration is expected
  - Environmental benefits of reusing electronics are a strong selling point for conscious consumers

## Risks

- New models may still be enticing to consumers
- Quality control issues, especially when scaling
- Supply chain limiting factors may exist
- Customer stickiness will be an issue
- Product support by legacy manufacturers and developers may become obsolete



# Orwells that Ends Well

<b>Industry</b>	Pharmaceuticals
<b>Case Type</b>	M&A
<b>Firm Style</b>	BCG
<b>Quantitative Difficulty</b>	Medium
<b>Qualitative Difficulty</b>	Medium

**Author:** Josh Goldstein (Fuqua '24)

# Case Overview

## Prompt

Your client is Animal Pharma, a public pharmaceutical supplier focused on oral solid medications (e.g., tablets, capsules).

Animal Pharma's portfolio has been impacted by decreasing margins.

Animal Pharma is considering the acquisition of a rival supplier to boost profitability.

**Animal Pharma's CEO has hired you to review the attractiveness of this strategy.**

## Interviewer Guidance

- **Case Steps**
  - Exhibit #1: Acquisition targets
  - Exhibit #2: Financials
  - Brainstorm #1: Factors impacting profitability
- **Clarifying Information (If Prompted)**
  - **Objective:** The executive board would like for the company's stock to increase ASAP and is looking for a quick and sustained boost.
  - **Model:** Animal Pharma does not currently manufacture any of their products and are reliant on upstream partners for molecule synthesis.
  - **Geography:** Animal Pharma is focused solely on domestic sales with no current international exposure.
  - **Positioning:** Animal Pharma's stock has been performing below the S&P 500 but similarly to comparable pharmaceutical companies.

# Sample Framework

## Strategic Fit

- **Superficial observations**
  - Current product overlap/additions
  - New drug pipeline/R&D
  - Expansion to international markets
- **Advanced observations**
  - Access to manufacturing capabilities
  - Drug type expansion (i.e., injectable, patch, etc.)
  - Downstream customer acquisition (i.e., different network of doctors and buyers)

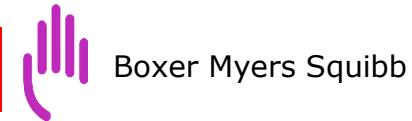
## Acquisition Economics

- **Superficial observations**
  - Deal price
  - Funding (i.e., debt, equity, cash reserves)
  - Synergies (i.e., marketing, manufacturing, R&D)
- **Advanced observations**
  - Friendly or hostile takeover
  - Full purchase, JV, limited investment, or asset acquisition
  - Multiple bids or single interest

## Risk Potential

- **Superficial observations**
  - Client's ability to integrate
  - Unwanted FTC oversight
  - Ability to realize synergy potential
- **Advanced observations**
  - Missed due diligence (e.g., poor manufacturing processes)
  - New liability ownership of risky assets/behavior (e.g., narcotics)
  - Ability to gain licensing/approvals in new markets

# Exhibit #1



	Co #1	Co #2	Co #3
Deal price	1.25B	160M	220M
Integration difficulty	20%	15%	5%
Product overlap	10%	8.3%	9.1%
Synergies available	\$50	\$150	\$200

# Exhibit #1 – Interviewer guidance

## Exhibit Notes

- The CEO has identified 3 companies that are potentially a good fit for acquisition.
- Provide if candidate asks:
  - Deal price is non-negotiable and will need to be paid immediately.
  - Integrate difficult cannot be quantified but adds additional complexity that the deal will not be quickly or successfully completed.
  - Product overlap means similar assets held by the companies will need to be divested prior to acquisition; this is factored into the deal price.
- Candidate should drive forward by asking for data quantifying the listed synergies.

## Analysis

- **Basic analysis**
  - Companies 2 and 3 represent significant synergy opportunities, but at a higher deal price.
  - Product overlap could impact the opportunities associated with the deal purchase.
- **Second order insights**
  - With the board looking for a quick stock boost, Co 2 and 3 represents significant risk due to possibility of deal falling through.
  - Co 3's international presence represents new market opportunity but substantial integration risk due to Animal Pharma's lack of experience.
  - Manufacturing synergies similarly represent opportunity and risk due to Animal Pharma's current sub-contracting of drug synthesis.

# Exhibit #2

	Animal Pharma	Co #1	Co #2	Co #3
U.S. sales	\$10B	\$6B	\$8B	\$10B
International sales	\$0B	\$0B	\$0B	\$4B^
Marketing	\$4B	\$2B	\$2B	\$4B
R&D	\$2B	\$1B	\$1B	\$3B
Manufacturing	\$0B	\$0B	\$1B	\$2B
Overlap	-	25%	50%	25%
Synergy benefit*	-	10%	20%	20%

- \* Synergy benefit is relative to current cost position
- ^ International sales are not affected by any product overlaps

# Exhibit #2 – Interviewer guidance

## Exhibit Notes and Analysis

- Animal Pharma financials represent the most recent year and include all sales and costs.
- If candidate does not clarify:
  - Mention that acquisition target sales include product overlap but that the cost figures are unaffected.
  - Potential synergies would only benefit Animal Pharma's current cost position.
- **Basic analysis**
  - Co 2 generates \$4B in profit, but significant overlap on revenue with no international sales would lead to negative value for Animal Pharma.
  - Co 3's international presence negates overlap loss from domestic revenues.
- **Second order insights**
  - Deal cost, overlap, and synergy benefits can be tied to net profit accretion value.
  - Co 3 has most lifetime value with highest deal risk, Co 2 has negative value, and Co 1 has positive value and limited risk.

## Quantitative Analysis

	AP	Co 1	Co 2	Co 3
U.S. sales	\$10B	\$6B	\$8B	\$10B
Int. sales	\$0B	\$0B	\$0B	\$4B
<b>Total sales</b>	<b>\$10B</b>	<b>\$6B</b>	<b>\$8B</b>	<b>\$14B</b>
Marketing	-\$4B	-\$2B	-\$2B	-\$4B
R&D	-\$2B	-\$1B	-\$1B	-\$3B
Manufacturing	\$0B	\$0B	-\$1B	-\$2B
<b>Total costs</b>	<b>-\$6B</b>	<b>-\$3B</b>	<b>-\$4B</b>	<b>-\$9B</b>
Portfolio overlap	0%	25%	50%	25%
<b>Rev remaining</b>	-	<b>\$4.5B</b>	<b>\$4B</b>	<b>\$11.5B</b>
Synergy benefit	-	10%	20%	20%
<b>Synergy value</b>	-	<b>\$0.6B</b>	<b>\$1.2B</b>	<b>\$1.2B</b>
Revenue	\$10B	\$4.5B	\$4B	\$11.5B
Costs	-\$6B	-\$3B	-\$4B	-\$9B
Deal synergy	\$0B	\$0.6B	\$1.2B	\$1.2B
Deal cost	\$0B	-\$1B	-\$1.5B	-\$2B
<b>Total new profit</b>	<b>\$4B</b>	<b>\$1.1B</b>	<b>-\$0.3B</b>	<b>\$1.7B</b>

# Brainstorm #1 – Profitability factors

## Brainstorm Prompt

- **Prompt:** What factors could be impacting the profitability of Animal Pharma's current drug portfolio?
  - **Revenues**
    - > Drug prices: Decreasing due to public perception, gov. intervention, and/or increased competition in similar disease indications
    - > Demand: Reduced for other channels (i.e., diet, holistic approach to health, etc.)
    - > Channels: Increased purchasing via lower margin channels (i.e., retail vs. hospital)
  - **Costs**
    - > Increasing: Contracting costs from partners/suppliers, freight costs, marketing expenses, liability expenses

## Interviewer Guidance

- This brainstorm should be structured and MECE.
- A **strong candidate** will detail specific reasons, and directly relate these reasons with Animal Pharma's business model.
- A **good candidate** may identify some general reasons that impact profitability for firms within any industry.

# Recommendation & Next Steps

## Recommendation

- **Prompt:** The CEO of Animal Pharma is anxious after a contentious board meeting. She is excited to hear your review of the available assets to purchase, hoping it will change the company's trajectory. What do you recommend?
- The recommendation should center around acquiring either Co 1 or Co 3, highlighting new profit post-deal. Co 1 is preferred due to the likely efficiency of closing the deal and the relative low risk in deal execution.

## Risks & Next Steps

- **Risks**
  - Additional market entrants on acquired products
  - Ability to finance deals
  - Potential due diligence issues
  - Potential FTC roadblock
  - If candidate suggests Co 3, candidate should highlight integration difficult since CEO and board have stated the necessity of
- **Next Steps**
  - Invest in synergies desired (i.e., international presence if choosing Co 1)
  - Mitigate integration difficulty via disciplined due diligence, especially if choosing Co 3
  - Acquiring riskier/higher upside targets once stock price has restabilized



# Cake or Break

<b>Industry</b>	Consumer Goods
<b>Case Type</b>	Profitability
<b>Firm Style</b>	Deloitte
<b>Quantitative Difficulty</b>	Medium
<b>Qualitative Difficulty</b>	Medium

**Author:** Soumya Bagade (Fuqua '24), Reviewed by Kehinde Majolagbe (Fuqua '24)

# Case Overview

## Prompt

Everything Bundt Cakes (“EBC”) is a bakery that specializes in bundt cakes of all sizes. They offer a variety of flavors, including a seasonal flavor.

**Since 2020, EBC has noticed a decline in profits and would like your help to increase profits again.**

## Interviewer Guidance

- **Case Steps**
  - Brainstorm #1: Profitability drivers
  - Exhibit #1: Product revenues
  - Exhibit #2: Revenue growth options
  - Brainstorm #2: Ways to increase profits
  - Recommendations and next steps
- **Clarifying Information (If Prompted)**
  - **Product:** There are three sizes of cakes: 5 inches, 10 inches, and 15 inches. The company is located in the US.
  - **Model:** The primary form of revenue is individuals who physically go to the store or order online. There is a nominal amount of revenue through business orders.
  - **Objective:** To find ways to increase profitability to help future growth.

# Sample Framework

Revenue	Costs	Market Trends
<ul style="list-style-type: none"><li>• <b>Number of cakes sold</b><ul style="list-style-type: none"><li>- By size</li><li>- By product type</li></ul></li><li>• <b>Price per cake</b><ul style="list-style-type: none"><li>- By size</li><li>- By product type</li></ul></li><li>• <b>New products</b></li><li>• <b>New business</b></li></ul>	<ul style="list-style-type: none"><li>• <b>Fixed costs</b><ul style="list-style-type: none"><li>- Salaries</li><li>- Equipment</li><li>- Rent</li><li>- Overhead costs</li><li>- SG&amp;A</li></ul></li><li>• <b>Variable costs</b><ul style="list-style-type: none"><li>- Ingredient costs</li><li>- Labor</li></ul></li></ul>	<ul style="list-style-type: none"><li>• <b>Industry</b><ul style="list-style-type: none"><li>- Competition</li><li>- Substitutes</li><li>- Supply chain considerations</li></ul></li><li>• <b>Consumer trends</b><ul style="list-style-type: none"><li>- Price sensitivity</li><li>- Changes in preferences (healthy eating focus, etc.)</li><li>- Changes in number of customers / shrinking cake market</li></ul></li></ul>

# Brainstorm #1 – Profitability drivers

## Brainstorm Prompt

- **Prompt:** Before we go into analysis, I'd love to hear your thoughts on why EBC may be facing decreasing profitability.

- **Revenues**

- > Less customers / demand for cake
- > Effects of the COVID-19 pandemic
- > Increasing competition: grocery stores with generic cakes, at-home bakers, and other specialized cake vendors like Baked by Melissa
- > Increase in substitutes: bakeries like Crumbl Cookies, healthier “snack” places like Edible Arrangement snack cups

- **Costs**

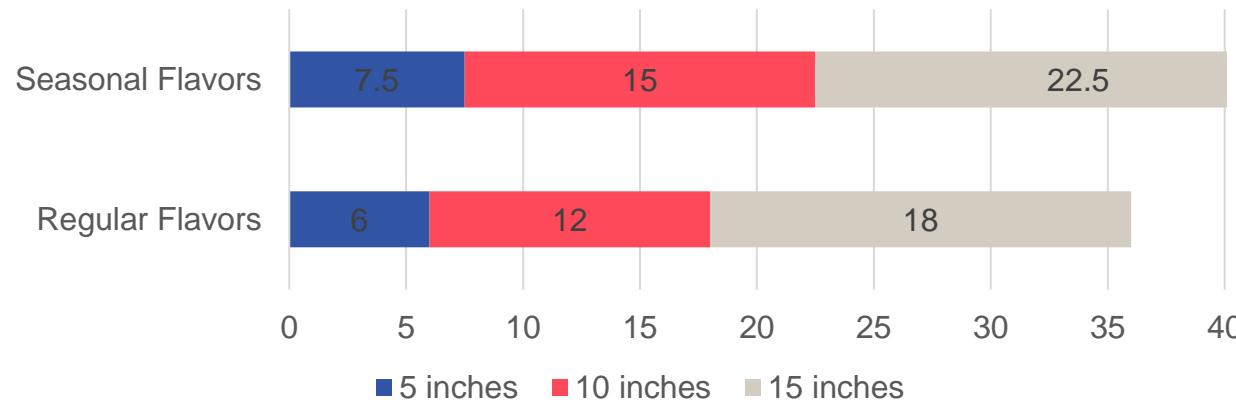
- > Increasing ingredient costs: the supply chain shortages impacted companies across many industries, so increasing ingredient costs could reduce profitability
- > Increasing fixed costs: store rental costs, equipment, etc.

## Interviewer Guidance

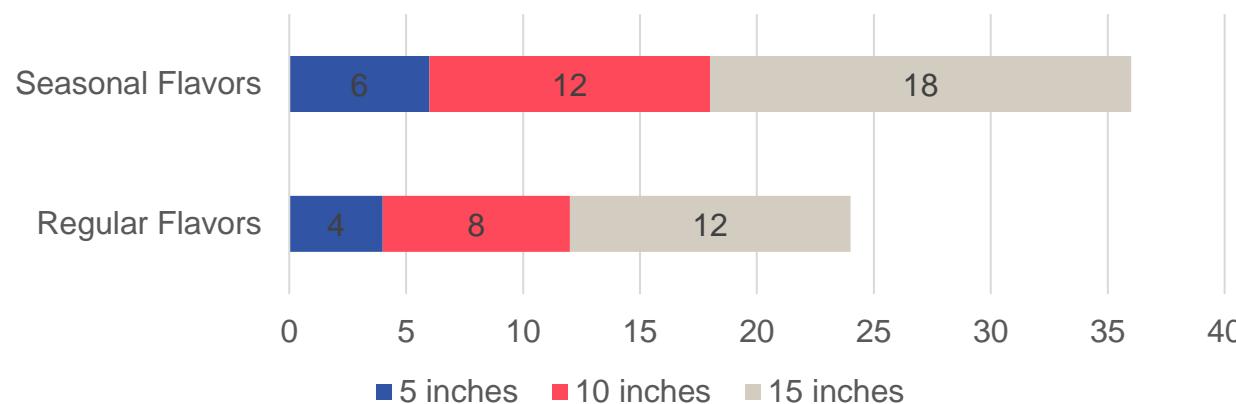
- This brainstorm should have some structure but does not have to be too detailed.
- A **strong candidate** will detail specific reasons, and directly relate these reasons with EBC's business model.

# Exhibit #1

## Revenues Per Cake



## Costs Per Cake



### Seasonal Flavors (inclusive)

- Maple (Jan – Feb)
- Cookies & Cream (Feb – Mar)
- Lemon (Mar – Apr)
- Very berry (Apr – May)
- Strawberries & Cream (May – June)
- Key Lime (June – July)
- Blueberry (July – Aug)
- Carrot (Aug – Sept)
- Pumpkin (Sept – Oct)
- Cinnamon roll (Oct – Nov)
- Gingerbread (Nov – Dec)
- Hot chocolate (Dec – Jan)

### Regular Flavors

- Chocolate
- Vanilla
- Marble
- Oreo
- Red velvet
- Sprinkles

# Exhibit #1 – Interviewer guidance

## Exhibit Notes

- This type of exhibit is especially common with **Deloitte interviews**, where they are testing the candidate's ability to take in a lot of information and extract the important parts of it.
- Good candidates will be able to cleanly clear the exhibit and highlight notable pieces of information.
- Strong candidates will immediately infer that there's a difference between flavor types and speculate on that.
- Guide the interviewee towards discussing potential options for increasing profitability.

## Detailed Insights

- There are 2 seasonal and 6 regular flavors in any given month, with seasonal flavors having 25% higher revenues than regular flavors.
- Strong candidates will recognize that despite the regular having less revenue, the margin on the regular flavors are better than seasonal. (34% vs. 25%).
- Candidate may speculate whether it's because of resource availability, negotiations with suppliers on seasonal ingredients vs regular ingredients, or something else.

# Exhibit #2



# Exhibit #2 – Interviewer guidance

## Exhibit Notes

- **Starting catering** will provide the easiest and most cost-effective way to increase profits. It also has a high potential to capture new demographics (75%).
- **Partnerships with grocery stores** have the least customer interest and though there is a high chance for getting a new demographic of customers, it is difficult to implement, and the competition is high as EBC would compete with many other brands.
- **Offering new flavors** has some potential as it does have high customer interest, but the implementation costs are higher than catering, the potential for a new demographic of customers is lower, and it isn't the easiest to implement. A strong interviewee will connect this back to Exhibit 1 where they learned that the seasonal flavors don't have as much margin as regular flavors.
- **Entering new geographies** will result in high costs, which may be a future goal to consider but it will not help with the current issue at hand.

# Brainstorm #2 – Ways to increase profits

## Brainstorm Prompt

- **Prompt:** What ways can EBC increase profits for the future?

- **Internal**

- > Catering and new business models
- > New flavors
- > Targeting new geographies
- > New products (cupcake line)

- **External**

- > Partnerships with grocery stores
- > Partnerships with non-food companies (like an EBC & Fuqua partnership for Admitted Students Weekend)
- > Sponsorships with influencers / celebrities

## Interviewer Guidance

- The list on the left is non-exhaustive and answers can go in many directions; this brainstorm is intended to test the candidate's creative thinking.
- This brainstorm should be more structured. We know why the profitability is lower since 2020, but we want to consider ways of diversifying the portfolio to bring in new revenue forms.
- A **strong candidate** will think of creative ways to improve revenue, beyond just adding new products.
- On completing the brainstorm, the interviewer should pivot towards closing the case.

# Recommendation & Next Steps

## Recommendation

- **Prompt:** The CEO of EBC is about to walk in the room and would love to hear your recommendation.
- We would recommend that EBC begin an offering for catering service to increase profitability in the coming years. Seeing that the margins are better on the regular flavors, we would recommend offering the regular flavors in the catering portfolio.
- A **strong candidate** may add an observation like: If we can negotiate with the suppliers and reduce the costs of seasonal flavors, we can offer them with the catering portfolio.

## Risks & Next Steps

- **Risks**
  - Customer trends may change
  - Cannibalization
  - Catering depends on customers wanting to order solely bundt cakes; other competitors may offer other products
  - Customers may be coming in more for the seasonal flavors and buying the regular flavors as the add-on, so focusing catering on regular flavors could reduce profits.
- **Next Steps**
  - Due diligence by doing further analysis to ensure that catering will ensure continued increases in profits.
  - A strong interviewee may mention some of these as well:
    - > Analyze financial statements to ensure that the regular flavors bring in enough revenue for it to be profitable.
    - > Allocate capital for marketing, packaging, and labor to focus on the catering part of the business
    - > Design and deploy a plan to slowly start adding in the catering business to the currently existing single customer model



# What's the MATter?

<b>Industry</b>	Industrials
<b>Case Type</b>	Profitability
<b>Firm Style</b>	LEK
<b>Quantitative Difficulty</b>	Medium
<b>Qualitative Difficulty</b>	Medium

**Author:** Darian Aghili (Fuqua '24)

# Case Overview

## Prompt

Our client, Matting Co., is a U.S. based manufacturer of HDPE (high density polyethylene) matting products that are used for construction and infrastructure projects across a variety of industries.

Matting Co. has catapulted itself into a leading player within the matting manufacturing space, but given recent strategic acquisitions made by competitors, Matting Co.'s industry dominance is being threatened, forcing the company to look for new strategic growth opportunities that align with the company's historical value proposition.

**Matting Co. would like our help to analyze various growth opportunities that they could potentially capitalize on in the marketplace moving forward.**

## Interviewer Guidance

- **Case Steps**
  - Exhibit #1: U.S. and RoW matting market
  - Exhibit #2: U.S. market by matting material
  - Brainstorm #1: Matting material interest
  - Exhibit #3: Acquisition calculation
  - Recommendations and next steps
- **Clarifying Information (If Prompted)**
  - **Objective:** Matting Co. would like to increase market share
  - **Model:** Matting Co. manufactures and sells to either end users or distributors who then rent product out to end users
  - **Geography:** Matting Co. operations are based in U.S., but they do have a small amount of revenue generated via overseas customers
  - **Timeline:** ASAP

# Sample Framework

Market	Growth Levers	Financial Considerations
<ul style="list-style-type: none"><li>• <b>Size</b><ul style="list-style-type: none"><li>- Domestic</li><li>- International</li><li>- Trends</li><li>- Forecast</li></ul></li><li>• <b>Customers</b><ul style="list-style-type: none"><li>- Key purchase criteria (KPCs)</li></ul></li><li>• <b>Competitors</b><ul style="list-style-type: none"><li>- Volume</li><li>- Trends</li><li>- Forward trajectory</li><li>- Recent activity</li></ul></li></ul>	<ul style="list-style-type: none"><li>• <b>Organic</b><ul style="list-style-type: none"><li>- Product adjacencies</li><li>- Geographic expansion</li><li>- New markets</li></ul></li><li>• <b>Inorganic</b><ul style="list-style-type: none"><li>- Acquisition</li><li>- Merger</li></ul></li></ul>	<ul style="list-style-type: none"><li>• <b>Cost of growth opportunities</b><ul style="list-style-type: none"><li>- Capex requirements</li><li>- Additional headcount</li></ul></li><li>• <b>Revenue implications</b><ul style="list-style-type: none"><li>- Increased sales volume</li><li>- Potential cannibalization</li><li>- Pricing dynamics</li></ul></li></ul>

**Exhibit #1**

U.S. market	10 years ago	5 years ago	Present
Matting Co.	100M	105M	110M
Competitor 1	50M	75M	105M
Competitor 2	25M	45M	90M
All others	25M	37.5M	61.7M
Total	200M	262.5M	366.7M

RoW market	10 years ago	5 years ago	Present
Matting Co.	100M	105M	110M
Total	1B	1.25B	1.5B

# Exhibit #1 – Interviewer guidance

## Exhibit Notes

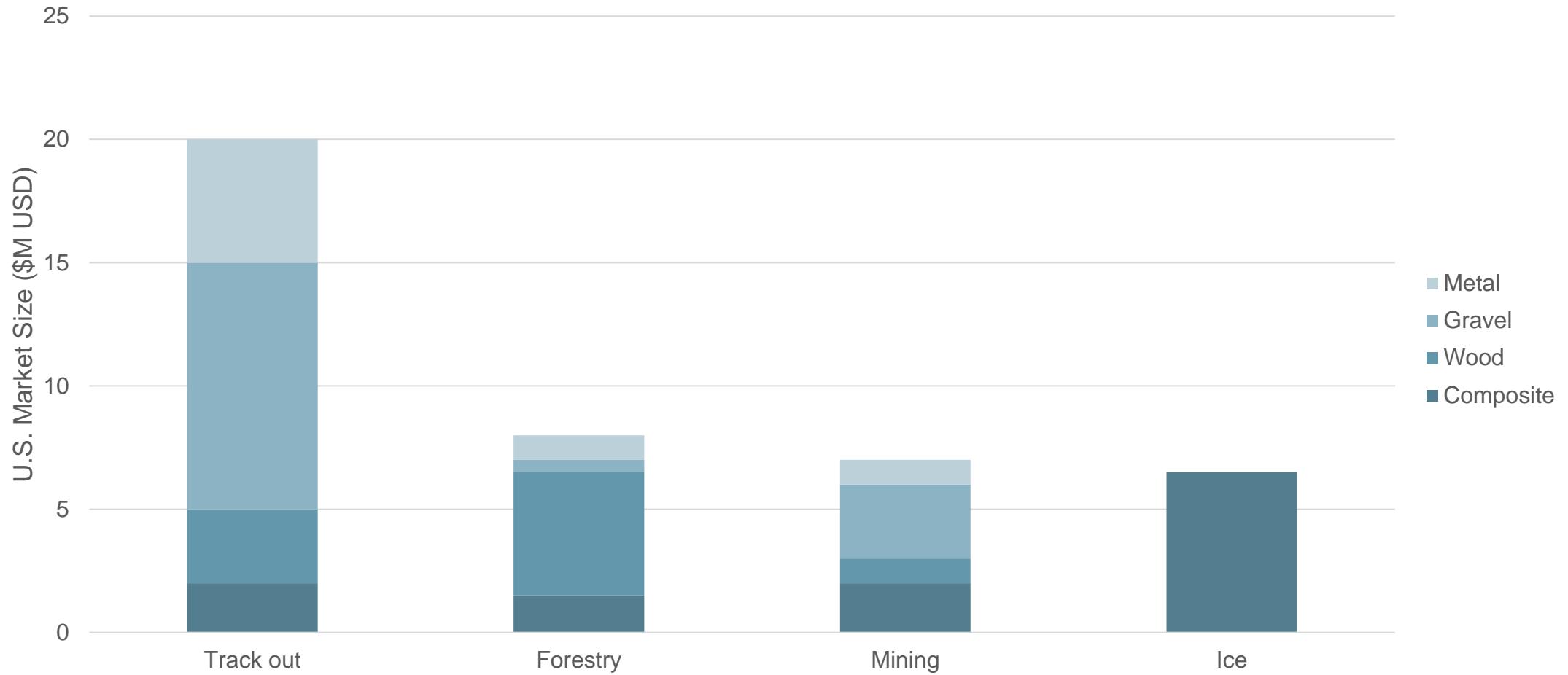
- Market is growing at faster rate than Matting Co.'s share
  - Note to interviewer:** if prompted, explain the growth is a result of environmental consciousness increasing use case of these mats. Ground protection is necessary for construction and maintenance projects, as well as for events, so mats are being more widely used.
- Competitor 2 growing the fastest
  - Note to interviewer:** if prompted, explain that Competitor 1's patent expired for core product 5-years ago. Competitor 2 copied exact product and priced favorably against Competitor 1's congruent product, thereby gaining share very quickly.
- Interviewee may calculate share by %
  - Note to interviewer:** percentages are noted in interviewer iteration of exhibit for quick calculation checks
- Interviewee could ask if client wants to return to any particular share position, and the answer is that it doesn't necessarily matter, but they want to reverse this trend of reduced share.
- If interviewee drives toward organic growth options, go to Exhibit 2. If interviewee drives toward inorganic growth options, go to Exhibit 3.

## Quantitative Analysis

U.S. market	10 years ago	5 years ago	Present
Matting Co.	100M (50%)	105M (40%)	110M (30%)
Competitor 1	50M (25%)	75M (28.6%)	105M (28.6%)
Competitor 2	25M (12.5%)	45M (17.1%)	90M (24.5%)
All others	25M (12.5%)	37.5M (14.3%)	61.7M (16.8%)
Total	200M	262.5M	366.7M

RoW market	10 years ago	5 years ago	Present
Matting Co.	100M (10%)	105M (8.75%)	110M (4.4%)
Total	1B	1.25B	1.5B

# What's the MATter? **Exhibit #2**



# Exhibit #2 – Interviewer guidance

## Exhibit Notes

- **Clarification of terms:**
  - Track-out matting: used for sediment control when entering and exiting project and construction sites. Many state transportation authorities require this to prevent potential damage to vehicles. Track-out matting removes sediment stuck in tires for vehicles and equipment on a job site.
  - Forestry matting: used to create temporary access roads and walkways for logging purposes in forests.
  - Mining matting: used in temporary access roads & walkways on mining sites
  - Ice rink matting: used to convert rinks to walkable event spaces, courts, etc.
- Candidate could note the overall opportunity via material conversion.
- Candidate should not suggest entering ice rink matting market as it does not have a lot of growth opportunity via material conversion and has limited future potential due to finite number of ice rinks.
  - Could initiate mini-brainstorm here.
- Track-out matting market is most attractive to enter. Candidate should begin comparing organic entry to inorganic. If not, prompt them toward Ex. 3.

## Quantitative Analysis

Growth options	Track-out	Forestry or mining (per market)
CAPEX	\$1M	\$0.5M
Market capture	20%	10%
SAM (Ex. 2)	\$4M	F: ~\$1.5M M: ~\$1.4M

# Brainstorm #1 – Matting material interest

## Brainstorm Prompt

- **Prompt:** Why might the client not be interested in other matting materials?
- **Non-financial**
  - ESG
    - > Composite matting is reusable
    - > Longer lifetime, less waste produced
    - > Very much function of engineering innovation
    - > Tailwinds support composite
  - Reputation
    - > Brand
    - > Value proposition
- **Financial**
  - Capability development
    - > Investment
    - > Sales and marketing

## Interviewer Guidance

- The list on the left is non-exhaustive and answers can go in many directions; this brainstorm is intended to test the candidate's creative thinking.
- This brainstorm should be structured, and push candidates to hypothesize on why the client might want to specifically only use one material.
- A **strong candidate** will provide reasons that are highly tailored to matting materials.

# Exhibit #3 – Acquisition calculation

## Exhibit Information

- Read aloud the below figures to the candidate; **do not show them the information.**
- **Matting Co. has previously engaged in acquisition discussions with leading global track-out matting supplier:**
  - This company sells \$10M of matting per year (globally) with adjusted EBITDA margin of 22.5%.
  - Historically, industrials players in this relative space have been acquired at EBITDA multiple of 10x.

## Interviewer Guidance

- Candidate should calculate acquisition cost and tie revenue figure back to overall market.
  - **Cost of acquisition: \$22.5M**
- Candidate should provide some perspective on figure.
  - Does acquisition cost seem fair?
  - Does industry multiple make sense?
  - Etc.

# Recommendation & Next Steps

## Recommendation & Risks

- **Prompt:** The CEO of Matting Co. would like a final recommendation on potential growth avenues the company can pursue. What is your recommendation?
- Ultimately, correct path forward would be to target new product expansion into track-out matting market and/or push to expand geographically.

## Risks & Next Steps

- **Risks**
  - Track-out (good candidate will focus on these options)
    - > Competitive response from more established players in space
    - > Response from other matting companies to copy strategy
    - > Acquisition risks
  - Geographic expansion (great candidate will remember this from Ex. 1)
    - > Lower cost alternatives in local markets
    - > Different demand in various markets based on ESG consciousness
- **Next Steps**
  - Conduct diligence on investment into track-out matting capabilities to validate
  - Begin mobilizing salesforce to begin targeting new markets



# Dollar Pizza Parlor

<b>Industry</b>	Services / Private Equity
<b>Case Type</b>	Private Equity
<b>Firm Style</b>	Bain / LEK
<b>Quantitative Difficulty</b>	Medium
<b>Qualitative Difficulty</b>	Difficult

**Author:** Darian Aghili (Fuqua '24) and Vann Vicente (Fuqua '24)

# Case Overview

## Prompt

Our client, Fuqua Capital, is a private equity firm that is considering buying Dollar Pizza Parlor (DPP), a national pizza brand in the United States.

The company's current ownership has engaged in discussions with Fuqua Capital to initiate the sales process, and Fuqua Capital would like us to conduct the due diligence process for them to better understand:

- Dollar Pizza Parlor's price
- If this investment should be made

## Interviewer Guidance

- **Case Steps**
  - Exhibit #1: Valuation calculation
  - Brainstorm #1: Value-adding activities
  - Brainstorm #2: Location expansion
  - Recommendations and next steps
- **Clarifying Information (If Prompted)**
  - **Fund structure:** The asset will go into a newly initiated fund with no hold constraints
  - **Objective:** Maximize value for exit within 5-years
  - **Model:** The target company, Dollar Pizza Parlor, currently operates 55 slice shops, and distributes in major retail stores across the country.
  - **Geography:** U.S. based
  - **Timeline:** ASAP

# Sample Framework

## Value Assessment

- **Revenue**
  - Quantity
    - > Pizzas sold in retail
    - > Subscriptions
  - Pricing
    - > Product prices
    - > Subscription prices
- **Costs**
  - Operating expenses
  - Cost of goods sold
- **Capex**
  - Asking price
- **Valuation methodology**
- **Cost & revenue synergies**

## Pizza Market

- **Market size**
  - Pizza customers in major cities
  - Growth potential
  - Trends
  - Subscription based pizza interest
- **Customers**
  - Demographics
- **Competitors**
  - Pizza chains
  - Local pizza restaurants
  - Retail and frozen pizzas

## Fund Structure

- Investment thesis
- Capital committed
- Hurdle rates
- Industry scope / rest of portfolio

# Dollar Pizza Parlor

## Exhibit #1

	2020	2021	2022
<b>Revenues</b>			
<b>Subscriptions (\$10/mo)</b>	10,000	15,000	22,000
<b>Costs</b>			
<b>Cost of Goods Sold (COGS)</b>	\$1,500,000.00	\$2,250,000.00	\$3,960,000.00
<b>SG&amp;A</b>	\$600,000.00	\$900,000.00	\$1,584,000.00

# Exhibit #1 – Interview guidance

## Exhibit Notes

- The candidate should drive towards obtaining a valuation for DPP. If not, steer them towards that.
- Cost and revenue need to be computed. Candidates should look towards obtaining an average 3-year EBITDA. If they steer towards doing a DCF, tell them that we have a comparable multiple.
- When asked, provide EBITDA multiple of 13x of 3-year average EBITDA
  - True average EBITDA is \$1.542M, but candidate can round to \$1.5M or \$1.6M
  - Resulting value is ~\$20M**
- Candidate should then ask about potential synergies. If not, prompt candidate.
  - Synergies would allow average SG&A costs to be reduced by ~\$0.5M
  - Resulting average EBITDA is ~\$2M, and resulting value is now ~\$26M**

## Quantitative Analysis

	2020	2021	2022
<b>Revenue</b>			
<b>Subscriptions (\$10/mo)</b>	10,000	15,000	22,000
<b>Total Subscription Revenue</b>	\$100,000.00	\$150,000.00	\$220,000.00
<b>Locations</b>	20	25	25
<b>Average Monthly Orders Per Location</b>	2,500	3,000	4,400
<b>Average Order Size</b>	\$3.00	\$3.00	\$4.00
<b>Total Sales Revenue</b>	\$150,000.00	\$225,000.00	\$440,000.00
<b>Revenue Per Month</b>	\$250,000.00	\$375,000.00	\$660,000.00
<b>Revenue Per Year</b>	\$3,000,000.00	\$4,500,000.00	\$7,920,000.00
<b>Costs</b>			
<b>COGS</b>	\$1,500,000.00	\$2,250,000.00	\$3,960,000.00
<b>SG&amp;A</b>	\$600,000.00	\$900,000.00	\$1,584,000.00
<b>EBITDA</b>	\$900,000.00	\$1,350,000.00	\$2,376,000.00

# Brainstorm #1 – Value adding activities

## Brainstorm Prompt

- **Prompt:** What other ways do you think we can add value to Dollar Pizza Parlor?

- **Marketing**

- > Expand product range
- > Food brand partnerships
- > Launch spin-off stores or online offering
- > Run new campaigns

- **Operations**

- > Supply chain optimization
- > Improve tech platform
- > Explore franchising model
- > Further location expansion

## Interviewer Guidance

- The list on the left is non-exhaustive and answers can go in many directions; this brainstorm is intended to test the candidate's creative thinking.
- A strong candidate will structure their brainstorm ideas, and provide clear, feasible ways to add value to Dollar Pizza Parlor outside just adding new products.
- Steer them to the next brainstorm by driving them towards location expansion.

# Brainstorm #2 – Location expansion

## Brainstorm Prompt

- **Prompt:** What should you consider when entering a new market for Dollar Pizza Parlor?

- **Revenue Potential**

- > Customer demographics (young/old, etc.)
- > Proximity to driving locations (schools, bars, etc.)
- > Competitors in the area
- > Location culture (late night common or not?)
- > Franchise fees (if applicable)

- **Costs**

- > Rent and utilities
- > State and city business taxes
- > Transportation costs for food and equipment

## Interviewer Guidance

- The list on the left is non-exhaustive and answers can go in many directions; this brainstorm is intended to test the candidate's creative thinking.
- Good candidates will structure their answers.
- A strong candidate will ensure that their ideas are extremely tailored to Dollar Pizza Parlor, going into ideal demographics (college students, for example) and proximity to other important locations.

# Recommendation & Next Steps

## Recommendation

- **Prompt:** Fuqua Capital's general partners are on the line. What is your recommendation to them?
- Fuqua Capital should proceed with the purchase of Dollar Pizza Parlor for a maximum of \$20M for the following reasons:
  - Favorable asking price
  - Enhanced value via synergies
  - Future value-add via location expansion
  - Future value-add via scaling opportunities (or any ideas given in brainstorm)

## Risks & Next Steps

- **Risks**
  - Subscription model may not work in broad expansion, which will lead to slower growth than expected
  - Larger competitors could copy the model, lowering DPP's unique value proposition
- **Next Steps**
  - Perform a competitive analysis and conduct expert calls to fully understand and do diligence on the industry
  - Identify cities that may be strong candidates for expansion



# Water Provision Scheme

<b>Industry</b>	Public Sector
<b>Case Type</b>	Decision Analysis
<b>Firm Style</b>	McKinsey ( <i>Interviewer-Led</i> )
<b>Quantitative Difficulty</b>	Difficult
<b>Qualitative Difficulty</b>	Difficult

**Author:** Sai Kuncham Venkat (Fuqua '24)

# Water Provision Scheme Case Overview

## Prompt

As of March 2021, the Education Ministry (EM) in India believes that more than 42,000 government schools across the country don't have drinking water facilities and have no provision of water.

Consumption of dirty water is detrimental to kids' health; it can lead to many diseases and cause the students to drop out of school.

Each school has typically 100 students and each student typically consumes 200L yearly.

**The client wants your help to design a roadmap to serve the needs of the 42,000 schools and ensure that each school has potable drinking water by 2030.**

*Note: This case is interviewer-led.*

## Interviewer Guidance

- **Case Steps**
  - Prompt #1: Framework
  - Prompt #2: Water source option assessment
  - Prompt #3: Brainstorm water source options
  - Prompt #4: Pilot state assessment
  - Prompt #5: Brainstorm enrollment factors
- **Clarifying Information (If Prompted)**
  - **Objective:** The EM wants to maximize enrollment of students by providing water in the most feasible way.
  - **Model:** Due to India being a developing country, funding from the government is incredibly limited.
  - **Geography:** All schools are located in rural India.

# Prompt #1 – Sample Framework

## Sources, Quality, Safety

- **Sources**
  - Borewell
  - River
  - Tank
  - Ponds
  - Rainwater harvesting facilities
- **Infrastructure capabilities**
  - Water facilities
  - Piping
  - Distribution
  - Maintenance
- **Quality / safety**
  - Testing and treatment facilities to maintain drinkability standards

## Government Implications

- **Financial feasibility**
  - Cheap and viable option to bring water from source
  - Cost considerations
- **Government relations**
  - Existing stipulations
  - Key stakeholders
  - Challenges

## Community

- **Engagement**
  - Engage and involve local communities
    - > Teachers, students, parents, community leaders
- **Awareness**
  - Raise awareness about importance of clean drinking water
  - Targeted educational programs
- **Local buy-in**
  - Foster sense of ownership and responsibility within community
    - > Long-term sustainability

# Prompt #2 – Water source option analysis

## Exhibit Notes

- Prompt:** Based on your analysis, the sources of water seem to be a great option. The Ministry has identified two major options of providing drinkable water: replenishable water cans, which are usually delivered by a contractor, or installing in-house water treatment facilities. Assume nearby sources are dirty, so all schools must use one of the two options.
- Share options below with candidate verbally:

Options	Water cans (in INR)	Water treatment facility (in INR)	Units
One time cost	-	200,000	
Maintenance cost	-	5,000	Per year
Cost of water can	20	-	Per can
Electricity cost	-	5,000	Per year

## Quantitative Analysis

- If asked, provide the following:
  - Discount rate = 5%
  - Each school has 100 students, students consume 200L of water on average annually, and each can holds 20L.

Options	Water cans (in INR)	Water treatment facility (in INR)	Units
One time cost	-	200,000	
Maintenance cost	-	5,000	Per year
Cost of water can	20	-	Per can
Electricity cost	-	5,000	Per year
Total cost	20,000	200,000 + 10,000	
NPV	400,000	200,000 + 200,000	

- A **good candidate** will identify that NPV has to be calculated and arrange information and ask for missing information up front. A **great candidate** will remember the information from the prompt regarding the number of cans required and drive the case to the next prompt upon realizing the NPV of the two options is the same.

# Prompt #3 – Brainstorm water source options

## Brainstorm Prompt

- **Prompt:** What other factors would you consider, given that both options have the same NPV?
  - Note to interviewer: There are many potential factors. At a high level, candidate should understand and be aware of the concerns of water in low-income countries.
  - **Water quality and safety**
    - > Water quality: Evaluate filtration capabilities of water filter facility and quality assurance of water cans
    - > Health and safety standards: Assess whether both options meet/exceed local health and safety regulations
    - > Contamination risk: Identify contamination risks associated with water cans & maintenance of filter facility
  - **Reliability and access**
    - > Accessibility and convenience: Analyze feasibility of students and staff to access water from either option
    - > Reliability: Contractor and power source reliability to keep water facility operating

## Interviewer Guidance

- A **good candidate** will cover some of the factors on the left and may provide some structure that isn't as MECE an interviewer would typically prefer.
- A **strong candidate** will cover most of the factors on the left and clearly structure them according to a communicated framework.
  - Candidates should understand that there are risks of both options; the idea is to compare the risk of these options.

# Prompt #4 – Pilot state assessment

State	Number of Rural Schools	Current Enrollment Percentage	% of people who said yes that they would go to school if water is provided
Andhra Pradesh	4000	50%	90%
Tamil Nadu	3000	15%	95%
Karnataka	6000	55%	80%
Uttar Pradesh	4000	30%	67.5%
Delhi	1000	60%	90%
Punjab	2000	58%	78%
HP	1000	50%	70%

# Prompt #4 – Interviewer guidance

## Prompt & Guidance

- **Prompt:** The EM wants to pilot this in one state to start with. Which state should be prioritized based on data provided?
  - Note to interviewer: This is the only exhibit to be shared with the candidate in the case.
- The intent of this exhibit is twofold:
  - Identify what to do with the data while keeping the objective of maximizing enrollment in mind
  - Calculate enrollment impact
    - > Candidate should subtract current enrollment % from anticipated % enrollment column, multiple by number of schools, and finally multiple by 200 (average number of students per school)

## Quantitative Analysis

State	Number of Rural Schools	Current Enrollment Percentage	Anticipated % enrollment of students if clean water is provided	
Andhra Pradesh	4000	50%	90%	320000
Tamil Nadu	3000	15%	95%	480000
Karnataka	6000	55%	80%	300000
Uttar Pradesh	4000	30%	67.5%	300000
Delhi	1000	60%	90%	60000
Punjab	2000	58%	78%	80000
HP	1000	50%	70%	40000

# Prompt #5 – Brainstorm enrollment factors

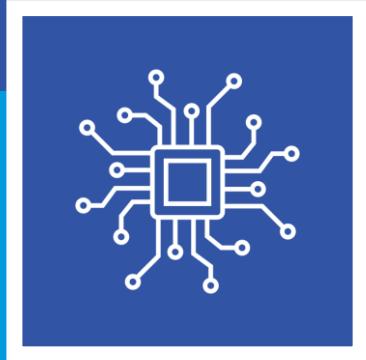
## Brainstorm Prompt

- **Prompt:** You can see that even providing clean water doesn't generate 100% enrollment. What are some infrastructure factors other than water provisions that might stop students from enrolling in primary schools?

- **Physical infrastructure of schools**
  - > Sanitation facilities: Lack of proper sanitation facilities
  - > Classroom conditions: Overcrowded classrooms, inadequate seating, etc.
  - > Infrastructure safety: Inadequate buildings
  - > Electricity and technology: Lack of technology access
- **Infrastructure outside of schools**
  - > Transportation: Access to reliable mode of getting to/from school
  - > Healthcare facilities: Availability of facilities to address student health concerns
  - > Social welfare: Gov. initiatives, financial assistance
  - > Community centers: Additional spaces for educational and extracurricular activities

## Interviewer Guidance

- A **good candidate** will cover some of the factors on the left and may provide some structure that isn't as MECE an interviewer would typically prefer.
- A **strong candidate** will cover most of the factors on the left and clearly structure them according to a communicated framework.
  - Candidates should understand that there are many factors that can impact a rural student's enrollment abilities.



# Green Chips, Clean Chips

<b>Industry</b>	Technology
<b>Case Type</b>	Operations
<b>Firm Style</b>	BCG
<b>Quantitative Difficulty</b>	Difficult
<b>Qualitative Difficulty</b>	Difficult

**Author:** Padmini Muralidhar (Fuqua '24) and Pranjal Singla (Fuqua '24)

## Prompt

Your client, Chip Co., is a manufacturer of semiconductors.

While chips help the world in energy efficiency and electrification, the manufacturing process itself is very CO<sub>2</sub> intensive.

Chip Co. has approached you for a plan of action to meet its target of **reduction of emissions** by 3 Megatons by 2040.

## Interviewer Guidance

- **Case Steps**
  - Brainstorm: User ratings
  - Exhibit #1: Competitive product mix
  - Exhibit #2: New product factors
  - Recommendations and next steps
- **Clarifying Information (If Prompted)**
  - **Model:** Chip Co. manufactures chips present in everyday electrical and electronic devices. Silicon and fabrication equipment are a key component of the chips, and the manufacturing process emits and uses a lot of gases that make it very GHG intensive. It then sells the chips to various manufacturers of electric and electronic equipment.
  - **Geography:** Chip Co's manufacturing facilities are in US

# Sample Framework

Drivers	Capabilities	Financials	Other
<ul style="list-style-type: none"> <li><b>Pre-production</b> <ul style="list-style-type: none"> <li>- Emissions from purchase of inputs / raw materials</li> </ul> </li> <li><b>Production</b> <ul style="list-style-type: none"> <li>- Emissions from manufacturing process, energy consumed for production</li> </ul> </li> <li><b>Post-production</b> <ul style="list-style-type: none"> <li>- Emissions from factory to customer</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><b>Measure emissions</b> <ul style="list-style-type: none"> <li>- Metrology, technology</li> </ul> </li> <li><b>Actionable steps</b> <ul style="list-style-type: none"> <li>- Lower GHG usage</li> <li>- Decrease energy consumption</li> <li>- Renewable energy</li> <li>- Process optimization</li> <li>- Use of recycled materials</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><b>Costs</b> <ul style="list-style-type: none"> <li>- New machinery / retrofitting factory</li> <li>- Employee training</li> <li>- Increased processing time</li> </ul> </li> <li><b>Benefits</b> <ul style="list-style-type: none"> <li>- Increased demand from environmentally conscious customers</li> <li>- Long-term production costs</li> <li>- De-risking supply chain</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><b>Risks</b> <ul style="list-style-type: none"> <li>- Customer WTP</li> <li>- Supplier backlash</li> <li>- Employee backlash</li> </ul> </li> <li><b>Resources</b> <ul style="list-style-type: none"> <li>- Sustainability personnel</li> <li>- Cultural paradigm shift</li> </ul> </li> <li><b>Industry trends</b> <ul style="list-style-type: none"> <li>- Sustainability strategies</li> <li>- Client reaction</li> </ul> </li> <li><b>Government</b> <ul style="list-style-type: none"> <li>- Incentives</li> </ul> </li> </ul>

# Brainstorm #1 – Decarbonization actions

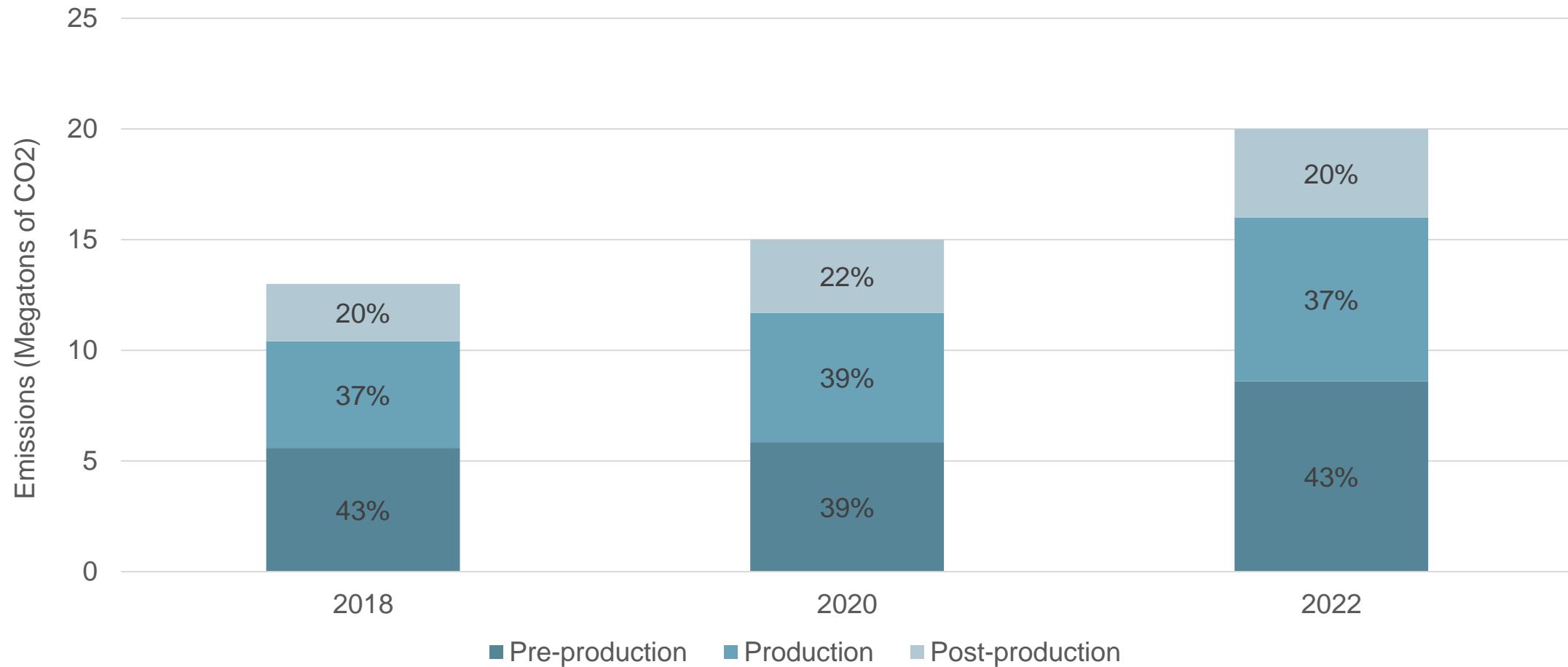
## Brainstorm Prompt

- **Prompt:** What are some general steps that can be taken to decarbonize a manufacturing site?
  - **Reduce**
    - > Power: Switch power sources to renewables
    - > Waste: Implement circularity within value chain
  - **Avoid**
    - > Processes: Redesign processes for full optimization
    - > Products: Make products more energy efficient
    - > Supplier management: Discontinue relationships with suppliers unwilling to contribute to carbon saving efforts
  - **Remove**
    - > Programming: Launch forestry program to remove carbon from atmosphere by planting trees
    - > Technology: Leverage new carbon capture and sequestration technology

## Interviewer Guidance

- A **strong candidate** will cover most of the factors on the left, and clearly structure them according to goal of reaching carbon reduction goals.
  - Candidates should understand that there are various methodologies to mitigate carbon emissions.
- This brainstorm directly leads into the next exhibit. Push the candidate to ask for a breakdown of Chip Co.'s current emissions.

# Exhibit #1 – Composition of emissions



# Exhibit #1 – Interviewer guidance

## Exhibit Notes

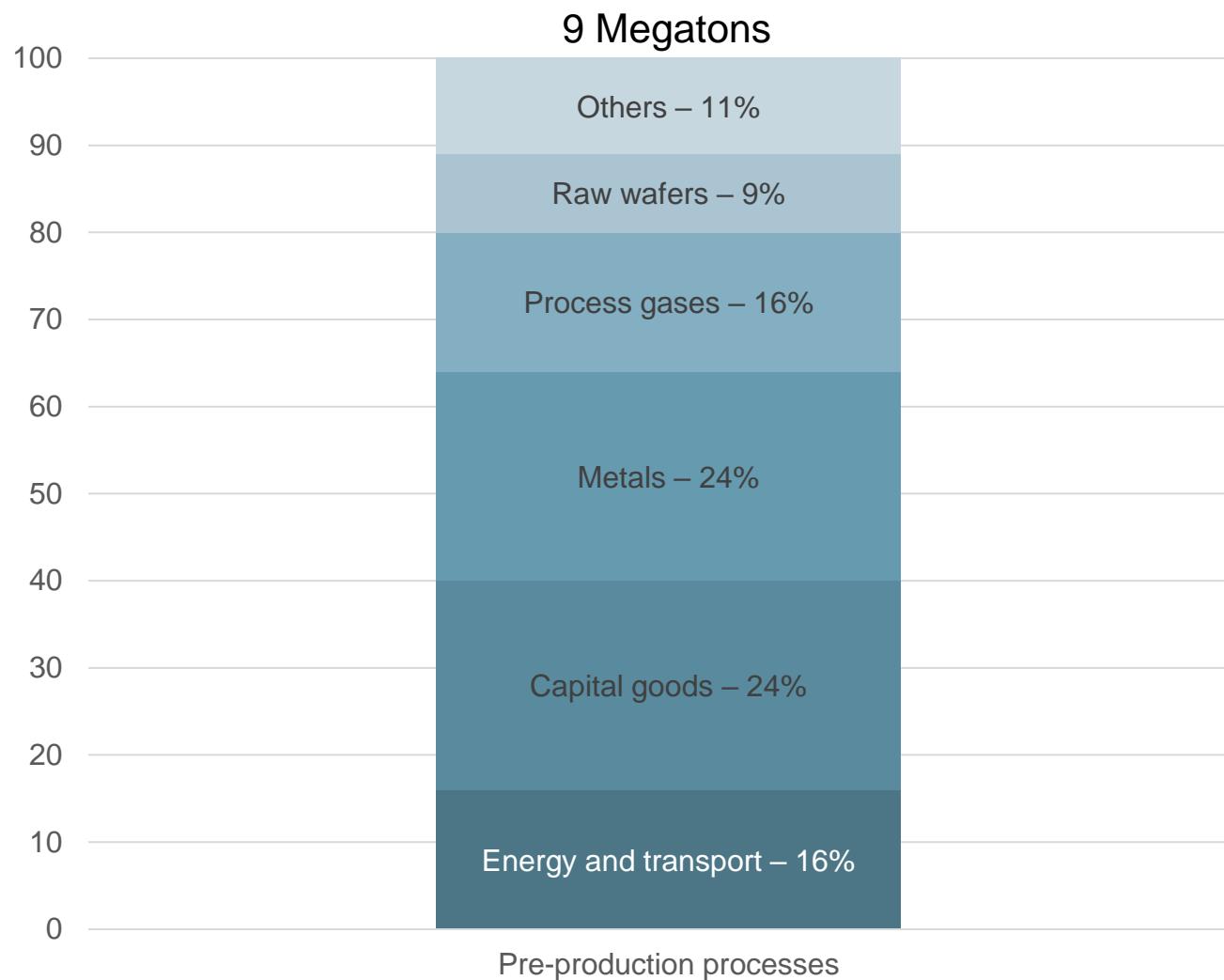
- The goal of the exhibit is for the candidate to narrow down on the type of emissions that would contribute to achievement of the emissions reduction target.
  - Candidate should observe that overall emissions are on the rise, but the composition of pre, during, and post-production emissions has remained fairly consistent and can thus be considered representative of future emission levels.
  - Candidate must identify one focus area where maximum emission reductions can be achieved.
- After the candidate clears the slide and implies they need to calculate emissions from each phase of the value chain, confirm their quantitative analysis.

## Quantitative Analysis

	Total Emissions		
	Pre-production	Production	Post-production
2022 emissions		20 megatons	
% of total	43%	37%	20%
Emissions per phase	8.6	7.4	4

- Candidate must be directed to **focus on pre-production emissions** for the rest of the case. Move to Exhibit #2.
- Instruct the candidate to round off pre-production emissions to 9 megatons.**

# Exhibit #2 – Pre-production breakdown



Levers	Maximum possible reduction by 2040
Capital goods	50%
Metals	30%
Energy and transport	80%
Process gases	50%
Raw wafers	50%
Others	50%

# Exhibit #2 – Interviewer guidance

## Exhibit Notes

- The goal of the exhibit is for the candidate to calculate level of reduction possible from each reduction lever and narrow down to a few levers to ultimately achieve the reduction target of 3 megatons.
- Candidate should observe that overall emissions are on the rise, but the composition of pre, during, and post-production emissions has remained fairly consistent and can thus be considered representative of future emission levels.
- Candidate must identify one focus area where maximum emission reductions can be achieved.
- After the candidate clears the slide and implies they need to calculate emissions from each phase of the value chain, confirm their quantitative analysis.

## Quantitative Analysis

Total Emissions			
Pre-production emissions	% contribution	% reduction potential	Megatons of reduction
Metals	24%	30%	~0.65
Capital goods	24%	50%	~1.1
Energy and transport	16%	80%	~1.15
Process gases	16%	50%	~0.75
Raw wafers	9%	50%	~0.4
Others	11%	50%	~0.5

- Candidate should focus on **capital goods, energy and transport, and process gases** to achieve reduction target.

# Recommendation & Next Steps

## Recommendation

- **Prompt:** The CEO of Chip Co. walks in and asks for your recommendation. What will you tell her?
- Chip Co. **should focus** on reducing CO<sub>2</sub> emissions through **capital goods, energy and transport**, and **process gases** to meet the required 3 megaton reduction target in emissions.
  - Candidate can provide a few examples of ways in which these reductions can be achieved.

## Risks & Next Steps

- **Risks**
  - Adverse reaction from suppliers leading to disruptions in supply chain
  - Inability of Chip Co. to charge premium to compensate for potential increases in cost
- **Next Steps**
  - Determine financial feasibility, i.e. potential impact on profitability
  - Provide upskilling and resources to suppliers to help them achieve targets
  - Identify backup suppliers who are emissions conscious in case of backlash from existing suppliers



# Swift Business

<b>Industry</b>	Media and Entertainment
<b>Case Type</b>	Market Entry
<b>Firm Style</b>	Bain
<b>Quantitative Difficulty</b>	Difficult
<b>Qualitative Difficulty</b>	Difficult

**Author:** Vann Vicente (Fuqua '24) and Clayton Eck (CBS '24)

# Case Overview

## Prompt

Your client is 12-time Grammy winning recording artist Taylor Swift.

Taylor has a **reputation** for her commitment to her fans and their concert experiences, but in recent years, she has noticed a growing concern among fans regarding transparency in the ticket industry.

Her team has approached you with a plan for Taylor to start her own ticketing platform. She envisions a **fearless** platform that prioritizes fair pricing, eliminates hidden fees, and ensures a connection to her fanbase.

**Should Taylor Swift move forward with creating her own ticketing platform?**

*Note: This is a challenging, complex case intended for those already comfortable with case interviews.*

## Interviewer Guidance

- **Case Steps**

- Exhibit #1: Market sizing
- Brainstorm #1: Revenue factors
- Exhibit #2: Revenue opportunity
- Brainstorm #2: Switching factors
- Exhibit #3: Add'l revenue opportunities
- Recommendations & next steps

- **Clarifying Information (If Prompted)**

- Currently, Taylor sells on Ticketmaster, the global leader in primary sales platforms for artists
- Her goal is to break-even in 5 years, starting from a launch date of 2024
- Ticket exchanges make money by collecting an agreed upon fee; a % of total ticket revenue per artist per year

# Sample Framework

## Financials

- **Revenue**
  - Volume of artists
  - Pricing
  - Ticket sales / venue capacity
  - Sell through rate
- **Costs**
  - Platform
  - Maintenance
  - Legal fees
  - Promotion/marketing

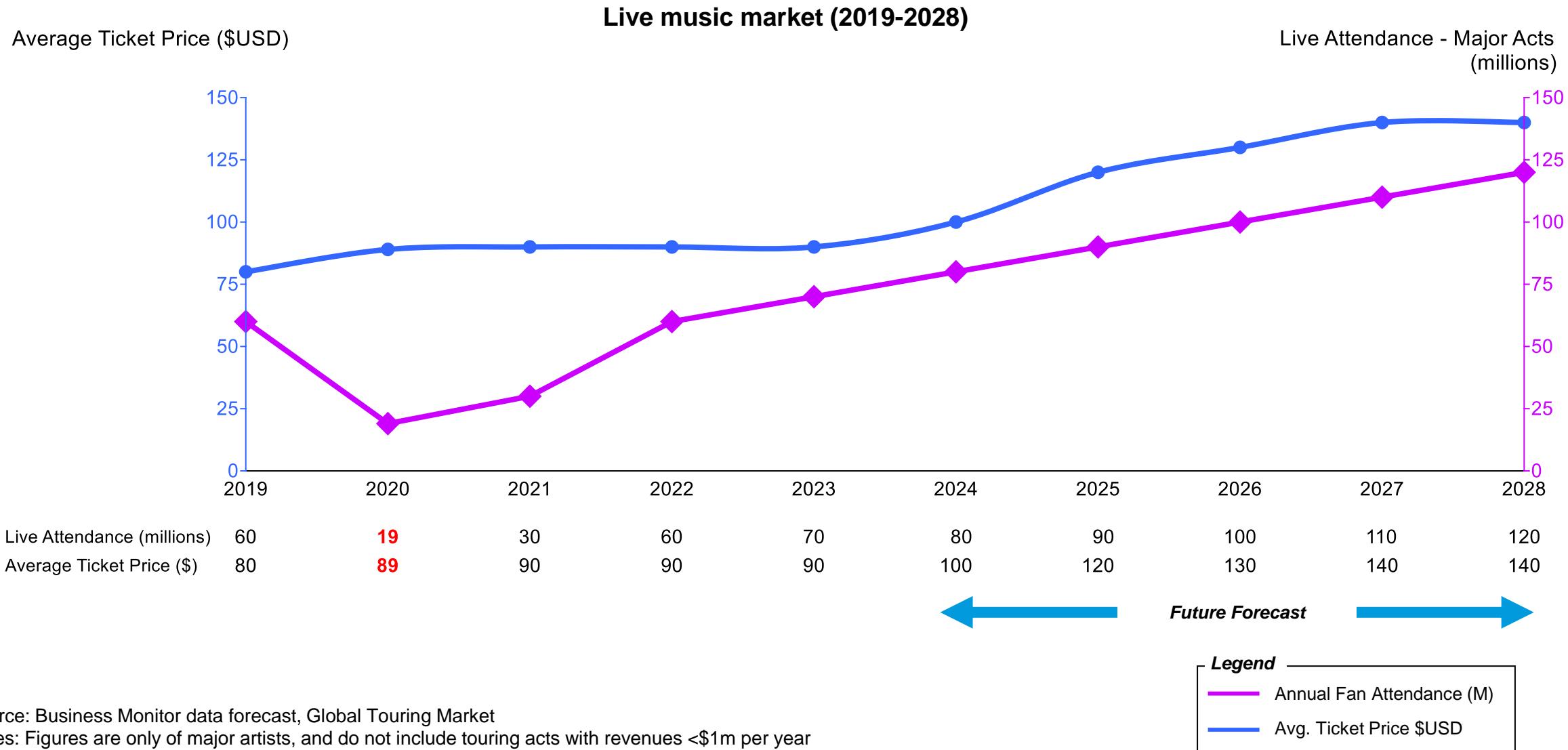
## Market

- **Market size**
  - Popularity of touring
  - Live music trends
  - Technological implementation
  - Broader music trends
  - Other live events (sports, etc)
- **Competitors**
  - Ticketmaster
  - 3rd party resale websites
    - > Stubhub, VividSeats, etc.
- **Regulation**
  - FTC regulation
  - Potential legislation

## Feasibility

- **Financing**
  - Ability to pay for and acquire investors for a venture
  - Taylor Swift's own financial status
- **Influence**
  - Ability to pull other artists to join even with switching costs
  - Media visibility

# Exhibit #1 – Live music market (2019–2028)



# Exhibit #1 – Interviewer guidance

## Exhibit Notes

- Prompt:** How do we break even in the next five years?
- The goal of the exhibit is to calculate what the total addressable market is, and what percent market share of that TAM is needed to breakeven in five years.
- After the candidate clears the slide and implies they need costs to get the breakeven market share, provide them the following **cost information:**
  - Capital expenses: \$200M
  - Yearly fixed costs: \$150M
  - Yearly variable costs: \$130M
- A strong candidate should be able to cleanly clear the exhibit displayed, and drive to a request for additional information to get to a breakeven point. (2.5% TAM)
  - After they get to a market share + total opex number, they should drive towards thinking about how to get to that revenue opportunity. (see next slide)

## Quantitative Analysis

Total Addressable Market (TAM)			
Year	Attendance	Ticket Price	Market Revenue
2024	80M	\$100	\$8B
2025	90M	\$120	\$10.8B
2026	100M	\$130	\$13B
2027	110M	\$140	\$15.4B
2028	120M	\$140	\$16.8B
<b>Total Market Size over 5 Years</b>			<b>\$64B</b>
Costs		Amount	
1yr Capex		\$200M	
Fixed Costs (\$150M x 5)		\$750M	
Variable Costs (\$130M x 5)		\$650M	
<b>Total 5yr Cost</b>			<b>\$1.6B</b>
			↙
<b>Total Breakeven Market Share (\$64B / \$1.6B)</b>			<b>2.50%</b>

# Brainstorm #1 – Revenue factors

## Brainstorm Prompt

- **Prompt:** Taylor is a **lover** of strong unit economics, so what are some factors that go into computing the total revenue of a ticketing platform?

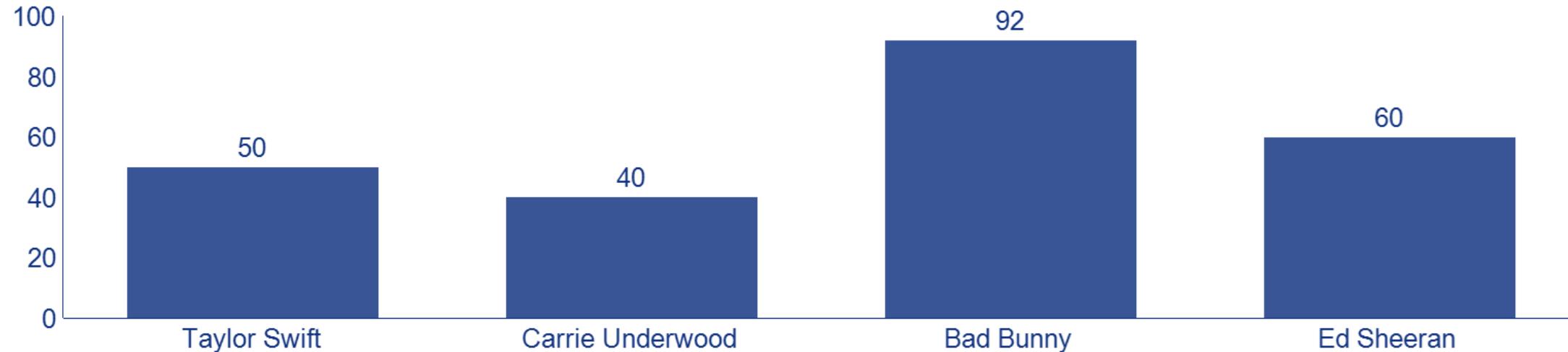
- **Pricing**
  - > Ticket prices: Dynamic pricing vs. flat pricing
  - > Ticket fees: Flat fee, or negotiated fees per artist
- **Quantity / tickets sold**
  - > Venue capacity: Size of venues that an artist plays at
  - > Sellout rate: Percent of tickets that are sold per show
  - > Number of artists: # of artists signed to platform
  - > Number of shows: # of shows typically done in a year
- **Additional revenue sources**
  - > Merchandising: Artist stores and exclusive merch
  - > Partnerships: Partnerships with venues, stores, and labels

## Interviewer Guidance

- A **strong candidate** will cover most of the factors on the left, and clearly structure them according to price and quantity.
  - Candidates should understand that platforms will only take a portion of an artist revenue
  - Creative candidates will think of other ways platforms can earn revenue, leading into a future exhibit about alternative revenue streams.
- This brainstorm directly leads into the next exhibit. Push the candidate to ask for this information to compute the revenue potential of the ticketing platform.

# Exhibit #2 – Revenue opportunity

Expected number of shows per artist, per year for the next 5 years



Avg. Venue Capacity	80,000	25,000	50,000	75,000
Avg. Sellout Percentage	100%	90%	100%	95%
Avg. Ticket Price	\$250	\$100	\$150	\$200
Platform Fee %	15%	9%	10%	10%

1. Platform fee is the % of ticket sales dollars that the company keeps

# Exhibit #2 – Interviewer guidance

## Exhibit Notes

- Introduce the exhibit as such: “These three artists have already agreed to join Taylor on her platform if she launches and have negotiated platform fees that are listed in the table.”
- With given info, candidate can calculate five-year revenue projection
- Candidate can, and should round figures if they ask
- Takeaway:** After finishing the math, candidate should realize that Taylor’s platform is \$35M short of achieving BE in 5 years based on given info
  - With that in mind, candidate should start by thinking of opportunities to take in more revenue, and eventually lead to the idea of signing more artists (if they don’t get there, push them)
  - When the candidate mentions more artists, **caser should ask “what are some of the challenges are in signing artists on a new ticketing platform?”** (see next slide)

## Quantitative Analysis

Artist	Taylor Swift	Carrie Underwood	Bad Bunny	Ed Sheeran
Average # shows per year	50	40	92	60
Avg. Venue Capacity	80,000	25,000	50,000	75,000
Avg. Sellout Percentage %	100%	90%	100%	95%
Leads to avg. # tickets sold per year	4,000,000	900,000	4,600,000	4,275,000
Avg. Ticket Price (\$)	\$250	\$100	\$150	\$200
Platform Fee %	15%	9%	10%	10%
Platform revenue / year	\$150M	\$8.1 (round to \$8M)	\$69M (round to \$70M)	\$85.5M (round to \$85M)
x 5 Years	\$750M	~\$40M	\$350M	\$425M
Total Platform revenue over 5 years	\$1,565M (represents shortfall of \$35M to break even after accounting for cost structure)			

# Brainstorm #2 – Switching factors

## Brainstorm Prompt

- **Prompt:** What do you think some of the challenges are associated with getting artists to join Taylor's new ticketing platform?

### - Legal Factors

- > Artist Exclusivity: Exclusive contracts, with potential financial ramifications for breaching contracts
- > Record Label Deals: Existing deals with record labels to only sell through Ticketmaster
- > Venue Exclusivity: Existing partnerships with large-scale venues, including sports stadiums/arenas

### - Procedural Factors

- > Technological: High degree of Ticketmaster integration with existing systems, newness of Taylor's platform
- > Implementation Risk: Risk of uncertainty for planning near-term tours
- > Global Availability: Ticketmaster is a global platform, may take time for Taylor's to function across markets

## Interviewer Guidance

- The list on the left is non-exhaustive and answers can go in many directions; this brainstorm is intended to test the candidate's creative thinking.
- A **strong candidate** will structure their brainstorm ideas, and provide clear reasons as to why an artist may not want to join the platform
  - Candidates with knowledge of the industry will understand the monopoly power in ticketing.
  - Steer candidates towards thinking about legal/contractual factors
- On completing the brainstorm, the interviewer should ask, "**What are other ways that the platform can earn revenue?**" When they mention any platform-related revenue streams, steer them to the next exhibit.

# Exhibit #3 – Additional revenue opportunities

Option 1: Online only merch



Option 2: Dynamic pricing



Option 3: Fan platform



Additional  
CAPEX  
required<sup>1</sup>

\$10M

\$5M

\$15M

Annual  
Revenue  
Contribution

\$11.2M

\$12M

\$9.5M

Demand from  
fans



Note: Taylor can only invest in one additional feature

1. Assume no additional fixed / variable costs on an annual basis

# Exhibit #3 – Interviewer guidance

## Exhibit Notes

- After brainstorming reasons why signing up more artists should be difficult, interviewer should introduce 3 additional options to close the gap to break even
  - Assume no additional fixed costs per year beyond CAPEX
- Both option 1 and option 2 are acceptable answers, however, a **strong candidate will realize that option 1 is a significantly better fit with fans (a priority in prompt) for a moderate decrease in revenue**
  - Candidate should quickly realize that option 3 does not lead to the platform breaking even in year 5
  - Push candidate to think why dynamic pricing might be a bad decision despite a higher revenue contribution
- **Additional notes (if prompted):**
  - **Demand from fans:** Collected survey responses from fans to see how much they “want” proposed additional feature
  - **Dynamic pricing:** Can be thought of as “surge pricing” for in-demand events

## Quantitative Analysis

- **Reminder:** Gap to close to break even by year 5 is currently \$35M
- **Option 1:**
  - Additional CAPEX: \$10M
  - Revenue over 5 years:  $\$11.2M \times 5 = \$56M$
  - Takeaway: Enterprise is now above breakeven by \$11M
- **Option 2:**
  - Additional CAPEX: \$5M
  - Revenue over 5 years:  $\$12M \times 5 = \$60M$
  - **Takeaway: Enterprise is now above breakeven by \$20M, but dynamic pricing is a very poor fit with fans**
- **Option 3:**
  - Additional CAPEX: \$15M
  - Revenue over 5 years:  $\$9.5M \times 5 = \$47.5M$
  - Takeaway: still falls short of breakeven by ~\$3M with additional CAPEX, should not be considered

# Recommendation & Next Steps

## Recommendation

- **Prompt:** Taylor Swift's team gives you a call, and she says, "Should we do it? **Speak now.**"
- Taylor Swift **should move forward** with plans to open her own ticketing exchange
- While current projections lead to her not breaking even in 5 years based on artists currently signed up on the platform, an additional CAPEX involving (either online only merch or dynamic pricing) would allow her to break-even in the target 5-year period

## Risks & Next Steps

- **Risks**
  - Significant risks exist both from a legal perspective as well as a competitive blowback
  - Currently, the revenue is driven by just 4 artists. If those figures were to decline (because of a live music decline), exchange likely won't break even
  - High switching costs may prevent mass adoption from artists, reducing revenue potential in the future state
  - Costs may be higher than expected, due to potential litigation and feature costs
- **Next Steps**
  - Perform a due diligence on potential legal implications of starting a Ticketmaster competitor
  - Define development roadmap for the platform
  - Start artist outreach, and understand willingness to switch across the industry

# Fuqua Classics

This section includes 6 classic cases from previous Fuqua casebooks, redesigned to the newest format. These include some of the most popular cases in the community.



# Lactose King

**Industry** Services

**Case Type** Growth

**Quantitative Difficulty** Easy

**Qualitative Difficulty** Easy

**Origin:** Fuqua Casebook (2017–2018)

Revised and Updated by Vann Vicente (Fuqua '24)

## Prompt

Our client is Lactose King, a premium ice cream restaurant chain with approximately 3,000 locations throughout the United States. While they've enjoyed consistent profitability and are an industry leader in direct-to-consumer ice cream sales, their revenue has been stagnant over the past few years.

**What can they do to improve their gross revenue?**

## Interviewer Guidance

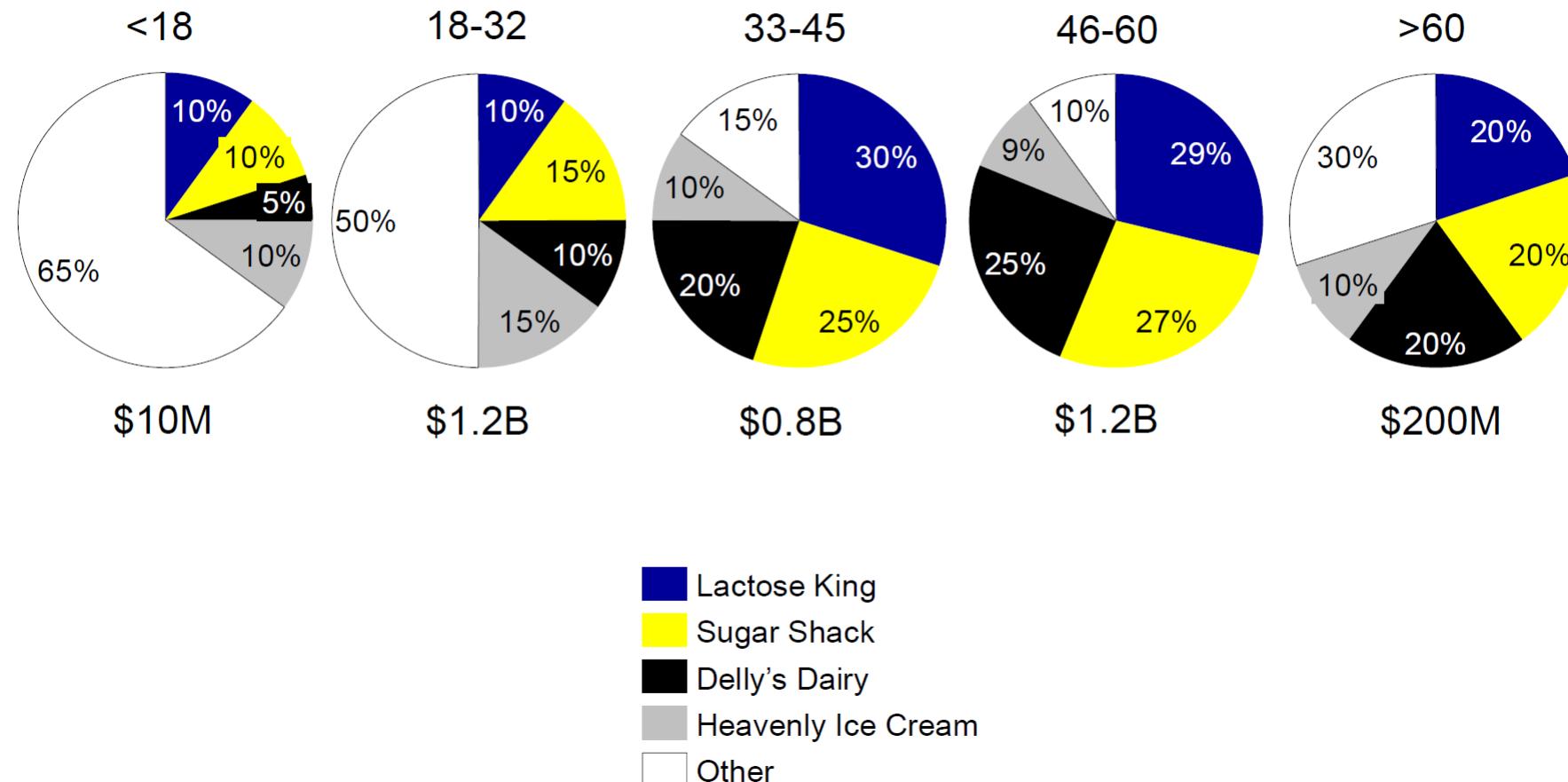
- Lactose King operates under a simple business model of owning and operating all of their own stores, procuring ingredients from various suppliers throughout the country, and processing/serving the ice cream at individual locations.
- They serve only soft-serve ice cream and related products (milkshakes, ice cream sandwiches, etc.)
- Revenue last year was at \$250K/store [\$750M], and they would like to improve gross revenue by 33% in 1 year [\$1B target].
- The candidate's framework should consider: improving ice cream sales (marketing campaign, expanding outside of the United States), offering a new product (desert or non-desert), utilizing a new sales channel (selling to grocery stores), consumer preferences, etc.

# Sample Framework

Product	Promotion	Place / Location
<ul style="list-style-type: none"> <li>• <b>New dessert lines</b> <ul style="list-style-type: none"> <li>- Sugar-free ice cream</li> <li>- Dairy-free ice cream</li> <li>- Frozen yogurt</li> <li>- Ice cream cakes</li> <li>- Gelato</li> </ul> </li> <li>• <b>Introduce new flavors</b> <ul style="list-style-type: none"> <li>- Permanent flavors</li> <li>- Seasonal, temporary flavors</li> </ul> </li> <li>• <b>New in-store offerings</b> <ul style="list-style-type: none"> <li>- Savory foods (appetizers)</li> <li>- Coffee / affogato</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Consumer Insights</b> <ul style="list-style-type: none"> <li>- Scan consumer trends</li> <li>- Identify/expand to new demographics</li> </ul> </li> <li>• <b>Paid marketing</b> <ul style="list-style-type: none"> <li>- Run online ad campaigns</li> <li>- Location-based marketing (OOH, local TV stations, etc.)</li> </ul> </li> <li>• <b>Organic marketing</b> <ul style="list-style-type: none"> <li>- Partner with influencers</li> <li>- Social media campaigns</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>New sales channels</b> <ul style="list-style-type: none"> <li>- Packaged ice cream for groceries</li> <li>- Sell products at other restaurants</li> </ul> </li> <li>• <b>Introduce new stores</b> <ul style="list-style-type: none"> <li>- Expand presence in U.S.</li> <li>- Expand to international stores</li> <li>- Low-footprint stores at stadiums/airports/etc.</li> </ul> </li> <li>• <b>Innovate current stores</b> <ul style="list-style-type: none"> <li>- Add service windows</li> <li>- Renovate interior design</li> </ul> </li> </ul>

# Exhibit #1 – Customer breakdown

*2016 US Direct-to-Consumer Ice Cream Buyers by Age*



# Exhibit #1 – Interviewer guidance

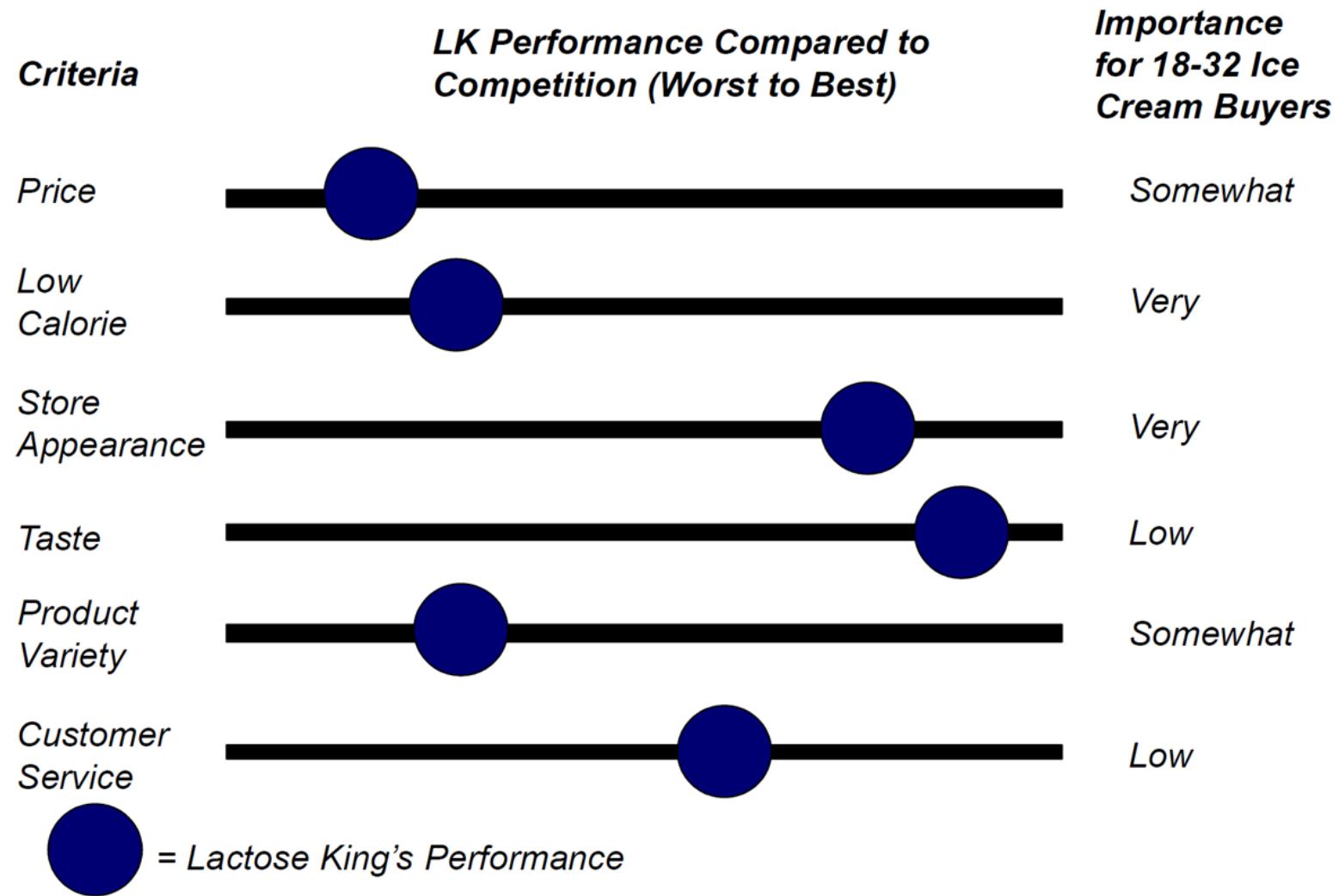
## Exhibit Notes

- Guide the interviewee to examine the overall ice cream sales market or customer breakdown and show them exhibit 1.
- **Prompt:** “This is an analysis our firm did on the latest data for direct-to-consumer ice cream sales over the past year in the United States. The competitors listed are the next 3 biggest players in the US market.”
  - Reading the candidate the prompt is **not required**.

## Exhibit Analysis

- The candidate should start looking for an optimal customer age group to target for future growth.
- 3 things make up an ideal market for LK to target: market size, % not already held by LK (potential for improvement), and % held by “other” (market fragmentation)
  - Note that the market size numbers use different units
- The 18–32-year-old market should be the clear pick among these demographics. Once the candidate comes to this conclusion, ask them to brainstorm what might be important to consider when targeting a new demographic for ice cream sales.
- Once the candidate identifies the 18-32 market as a good target (and ideally suggests studying more about that market), hand them exhibit 2.

# Exhibit #2 – Ice cream store criteria



# Exhibit #2 – Interviewer guidance

## Exhibit Notes

- We conducted a survey for 18–32-year-old American ice cream buyers asking them both the importance of several criteria for ice cream stores, as well as how well Lactose King performs within each criteria as compared to other ice cream stores.
- How might this information help us improve our standing within that market? [If the candidate struggles to produce a recommendation, ask which demographic might have the most potential for Lactose King]

## Exhibit Analysis

- The candidate should identify the criteria that has the most impact potential for Lactose King. This means finding an area that has high customer performance where LK is lagging.
- While LK performs very poorly with respect to price (not surprising given that they are a premium store), price is only somewhat important to 18-32 customers. Instead, the candidate should notice that low-calorie is a very important category in which LK underperforms.
- Once the candidate identifies low-calorie as the best addressable criteria, ask them how they would go about addressing this. A good brainstorm should include offering low-calories products, as well as modifying the current recipe for their ice cream.

# Exhibit #3 – Sugar-free market share (est.)

## *Age Demographic*

## *Anticipated US Market Share Captured*

<18	0%
18-32	25%
33-45	20%
46-60	15%
>60	5%

# Exhibit #3 – Interviewer guidance

## Exhibit Notes

- Sugar-free ice cream would be a great way to provide a lower calorie option and there is a small company going out of business that will license us the right to make/sell it for next to nothing. This would be in addition to their original product.
  - We conducted a market survey for all ice cream buyers on how they would respond to sugar-free ice cream, and we believe we can obtain the following results for next year.
- Provide the following information if the candidate asks:
  - Market Growth:** No anticipated market growth in any demographic next year.
  - Cannibalization:** 1/3 of existing sales are likely to be cannibalized through the introduction of this ice cream.
- The candidate should realize quickly that he/she should estimate how much additional revenue this would mean for GK based on the percentages provided and the market size from exhibit 1.

## Interviewer Guidance + Quant Analysis

Age Demographic	Market Size (\$B)	%	Market Captured (\$B)
<18	\$ 0.01	0%	\$ -
18-32	\$ 1.20	25%	\$ 0.30
33-45	\$ 0.80	20%	\$ 0.16
45-60	\$ 1.20	15%	\$ 0.18
>60	\$ 0.20	5%	\$ 0.01
			\$ 0.65

$$\begin{array}{r}
 \text{Cannibalization Loss (33% of \$750M)} \quad \$ (0.25) \\
 \hline
 \text{Net Sales Impact} \quad \$ 0.40
 \end{array}$$

- The candidate should conclude that the additional \$400M in net revenue satisfies the 33% goal.

# Recommendation & Next Steps

## Recommendation

- **Prompt:** The CEO of Lactose King is asking for an update on your findings, please make your recommendation.
- Introducing a sugar-free ice cream will increase revenue by \$400M (\$1.15B total)
  - This addresses the caloric concerns for the original recipe and we should see particular improvement in the 18-32 year old market
  - This meets the \$250M additional revenue target
  - Sales to the original recipe ice cream will suffer by 33%, but the sugar-free ice cream sales will make up for this
- Outstanding candidates will think of creative ways to market sugar-free ice cream and note that it has strong potential for market growth in the future.

## Risks & Next Steps

- **Risks**
  - There may be operational issues involved in bringing it into the store, such as different shelf-life requirements or machines needed to dispense ice cream.
  - The sales figures are projections and actual sales may fall short of expectations.
  - Because of the popularity of the product, we may face increasing competition in the space from competitors.
- **Next Steps**
  - Explore marketing campaigns to ensure that introducing sugar-free ice cream brings in the projected sales.
  - Scope operational requirements for adding sugar-free ice cream to the stores.



# Lonely Lodge

**Industry** Media and Entertainment

**Case Type** Profitability

**Quantitative Difficulty** Easy

**Qualitative Difficulty** Medium

**Origin:** Fuqua Casebook (2018-2019)

Revised and Updated by Darian Aghili (Fuqua '24)

## Prompt

Our client is the designer and publisher of Day Fort, a free-to-play multiplayer shooting game. Over the past 5 years, Day Fort has broken both revenue and profit records for the gaming industry. However, the client's profitability has declined recently.

**Your client has hired you to help them improve the profitability of Day Fort.**

## Interviewer Guidance

- **How does Day Fort make money if it is free to play?**
  - Through selling customizable skins (outfits) for the in-game characters
  - Selling season “battle passes” that allow players to unlock skins by playing the game
- **How do they source their “skins”?**
  - They are made, for free, by the community of players
- **Who are the customers?**
  - People purchase the game on their computer and are from all over the world
- **What is the timeline?**
  - As soon as possible
- **Is there a specific profitability target?**
  - No specific goal

# Sample Framework

## Market

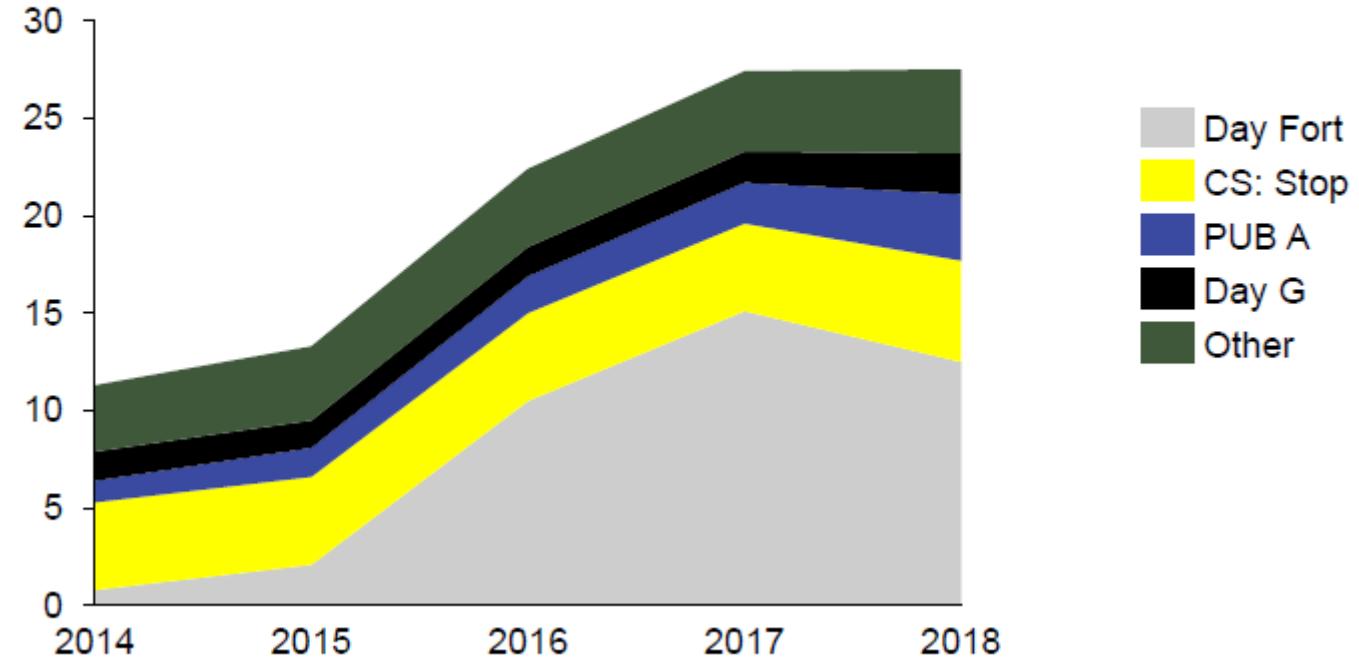
- **Competitors**
  - Other similar games in market
  - Companies who could create competing game
  - Share of gaming space
- **Customers**
  - Sentiment surrounding game
  - KPCs for microtransactions
  - KPCs for game purchasing
- **Company**
  - TAM and SAM

## Revenue

- **Price**
  - Price of skins and battle passes
  - Price of game
  - Price of future microtransaction opportunities (i.e., exclusive access, bundled game, etc.)
- **Volume**
  - Quantity of skins and battle passes
  - Quantity of games sold
  - Anticipated quantity of future microtransactions

## Costs

- **Fixed Costs**
  - Cost of salaries for employees
  - Cost of servers to maintain platform
  - Cost of office, rent, etc.
- **Variable Costs**
  - Cost of adding new skins and battle passes
  - Cost of updating game

Online multiplayer games profit pool (2014-2018) (\$M)

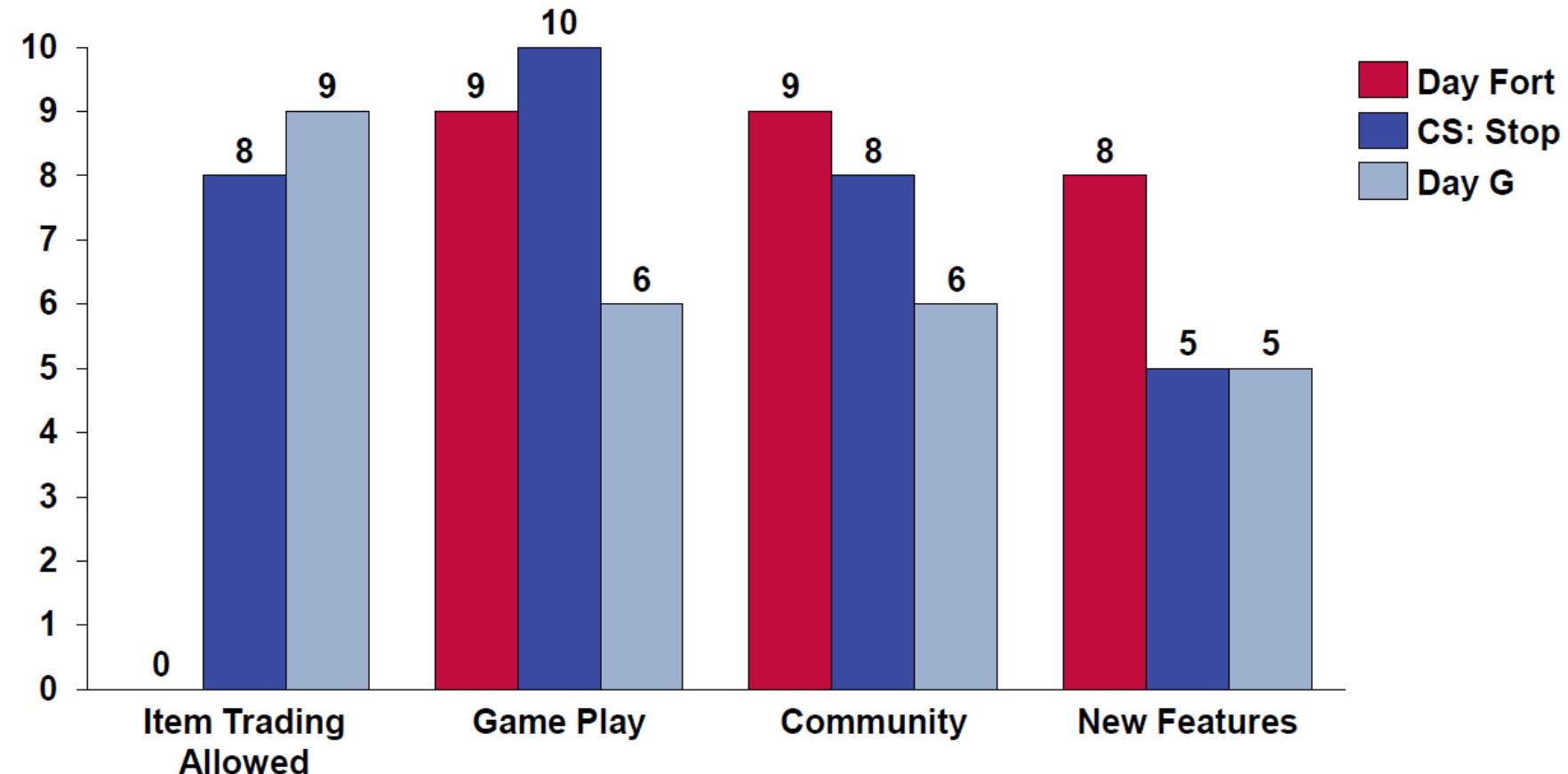
# Exhibit #1 – Interviewer guidance

## Exhibit Notes

- Present this exhibit after the candidate asks for more information on the profitability of competitors.
- The candidate should not start performing calculations, the insights drawn from this page can be derived without performing any math.
- Once the candidate asks about customer preferences, provide them with exhibit 2.

## Exhibit Analysis

- Candidate should identify that:
  - Our client has the only game that lost profitability between 2017-2018.
  - As a whole, the industry's profitability is increasing.
- An exceptional candidate will identify that our clients profitability has decreased 10% over the 17-18 year while the industry's as a whole has increased 10%.

**Online multiplayer games market research survey results****Importance/Performance** (10=excellent most important, 1=poor/least important)

# Exhibit #2 – Interviewer guidance

## Exhibit Notes

- The candidate should not start performing calculations, the insights drawn from this page can be derived without performing any math.
- Once the candidate provides the recommendation that the client should allow for item trading in game, provide them with the following numbers to compare profitability scenarios.
  - Number of players: 125M
  - **Current**
    - > Percent of players who purchase items: 1%
    - > Average spend per year: \$10
    - > Profit margin %: 100
  - **If trading is allowed**
    - > Percent of players who purchase items: 10%
    - > Average spend per year: \$3
    - > Profit margin %: 50

## Exhibit Analysis

- The candidate should identify that:
  - Our client is at the top/close to the top in every category except for “Item Trading Allowed”
- At this point, the candidate should recommend that the client allow for item trading in the game
- Analysis on profitability scenarios:
  - **Current Profit:** \$12.5M
  - **New Profit:** \$18.75M
  - **Difference:** \$6.25M

# Recommendation & Next Steps

## Recommendation

- **Prompt:** The CEO is about to walk into the room, please provide them with a recommendation.
- **Recommendation will include:**
  - The client should begin to allow items to be traded; they have following behind industry trends.
  - Doing so will increase profits by \$6.25M -> a roughly 50% increase

## Risks & Next Steps

- **Risks**
  - The community doesn't respond well to the change in skins.
  - Effective trading systems are patented and would need to be licenses from another company.
- **Next Steps**
  - Work with the development team to build out a trading system.
  - Analyze competitor practices to identify effective trading systems.



# Sardine Airlines

**Industry** Transportation

**Case Type** Profitability

**Quantitative Difficulty** Medium

**Qualitative Difficulty** Medium

**Origin:** Fuqua Casebook (2016–2017)

Revised and Updated by Vann Vicente (Fuqua '24) and Darian Aghili (Fuqua '24)

# Case Overview

## Prompt

Sardine Airlines is an ultra low-cost carrier with flights throughout the continental United States. They have hub airports in Oakland, California; Tulsa, Oklahoma, and Hartford, Connecticut. Sardine Airlines is facing increased pressure from other low-cost carriers such as Cattle Car Air and Soul Airlines.

Sardine Airlines has faced declining profit for the past year. Sardine's CEO, Penny McPincher, has asked your team for advice on how to reverse the profitability trend.

## Interviewer Guidance

- **Clarifying Information (If Prompted)**
  - Sardine Airlines competes primarily on having the lowest cost fares and offering minimal service
  - Due to its business model Sardine Airlines has a culture of cost savings that can be passed to the customer
  - Sardine Airlines is trying to grow profit margin to 20% (profit margin is net income/total revenue)
  - If the interviewee asks about revenues/costs, give them Exhibit 1, Statement of Operations

# Sample Framework

## Financials

- **Revenue**
  - Average price per ticket
  - Quantity of seats per plane
  - Average utilization per flight
  - Number of flights per day, week, month, year, etc.
  - Additional fees
    - > Baggage
    - > Seat upgrades
- **Costs**
  - Unit cost per passenger
  - Fixed cost per flight
  - SG&A costs of airline
  - Airport gate fees

## Market

- **Industry Trends**
  - Travel patterns/frequency of flying
  - Industry growth
  - Low-cost vs. general carriers
  - Booking sites and aggregators
- **Competitors**
  - Other airlines
  - Trains/other forms of transport
- **Airports**
  - Penetration of regional airports
  - Terminal share/prioritization

## Internal Operations

- **Fleet Optimization**
  - Lifecycle of planes
  - Service rates of planes
- **Route Planning**
  - Average distance
  - Geographical coverage
- **Labor**
  - Pilots and aviation staff
  - Flight attendants
  - Maintenance staff
  - Administrators
- **Suppliers**
  - Fuel and parts
  - In-flight services

# Exhibit #1 – Statement of operations

Unaudited, in millions

	2015	2014	2013	2012
Operating Revenue				
Passenger	\$ 1,088	\$ 1,092	\$ 908	\$ 793
Non-ticket	\$ 1,055	\$ 968	\$ 862	\$ 769
<b>Total Revenue</b>	<b>\$ 2,143</b>	<b>\$ 2,060</b>	<b>\$ 1,770</b>	<b>\$ 1,562</b>
Operating Expense				
Fuel	\$ 589	\$ 583	\$ 625	\$ 718
Landing Fees	\$ 383	\$ 370	\$ 332	\$ 296
Maintenance	\$ 214	\$ 164	\$ 106	\$ 67
SG&A	\$ 428	\$ 309	\$ 185	\$ 171
Special Charges	\$ -	\$ -	\$ 225	\$ -
<b>NI Pre Tax</b>	<b>\$ 529</b>	<b>\$ 634</b>	<b>\$ 297</b>	<b>\$ 310</b>
Taxes	\$ 158	\$ 189	\$ 88	\$ 92
<b>Net Income</b>	<b>\$ 371</b>	<b>\$ 445</b>	<b>\$ 209</b>	<b>\$ 218</b>

# Exhibit #1 – Interviewer guidance

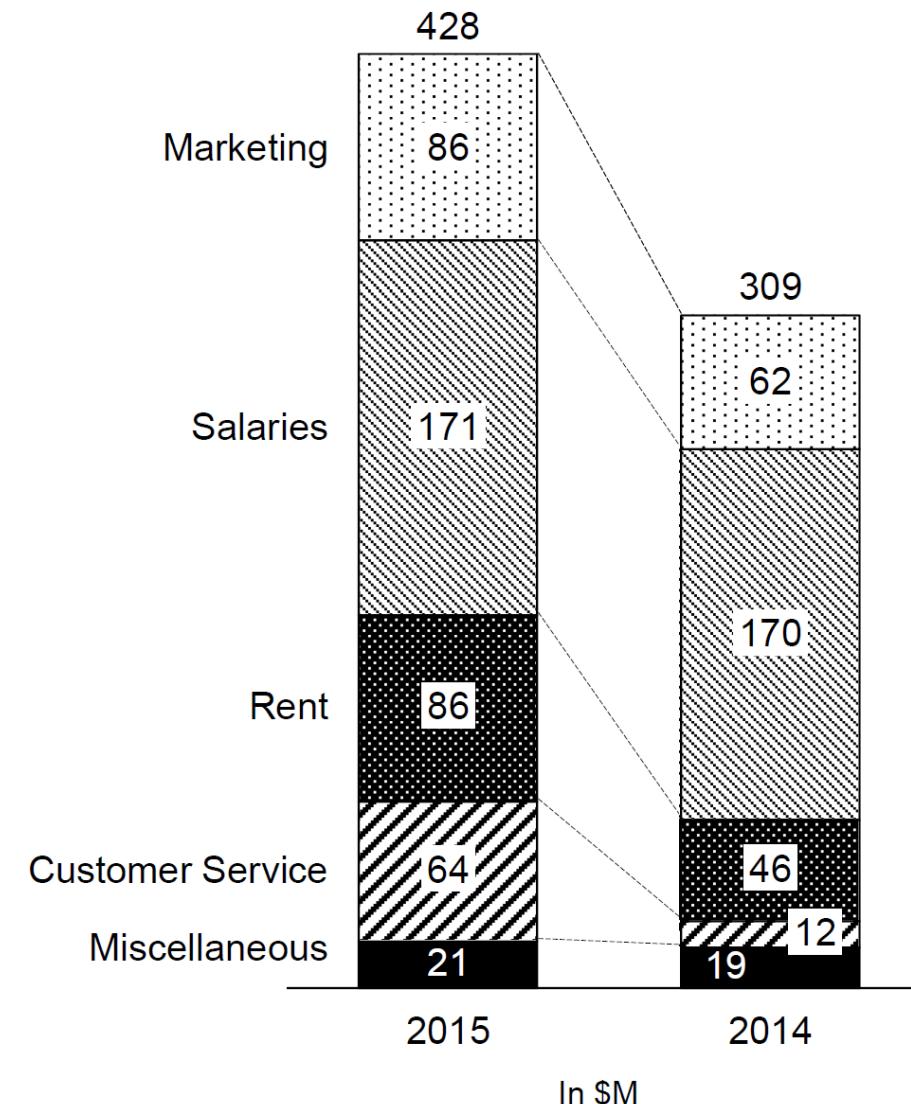
## Exhibit Notes

- The exhibit is designed to have too much data to synthesize in a reasonable amount of time.
- Additional information you may provide when asked:
  - Non ticket revenue are things like bag fees, food, beverages, customer service charges, paper tickets, etc.
  - Landing fees are what Sardine Airlines pays to use airports
- The candidate should keep in mind the 20% profit margin that the CEO wants, which given the NI, is an **added \$57.6M**. They should also see that revenue has continued to grow, albeit slower than in the past.
- The candidate should see that SG&A as a proportion of revenue increased from 15% to 20% and is the primary driver of declining profit -- once identified give them Exhibit 2.
- If the candidate identifies maintenance costs proportionately increasing, give them Exhibit 3. If it never comes up, you don't need to show Exhibit 3.

## Exhibit Analysis

	2015	2014	2013	2012
Operating Revenue	<b>YOY CHANGE IN REVENUES FROM PRIOR YEAR</b>			
Passenger	-37%	20.26%	14.47%	
Non-ticket	9%	12%	12%	
<b>Total Revenue</b>	<b>4%</b>	<b>16%</b>	<b>13%</b>	
Operating Expense	<b>EXPENSES/NI AS A PERCENT OF TOTAL REVENUE</b>			
Fuel	27%	28%	35%	46%
Landing Fees	18%	18%	19%	19%
Maintenance	10%	8%	6%	4%
SG&A	20%	15%	11%	11%
Special Charges	0%	0%	13%	0%
<b>NI Pre Tax</b>	<b>25%</b>	<b>31%</b>	<b>17%</b>	<b>20%</b>
Taxes	30%	30%	30%	30%
<b>Net Income</b>	<b>17%</b>	<b>21%</b>	<b>12%</b>	<b>14%</b>

# Exhibit #2 – SG&A breakdown



# Exhibit #2 – Interviewer guidance

## Exhibit Notes

- The candidate should identify that 3 areas are driving growth in SG&A: Marketing, Rent, and Customer Service.
- The other areas are not large enough increases to focus on to get to the \$57.6M profit increase the CEO is looking to achieve.
- The percent of total SG&A and absolute increases are below:

	2015	2014
Marketing	20%	20%
Salaries	40%	55%
Rent	20%	15%
Customer Service	15%	4%
Miscellaneous	5%	6%

## Exhibit Analysis

	YoY Change
Marketing	+ \$ 24
Salaries	+ \$ 1
Rent	+ \$ 40
Customer Service	+ \$ 52
Miscellaneous	+ \$ 2

# Exhibit #3 – Sardine maintenance



TO: Penny McPincher, CEO of Sardine Airlines

FROM: Michael Huerta, Administrator of the Federal Aviation Administration

DATE: June 30<sup>th</sup>, 2015

SUBJECT: Sardine Airlines Maintenance Record

This memorandum is to notify that as of today, Sardine Airlines is no longer under maintenance supervision from the Federal Aviation Administration (FAA). The FAA believes the improved maintenance program no longer warrants FAA intervention.

Any future decrease in maintenance standards will result in FAA supervision or sanctions.

# Exhibit #3 – Interviewer guidance

## Exhibit Notes

- **Clarify if asked:** The Federal Aviation Administration (FAA) is the U.S. Government regulatory agency responsible for the safety of U.S. airlines.
- The candidate should put together that the increase in maintenance spending is directly tied to the fact that previous maintenance spending was not sufficient to be considered safe.
- The candidate should move away from maintenance cost cutting.
- If the candidate still is interested in pursuing cost cutting in maintenance give them this prompt: **“Our client is adamant that the recently improved maintenance program is running at peak efficiency and any cuts would invite unwanted scrutiny from regulators.”**

# Prompt – Cost-cutting measures

## Brainstorm Prompt

- **Prompt:** Sardine Airlines has been aggressively advertising to combat competitive pressures. Both the CEO and the Board believe this is a critical expenditure.

Recently the landlord for the firm's headquarters in Oakland raised rent by \$35M. Customer service complaints have increased nearly 3,000%, which the company believes is due to the new 12 inch seats that were installed in the entire fleet. This has caused Sardine's call center provider to increase billing by 520% from 2014's \$12.36M. What can Sardine Airlines do to address these issues?

## Interviewer Guidance

- The candidate might suggest cutting marketing or increasing seat sizes. Steer them away from those.
  - **Marketing?** Neither the CEO or Board will take any recommendations on cutting the marketing expenses
  - **Seat Sizes?** The firm is not interested in increasing seat sizes. They are actually looking to pilot 8 inch seats in a new class of service called, "steerage"
- The firm doesn't need to be based in Oakland, but does want to be located where it has major operations.
- Rent in Tulsa or Hartford would be 40% less than current 2015 rent. (**IG: 40% x \$86M = \$34.4M**)
- The call center vendor charges rates that are on average 60% higher because their call centers are based in the United States and staffed with native English speakers. (**IG: 60% X \$64M = \$38.4M**)
- **Total cost savings are \$72.8M.**

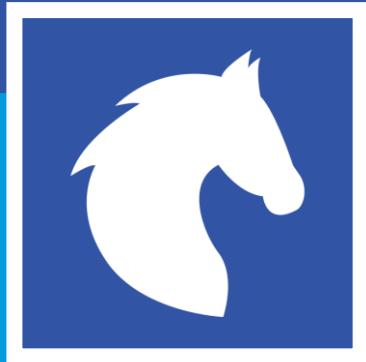
# Recommendation & Next Steps

## Recommendation

- **Prompt:** The CEO, Ms. McPincher, is going to be joining us in just a few minutes to hear your recommendations on how to improve profitability.
- Candidate should have a recommendation that includes the following:
  - To increase profit margin to 20%, Sardine Airlines should focus on cutting SG&A costs. There are two key ways to cut SG&A: customer service and rent.
  - Recommend that they transition to an overseas-based call center vendor, which would save approximately \$38.4M.
  - Move the headquarters to either Tulsa or Hartford, which will have less expensive office real estate markets and thus find major cost savings of up to \$34.4M.
  - **They can realize total cost savings of up to \$78.8M, which will get them to the profit margin target of 20%.**
  - (Bonus) Given the relatively low increase in revenue from installing 12" inch seats and potential customer service issues, recommend against 8" seats.

## Risks & Next Steps

- **Risks**
  - One-time expenses in moving the headquarters
  - Workers who may not want to transition offices, causing higher attrition of existing employees
  - Unhappy customers from decreased customer service quality due to overseas transition
- **Next Steps**
  - Start scoping potential headquarter locations in either Tulsa or Hartford.
  - Look for and evaluate overseas replacement vendors for the call center.



# Goodbye Horses

**Industry** Healthcare

**Case Type** Decision Analysis

**Quantitative Difficulty** Medium

**Qualitative Difficulty** Difficult

**Origin:** Fuqua Casebook (2016–2017)

Revised and Updated by Vann Vicente (Fuqua '24)

## Prompt

Your client is the CFO of Aperture Laboratories, a leading US biopharmaceutical company with a market cap >\$150B. Aperture develops and manufactures a diversified range of products and in particular prides itself on saving millions of human lives every year.

The company is under investor pressure because of its slow firm value growth over the next 10 years. Investors are very anxious to see significant changes announced at the firm in the next quarter. The CFO has already identified and evaluated several high-growth, promising, but capital-intensive projects, and she does not have enough cash to invest in any of these opportunities. **What does she need to do next?**

## Interviewer Guidance

- The prompt can be ambiguous, and many interviewees may drive the case towards evaluating the projects or building a profit tree of the existing business to identify any issues. Neither of these approaches directly answers the prompt but probe them to realize the goal is to raise capital to fund these projects.
  - Optional: This case can be a good opportunity for the interviewee to experience a free-flowing, conversational “partner style” case. Consider telling the interviewee to not write anything down for the framework.
- Let the student build a framework, which should be focused on ways to raise capital, but could also include other next steps such as gaining management buy-in to invest in these high growth opportunities
  - Ideal framework will include ways to raise capital (issuing equity, raising debt, divesting a portion of business, canceling existing projects to free up budget) and also touch on where to deploy the capital (i.e., into the projects)
  - Students may discuss P&L levers in their framework, which is OK, but check if they realize any cost-cutting or revenue-boosting measures will not raise capital quickly and don’t satisfy investor requirements for significant changes
  - Ideal candidate will discuss pros/cons of each way to raise capital
- **Guide them towards thinking about divestiture, then provide them with the first exhibit.**

# Sample Framework

## Capital Raising

- **Equity Financing**
- **Debt Financing**
- **Divestitures**
- **Reallocation of Funds**

*An ideal framework would include the candidate evaluating pros and cons for each capital raising method.*

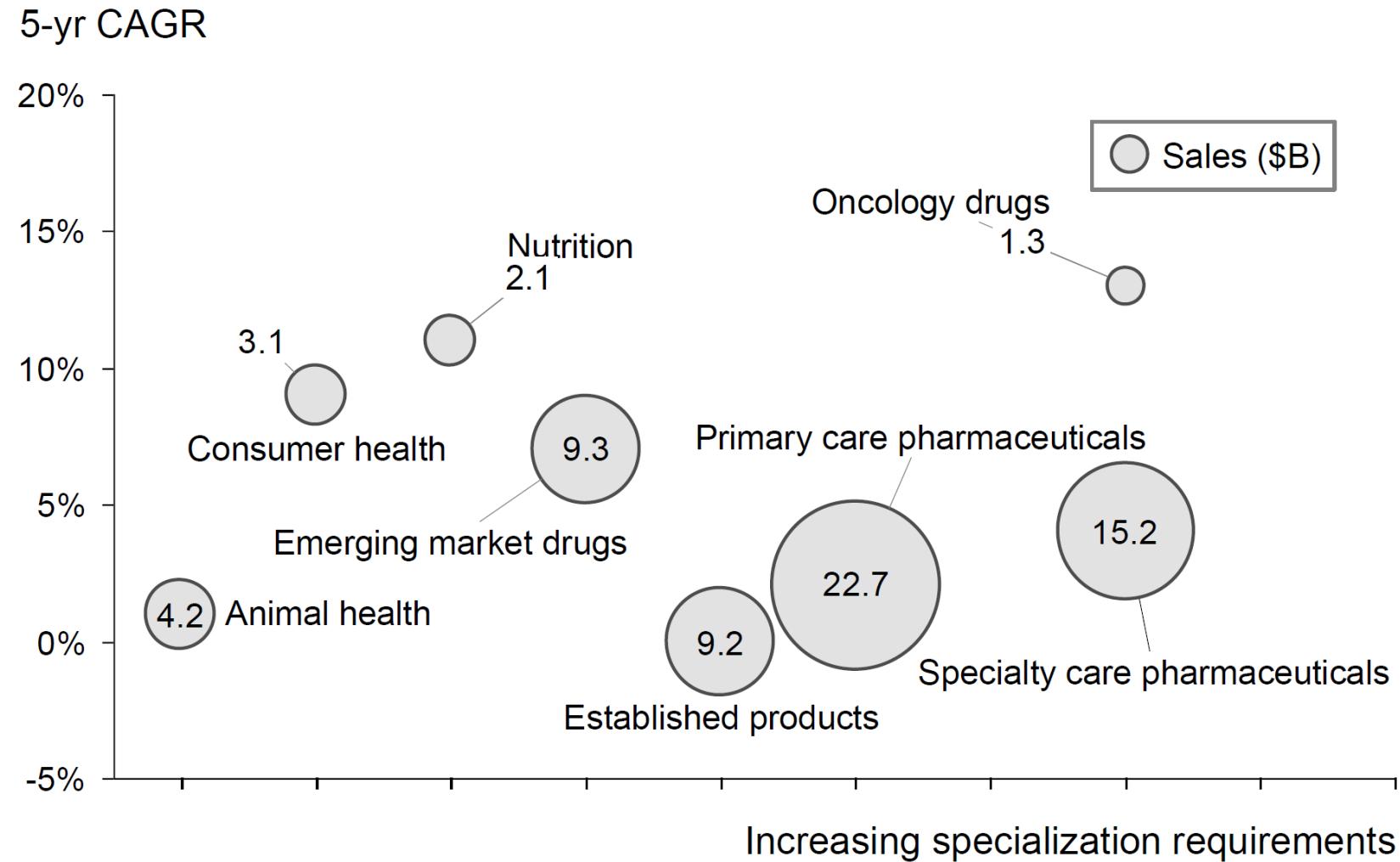
## Investment Opportunities

- **Type of Investment**
  - Build vs. buy
- **Evaluation Framework**
  - Capital investment required
  - Synergy with existing business lines
  - Ease of implementation / timeline
  - Core competencies
  - Projected NPV
- **Management Buy-In**

## Pharmaceutical Market

- **Competition**
  - Similar market activity present in other biopharma companies
  - Regional competition
- **Trends**
  - Emerging diseases
  - New research activity

# Exhibit #1 – Aperture business segments



# Exhibit #1 – Interviewer guidance

## Exhibit Notes

- Provide the exhibit and let the interviewee walk through it verbally.
- The interviewee should drive the discussion and determine that animal health is the best option to divest, providing sufficient rationale.
- If the interviewee does not choose animal health, discuss with them their rationale and steer them towards choosing animal health.
  - *The interviewee should take the hint and switch towards animal health.*
- **Do not prompt the interview towards next steps; make sure they drive conversation towards how much capital they can raise and if they can find buyers for the business unit.**

## Exhibit Analysis

- The following are key chart takeaways. Not all of these are necessary to discuss:
  - Animal health is one of the lowest growth business units.
  - Animal health is the most different business unit and outside of what Aperture prides itself in. (Specifically, saving human lives)
  - Its low degree of specialization will allow a larger pool of potential buyers (i.e., easier for another company to operate)

# Prompt #1 – Animal health business sale

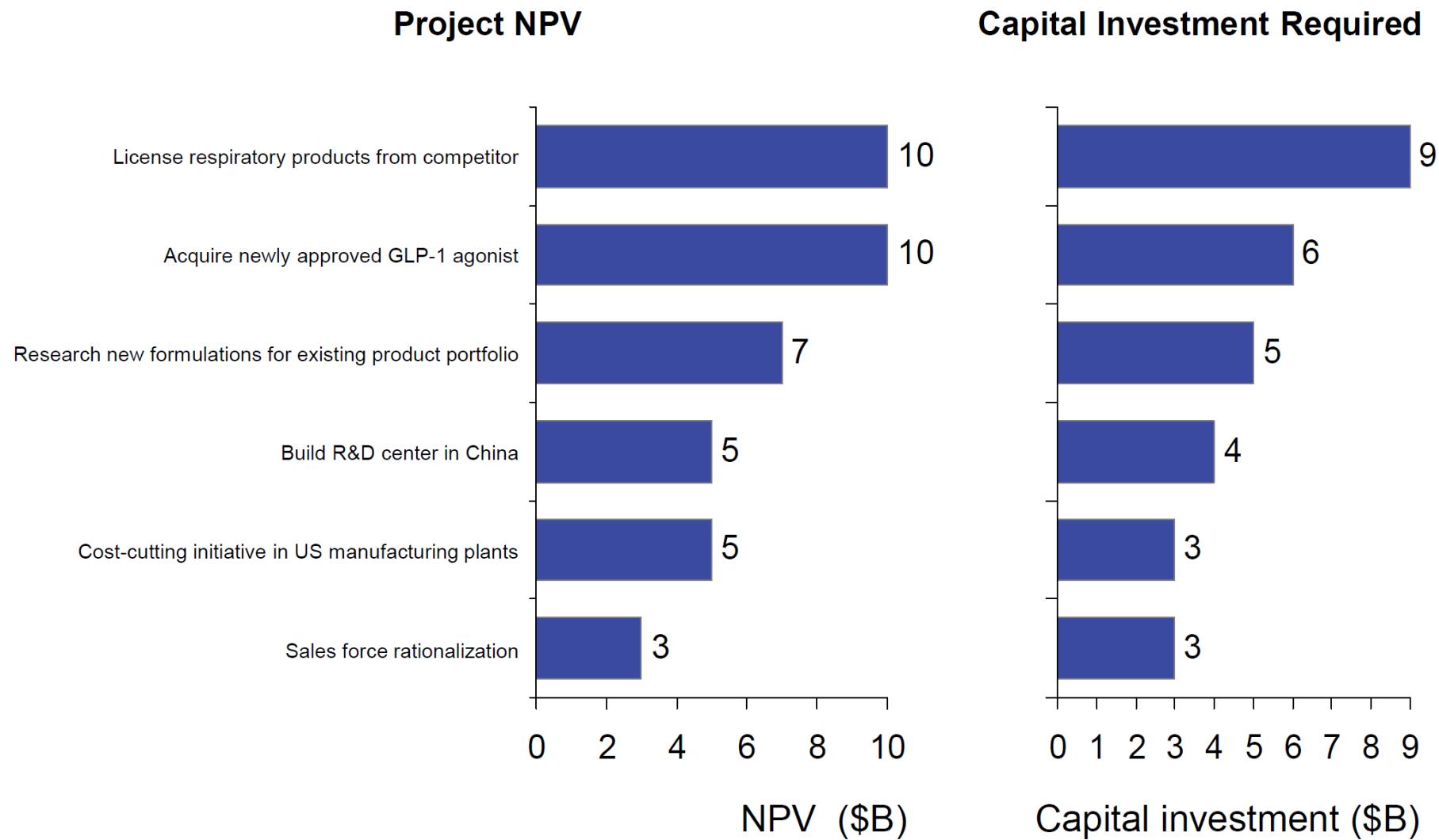
## Prompt

- Unknown to the CFO until now, the business development team has retained JP Morgan to assess the sale-ability of the Animal Health business. They have identified that Aperture will likely receive a 3.5x enterprise value to sales multiple for the animal health business.

## Exhibit Analysis

- Do not prompt further; let the interviewee work through the next steps
- The interviewee should drive towards understanding how much capital they will receive from the sale:  
**( $\$4.2B \times 3.5 = \$14.7B$ )**
  - If asked about taxes, tell the interviewee the deal has been structured by JP Morgan to be tax-free
- The interviewee should then begin discussing which projects to invest the capital in. Once they've begun thinking about this, provide the next exhibit.

# Exhibit #2 – Investment opportunities



# Exhibit #2 – Interviewer guidance

## Exhibit Notes

- Provide the exhibit and let the interviewee walk through it verbally
- **If asked, tell the interviewee that the NPV includes the capital investment.**
- The interviewee should drive the discussion and determine which projects to invest in; an excellent candidate will also look to discuss qualitative aspects of each projects (e.g., timeline, synergies)
- Given our capital constraint of \$14.7B, the interviewee should attempt to maximize NPV. Thus, the most effective use of capital is to invest in:
  - Acquire newly approved GLP-1 agonist
  - Research new formulations for existing product portfolio
  - Cost-cutting initiative in US manufacturing plants

## Quantitative Analysis

- The best way to identify which projects to prioritize is to create a “profitability index” (e.g., NPV / capex)
- The interviewee can then rank projects by profitability index and see how many can be completed given our constraint of \$14.7B. The following are calculations:
  - 1. License respiratory products:  $\$10 / \$9 = 1.11$
  - 2. GLP-1 agonist:  $\$10 / \$6 = 1.67$
  - 3. New formulations:  $\$7 / \$5 = 1.40$
  - 4. R&D center in China:  $\$5 / \$4 = 1.25$
  - 5. Cost-cutting initiatives:  $\$5 / \$3 = 1.67$
  - 6. Sales force rationalization:  $\$3 / \$3 = 1.00$
- Adding up projects 2, 3, and 5 gives us the highest NPV (\$22B) and only requires \$14B to accomplish.
- A very good candidate will also have a recommendation for the remaining \$700M, i.e. share buy back, dividend, small-scale investment, etc.

# Recommendation & Next Steps

## Recommendation

- **Prompt:** The CFO is out at lunch and the CEO of Aperture walks into your conference room, wondering what you've been working on.
- An ideal candidate will walk through the divestiture and what to do with the influx in capital.
- The candidate should recap that we want to divest the animal health business, which has low specialization requirements and low growth, to raise capital.
- Using the \$4.7B raised from that sale, we can invest in the 3 projects selected to generate an NPV of \$22B.

## Risks & Next Steps

- **Risks**
  - We may have a hard time selling the animal health division for the price we want.
  - The timing of the deal completion may take longer than expected, which affects the timeline for new capital projects.
  - New capital projects could fail.
- **Next Steps**
  - Identify target buyers for the animal health division and see if the business valuation matches the market price.
  - Develop an expected timeline for the deal and for each prospective capital project.
  - Perform due diligence before launching capital projects, and explore other potential projects not listed in the process.



# Fuquan Land

<b>Industry</b>	Agriculture
<b>Case Type</b>	Market Entry
<b>Quantitative Difficulty</b>	Difficult
<b>Qualitative Difficulty</b>	Difficult

**Origin:** Fuqua Casebook (2021-2022)

## Prompt

A retired Fuqua professor is thinking about buying a piece of land in the surrounding Durham area. The land includes 10 acres which is ready for development. The financial goal of this professor is to achieve \$20,000 of profit within two years, exclusive of the purchase price.

### Is this a good idea?

*Note: This is representative of a Bain case that requires structuring an approach to solving the problem before jumping into the actual numbers.*

## Interviewer Guidance

- If asked what the ground will be used for, ask for brainstorming options. The brainstorm should still be structured. Some examples may include:
  - **Real-estate**
    - > Residential rental property
    - > Commercial property
  - **Farming**
    - > Agriculture
    - > Animals
- Post-brainstorm, specify “**agricultural development.**”
- The initial brainstorm before the framework is intentional. This may occur in interviews, being adaptable and flexible is important.
- The professor has an educational background in agricultural engineering & has consulted on behalf of commercial partners.

## Revenue Generation

- **Farming**
  - Land viability
  - Crop type
  - Short turnover for profit
- **Commercial real estate development**
  - Investor appetite
  - Community enhancement potential
  - Longer timeline for profitability
- **Residential real estate development**
  - State of housing market
  - Short term vs long term rentals
  - Durham population trends

## Costs

- **Government fees**
  - Restrictions on land use for certain areas and locations
  - Zoning
- **Property taxes**
  - Tax rate for professor
  - Alternate methods for acquisition
- **Planning costs**
  - Project planning
  - Contracting

## External Factors

- **Relative location / Community**
  - What is in proximity to this location?
  - What is the community like?
  - What are the negative/positive consequences of development?
- **Economy**
  - Major companies moving into the triangle area
- **Climate change**
  - Its affects on farming patterns, short and long term
- **Risks**
  - Financing
  - Real estate crash

# Exhibit #1

Annual analysis of North Carolina market

	Pine Trees	Rose Bush	Beets	Saffron
Price (\$)/Plant	150	105	45	75
Cost (\$)/Plant	90	75	33	51
Market Demand	5,000	1,000	1,000	2,500
Competition Control (%)	60	20	85	90

Note 1: Assume Y1 start-up costs of \$1,500

Note 2: Assume annual maintenance costs of \$1,050

# Exhibit #1- Interview guidance

## Market Size

- **Demand:** Market Size x Penetration Rate
  - 5,000 Pine Trees x 40% = 2,000 units
  - 1,000 Rose Bushes x 80% = 800 units
  - 1,000 Beets x 15% = 150 units
  - 2,500 Saffron x 10% = 250 units
- **Supply:** Ability to meet demand is dependent on acres available (10 acres)

## Margins Per Unit

- **Price - Cost = Profit per unit**
  - \$150 - \$90 = \$60 per Pine Tree
  - \$105 - \$75 = \$30 per Rose Bush
  - \$45 - \$33 = \$12 per Beet
  - \$75 - \$51 = \$24 per saffron

## Profitability per Acre

- **# of units per acre x profit per unit**
  - 10 Pine Trees per acre x \$60 = \$600/acre
  - 25 Rose Bushes per acre x \$30 = \$750/acre
  - 75 Beets per acre x \$12 = \$900/acre
  - 50 Saffron per acre x \$24 = \$1,200/acre
- *If candidate gets lost, drive towards profitability.*

## Financial Projections

- **Start with maximizing most profitable crop, then if room, move on to the next:**
  - 250 units / 50 saffron per acre = 5 acres of Saffron x \$1,200/acre = \$6,000
  - 150 / 75 beets per acre = 2 acres of Beets x \$900/acre = \$1,800
  - 3 acres remaining for Rose Bushes x \$750/acre = \$2,250
- **The total profit computation is as follows:**
  - Year 1: \$6,000 rev from Saffron + \$1,800 rev from Beets + \$2,250 rev from Rose Bushes - \$1,500 Y1 cost - \$1,050 labor cost = \$7,500 profit
  - Year 2: (\$6,000 + \$1,800 + \$2,250) - \$1,050 = \$9,000 profit (Great candidate will ask about growth rate, state it's flat at 0%)
  - **Total Profit for first 2 years: \$16,500**

## Interview Guidance

- The purpose is to systematically work through calculations given ambiguity.
- If asked, client can capture remaining share of market.
- Great candidates should ask, "How many plants can fit on an acre?" Otherwise, provide the following:
- **Provide plant / acre: 10 pine trees, 25 rose bushes, 75 beets, 50 saffron**

# Brainstorm #1 – Additional levers

## Brainstorm Prompt

- **Prompt:** What are additional levers you could use to reach profit goal?
  - **Pricing**
    - > Cost based pricing
    - > Value based pricing
    - > Market pricing price (commodities, so hard to adjust)
    - > Segmentation (premium/standard, customer personas)
  - **Volume**
    - > New markets
    - > Up sell or cross sell other products / bundle
    - > Grow more
  - **Other profitability streams**
    - > Farm tours
    - > Renting additional land
    - > Lowering costs

## Interviewer Guidance

- This brainstorm is optional, and intended to be an additional challenge if the candidate can get through the exhibit in a reasonable amount of time.
- The list on the left is non-exhaustive and answers can go in many directions; this brainstorm is intended to test the candidate's creative thinking.

# Recommendation & Next Steps

## Recommendation

- **Prompt:** Your professor runs into you on campus, and asks you, “Well, should I buy the land?”
- Ideal candidates will recommend the professor does not invest in the land, at least for agricultural purposes. According to calculations, that \$16,500 in profit could be realized within the first two years, not meeting goal of \$20,000.
  - Include alternate ways to grow profit
  - Include alternate allocation for spending money
- If candidate recommend to buy, they should have solid ways to make up the \$3,500 difference from the target, such as alternative commercialization.

## Risks & Next Steps

- **Risks**
  - One risk that may impact the validity of the analysis is changes in estimated demand and difficulty in capturing whole market that remains.
  - There's also the threat of unforeseen natural disasters such as storms and infestations, and it's increased competition.
- **Next Steps**
  - If you recommended that they buy, the client should move forward investing in the land by calling the seller and arranging for financing.
  - Plan for ways to mitigate some of these risks such as pesticides to defend against infestation and estimating the growth rate of the market.



# Activist Action

<b>Industry</b>	Consumer Goods
<b>Case Type</b>	Decision Analysis
<b>Quantitative Difficulty</b>	Difficult
<b>Qualitative Difficulty</b>	Difficult

**Origin:** Fuqua Casebook (2015–2016)

# Case Overview

## Prompt

Your client is a large CPG company with multiple business units including snacks, beauty, and home cleaning products. Your client is under pressure from a high-profile activist investor that has built a 7% stake in the company. The client has asked you to help predict the new investors likely demands that could increase stock price or company performance. What are your ideas to deliver short-term and long-term value back to the shareholder?

*Activist Investors: An individual or group that purchases large amounts of a public company's shares and/or tries to obtain seats on the company's board with the goal of effecting a major change in the company. The investor benefits when equity prices rise significantly or dividends are paid.*

**This case is meant to have interviewer guidance.**  
Provide less guidance for advanced candidates; allow them to drive and explore.

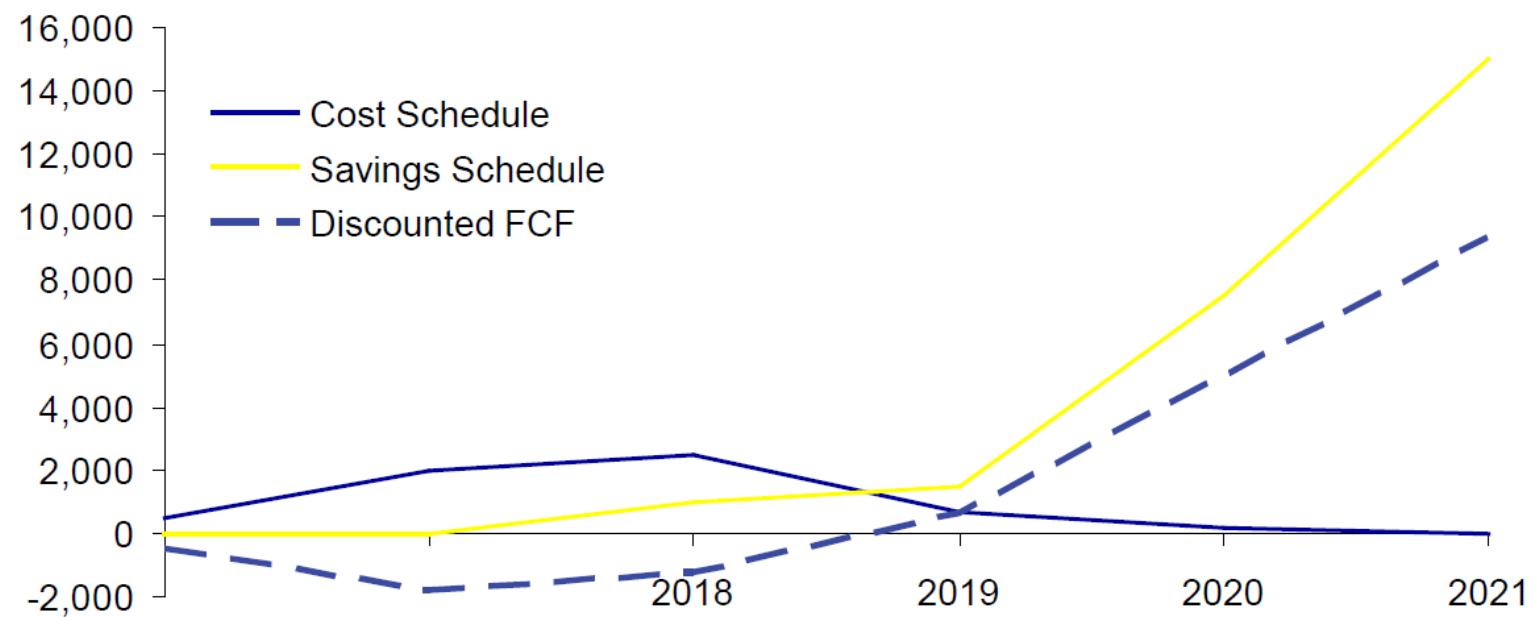
## Interviewer Guidance

- This case challenges the candidate to think from the investor and company perspective, balancing short-term & long-term objectives. Success requires the candidate to correctly evaluate the financial options and give a recommendation that is operationally realistic.
- An activist investor is looking for an increase in stock price, and the client is looking for this plus long-term success. Frameworks should incorporate some of the following:
  - **Short-term Value**
    - > Sell a business unit (split off a whole business, brand, or geography)
    - > Cost save (delayer company, shut-down plants)
  - **Long-term Value**
    - > Restructure product supply, move to low-cost countries
- Award bonus points for strong options that may create shareholder value. Ensure the candidate understands what an activist investor targets and the likely time horizon (1-2 years).
- It is important to know that activists may want short-term actions that company disagrees with due to long-term effects.
- **Clarifying Information (If Prompted)**
  - Large business in North America. The client operates in ~70 countries.
  - Revenue: Snacks \$19B, Beauty \$31B, Home \$29B; EBITDA: \$24B - Target Savings: \$10B
  - This investor likely has influence on the board and cannot be ignored.

## Supply Chain Restructuring

(\$M)	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Cost Schedule	\$500	2,000	2,500	700	200	0
Savings Schedule	\$0	0	1,000	1,500	7,500	15,000

Note: All affects of depreciation and change in net working capital are included in the costs and savings schedule.



# Exhibit #1 – Interviewer guidance

## Exhibit Notes

- **Prompt:** “The partner on this case talked to the product supply (manufacturing) contact at the client who provided a supply chain restructuring opportunity. Do you think this is a viable option to satisfy the activist investor and the client?” (provide Exhibit #1)
- The candidate should realize that a NPV calculation is necessary but should approximate using the graph. NPV calculation is to the right as a reference.
- A strong candidate will realize the savings are too far out for an activist investor. Regardless of the NPV, this project should be secondary to a short-term strategy.
- Once this option is deemed insufficient, read Prompt 2.

## Exhibit Analysis

Supply Chain Restructuring	2016	2017	2018	2019	2020	2021
Cost Schedule	\$ 500	2,000	2,500	700	200	0
Savings Schedule	\$ -	0	1,000	1,500	7,500	15,000
FCF	\$ (500)	-2,000	-1,500	800	7,300	15,000
Discounted FCF	\$ (500)	-1,818	-1,240	601	4,986	9,314
Assume Discount Rate	10%		NPV		\$ 11,343	

# Exhibit #2

## Projected savings (NPV) for various outsourcing options

<u>Area</u>	<u>(\$B)</u>
Marketing	8.2
R&D	12.3
Manufacturing	21.7
Sales	3.6

# Exhibit #2 – Interviewer guidance

## Exhibit Notes

- **Prompt:** “The client mentioned that other companies have successfully used low-cost sourcing. The example companies effectively moved or rehired functions from developed regions to countries like India, China, or Brazil. Do you think the options in Exhibit 2 can meet the client’s needs for the snacks business?”
- The low-cost options are unlikely to meet the client needs because it threatens long-term operation. This prompt is meant to test the candidate's ability to structure open-ended questions (a common part of final round interviews with partners).
- Strong candidates should realize these are poor solutions. Guide the candidate as necessary and move to prompt #3 when candidate realizes other savings are needed.

## Exhibit Analysis

Area	(\$B)	Suggested Solution
Marketing	8.2	<b>Unlikely:</b> Marketing and R&D are necessary for innovation. It is difficult to find top talent in developing countries. Also, the client has a large North America based business.
R&D	12.3	
Manufacturing	21.7	<b>Not Feasible:</b> CPG snack products are inefficient to ship long distances usually. Outsourcing could hurt trust in brand. Additionally, we just saw a major manufacturing project would take too long.
Sales	3.6	<b>Not Feasible:</b> Low savings and managers must meet key customers in developed countries (Walmart, Target, Kroger, etc.)

# Exhibit #3

## Potential brands (businesses) that could be divested

<b>(Rev \$B)</b>	<b>NA</b>	<b>LA</b>	<b>Asia</b>	<b>Europe</b>	<b>5 year CAGR</b>	<b>EBITDA %</b>
Beauty by Gina	8	5	1	3	-1%	35%
Jose's Chips	2	3	0	1	12%	23%
Tina's Hair Brand	1	3	2	3	10%	25%
Silky Sweets	5	1	3	3	2%	25%
Clearly Clean	7	1	2	1	5%	36%
5 year CAGR	2%	4%	11%	1%	3.6%	

# Exhibit #3 – Interviewer guidance

## Exhibit Notes

- Prompt:** “Other companies have seen significant cash and stock price increases when splitting off non-core businesses. The client would like you to value these brands/businesses and consider divesting them. Is there any additional information needed to estimate the market value?”
- When asked, provide:** Benchmarking comparable firms gives  $FV/EBITDA = 3.5$
- A strong candidate will realize that a multiple is needed to find a sale price for each brand or region. If the candidate proposes using  $C/(r-g)$ , give them the multiple to use instead.

## Exhibit Analysis

(Rev \$B)	NA	LA	Asia	Europe	Sum	5 year CAGR	EBITDA %	EBITDA	Sale (EBITDA Multiple)
Beauty by Gina	8	5	1	3	17.0	-1%	35%	6.0	20.8
Jose's Chips	2	3	0	1	6.0	12%	23%	1.4	4.8
Tina's Hair Brand	1	3	2	3	9.0	10%	25%	2.3	7.9
<b>Silky Sweets</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>12.0</b>	<b>2%</b>	<b>25%</b>	<b>3.0</b>	<b>10.5</b>
Clearly Clean	7	1	2	1	11.0	5%	36%	4.0	13.9
Sum	23	13	8	10	54				
5 year CAGR	2%	4%	11%	1%		3.6%			

- Silky Sweets is the best choice since it meets the target cash value to return to shareholders and has low growth over the past 5 years.

# Recommendation & Next Steps

## Recommendation

- **Prompt:** Your client wants to know what course of action they should take. What are your recommendations?
- Strong recommendations include the following items or similar reasoning:
  - The client should prepare to divest the “Silky Sweets” brand
  - The \$10.8B savings will meet the activist goals
  - This strategy does not compromise long-term operations of other brands
- Other potential recommendations:
  - Long-term product supply restructuring could benefit the client
  - Delayering (layoffs) could be appropriate in some parts of the company but would need evaluation

## Risks & Next Steps

- **Risks**
  - Actual sale price and stock performance could vary based on the market
  - The activist investor may have different recommendations to achieve their goals, and pivot in a different direction
- **Next Steps**
  - Look for potential sales targets for the divestiture of Silky Sweets, likely with a partnered financial institution
  - Communicate with the activist investor immediately, and attempt to align on long-term goals