

## Tuck Consulting Club 2024 Casebook

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### Welcome to the 2024 Tuck Consulting Club Casebook!

Dear Tuckie,

Welcome to the 2024 Casebook! We, the Consulting Club Co-Chairs, have put together this collection of advice, recommendations, and cases to assist you as you prepare for your consulting interviews. Before you dive in, a few words on what is in the book:

- 5 new cases from the T'24s and T'25s, a refreshed old favorite, and 6 sponsored cases from firms and specialist case writers
- Recruiting advice, fit preparation guidance, and a comprehensive index of all the best resources from across case books

This book is not intended to have every case you will ever need for your preparation, but rather to provide some unique, learning-oriented cases and opportunities for firm-specific practice.

We hope you find it useful and valuable!

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## **Contents | All Sections**

Contents	Page
What Every Aspiring Consultant Needs to Know	6
Preparing For Fit Interviews	13
Casing Concepts	17
Case Library	21



## **Contents | Case List**

Case	Industry	Case Type	Page
Aftermarket Auto Parts (LEK)	Automotive	Growth Strategy	22
Craft Co (EY-Parthenon)	Retail & CPG	Growth Strategy	28
Hanover Health	Healthcare	Mergers & Acquisitions	39
Kitchen Co (Innosight)	Retail & CPG	Growth Strategy	52
Luxury Landscaping (IGS)	Engineering & Construction	Mergers & Acquisitions	63
Nutters of Savile Row	Retail & CPG	Operations	72
OldSchool	Government & Public Sector	Profitability	84
Pediatric Hearing Aids	Healthcare	Profitability	94
PowerStride Sportswear	Retail & CPG	Growth Strategy	103
Snow Big Deal	Transportation & Logistics	Opportunity Assessment	111
SwitchDeck Motors	Automotive	Market Entry	122
Tuck Air II	Airline	Opportunity Assessment	132





# What Every Aspiring Consultant Needs to Know

## Casing is a skill that takes time and practice to master

Casing Principle #1: Recognize that mastering casing takes time; it's a marathon, not a sprint.

- The case interview is an exercise in structured problem-solving, a skill that is core to the role of a consultant
- Therefore, for most consulting firms, a strong case interview performance is a prerequisite to being considered for an offer
- For nearly all aspiring consultants, building proficient structured problem-solving skills takes time (i.e. months not weeks: its a marathon, not a sprint)

#### In which month did you start your case prep?





## Successful preparation will vary across candidates

Casing Principle #2: Don't get caught up in comparing yourself to others; focus on your own progress.

- Just how long preparation takes, as well as the 'number of cases needed' to succeed,
   will vary widely across candidates
- Each individual working to develop this skill has his or her own set of natural strengths
   (that should be leveraged) and development areas (that should be addressed
   throughout the preparation process)
- Candidates are encouraged to 'run their own race', and avoid comparing themselves based on arbitrary metrics, such as 'number of cases completed'

What is the best advice you received during the recruitment process?

"Keep blinders on! Run your own race and try not to compare yourself to others."



## Ultimately, the best candidates find their own style

#### Casing Principle #3: Find what works best for you

- There are a wide **variety of resources** available to help you with your preparation journey try many of them, focus on those that are the most helpful and best suited to your learning preferences
- Likewise, there are **many ways to case successfully**. Try out different ways to structure, brainstorm, set up your paper (and so on...) until you find an approach that you are comfortable with

Consume the news	Understand casing best practice	Improve through individual drills
<ul> <li>Wall Street Journal</li> <li>The Economist</li> <li>Financial Times</li> <li>Morning Brew</li> <li>The Journal</li> <li>The Best One Yet (TBOY)</li> <li>Plain English</li> <li>Business Casual</li> <li>Firm Thought Leadership</li> </ul>	<ul> <li>CraftingCases: Case Interview         Fundamentals (Free Course)</li> <li>CraftingCases: Mock Case Interview         Examples</li> <li>How to Get a Job in Consulting</li> <li>Case Interviews for Beginners</li> <li>Case in Point</li> <li>Case Interview Secrets</li> <li>Strategy Simplified Podcast</li> <li>The Case Interview Podcast</li> </ul>	Crafting Cases: The Definitive Guide to RocketBlocks     Math Drills     RocketBlocks     Case Coach     Case books



## While there are some great cases in other books...

Industry	Sample Cases	
Airline	Wildcat Wings - Kellogg (2022)	
Entertainment	Board Game Co - Duke (2016)	
Retail	Kellogg Klogs - Kellogg (2022)	
Hotel	Zenith Hotels - Wharton (2009)	
Industrial Goods	Alkaline Ash - Columbia (2017)	
Media	Winter Olympics Bidding - Kellogg (2022)	
Non-Profit	Kellogg in India - Kellogg (2022)	
Private Equity	Fighting Phillies - Wharton (2017)	
Technology / Telecom	Digibooks Inc - Kellogg (2022)	

Topic	Sample Cases	
Profitability	Orrington Office Supplies - Kellogg (2022)	
New product / market entry	Portkey Inc - Kellogg (2022)	
Cost reduction	Money Bank Call Center - Kellogg (2022)	
M&A	<b>Zoo Co</b> - Kellogg (2022)	
Growth Strategy	Defecation Nation - Duke (2015)	
Wildcard	Dinosaur - Sloan (2019)	



### ... As well as some excellent additional resources...

■ In the spirit of **sharing the very best resources** for your preparation, listed below are some outstanding offerings from other case books

Resource	Case Book Recommendation
Case Math and Formulae	Booth; Stern
Case Sequence Recommendations	Kellogg
Casing Best Practice	Booth; Kellogg
Common Mistakes	Booth; Haas
Firm Briefs	Booth; Columbia; Haas
Fit Preparation	Booth; Columbia; Kellogg; Haas
Industry Primers	Booth; Darden; Fuqua; Kellogg; Stern
Interview Day Tips	Booth
Office Guide	Booth
Sample Frameworks	Booth



## ...Here is how you can best use this book to prepare!

Dartmouth is just one of two colleges in the country to own its own ski resort, so it is only appropriate
that we use trail symbols to denote case difficulty levels.



Easy



Intermediate



Difficult



Expert Only

First few cases	Before 2 <sup>nd</sup> Years Leave	Until the end of the year	Early January
<ul> <li>Do your first case with your mentor as soon as you finish the curriculum. Do not delay starting casing.</li> <li>Complete a few easy cases to build familiarity with the flow of a case.</li> <li>Avoid the urge to memorize structures, it won't help you in the long run!</li> </ul>	<ul> <li>Run through intermediate cases with 2<sup>nd</sup> years, building experience across a range of case types. Try your first difficult case.</li> <li>Firms may reach out to case: try not to read into it. These cases are typically not evaluative, just do your best!</li> <li>Start fit prep. The most common mistake is starting fit too late!</li> </ul>	start feeding in expert only pressure cases that test multiple skills and require bespoke structures.	<ul> <li>Focus on reviewing your past cases and building confidence by nailing intermediate cases.</li> <li>Try a sponsored case from a firm you are interviewing with.</li> <li>It is critical that you go into your interviews feeling as rested and relaxed as possible.</li> </ul>





Preparing for Fit Interviews

## Fit is equally as important as casing, yet many candidates delay fit preparation to their detriment

- How much does fit matter to consulting firms?
  - o 50% case interview performance, 50% fit
- Your fit is evaluated throughout the recruiting process:
  - Coffee chats and networking events
  - Cover letters
  - Case interviews (personality, attitude, composure)
  - Behavioral fit interview questions
- It is very important to invest in <u>preparing</u> for and <u>demonstrating</u> fit throughout your recruiting journey

1 September	2 October	3 November	4 December	5 January
<ul> <li>Company research / exploration</li> <li>Narrative prep</li> </ul>	<ul> <li>Networking, coffee chats, company events</li> <li>Case interview prep</li> <li>Fit interview prep</li> </ul>	<ul> <li>Networking, coffee chats, company events, cover letters</li> <li>Case interview prep</li> <li>Fit interview prep</li> </ul>	<ul><li>Case interview prep</li><li>Fit interview prep</li></ul>	• Interviews



## Here are some common fit questions to prepare for



## McKinsey has a different approach to evaluating fit, so your approach should be different too

 During the McKinsey Personal Experience Interview (PEI), you will discuss just one story in detail. The story will relate to one of four behavioural areas.

## **Preparing your PEI**

- Begin with a **Headline** to set the stage: Summarize the problem and impact, asking, "Does that sound like a story you'd like to hear?"
- Describe the **Situation**: Who, What, When, Where, and the stakes involved. Be specific.
- Highlight the **Problem**: Detail the challenge and the consequences of not addressing it.
- Actions Taken: List the key steps you took to resolve the problem, emphasizing universally applicable skills.
- Share the Results: Discuss the outcomes and lasting changes resulting from your actions.
- Conclude with **Takeaways**: Express what you learned and how it applies to your aspirations in consulting.

#### **Best Practice**

- Practice 6 unique stories to allow for depth and breadth across interviews.
- Engage in a discussion, not a monologue. Provide a 4-5 min detailed overview, and the interviewer will guide with smart questions
- Each story should be specific, structured, and showcase self-awareness.
- Demonstrate emotional intelligence: How did others feel? How did you manage reactions? Go into detail.
- The PEI topics may change; confirm with your recruiter which topics to prepare.
- Be ready to pivot: If your headline doesn't fit the prompt, your interviewer will guide you.
- Between interview rounds, stories can be the same, but different stories should be used within each round.





**Casing Concepts** 

## You should be aware of the following business concepts

#### **Financial Health**

- **Break-even Point** Revenue necessary to cover fixed and variable expenses incurred over the course of a specific time period, often the first few months or year of business operation or new product introduction.
- CAGR Compounded Annual Growth Rate year over year growth over a specified period (usually several years). Note that compounded annual growth compounds, so costs growing at a CAGR of 15% for three years are actually growing by 1.15 x 1.15 or ~1.5X!
- Gross Profit [and margin] Revenue minus COGS [divide by revenue for margin]
- Net Income Same as profit: total revenue minus all expenses
- **EBITDA** Earnings before interest, taxes, depreciation + amortization basically the profit before you factor in debt, policy and business-specific context (e.g. age of machinery investments).
- ROI (Return on investment) Revenue generated based on amount of money spent

#### **Cost Management**

- Fixed Costs Costs like facility costs (e.g. factory rent) that don't grow or shrink in lockstep with production
- Variable Costs All costs that vary with production (e.g., labor, raw materials, distribution)
- COGS (Cost of Goods Sold) Cost of material + labor
- SG&A (Selling, General & Administrative Expenses) "Overhead" costs that are not directly associated with product manufacturing. Often great target areas for finding cost savings through "synergies"
- Contribution Revenue after subtracting variable costs



## You should be aware of the following business concepts

#### **Market Dynamics & Growth**

- Market Share Business revenue as a percentage of the total market spend on that type of product or service
- Share of Wallet A company or product's share of customer spend
- GDP (Gross Domestic Product) The value of all products made in a country a measure of the size / growth of a country
- KPI (Key Performance Indicators) The most important metrics for a business
- SME / SMB Small to Medium sized Business or Enterprise
- **Top Line** All revenue from sales
- **Bottom Line** Profit, revenue minus costs

#### **Useful figures**

- **US Population:** ~320M. For estimation, 4M per age.
  - So, if you're estimating the population of people over 65, a good way to do that is 80-65 = 15 years \* 4M people / year = 60M seniors.
  - If you're estimating the driving population, 80-16 = 64 years \* 4M people / year = 256M people old enough to drive \* assumption around percentage of license holders.
- World Population: ~8B (Asia makes up ~4.5B of this, Africa ~1.2B)



## You should also be aware of these key business risks

M&A	Market Entry	Healthcare / R&D	Other
<ul> <li>Culture Shock</li> <li>Key Talent Retention Headline Risk / Layoffs</li> <li>Anti-Trust Legislation</li> <li>Learning Curve (outside of core competency)</li> </ul>	<ul> <li>Competitive Response</li> <li>Changing prices, WTP, elasticity of demand</li> <li>Changing Market Demand &amp; consumer trends</li> <li>CAPEX = Debt, Sunk Costs</li> </ul>	<ul> <li>Legislation / regulation</li> <li>Reverse Engineering</li> <li>Existing IP or Patents</li> <li>Threat of newer/better technology or drugs</li> </ul>	<ul> <li>Data Quality / Assumptions</li> <li>Extra Costs / Time Delays</li> <li>Third-Party Risk</li> <li>Labor Strikes / Unions</li> <li>Economic Downturn</li> <li>Pandemic</li> <li>Political Instability</li> <li>Language Barriers</li> </ul>
<ul> <li>Mitigating Solutions:</li> <li>Target Due Diligence</li> <li>Change Management Strategy &amp; Integration Training</li> </ul>	<ul> <li>Mitigating Solutions:</li> <li>Deep market analysis         <ul> <li>competition due</li> <li>diligence</li> </ul> </li> <li>Find attractive         <ul> <li>financing options:</li> <li>lenders / banks</li> </ul> </li> </ul>	<ul> <li>Mitigating Solutions:</li> <li>Update on R&amp;D progress &amp; implementation timeline</li> <li>Seek Patent &amp; IP Protection</li> <li>Deep market analysis &amp; competition due diligence</li> </ul>	<ul> <li>Mitigating Solutions:</li> <li>Sensitivity Analysis to ensure we can meet results</li> <li>Negotiate with suppliers and distributors</li> <li>Customer Surveys</li> </ul>





Case Library

#### **Aftermarket Auto Parts**



#### **Delivery style**

Interviewee-led

Concepts & Skills Tested	Industry	Case Type
Market share Creativity	Automotive	Growth strategy

#### Fit question

Tell me about a time when you had to quickly learn something new outside of your expertise.

#### **Nugget of wisdom**

Emphasize authenticity in both your fit and case preparation, as it enhances natural delivery and helps interviewers envision working with you.

#### **Aftermarket Auto Parts**



#### Case Prompt

- Our client, KLE Capital, is evaluating the acquisition of company ABC, a leading branded manufacturer of highperformance automotive aftermarket engine air filters, which prevent abrasive particulate matter from entering an
  engine's cylinders. All internal combustion engines require some form of an air filter. ABC's product improves a
  vehicle's performance from baseline and lasts upwards of 5 times longer than standard air filters.
- ABC's primary sales channels include large retail auto parts stores (e.g., AutoZone, Napa, etc.) warehouse/club stores (e.g., Walmart, Costco), auto repair shops, and e-commerce (e.g., Amazon).
- While ABC primarily serves the do-it-yourself (DIY) channel, it also has a small presence in the do-it-for-me (DIFM) channel (where auto repair shops installs the product for the consumer).
- KLE Capital is interested in assessing opportunities to grow ABC post-acquisition.

#### Interviewer guide

- Case structure:
  - o Cold open
  - Q1: Brainstorm
  - o **Q2**
  - o Q3: Recommendation

- Kindly provided by LEK
- Automotive case
- Growth strategy



## **Aftermarket Auto Parts | Case Prompt**

#### Case Prompt

- Our client, KLE Capital, is evaluating the acquisition of company ABC, a leading branded manufacturer of highperformance automotive aftermarket engine air filters, which prevent abrasive particulate matter from entering an
  engine's cylinders. All internal combustion engines require some form of an air filter. ABC's product improves a
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- KLE Capital is interested in assessing opportunities to grow ABC post-acquisition.

#### Clarifying information

#### Geography

90% of ABC's sales are in North America

#### **Business**

 ABC has an excellent reputation for quality, a strong customer following, and a high awareness among performance-minded drivers

 100% of ABC's sales are aftermarket sales (they replace a part that comes installed on a vehicle at the initial vehicle sale)



## Aftermarket Auto Parts | Part 1

#### Brainstorm potential growth avenues

- What growth opportunities could ABC pursue?
- International expansion: the company's sales are concentrated in North America and expanding into other countries may represent an opportunity to increase revenues
- **Product line expansion:** the company's sales are concentrated in one main product. There may be adjacent product lines that the company could enter, leveraging its strong reputation for quality
- Expanding into the DIFM channel: given the company's strong position among DIY'ers, the company could try to enter the DIFM channel
- Expansion into other vehicle types: the company currently focuses on the automotive space. There could be opportunities to expand into other vehicle types (motorcycles, boats, ATVs, etc.)
- **Expanding into OEM sales:** Since 100% of the company's sales are aftermarket sales, they could potentially approach car manufacturers to have ABC parts installed at the factory
- **Price increases:** there may be opportunities to selectively increase the prices of the company's products. This is an acceptable answer, but the candidate would need to give some rationale for selecting this option. For instance, ABC may be pricing its low volume products too low
- Increase marketing I sales spend: this is acceptable but press the candidate to explain where this spend would be directed. For instance, the company is a very strong player (with high awareness) within its core North American air filter segment, so increasing S&M spend may not be effective



## **Aftermarket Auto Parts | Part 2**

#### Calculate potential market share

- Our client is considering increasing ABC's focus on the DIFM channel.
- Currently, ABC sells to 300 auto shops with an average order value (AOV) of \$10,000 per year.
- The DIFM channel was \$500M in 2022 and is expected to grow at 3% p.a. over the next 3 years.
- If ABC enters the space more aggressively, it believes it will be able to reach 5,000 shops in 3 years, but with AOV at \$5,000 per year.
- What share of the market will ABC have in 3 years?

**Market:** 
$$$500M * (1 + 0.03)^3 = ~$550M$$

**ABC Revenues:** 
$$5,000 \ shops * \$5,000 = \$25M$$

**ABC's Market Share:** 
$$\frac{$25}{$550} = ~4.5\%$$



## **Aftermarket Auto Parts | Part 3**

#### Potential team activities

• What activities would you suggest for the team to test whether these represent attractive opportunities?

International expansion	Product line expansion	Expand to DIFM
Things to think about: which countries to pursue, the size of the opportunity in each country, distribution channels, the competitive landscape, consumer interest in a performance air filter offering, other structural factors that may help/hurt expanding into a given country  Next step: Conduct desktop research to narrow the research to a set of manageable countries and understand if performance air filters are sold in the identified countries  Next step: Interview local industry experts to understand topics such as consumer interest in the offering, where air filters are installed, current competitive landscape, etc.  Next step: Conduct a consumer survey in each identified country to understand consumer receptivity to a performance air filter offering	Things to think about: what products would be natural extensions of the company's product lines (from both a manufacturing and consumer permission-space perspective); what products are typically purchased alongside air filters; what products have standard and performance offerings, what is the size of the market of the identified products, where are they sold, what is the competitive landscape     Next step: Conduct desktop research to determine what other products engine air filter competitors also sell     Next step: Interview industry experts to determine the most logical product expansion adjacencies; conduct consumer interviews or a survey to determine what aftermarket parts are most frequently purchased alongside engine air filters as well as consumers' interest in a performance offering for the identified products	Things to think about: what is the market receptivity to a performance product (would auto repair shops be interested in carrying this product, would consumers be interested in purchasing this product)  Next step: Conduct desktop research to determine what types of engine air filters are currently sold by auto repair shops (if performance products already exist out in the market, this would be a positive signal); conduct interviews with executives from the DIFM channel to understand how attractive they would find the ability to sell ABC's parts



#### **Craft Co**



#### **Delivery style**

Interviewee-led

Concepts & Skills Tested	Industry	Case Type
Creativity	Retail & CPG	Growth strategy Profitability

#### Fit question

Tell me about a time where you had to influence or persuade someone.

#### **Nugget of wisdom**

Use mock interviews as learning opportunities, making sure not to repeat the same mistake.

#### **Craft Co**



#### Case Prompt

- Our client, Craft Co., is a subscription service that will send customers kits for adult crafting and DIY projects (e.g., watercolor painting, woodworking)
- Customers pay a monthly fee based on the number of kits they would like; Craft Co. sends them a box with craft supplies
- Craft Co. had grown its customer base rapidly during the COVID-19 pandemic, but has seen a dip in recent quarters as new competitors have entered the field
- Management is looking to assess the business's current performance and identify whether it can grow profitably and regain market share in the next ~3-5 years
- Our client would like our help in answering two questions: (i) how has Craft Co. performed recently? and (ii) what strategies can it implement to grow profitability and increase share?

#### Interviewer guide

- Case structure:
  - Framework
  - Q1 + Exhibit A
  - o Q2 Brainstorm
  - o Q3 + Exhibit A
  - Q4 + Exhibit B
  - Q5 Brainstorm

- Kindly provided by EY-Parthenon
- Retail & CPG case
- Profitability
- Competitive analysis
- Interviewer led



## **Craft Co | Case Prompt**

#### Case Prompt

- Our client, Craft Co., is a subscription service that will send customers kits for adult crafting and DIY projects (e.g., watercolor painting, woodworking)
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- Our client would like our help in answering two questions: (i) how has Craft Co. performed recently? and (ii) what strategies can it implement to grow profitability and increase share?

#### Clarifying information

- Craft Co's products are typically marketed towards young adults ages 18-35
- Craft Co. was seen as the first major player in this market, but new competitors began to enter by the end of 2020
- There is no specific ROI or objective that our client is aiming to achieve related to this analysis, but they are most interested in short-term strategies in the next 1-3 years as opposed to longer-term opportunities
- Craft Co. is currently focused solely on the U.S. market

Allow the candidate to walk you through their framework, noting that we do not have information on product opportunities, guiding them to the profitability exercise



## **Craft Co | Example Structure**

#### **Profitability**

- Revenue
  - Subscription fee
  - Number of subscribers
- Cost
  - Variable costs
    - COGS
  - Fixed costs
    - Marketing

#### Market

- Market size and market share
  - Growth?Trajectory?
- Competitor analysis
- Trends

#### **Products**

- Pipeline?
  - R&D and development
- New lines?
  - o Children's kits?
  - o Cooking kits?

#### Execution

- Increase growth
  - Marketing spend?
- Reduce costs
  - Customer acquisition cost
  - Streamline product components

#### Behind the Framework

#### Must-haves:

- A profitability analysis
- A market analysis

#### Nice-to-haves:

 Product – not a consideration later in the case **Differentiators**: thinking about how to execute any profitability growth plan



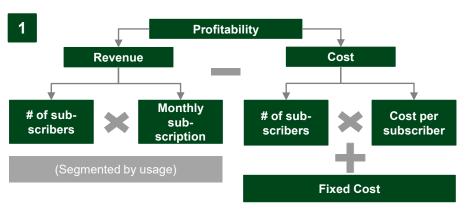
#### Calculate current profitability

Based on Exhibit A, how would you estimate Craft Co.'s monthly profitability in Q4 2020?

#### Provide Exhibit A

2

- Craft Co. is operationally unprofitable, largely driven by marketing costs
- Individuals purchasing 1 kit per month are breaking even and do not need to be calculated to find profit



	1 kit	2 kits	Total	
Revenue				
Customers (k)	45	30	75	
Price	\$50	\$80	n/a	
Months per quarter		3		
Total revenue (\$m)	\$7	\$7	\$14	
Costs				
Variable costs	\$50	\$60	n/a	
Months per quarter		3		
Total variable costs (\$m)	\$7	\$5	\$12	
Total fixed costs (\$m)	\$2 + \$8 = \$10		\$10	
Profit			(\$8)	



### Brainstorm profitability

• How can Craft Co become more profitable?

· Brainstorm ideas should include:

Revenue Growth	Cost Control
<ul> <li>Increase revenue from existing customers (share of wallet)</li> <li>Enter new geographic markets</li> <li>Expand into new channels</li> </ul>	Analyze marketing mix and effectiveness to reduce spending without losing subscribers



#### Return to the Exhibit

• Going back to Exhibit A, how would you describe Craft Co's pattern of subscriber growth?

#### Provide Exhibit A

- Subscriber levels have seen a steady decline in 2020, even though interest in crafts likely increased due to the pandemic
- Earlier growth could be due to strong investment in marketing and lack of initial competitors and/or pandemic-related demand increase across the market



#### Competitor analysis

• Based on Exhibit B, what do you notice about Craft Co.'s performance?

#### Provide Exhibit B

- Craft Co. outperforms competitors on price and quality, but underperforms on delivery and convenience
- Exhibit 2 in context with profitability analysis suggests Craft Co. has likely lost customers to higherpriced competitors positioned as "premium", therefore there may be opportunity to increase price to restore profitability since Craft Co. is perceived as high-quality



#### Stopping the decline

• How might Craft Co stabilize its subscriber decline?

#### Stabilization levers

- Better differentiating its product relative to new entrants
- Loyalty incentives
- · Acquiring one of its competitors



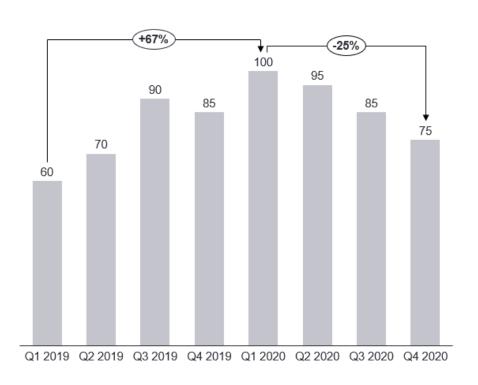
## **Craft Co | Exhibit A**

#### Cost and revenue information for Craft Co.

Revenue for Craft Co. (Q4 2020)			
Price Percentage subscribers			
1 kit per month	\$50	60%	
2 kits per month	\$80	40%	

Costs for Craft Co. (Q4 2020)		
	Cost	Percentage of subscribers
1 kits per month	\$50	60%
2 kits per month \$60		40%
Operating costs per quarter (3 months)		\$2m
Marketing costs per quarter (3 months)		\$8m

## Average number of monthly subscribers, in thousands, 2019-2020



Source: Internal company data



## **Craft Co | Exhibit B**

#### Craft Co. performance against service selection factors

Consumer survey data

Cueft bit calcution fortons		Perception of performance on key factors (1-5, 5 = best)	
Craft kit selection factors   Importance in decision	Craft Co.	Average of all others	
Price		4.3	2.4
Delivery speed		2.5	3.8
Craft kit quality	•	3.7	3.2
Time required for craft		2.3	3.1
Variety of craft types		3.4	3.6
Variety of experience levels required		3.1	3.0

Source: Survey of recent craft kit purchases









## **Hanover Health**

**Authors:** AJ Kumar T'24, Ben Marshall T'24, Megan Woody T'24



### **Delivery style**

Interviewee-led

Concepts & Skills Tested	Industry	Case Type
Market sizing Exhibit interpretation	Healthcare	Mergers & acquisitions Opportunity assessment

## Fit question

How would you approach a situation where you disagreed with a decision that was made?

## **Nugget of wisdom**

Spend more time on fit preparation and practice articulating your stories clearly and concisely.

## **Hanover Health**

**Authors:** AJ Kumar T'24, Ben Marshall T'24, Megan Woody T'24



## Case Prompt

- Your client, a private equity fund, is evaluating the potential acquisition of Hanover Health. HH
  operates a series of urgent care clinics throughout the US and has grown quickly over the past 5
  years.
- Your client has little experience in the industry and needs to quickly evaluate the opportunity. Your client would like to grow EBITDA each year during the investment horizon with minimal capital expenditure.
- How should you evaluate the opportunity? Should the fund invest in HH?
- Note: candidate is being asked for a yes/no answer rather than a valuation of HH

### Interviewer guide

- Case structure:
  - Framework
  - Part 1: Profitability Analysis
    - Exhibit A: Revenue & EBITDA
    - Exhibit B: Costs by Segment
  - Part 2: Market Analysis
    - Exhibit C: Market Size by Segment
    - Exhibit D: Customer Survey

- Recommendation
- Case Type: Healthcare PE Investment
- Skills tested: Profitability, Competitive Analysis
- Interviewee led; Parts 1 and 2 are modular and independent so interviewee can begin with either
- · Bain-style case



## **Hanover Health | Case Prompt**

### Case Prompt

- Your client, a private equity fund, is evaluating the potential acquisition of Hanover Health. HH
  operates a series of urgent care clinics throughout the US and has grown quickly over the past 5
  years.
- Your client has little experience in the industry and needs to quickly evaluate the opportunity. Your client would like to grow EBITDA each year during the investment horizon with minimal capital expenditure.
- How should you evaluate the opportunity? Should the fund invest in HH?
- Note: candidate is being asked for a yes/no answer rather than a valuation of HH

### Clarifying information

- Geography: HH operates throughout the US
- Business: HH clinics only services customers with healthcare (steer away from insurance issues) and offers 3 out-patient procedures: vaccinations, physicals, and x-rays
- **Objective:** EBITDA growth above 10%
- Time: The client is interested in a standard exit in •
   3-5 years
- **PE Client:** no direct healthcare experience but

- operates a nurse-staffing/talent management portfolio company
- Competitive Landscape: There are many players in the very fragmented out-patient urgent care segment in the US (meaning good growth opportunities)
- **Industry:** Primary profit drivers for out-patient urgent care are cost-effectiveness and time efficiency



## **Hanover Health | Example Structure**

### **HH Profitability**

- Revenue
  - # of visits per procedure
  - \$ per procedure
- Cost
  - Variable: Medical staff, single-use equipment
  - Fixed: SG&A, equipment
- Time spent per procedure

# Out-Patient Urgent Care Market

- Size/growth of the market
- Patient needs/preferences
  - o In vs. out-patient
- Competitors
  - o Procedures offered
- Substitutes
  - Hospitals
  - Mobile health clinics

# Strategic Considerations

- Portfolio Synergies
  - Cost decrease (nursestaffing)
- Risks
  - Lack of client healthcare experience

#### Behind the Framework

#### Must-haves:

- Profitability Analysis
  - Revenue (P x Q)
  - Fixed/variable costs
- Market Analysis
  - Size/growth
  - Competitors

#### Nice-to-haves:

- Time spent per procedure
- Market substitutes
- Portfolio synergies

**Differentiators**: Excellent candidates will utilize information

from clarifying questions (e.g. 3 procedures: vaccinations, physicals, and x-rays; # and \$ of procedures, costs of doctor/nurse salaries, PE fund hurdle rate)



## Hanover Health | Part 1: Profitability Analysis—Revenue

Historical revenue and EBITDA figures for HH from 2019 to 2023

#### Provide Exhibit A: Revenue & EBITDA

- Candidate should quickly communicate what they see and note trends among revenue and EBITDA
- Candidates should recognize the client objective is strong EBITDA and should recognize a fall in EBITDA margin in 2023 and should hypothesize what happened
- EBITDA margin falls from 30% to 20% in 2023
- Key Takeaways: Revenue growth is strong (and accelerating) as mentioned in case prompt but falling profit margin in 2023 is concerning and may lead to a "no" recommendation; investigation of costs is needed
- · Differentiators:
  - Strong candidates will take initiative to identify that EBITDA margin falls from historical 30% to 20% in 2023
  - If candidate has seen market data, they are able to calculate/characterize HH market share (.1%) and should remark on opportunity for continued growth over investment horizon



## Hanover Health | Part 1: Profitability Analysis—Costs

### Historical costs by procedure from 2021 to 2023 and breakdown of x-ray costs

Interviewer should ask what the EBITDA margin would be in 2023 without x-ray fixed costs

### Provide Exhibit B: Costs by Procedure

- Additional information: inform candidate that HH began offering x-rays in 2023 and procured equipment/trained staff in 2023.
- Clarifying Information:
  - All costs for HH are displayed
- Candidate should identify left side as costs over time by procedure in the left graph and the pie chart on the right as a breakdown for x-ray costs
- Candidate should categorize x-ray costs as fixed (equipment purchase and one-time training) and variable (nurse salaries)
- **Key Takeaways:** Candidates should recognize that the costs of offering x-rays will be smaller in the future because the fixed costs were absorbed in 2023. Candidate should recognize x-ray variable costs going forward will
- **Differentiators:** Candidates will identify that EBITDA margin will rise in 2024 because x-rays have a lower variable cost per procedure than vaccines (30% of costs) and physicals (70% of costs)



## Hanover Health | Part 2: Market Analysis—Size

### US Healthcare market by segment, 2023

Interviewer should guide candidate towards calculating size of Urgent Care Out-Patient segment

### Provide Exhibit C: Market Size by Segment

- Additional information: When asked, the US healthcare market in 2023 was \$4.75 Trillion
- Clarifying Information: If asked, there are hundreds of players in a very fragmented out-patient urgent care segment in the US
- Candidate should identify that the chart breaks down the healthcare market by 3 channels/2 segments
- Candidate should identify that the relevant segment is Urgent Care Out-Patient
- Candidate should identify they need the overall market size and seek to calculate the Urgent Care
  Out-Patient market size
- **Key Takeaways:** The Urgent Care Out-Patient market is \$190B (4% of \$4.75T). The market is very large and there is no need for HH to expand beyond its core segment during the investment horizon. Candidates should **not** be confused by the segment's small percentage of the overall market
- Differentiators:
  - If candidate has seen revenue data, they are able to calculate/characterize HH market share (.1%) and should remark on opportunity for continued growth over investment horizon
  - An excellent candidate will also quickly calculate size of the urgent care market (\$950B)



## Hanover Health | Part 2: Market Analysis—Competitors

## Customer Survey data comparing HH with Providers A and B

Interviewer should guide candidate towards brainstorming how HH is performing and why

### Provide Exhibit D: Customer Survey

- Clarifying Information: A and B are comparable urgent care clinics only offering out-patient services
- Additional information: HH began offering x-rays in 2023—inform only if beginning with Part 2
- Candidate should identify the chart displays urgent care out-patient preferences across 7 categories, rank-ordered from most important to least important and compares HH with 2 competitors
- HH vs. A: worse in quality, speed and consistency but better in range
- HH vs. B: worse in consistency and range but better in quality and speed
- Note: Further information on A and B services is unavailable

#### Key Takeaways:

- HH's introduction of a new service (x-rays) is affecting performance; HH seems to offer more services than Provider A but less than B, leading to middling performance in quality/speed/range
- Candidate should conclude HH is competitive but there are improvement opportunities

#### Differentiators:

- · Strong candidates will hypothesize HH will improve as they move along the learning curve
- Excellent candidates will conclude, holding all else equal, HH can absorb continuing x-ray training in 2024 (5.7) for total costs of 47.5, achieving a CAGR of 12% and meeting hurdle rate



## **Hanover Health | Recommendation**

### Based on our analysis today, should our client acquire HH?

- Candidate should conclude "yes"
- While HH seems to have a lower EBITDA CAGR than the hurdle rate (6% vs. 10%), this is caused by the fixed costs of beginning to offer x-ray services, which HH should continue to offer because of their higher profit margin versus vaccinations and physicals
- HH is a small but well-growing player in a large, fragmented market segment worth \$190B
- Risks: Expansion of services has led to customer survey issues vs. 2 competitors, which may lead to decreasing revenues/profitability issues
- Mitigation/Next Steps: HH will learn how to better incorporate x-rays into operations with experience/over time, the PE client may be able to source nurses capable of helping HH learn, and HH could offer more training while still meeting hurdle rate requirements; our firm can assist

#### Key Takeaways:

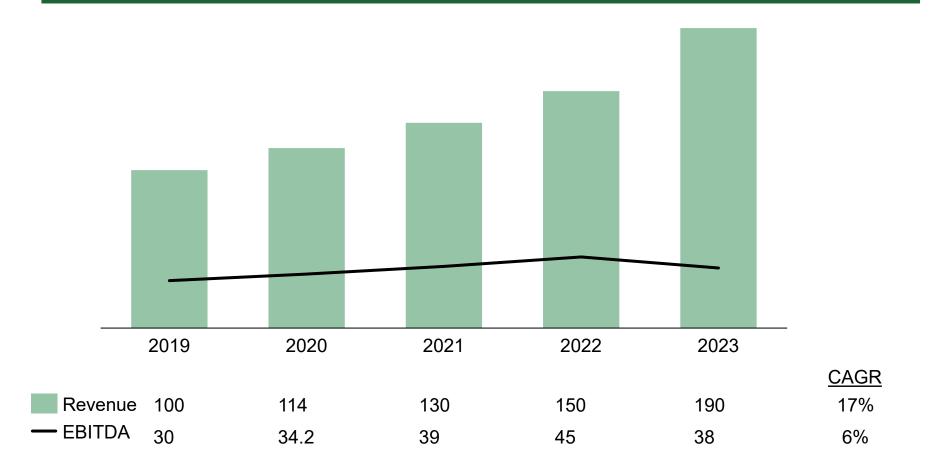
- Candidate provides a clear bottom line up front (yes/no) and provide specific support evidence
- Candidate provides an informed/supported opinion on the second key issue of continuing/discontinuing x-ray operations
- Candidates will briefly discuss a potential risk, mitigation, and next steps

#### Differentiators:

- Strong candidates will annotate notes through case and will need 10 seconds or less to prepare
- Strong candidates will incorporate brainstorming for potential risks and offer appropriate mitigations



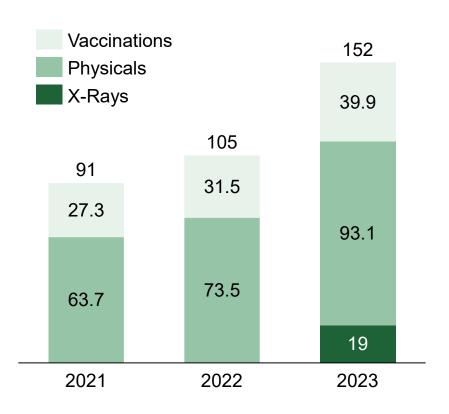
## Hanover Health | Exhibit A: Revenue & EBITDA

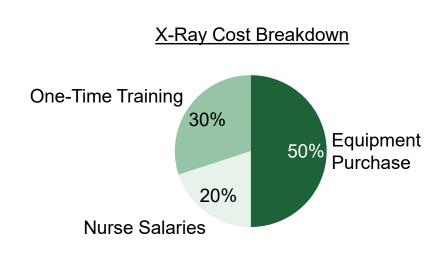


Note: figures are in US\$ millions



## **Hanover Health | Exhibit B: Costs by Procedure**

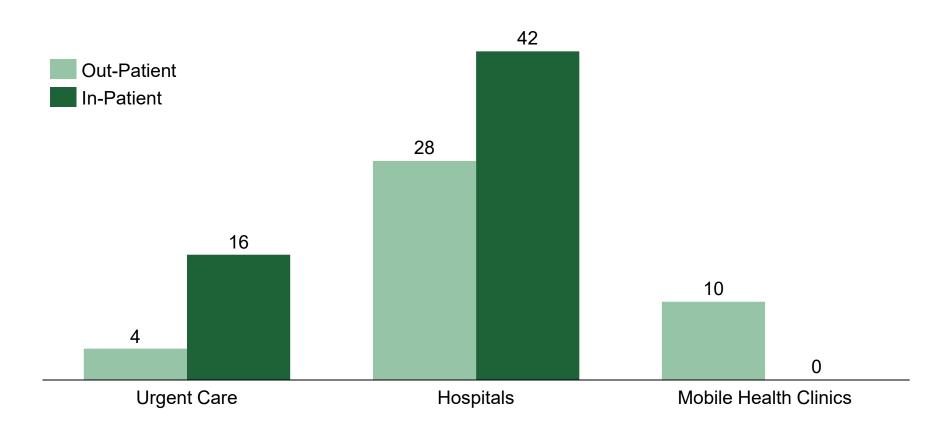




Note: figures are in US\$ millions



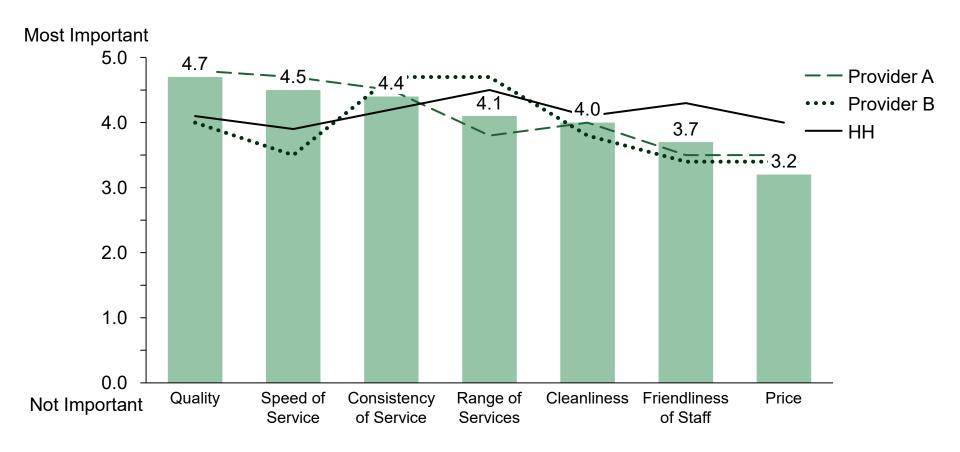
## Hanover Health | Exhibit C: Market Size by Segment



Note: figures are percentages of US healthcare market in 2023



## Hanover Health | Exhibit D: Customer Survey



Note: Survey of urgent care out-patients, end of 2023



## Kitchen Co



## **Delivery style**

#### Interviewee-led

Concepts & Skills Tested	Industry	Case Type
Accounting Trends analysis Creativity	Retail & CPG	Growth strategy Innovation

## Fit question

How do you ensure quality in your work while managing multiple tasks?

## **Nugget of wisdom**

Manage burnout by scheduling breaks and engaging in non-recruiting activities to refresh yourself.

## Kitchen Co



### Case Prompt

- We have started to work with a global consumer product company with a diverse portfolio of well-known brands for use both inside and outside the home. Its US brands are typically #1 or #2 in their categories blenders, toasters, slow cookers, coffee makers, food preservation, irons, fans, clippers and their international business is small but growing quickly. The company has a lean operating and sales structure, and senior executives believe the company has enjoyed considerable growth and profitability for the past decade.
- Our client, the CEO, recognizes that seismic change is occurring in the market and that "business as usual" will not sustain the company for long. However, he is not sure that his leadership team shares his concerns. The CEO, Adam, has hired us to help him get his team on-board to pursuing a new strategy for growth and to help them develop that strategy
- The client is seeking our help to identify and analyze the internal and external forces that could significantly alter the
  direction of the business over the next 10 years, and to recommend how should Kitchen Co prepare for and act given
  these changes

### Interviewer guide

- Case structure:
  - Framework
  - o Q1: Exhibit
  - o Q2: Exhibit
  - Recommendation

- Kindly provided by Innosight
- Growth Strategy
- Case tests whether a candidate can create insights from information while remaining structured.
- Interviewee led



## Kitchen Co | Case Prompt

### Case Prompt

- We have started to work with a global consumer product company with a diverse portfolio of well-known brands for use both inside and outside the home. Its US brands are typically #1 or #2 in their categories – blenders, toasters, slow cookers, coffee makers, food preservation, irons, fans, clippers – and their international business is small but growing quickly. The company has a lean operating and sales structure, and senior executives believe the company has enjoyed considerable growth and profitability for the past decade.
- Our client, the CEO, recognizes that seismic change is occurring in the market and that "business as usual" will not sustain the company for long. However, he is not sure that his leadership team shares his concerns. The CEO, Adam, has hired us to help him get his team on-board to pursuing a new strategy for growth and to help them develop that strategy
- The client is seeking our help to identify and analyze the internal and external forces that could significantly alter the
  direction of the business over the next 10 years, and to recommend how should Kitchen Co prepare for and act given
  these changes

### Clarifying information

#### 10-year Aspirations

- Finances: \$3.5B total revenue and 35% gross margin
- Market position: Global leader in home solutions
- Business Model: Shift to more durable/consumable versus just durable (current)
- Additional information is shared at relevant points in the case



## **Kitchen Co | Example Structure**

Hypothesis: Need to change strategy in order to grow

### **Current Business**

- Financial Results
- US v International
- Current business model

## Market Dynamics

- Trends
- · Consumer behavior
- Competition

## **Future Aspirations**

- Finances
- Market position
- · Business model

#### Behind the Framework

#### Must-haves:

- Current Business
- Market dynamics

#### Nice-to-haves:

Future aspirations

**Differentiators**: candidate must drive the direction of the case, demonstrating comfort with ambiguity and creative thinking



## Kitchen Co | Part 1

## Current Business

• If the candidate asks for information about Kitchen Co's financial performance, share Exhibit A

#### Provide Exhibit A

- Give the candidate some time to study the exhibit and then ask for reactions
- Additional information to be shared at interviewer's discretion:

CVP	Profit Formula	Key Resources / Processes
<ul> <li>Mid-tier electric appliances</li> <li>Trusted brand names you grew up with</li> <li>Sold through mass retailers (Walmart, Target)</li> <li>No marketing beyond packaging and retailer promotions</li> </ul>	<ul> <li>Sell to retailers who then sell to consumers</li> <li>Not able to control price that consumer's pay</li> <li>Relatively low margin compared with premium category brands</li> </ul>	<ul> <li>Small administrative headcount</li> <li>Strong sales support</li> <li>Able to move quickly in response to customer (retailer) requests</li> </ul>



## Kitchen Co | Part 1 continued

#### **Current Business**

#### **Examples of what you should hear**

- Business is growing but not as much as expected given statement about "considerable growth"
- US is driving overall revenue and margin numbers, but revenue is flat and margin growth is slow
- International is small but seems to be the primary driver of both overall revenue and margin growth

#### **Examples of what you should not hear**

- Overall, growth looks good misses that US is flat
- That's interesting, thanks no synthesis
- Revenue in 20XX seems to be [sum of US and international] no synthesis



## Kitchen Co | Part 2

## **Market Dynamics**

• If the candidate asks for information about trends or consumer behavior, ask for a hypothesis and then share exhibit B

#### Provide **Exhibit B**

- Give the candidate some time to study the exhibit and then ask for reactions
- Additional information to be shared at interviewer's discretion:

	Past		Today
•	Market could be broken into three tiers: low-end, mid-tier, and premium	•	Market can be broken down into 4 tiers: low-end, mid-tier, premium mass, and premium luxury
•	Distribution channels for low-end and mid-tier and the same (mass retailers)	•	No changes to competition or business model in low-end or mid-tier
•	Premium brands sold through speciality stores (e.g. Williams Sonoma)	•	Premium mass brands advertise heavily, often using infomercials, and are sold in both mass and specialty
•	Client was questioned and unchallenged in the mid-tier		stores
		•	Premium brands have moved upmarket, becoming "premium luxury," and promise superior functionality and award-winning design (i.e. trophies on the counter)



## Kitchen Co | Part 2 continued

### Market dynamics

#### **Examples of what you should hear**

- Population is aging in developed countries so there may be an opportunity to design simpler, lighter, easier to use products
- Middle class in developing markets is growing so potential opportunity to grow business internationally
- Urbanization means that people will be living in smaller spaces so potential opportunity to design smaller footprint appliances, but also threat that people will use services to access meals
- Online retail is growing wildly but likely to be more mobile users in coming years, potential to increase online and mobile presence/sales
- Technology is progressing rapidly so need to consider how to keep pace do it ourselves or partner
- Definition of a "traditional home" is changing as more women are working outside of the home, men are becoming the "stay at home parent," kitchens are becoming status symbols in developed countries while square footage of homes in developing markets are shrinking due to urbanization



## Kitchen Co | Part 3

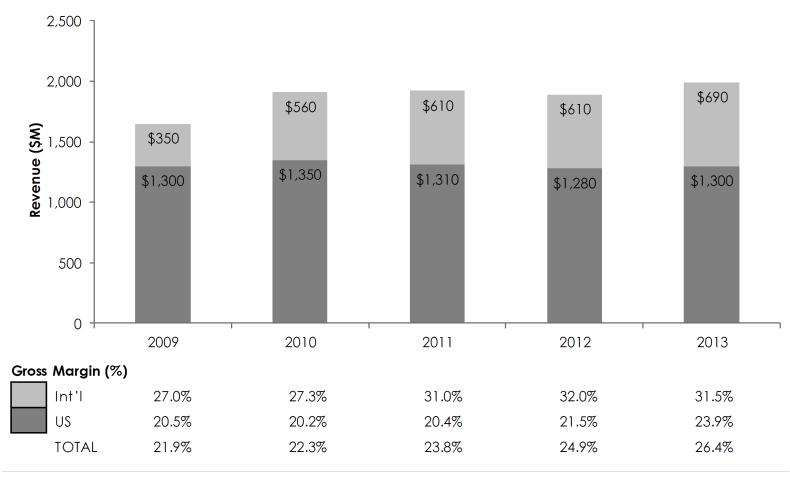
## Recommendations

- Present your recommendations to the client.
- Examples only, candidate does not need to identify any or all of these:

Current business	Market Dynamics	Future Aspirations
Need to invest in both US and international businesses to achieve growth aspirations	US business is getting squeezed by low-end & premium US competitors.	Consider changing business models for existing brands.
	Need to find a way to differentiate, update become relevant	Partner to develop new offerings



## Kitchen Co | Exhibit A



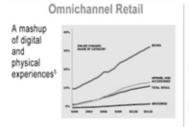
Note: financial data from 2009 to present year, 2013



## Kitchen Co | Exhibit B



#### **2** CHANNEL CHARACTERISTICS ARE CHANGING **USER EXPERIENCE** RETAIL



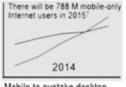
Data Driven Sales<sup>6</sup>

Of all adults are on social media -generating valuable user data

Of retailers have increased customer wallet share by using data to personalize offerings

Of retailers have improved margins and increased comp store sales by leveraging customer intelligence

Digital Lifestyle: Mobile



Mobile to ovetake desktop internet usage

Digital Lifestyle: Social







#### NEW CAPABILITIES ARE NEEDED **SOLUTION DEVELOPMENT**



Technological progress continues to accelerate—with record growth in patent applications signifying an increase in enabling technologies used to develop new solutions. 9

#### **PARTNERSHIPS**

Statistics posted by market leaders in partnerships and open minded innovation.10

product success rate compared to competitors

increased R&D productivity derive more than 35% of their new product ideas from external sources.

35% Or more of all new product ideas derived from external sources.

#### SOURCING



**8.32**%

Average annual increase in Chinese migrant worker's wages from 2004-200911

Chinese Migrant Worker



## **Luxury Landscaping**



### **Delivery style**

Interviewee-led

Concepts & Skills Tested	Industry	Case Type
Market sizing	Engineering & Construction Financial Services	Mergers & Acquisitions Growth strategy

## Fit question

Discuss a time you took the initiative to address an unspoken issue.

## **Nugget of wisdom**

On interview day, demonstrate executive presence by maintaining a professional yet conversational tone and show confidence, even if you make a mistake.

## **Luxury Landscaping**



### Case Prompt

- Our client, a private equity firm, is considering an investment in a luxury residential landscaping company that focuses on large-scale renovation projects for high-value homes (\$2MM+).
- As part of the development of its growth plan following the acquisition, our client wants to study Los Angeles County to evaluate its appeal as a target for geographic expansion.

### Interviewer guide

- Case structure:
  - Framework
  - Q1 Market size + Exhibit A
  - Q2 Brainstorm
  - o Q2 Brainstorm

- Kindly provided by IGS
- Engineering & Construction
- Market entry
- Market sizing and brainstorming
- Strong candidates can differentiate themselves with creative ideas and an ability to make relevant, realistic assumptions
- Interviewer led



## **Luxury Landscaping | Case Prompt**

### Case Prompt

- Our client, a private equity firm, is considering an investment in a luxury residential landscaping company that focuses on large-scale renovation projects for high-value homes (\$2MM+).
- As part of the development of its growth plan following the acquisition, our client wants to study Los Angeles County to evaluate its appeal as a target for geographic expansion.

### Clarifying information

- Additional Service Background: The company does total landscape renovation projects of residential yards (e.g., installing pools, replacing/planting foliage, creating plant beds, building/replacing patios, etc.). Property sales can sometimes be a prompt for undertaking a project, otherwise it is a significant upgrade investment.
- Service Pricing / Frequency: Ask the candidate to explain their intuition about what they think price/frequency might be based on the nature of

- the services. Then, let them know frequency is every ~20 years and the price is typically ~10% of the value of the home.
- **Demographic Data:** Provide the relevant L.A. County data in the exhibit with if requested.
- Competitive Landscape: ~100-200 small players on average undertaking <25 projects per year.</p>



## **Luxury Landscaping | Example Structure**

#### Market

- Market size
  - Number of relevant homes
  - Renovation rate
- Market growth
  - Home builds
  - Population growth and demographics

#### **Potential Share**

- Competitors
  - Number of competitors
  - Competitor focus
- Customer needs
  - Product market fit with target firm offering

#### **Potential Profit**

- Investment
  - Up front cost
  - Financing cost
- Revenue from target
- Running costs

#### Risks

- Housing market
  - House price shock
- · Macro effects
  - Interest rates for financing
  - Recessions

#### Behind the Framework

#### Must-haves:

Market evaluation

#### Nice-to-haves:

- Idea of competitive threat, won't be re-visited in the case
- · Risks involved

**Differentiators**: important to remember that the client is the PE firm, not the target



## **Luxury Landscaping | Part 1**

### Market sizing

- The first priority is to understand the size of the market in annual sales dollars in that geography.
- Ask: What data would be helpful in sizing the market?
- Then, provide exhibit A.

#### Provide Exhibit A

**LA County Population** 

1

Avg. Household Size

X

% of Homes Addressable

=

**Total Addressable Homes** 

#### **Addressable Homes**

~10MM people in L.A. County / average household size of 6 people = ~1.7MM households / homes

**Assumptions**: (accuracy of specific answers is less important than having a thoughtful and logical justification for the assumption):

X the % of homes >\$2MM+ in value: <10%

X the % of homes \$2MM+ that are single family v.

apartment: ~75-80%

(<u>very strong answer</u>) X the % of single-family homes \$2MM+ on a sufficiently large lot to have a yard: ~65-70%

Total Addressable Homes: ~55-60K

Continued on the next page



## Luxury Landscaping | Part 1 continued

### Market sizing

**Total Addressable Homes** 

1

**Frequency of Projects** 

X

% of Projects Outsourced

X

Price of Project

Avg. Home Value

X

10%

=

**Addressable Market** 

#### **Addressable Market**

#### **Projects**

~55-60K addressable homes / 20-year service frequency =  $\sim$ 2,500-3,000 projects

(<u>very strong answer</u>) Assumed % of projects done by third-party providers: 95-100%

 $\sim$ 2,500-3,000 projects x % handled by third parties =  $\sim$ 2,500-3,000 projects

#### **Price**

Assumed avg home value: ~\$2.5-3MM (ask for justification probing on distribution of home values)

Avg home value x 10% estimated project cost: \$250-\$300K

~2,500-3,000 projects x \$250-\$300K

Avg project cost =  $\sim$ \$750MM



## **Luxury Landscaping | Part 2**

## Other aspects of the market to evaluate?

- Beyond the size of the L.A. County market, what other aspects of the market would you want to evaluate to assess its attractiveness for expansion?
- Market growth trends and outlook
- Cyclicality of demand recession exposure, COVID recovery dynamics
- Competitive landscape intensity of competition, fragmentation, strong incumbent players, M&A options
- · Seasonality of demand
- Labor market factors availability of labor, wage trends

We generally are not looking for company-specific considerations in these response. The focus is intended to be market-wide.



## **Luxury Landscaping | Part 3**

### Evaluating market growth?

• What factors are influencing market growth that you would want to look at to develop historical and forecasted growth estimates? How would you expect the market to grow relative to U.S. GDP?

#### **Growth Factors**

- Residential construction & renovation spending
- Population growth
- Single family v. multifamily mix
- Home values
- Frequency of renovation projects
- Financing dynamics



## **Luxury Landscaping | Exhibit A**



### **Case Study**

L.A. County Population:

10MM people

Average Household Size:

~6 people

Median Home Sale Price in L.A. County:

\$850K

Target Population:

Households \$2MM+ in Value

**Project Price:** 

~10% of the Home Value

Project Redo Rate:

~20 Years



## **Nutters of Savile Row**

**Author:** Ravi Darda T'17 & Nancy Yang T'17 – Refreshed in 2024



### **Delivery style**

Interviewee-led

Concepts & Skills Tested	Industry	Case Type
Capacity		Operations

## Fit question

At the end of this process, you get offers from X, Y, and Z firms – how do you think about making that decision?

## **Nugget of wisdom**

In brainstorming sessions during a case, display creativity and structure by categorizing ideas into relevant buckets to stay organized.

## **Nutters of Savile Row**

**Author:** Ravi Darda T'17 & Nancy Yang T'17 – Refreshed in 2024



### Case Prompt

- Our client is Nutters of Savile Row, a legendary tailoring business that opened in 1969. At the height of its fame,
  Nutters dressed Mick Jagger, Twiggy, Elton John, and three of the four Beatles on the Abbey Road cover. Despite the
  departure of the two founders Tommy Nutter and Edward Sexton Nutters continues to have an excellent reputation.
- Nutters offers customers made-to-measure and bespoke suits. The industry defines made-to-measure suits as those cut, usually by machine, from an existing pattern and adjusted according to the customer's measurements. Bespoke suits are fully hand-made and the pattern is cut from scratch.
- Lately, however, Nutters has heard grumblings from customers. Fearing declining customer satisfaction, Alan Lewis, the current owner, has approached you for help. What could be driving declining customer satisfaction at Nutters?

### Interviewer guide

- · Case structure:
  - Framework
  - Q1: Demand Analysis
  - Q2: Process Flow Analysis
  - Q3: Adding Capacity
  - Recommendation

- · Operations case
- Operations expertise is not necessary (though certainly helpful). Depending on candidate's exposure to operations, interviewer may choose to give more guidance. It is not important that candidates use operations-specific language, rather, this case is meant to test candidate's business sense and intuition when responding to a new situation.
- Interviewee-led



## **Nutters of Savile Row | Case Prompt**

### Case Prompt

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- Lately, however, Nutters has heard grumblings from customers. Fearing declining customer satisfaction, Alan Lewis, the current owner, has approached you for help. What could be driving declining customer satisfaction at Nutters?

## Clarifying information

- Nutters operates out of a main store location on
   Process capacity information will be provided Savile Row and has an artisan workshop on Beak later in the case Street, a few streets down.
- Customer dissatisfaction has picked up in the past two months
- Nutters has made no recent changes to their regular manufacturing processes



## **Nutters of Savile Row | Example Structure**

## Quality

- Reputation
  - o Brand
  - Exclusivity
- Expertise
- Fit & attention to detail
- Feel
  - Space
  - Service

## Cost

- Price compared to expectations
  - o "Value"
- Price compared to competitors
  - o "Deal"

## Speed

- · Wait time at intake
  - Arrival frequency
  - Throughput rate
- Delivery time
  - o Process time
  - Waiting time
  - WIP items

## Flexibility

- Accessibility
  - o Hours
  - Location
- Selection
  - o Leaf 1

### Behind the Framework

Must-haves: candidates should identity drivers of customer satisfaction. Options include structuring by customer experience objectives, or by phases of customer engagement

talking about a high-end tailor, reputation and exclusivity (i.e. perceived quality) matters

**Nice-to-haves**: Given that we are **Differentiators**: An excellent response will also address how customer expectations – based on past experience, the shop's reputation, or competitors' offering inform satisfaction



# **Nutters of Savile Row | Part 1**

### **Demand Analysis**

- Let this part be conversational: the goal here is to gauge how well the candidate are able to ask questions to get relevant data. If the candidate mentions demand, proceed with Part 1. If the candidate mentions Nutters capacity or production process, skip to Part 2 and return to Part 1 after.
- As it turns out, customers are unhappy with delivery time. Nutters has been experiencing increasing delays such that the percent of orders delivered on time has gone down. What might be causing the delay? What data would you want to answer this question?

#### Provide Exhibit A

- Once the candidate has cleared the exhibit, guide them towards Exhibit B
- From Exhibit A, candidate should observe that delay is increasing even as the total number of orders accepted is declining. Therefore, the mix of made-to-measure and bespoke suits is the problem.



## **Nutters of Savile Row | Part 2**

## **Process Flow Analysis**

### Provide Exhibit B

- Guide candidate to Part 1 if incomplete or push the candidate to synthesize both exhibits
- From Exhibit B, the candidate should calculate the capacity at each step

#### **Made-to-Measure Orders**

	Measuring	Sewing	Finishing
Capacity	(160 hr * 1 FTE) / 1 hr = <b>160 orders</b>	(160 hr * 5 FTE) / 16 hr = <b>50 orders</b>	(160 hr * 1 FTE) / 4 hr = <b>40 orders</b>

Nutters can complete, at most, 40 made-to-measure orders a month.

#### **Bespoke Orders**

Candidate should realize from the footnote that steps 2 and 3 can be treated as one step.

	Measuring	Patterning and Sewing	Finishing
Capacity	(160 hr * 1 FTE) / 4 hr = <b>40 orders</b>	(160 hr * 5 FTE) / 32 hr = <b>25 orders</b>	(160 hr * 2 FTE) / 8 hr = <b>40 orders</b>

Nutters can complete, at most, 25 bespoke orders a month.



## **Nutters of Savile Row | Part 2 continued**

### **Process Flow Analysis**

#### Synthesis of both exhibits

- Looking back at Exhibit A, candidate should realize that delay is caused by made-to-measure orders
  exceeding the maximum in April and May.
- Further, an excellent candidate should identify spare capacity in the system: because steps are separated sequentially, there is spare capacity in some steps (i.e. measuring), and because made-to-measure and bespoke suits are separated by location, there is also spare capacity in the bespoke line.



# **Nutters of Savile Row | Part 3**

## **Adding Capacity**

- Nutters is considering hiring additional tailors. Anson is an experienced tailor who can do any of the steps involved in either the made-to-measure or bespoke process. How much would you be willing to offer Anson and which step would you assign him to?
- The candidate should recognize that compensation depends on the incremental profit generated by Anson, which depends on which step and line he's assigned to. If asked, tell the candidate that made-to-measure suits generate profit of \$350 per suit; bespoke suits generate profit of \$900 per suit.
- Candidate should assume that demand is not a constraint: if hiring Anson will produce 7 more bespoke suits, there will be buyers for those 7 suits.
- Since the maximum number of suits Nutters can complete per month is determined by the step with the lowest capacity (the bottleneck), candidates should realize that Anson needs to be assigned to either the "finishing" step for made-to-measure suits or "patterning and sewing" steps for bespoke suits.
- Calculations on the next slide



# **Nutters of Savile Row | Part 3 continued**

## **Adding Capacity**

## **Updated Capacities**

	Made-to-measure orders: Finishing	Bespoke orders: Patterning and Sewing
Updated capacity	(160 hr * 2 FTE) / 4 hr = <b>80 orders</b> (Note: Sewing becomes the new bottleneck at 50 orders, so Anson adds 10 orders to capacity)	(160 hr * 6 FTE) / 32 hr = <b>30 orders</b> (increase of 5 orders)
Profit (pay Anson up to)	10 orders * \$350 = <b>\$3,500</b>	5 orders * \$900 = <b>\$4,500</b>

 Remember that delay is caused by the number of made-to-measure orders, so an excellent response will weigh the tradeoff between profit and customer satisfaction of assigning Anson to the bespoke versus the made-to-measure line.



# **Nutters of Savile Row | Part 3**

### Recommendation

- Summarize your recommendation for the client.
- **Recommendation:** Candidate can recommend assigning Anson to either made-to-measure or bespoke line depending on rationale and provide a salary cap of either \$3,500 or \$4,500.
- **Reason:** Delay was caused by made-to-measure orders exceeding the shop's capacity; hiring Anson will increase the capacity at bottleneck processes (finishing and patterning & sewing, respectively)
- **Risks:** There is a tradeoff between profit and customer satisfaction involved in assigning Anson to either made-to-measure or bespoke line. Given Nutters' brand equity, a longer delay in the form of a waitlist may actually increase the brand's exclusivity; on the other hand, the client's original concern was customer satisfaction, and an additional revenue of \$1,000 per month (\$4,500 \$3,500) is likely insignificant for Nutters.
- **Next Steps:** A strong candidate should suggest other ways for Nutters to alleviate the delay problem. For instance, if FTEs can be moved between steps, and assuming FTEs are not limited by skill, then spare capacity at the "measuring" step can be used to increase capacity elsewhere. Additionally, if resource can be pooled between the made-to-order and bespoke lines, then Nutters can avoid having spare capacity in the bespoke line while the made- to-measure line struggles to fulfill demand.



# **Nutters of Savile Row | Exhibit A**

## **Nutters Orders Accepted (Last Four Months)**

	February	March	April	May
Made-to-measure	37	39	42	44
Bespoke	25	23	19	15
Total	62	62	61	59

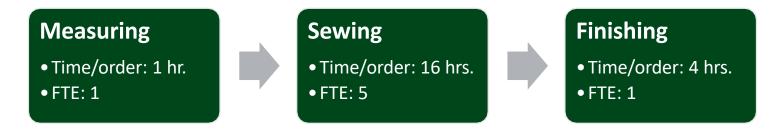
Source: Internal Company Data



## **Nutters of Savile Row | Exhibit B**

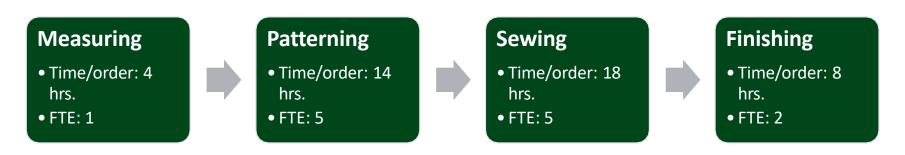
#### **Process for Made-to-Measure Orders**

Made-to-measure orders are taken and completed in a separate workshop on Beak Street:



### **Process for Bespoke Orders**

Bespoke orders are taken and completed in Nutters' main Savile Row location:



Note: For bespoke orders, the same 5 master tailors pattern (step 2) and sew the suit (step 3). One full-time-employee (FTE) works 160 hours per month.



## **OldSchool**

**Author:** Akash Pattanayak T'25, Anam Aziz Sethi T'25



### **Delivery style**

Interviewer-led

Concepts & Skills Tested	Industry	Case Type
Creativity Net Present Value Exhibit interpretation	Government & Public Sector	Profitability GenAl

## Fit question

Tell me about a time when you had to think creatively about a solution to a problem.

## **Nugget of wisdom**

Remember to stay hydrated and look after your general well-being to maintain peak performance during interviews.

## **OldSchool**

**Author:** Akash Pattanayak T'25, Anam Aziz Sethi T'25



## Case Prompt

- OldSchool is a high school that was founded in 1947 in Delhi, India.
- It was considered one of the most prestigious schools in the city for many years, known for its
  emphasis on teacher quality and discipline. Today, it is one of the oldest schools in India: it is
  committed to upholding traditions but has been relatively slow to modernize.
- Over time, OldSchool has experienced a decline in profitability and growing competition from newer schools in Delhi.
- The Principal has heard a lot about the transformative potential of Generative AI (GenAI) in education. She is considering whether it makes sense to invest in GenAI. Based on initial research, the Principal has determined that adopting GenAI will require a significant upfront investment.
- Should she move ahead with the investment?

### Interviewer guide

- Case Structure:
  - Surprise Brainstorm
  - Framework
  - Q1. Chart Analysis
  - o Q2. Calculation
  - o Q3. Calculation
  - Recommendation

- McKinsey (interviewer led)
- This case tests a candidate's ability to recognize that this is not just a profitability case, but an investment decision case
- This case appears quant-heavy and requires a candidate to determine which calculations are necessary



## OldSchool | Case Prompt

## Case Prompt

- OldSchool is a high school that was founded in 1947 in Delhi, India.
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- Should she move ahead with the investment?

## Clarifying Information

- The Principal has identified that the upfront investment will amount to \$200,000.
- Any changes will impact the profitability of the current year (assume we are at the start of the year).
- The school has a current enrollment of 600 students per year
- If the candidate asks about how GenAl will be used in the school or in what capacity, have them do a surprise brainstorm before the framework to identify the different ways GenAl can be used to improve profitability in a high school (both cost and revenue perspectives can be considered).



# OldSchool | Optional

## **Surprise Brainstorm**

• If the candidate asks about how GenAl will be used in the school or in what capacity, have them do a surprise brainstorm before the framework to identify the different ways GenAl can be used to improve profitability in a high school.

Revenue	Cost
<ul> <li>Personalized Learning/Adaptive Curriculum:         <ul> <li>Increase enrollment by advertising a cutting-edge personalized learning experience powered by GenAl, which could justify a tuition increase due to the enhanced value proposition.</li> </ul> </li> <li>Virtual Tutoring and 24/7 Accessibility:         <ul> <li>Offer additional paid services such as round-the-clock GenAl tutoring, helping students with homework and exam preparation outside of school hours.</li> </ul> </li> <li>Up-to-Date Curriculum and Better Job Placement:         <ul> <li>Develop and sell an advanced GenAl-enabled curriculum to other schools or educational</li> </ul> </li> </ul>	<ul> <li>Automated Administration:         <ul> <li>Implement GenAl for administrative tasks such as grading, attendance, and scheduling, reducing the need for administrative staff and the associated expenses.</li> </ul> </li> <li>Resource Optimization:         <ul> <li>Use GenAl to optimize resource allocation, potentially allowing for larger class sizes with the same number of teachers or reducing the number of needed substitute teachers through predictive analytics.</li> </ul> </li> <li>Virtual/Remote Learning:         <ul> <li>Expand remote learning options to reduce the need for</li> </ul> </li> </ul>
institutions, capitalizing on OldSchool's prestigious reputation.	physical space and related costs, such as maintenance, utilities, and infrastructure.



## **OldSchool | Example Structure**

#### Revenue

- Increase price (tuition)
  - Up-to-Date Curriculum
  - Better Job Placement
  - Reputation Prestige
- Increase Quantity
  - Personalized Learning/Adaptive Curriculum
  - More Capacity (Admin, HR)
  - Virtual Tutoring
  - o 24/7 Accessibility

### Cost

- Reduce Fixed Cost
  - Automated Admin
  - Resource
     Optimization (fewer teachers)
- Reduce Variable Costs
  - Spread over a larger student body
  - Virtual/Remote
     Learning (less need for physical space)
  - Digital Learning Materials

### Investment

- NPV Calculation
  - Can calculate NPV given Free Cash Flows, Discount Rate, and Growth Rate if in perpetuity
- Industry Multiples
  - Can use comparative analysis and industry multiples

#### Risks

- Risks
  - Need for Training of Staff and Employees
  - Need for Constant Updates to be Relevant
  - Implementation Strategy
  - Resistance from Teachers/Staff
  - Al Hallucinations
  - Privacy Concerns

#### Behind the Framework

#### Must-haves:

- Revenue
- Cost
- Investment

#### Nice-to-haves:

- Risks
- Other Considerations

**Differentiators**: A candidate who can communicate an equation(s) and speak about how the revenue, cost, and investment buckets will align to impact the final recommendation



## OldSchool | Part 1

### Profitability – Revenue Increase

- The introduction of GenAl is likely to build a significant buzz in the school market in India and will boost both the enrolment and margin at OldSchool. The Principal's office have made the following initial projections:
- Margin is currently \$80 per student per year and will increase by 2.5% through fee increases.
- Enrolment is currently 600 students and will increase by 16.67%.
- Calculate the increase in annual profit.
- Candidate should react that these projections particularly enrollment seem high, and there are likely other factors that may constrain Old School's growth.
- Annual profit before GenAl = \$80 x 600 = \$48,000
- New margin = (1+ 2.5%) x \$80 = \$82 per student (recognize that 2.5% = 1/40)
- New enrollment = (1+ 16.67%) x 600 = 700 students (recognize that 16.67% = 1/6)
- Annual profit after GenAl = 82 x 700 = \$57,400
- Increase in profit =  $57,400 48,000 = $9,400 (\sim 20\% increase)$



## OldSchool | Part 2

### Profitability – Cost Savings

• There are multiple GenAl tools to increase in cost savings once the basic training and infrastructure is completed through the upfront investment.

#### Provide Exhibit A

- Which initiative should the client select? (Note that OldSchool only has the resources to adopt one Al
  tool/application, and the up-front cost for each is \$200,000, driven by front-end development cost)
- The interviewee should realize that simply eyeballing the visual is not enough and that they will need
  to do a quick calculation: (Cost Saving x # Students) Subscription Cost

Al Tool	Subscription Price Per Year (\$)	Cost Saving Per Student Per Year (\$)	# of students (in 100s)	Total Cost Saving Per Year (\$)	Net Saving Per Year (\$)
Research & Editing Tool	1,000	100	100	10,000	9,000
Personalized Learning Tool	2,000	30	500	15,000	13,000
Administrative Assistant	3,000	50	300	15,000	12,000
Career Development Tool	4,000	80	100	8,000	4,000
Virtual Tutor	5,000	20	500	10,000	5,000



## OldSchool | Part 3

### **Investment Decision Calculation**

- Assume that the improvements to revenue and costs will exists in perpetuity.
- Does it make financial sense to make the investment?
- · Candidate should undertake an NPV calculation using the perpetuity formula
- Should the candidate ask, provide the discount rate (10%). There is no growth rate.
- The interviewee should realize that adding the profit and the cost saving will reflect the incremental increase in earnings per year
- Earnings improvement = \$13,000 + \$9,400 = \$22,400
- NPV = \$22,400 / 10% = \$224,000
- We know that the upfront investment is \$200,000 and so the project is NPV > 0. OldSchool should make the investment



## OldSchool | Recommendation

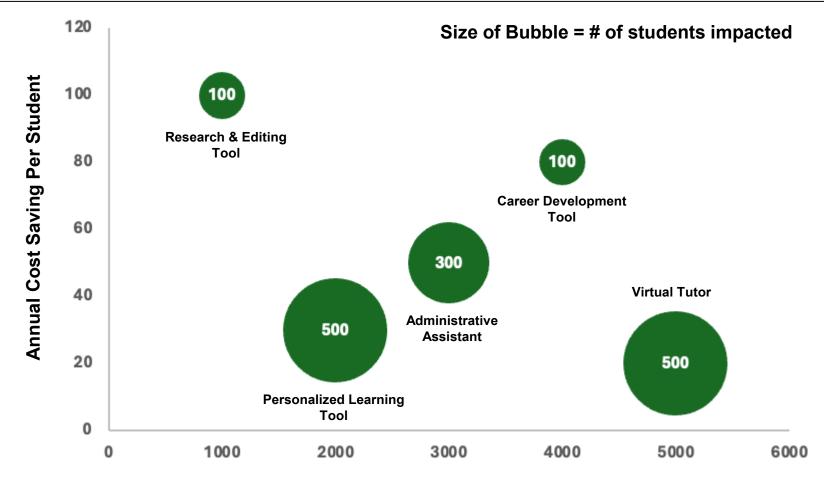
### Recommendation

- Ask the candidate to provide a recommendation
- Recommendation: OldSchool should invest in a GenAl Personalized Learning Tool
- Reason: The investment will improve profitability, increasing revenues by \$9,400 and decreasing costs by \$13,000. The NPV of the incremental earnings is \$224K, which is greater than the initial investment of \$200K.
- Risks:
  - Relies on projections which may or may not turn out to be accurate
  - There might be resistance or bottlenecks from teachers, especially if there is a strong teacher's union
  - Gen Al has many risks such as hallucinations and privacy concerns that can create issues
- Next steps:
  - Bring on an expert consultant with experience in the safe deployment of GenAl in educational settings.
  - Pilot each intervention before deploying at scale.



# OldSchool | Exhibit A

### Cost and Impact Analysis, Generative AI (GenAI) Opportunities





**Total Annual Subscription Cost** 

# **Pediatric Hearing Aids**

Author: Rohan Gupta, professional case

prep coach; LinkedIn

### **Delivery style**

#### Interviewee-led

Concepts & Skills Tested	Industry	Case Type
Market sizing	Healthcare Technology	Profitability

## Fit question

What do you think will be the challenges transitioning from your previous career into consulting?

## **Nugget of wisdom**

Know that building rapport and being relaxed can be just as crucial as acing the case itself; it's about the connection you make with the interviewer.

# **Pediatric Hearing Aids**

Author: Rohan Gupta, professional case

prep coach; LinkedIn



## Case Prompt

• Our client, a developer of medical-grade hearing aids, is exploring the feasibility of launching a new line of hearing aids designed specifically for children. They want to understand if aiming for a target profit of \$4M per year is achievable.

## Interviewer guide

- Case structure:
  - Framework
  - Q1: Exhibit + Calculation
  - Q2: Calculation
  - o Q3: Brainstorm
  - Recommendation

- Kindly provided by Rohan Gupta
- Profitability; Healthcare
- Suitable for a first-ever case, a simple profitability exercise.
- Interviewee led



# **Pediatric Hearing Aids | Case Prompt**

### Case Prompt

 Our client, a developer of medical-grade hearing aids, is exploring the feasibility of launching a new line of hearing aids designed specifically for children. They want to understand if aiming for a target profit of \$4M per year is achievable.

### Clarifying information

- The client handles the entire manufacturing process inhouse
- Pediatric hearing aids are specialized devices designed to accommodate the hearing loss needs of children
- Typically, a child might need to use a hearing aid continuously until they reach adulthood, potentially requiring size adjustments or upgrades every few years
- The client has developed three products targeting

different age groups

The current market is fairly fragmented, with no single company holding more than a 15% share



# **Pediatric Hearing Aids | Example Structure**

### Market

Profitability

- Customers
  - o Parents
  - Insurance
  - o Children
- Competition
  - Number of firms
- Alternatives
  - Necessity of product
  - o Other models

- Revenue
  - o # units sold
  - o Price
- Cost
  - o # units sold
  - Cost per unit
  - o R&D spend?

#### Behind the Framework

#### Must-haves:

Profitability assessment

#### Nice-to-haves:

Consideration of the market

**Differentiators**: going beyond the template and adding details relevant to the specific product



# **Pediatric Hearing Aids | Part 1**

## Market size

• Estimate the size of the market for pediatric hearing aids, in terms of number of children.

### Provide Exhibit A

• US Population heuristic: ~4M per age (320M / 80 yr life expectancy)

Age	Population	Prevalence	Market
0-5 years	4M x 6 = 24M	1%	240K
6-11 years	4M x 6 = 24M	1.5%	360K
12-17 years	4M x 6 = 24M	2%	480K

• Total market = 1.08M children



# **Pediatric Hearing Aids | Part 2**

### Market size

- Our client's initial projections indicate a conservative expected penetration of 10% in each segment. Is a target annual profit of \$4M realistic?
- Key is to recognize that hearing aids are not replaced each year. Candidate can assume that the aids are replaced when children age up into the next segment.

Product	Gross margin	Penetration	Replacement	Profit
Infant	(\$300 - \$100) = \$200	240K x 10% = 24K	1/6 x 24K = 4K	\$200 x 4K = \$800K
Behind-the-ear	(\$500 - \$200) = \$300	360K x 10% = 36K	1/6 x 36K = 6K	\$300 x \$6K = \$1.8M
In-the-ear	(\$700 - \$250) = \$450	480K x 10% = 48K	1/6 x 48K = 8K	\$450 x 8K = \$3.6M

• Total profit = \$6.2M



# **Pediatric Hearing Aids | Part 3**

### Risks

- What risks are associated with your proposed strategy?
- Entering a fragmented market means facing many competitors, which could require significant marketing and sales efforts to achieve noticeable market share
- Dependence on continual technological advancements to stay ahead of competitors could increase R&D expenses



# Pediatric Hearing Aids | Recommendation

### Recommendation

Provide a recommendation to the client.

#### Illustrative example:

- **Recommendation:** it is clear that achieving a \$4M target profit in the first year is not only realistic but likely to be a conservative estimate.
- Reason: even at a conservative 10% penetration rate, the expected annual profit is \$6.2M.
- Risks: technology in this space moves quickly, and so the client should be prepared for significant R&D spend to stay abreast of the competition
- Next steps: work with the client to define a go-to-market strategy and long-term R&D plan



# **Pediatric Hearing Aids | Exhibit A**

## Market research and product offerings

Age group	% prevalence	Type of Aid	Average price (\$/unit)	Average cost (\$/unit)
0-5 years	1%	Infant	300	100
6-11 years	1.5%	Behind-the-ear	500	200
12-17 years	2%	In-the-ear	700	250



## **PowerStride Sportswear**

**Author:** Peter K, professional case prep coach; www.Peter-K.org



### **Delivery style**

Interviewer-led

Concepts & Skills Tested	Industry	Case Type
Creativity Exhibit interpretation	Retail & CPG	Growth strategy GenAl

## Fit question

Discuss a moment where you had to make a difficult ethical decision.

## **Nugget of wisdom**

In the McKinsey Personal Experience Interview (PEI), detail is your friend. Describe the characters in the story and lay out the context. How did they react? How could you tell?

## **PowerStride Sportswear**

**Author:** Peter K, professional case prep coach; www.Peter-K.org



### Case Prompt

- PowerStride Sportswear, a major U.S. sport shoe manufacturer, releases over 100 new shoe models annually. Stronger trends towards sustainability and personalization (e.g. the surge in limited editions and fashion-forward designs), as well as a generational shift in demand, requires a new level of creativity in sport shoe design.
- After the ChatGPT's launch in late 2022, the use of GenAl tools has skyrocketed. In 2023, Adidas
  integrated a GenAl tool (Al Archive) into their design process, while Nike introduced their first Aldesigned shoes (ISPA Universal Shoe). Recognizing the potential of GenAl to enhance creativity in
  research and development (R&D), the CEO of PowerStride has hired your team to suggest how
  GenAl can boost the company's innovation in sport shoe design.

### Interviewer guide

- Case structure:
  - Framework
  - Q1 Boosting creativity with AI
  - Q2 Limitations of GenAl
  - Q3 Quantitative Analysis

- Kindly provided by Peter K
- · Type: Wild Card
- The case is testing the ability of a candidate to break-down unconventional business problems and show some basic understanding of GenAl
- Interviewer led
- McKinsey-style case



# PowerStride Sportswear | Case Prompt

### Case Prompt

- PowerStride Sportswear, a major U.S. sport shoe manufacturer, releases over 100 new shoe models annually. Stronger trends towards sustainability and personalization (e.g. the surge in limited editions and fashion-forward designs), as well as a generational shift in demand, requires a new level of creativity in sport shoe design.
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  integrated a GenAl tool (Al Archive) into their design process, while Nike introduced their first Aldesigned shoes (ISPA Universal Shoe). Recognizing the potential of GenAl to enhance creativity in
  research and development (R&D), the CEO of PowerStride has hired your team to suggest how
  GenAl can boost the company's innovation in sport shoe design.

### Clarifying information

- PowerStride's revenue reached \$3B in 2023
- PowerStride spends ~\$20M on R&D per year
- PowerStride's product design life cycle goes through phases of market research, concept development, concept refinement, and testing
- PowerStride has a developed R&D team with top-notch footwear designers, materials engineers, biomechanics experts, research scientists, etc.

- PowerStride has experience in using GenAl tools for marketing (e.g. personalized email offers)
- GenAl tools can analyze vast amounts of data, e.g. market trends, internal shoe design libraries
- GenAl tools can generate images and videos based on text descriptions
- GenAl tools currently can't assess manufacturing feasibility, aesthetics, or usability of shoe designs



## PowerStride Sportswear | Example Structure

### PS's R&D

- KPIs: now and historical (e.g. # new models, their variety, innovation speed)
- Awards and other industry recognition for shoe design
- Benchmarking against adidas, Nike, etc.

## PS's Design Cycle

- Market research (e.g. process, people)
- Concept development (e.g. steps, stakeholders)
- Concept refinement (e.g. iterations, decision-makers)
- Current IT systems (e.g. Al capabilities, relevant software systems)

### GenAl for R&D

- Available GenAl tools
- Key capabilities and features
- Economics/pricing
- Major technical requirements for integration

#### Behind the Framework

#### Must-haves:

- · Assessment of GenAl tools
- Evaluation of product design process
- Quantitative and qualitative metrics of innovation

#### Nice-to-haves:

- Financial analysis of GenAl
- Risk assessment of GenAl
- Benchmarking against other players for cases of GenAl in R&D

#### Differentiators:

- Case-specific analyses at the appropriate depth (not too high-level, not too tactical)
- Insightful colors and stories during framework presentation



# **PowerStride Sportswear | Part 1**

## Creativity boosters

How could PowerStride leverage GenAl to enhance their shoe design creativity?

Market research	Concept development	Concept refinement
<ul> <li>GenAl can do research on fashion and industry trends</li> <li>GenAl can benchmark designs against competition</li> <li>GenAl can distill sales data and customer surveys to identify new needs</li> </ul>	<ul> <li>GenAl can leverage shoe design libraries to ideate new models</li> <li>Designers can visualize new concepts via GenAl text-to-image feature</li> <li>GenAl can suggest shoe materials given limitations (e.g. costs, durability)</li> <li>GenAl can provide immediate cost-benefit analysis of new concepts</li> </ul>	<ul> <li>GenAl can conduct virtual simulations</li> <li>GenAl can create concept descriptions to inform future product roadmaps</li> <li>GenAl can update design concepts via analysis of shoe performance test data</li> <li>GenAl can enable the quick iteration of concepts with key stakeholders and customer focus groups</li> </ul>



# **PowerStride Sportswear | Part 2**

## **GenAl limitations**

• What limitations of GenAl should our client consider in enhancing design creativity?

Questionable quality of output	Lack of capabilities	Impairment to creativity
GenAl is known for "hallucinations"	<ul> <li>GenAl can't assess manufacturing feasibility or aesthetic appeal of shoe designs</li> <li>GenAl can't create truly innovative/groundbreaking concepts as it relies on the past data only</li> </ul>	GenAl might generate too many options of shoe models, causing choice paralysis
The quality of GenAl output is highly dependent on the		
quality of prompts		Depending too heavily on GenAl could stifle the creative potential of designers and limit the diversity of ideas
<ul> <li>GenAl relies on old data, which may result in outdated insights</li> </ul>		
GenAl might have biases in the training data		
Al-designed shoes may risk violating copyrights held by other companies		



## **PowerStride Sportswear | Part 3**

### Quantitative Analysis

• By how much will GenAl be able to accelerate the shoe design cycle for PowerStride?

#### Provide Exhibit A

#### Provide this additional information only upon request:

- GenAl tools will enable R&D teams to gather and synthesize market and consumer data faster which will save half of the time to do market research
- GenAl tools are expected to save 70% of time for concept development as they will free designers of time-consuming tasks to visualize new shoe models and create storyboards for brainstorming
- GenAl tools will accelerate iterations and visualize refinements on-the-spot for more meaningful discussions with business stakeholders which should shorten the refinement stage by 30%

	Current time	Saved time	New time
Market Research	2 months	- 50%	1 month
Concept Development	4 months	- 70%	1.2 months
Concept Refinement	4 months	- 30%	2.8 months
Total	10 months		5 months



## PowerStride Sportswear | Exhibit A



Share of concepts graduated to the next stage of the cycle

#### **Market Research**

### **Concept Development**

### **Concept Refinement**

2 months

4 months

4 months -

- Market trend assessment
- · Competitive benchmarking
- Customer data analysis (e.g. sales, surveys, reviews)
- Evaluation of technology advancements (e.g. new materials, new properties)

- Creation of rough sketches and concept drafts
- Experimentation of different styles, materials, and features
- Brainstorming (incl. mood boards, prototyping)
- Collaboration with crossfunctional teams to ensure manufacturing feasibility and alignment with brand identity

- Discussions and iterations with key business stakeholders
- Synthesis of user testing results
- Validation of design assumptions
- Finalization of design specifications (e.g. detailed drawings, material specs)

First rough concepts

**Mature filtered concepts** 

**Refined concepts** 







## **Snow Big Deal**

**Author:** Apeksha Atal T'25, Rohan Lohia T'25, Aditya Kumar T'25, Tout Lin T'25



## **Delivery** style

Interviewee-led

Concepts & Skills Tested	Industry	Case Type
Market sizing Capacity Exhibit interpretation	Transportation & Logistics	Opportunity assessment Operations

## Fit question

Describe a challenging situation or a conflict you've faced and how you handled it.

## **Nugget of wisdom**

Consider tapering off the number of cases you do closer to interview day to ensure you are mentally fresh and not overworked.



### Case Prompt

- Our client is the New Hampshire Department of Transportation (NH DOT), a state government entity
  that strives to provide "safe and secure mobility and travel options for all of the state's residents,
  visitors and goods movement." Managing snowfall is a major responsibility of NH DOT. Every year,
  they rent privately-owned equipment to plow the roads.
- NH DOT is currently negotiating plow contracts for 2023 but is facing a shortage in equipment to rent. This is resulting in an increase in projected response time and in number of anticipated "beats" covered by each truck. The DOT have hired our firm to help address this issue and to plan for the years to come.

### Interviewer guide

- Case structure:
  - Framework
  - Q1: Exhibit A + Calculation
  - Q2: Brainstorm
  - Q3: Exhibit B + Calculation
  - Q4: Calculation
  - Optional Breakeven Calculation
  - Recommendation

- Type of case: Opportunity assessment
- This case is intended to help the caser practice doing a cost-benefit analysis and think about different strategies to address a gap in equipment requirements
- · Interviewee-led case



## **Snow Big Deal | Case Prompt**

### Case Prompt

- Our client is the New Hampshire Department of Transportation (NH DOT), a state government entity that strives to provide "safe and secure mobility and travel options for all of the state's residents, visitors and goods movement." Managing snowfall is a major responsibility of NH DOT. Every year, they rent privately-owned equipment to plow the roads.
- NH DOT is currently negotiating plow contracts for 2023 but is facing a shortage in equipment to rent. This is resulting in an increase in projected response time and in number of anticipated "beats" covered by each truck. The DOT have hired our firm to help address this issue and to plan for the years to come.

### Clarifying information

- Preliminary estimates indicate that there will be 300 machines available this season.
- NH DOT do not currently own any plows
- Plow rental fee includes labor costs. Rental fees NH Rents 3 classes of snowplows that differ in are negotiated each season.
- Responsible for NH and NH routes into neighboring states

- Beat = Unique Route that needs to be plowed
- Response Time = Time needed to completely plow a beat
- size and specifications (Assume all snowplows are the same for the purpose of this case)



## **Snow Big Deal | Example Structure**

### **Financials**

- Labor Cost (Wage Rate)
- Cost of snowplows (Rent/Buy)
- Cost of storage/maintenance
- Operational Cost
- Budget Tax Pool

### Market

- Rental rates NH vs neighboring states
- Demand/Supply of snowplows for rent
- Availability of skilled snowplowers
- Vehicle market

### Other Factors

- Environmental Factors: Snowfall trends over the past decade
- Efficiency of equipment usage (labor skill, beat composition, prioritization, response time)
- Buy vs Rent
- State policy on snowplowing
- Contract length

#### Behind the Framework

#### Must-haves:

- Rental costs / hourly wages (some focus on incentives)
- Talks about snowfall trends / demand that needs to be filled

#### Nice-to-haves:

- Mentions budget
- Discusses "competitive landscape" rates in neighboring states and how this may affect NH snowplow owners
- Brings up potential for NH to own their own fleet

**Differentiators**: Talks about potential contractual issues and invisible issues that are less financially focused.



## Exhibit interpretation

How many additional machines does the DOT need to plow snow for the coming season?

#### Provide Exhibit A

Given in exhibit:

- Snowfall for coming season (2023) is projected to be 120 inches
- 1,000 hours of plowing is required per inch of snowfall across the state of NH

Provide the following information if the candidate asks for it:

- A standard machine can plow 300 hours per season
- Current number of machines = 300

Insight: 2022-23 will be a top-3 year for snowfall over the past 10 years and a ~70% increase from 2021

#### Total number of machines needed:

(120 inches x 1,000 hours / inch) x (1 machine / 300 hours) = 400 machines

#### **Machine deficit:**

400 - 300 = 100 machines



#### Brainstorm costs

- The DOT conducted a survey among current snowplow owners and created an updated supply curve. Based on their projections, they estimate that they should be able to raise the number of available snowplows by 100 if they increase rental rates by 10%. NH DOT would like you to help them decide whether they should fill the deficit by purchasing vehicles or by raising rental rates.
- What cost considerations should the client take into account for each option?

There are two scenarios to consider:

#### 1. NH DOT increases rent by 10%. Here we must consider:

- Current rental rate
- Updated rental rate (calculate using 10%)
- Incremental cost for existing fleet of 300
- Incremental cost for new vehicles

#### 2. NH DOT decides to buy 100 new vehicles to fill the gap:

- Fixed cost of buying 1 vehicle
- Variable costs per vehicle (fuel, maintenance, storage)
- Years of utility per vehicle
- Number of hours per vehicle
- Labor costs for drivers



## Comparing options

Calculate the incremental hourly cost of pursuing each option.

#### Provide **Exhibit B**

#### 1. NH DOT increases rent by 10%. Here we must consider:

- Updated rental rate = \$50 x 110% = \$55 / hour
- o Incremental cost for existing fleet =  $($55 $50) \times 300 = $1,500$  / hour
- o Incremental cost for new vehicles = \$55 x 100 vehicles = \$5,500 / hour
- Total incremental cost / hour = \$1,500 + \$5,500 = \$7,000 / hour

### 2. NH DOT decides to buy 100 new vehicles to fill the gap:

- Annual depreciation cost = \$60,000 / 5 years = \$12,000
- Hourly depreciation cost = \$12,000 / 300 hours = \$40
- Variable costs (fuel + labor) = \$12 + \$8 = \$20
- $\circ$  Hourly maintenance and storage costs = (\$2,000 + \$4,000) / 300 hours = \$20
- Incremental cost per hour per vehicle = \$40 + \$20 + \$20 = \$80 / vehicle / hour
- Overall incremental cost per hour = \$80 x 100 vehicles = \$8,000 / hour



## Breakeven analysis

Optional question to push a strong candidate

Our client is concerned about the sensitivity of their forecasting. What is the breakeven percentage increase in rental rates that would make NH DOT indifferent between the two options?

Insight: to guarantee that there is an increase of at least 100 vehicles, the DOT should increase rates by more than 10%, up to the breakeven rate

Incremental cost for existing fleet: (y% x \$50) x 300 vehicles

Incremental cost for new vehicles: ((1 + y%) x \$50) x 100 vehicles

Total incremental cost:  $$15,000 \times y\% + $5,000 + $5,000 \times y\% = $8,000$ 

Solving for y:  $$20,000 \times y\% = $3,000$ 

y% = \$3,000 / \$20,000

y% = 0.15 = **15%** 



## **Snow Big Deal | Recommendation**

### Recommendation

The Commissioner of NH DOT is about to walk into the room. What is your recommendation?

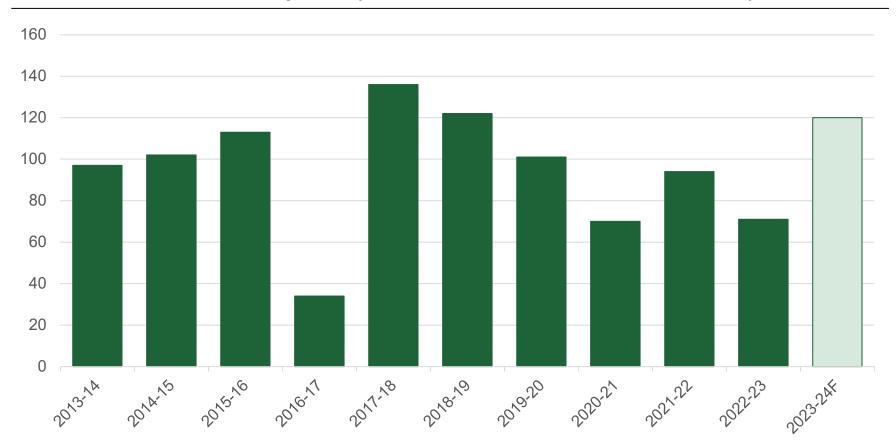
#### Illustrative example:

- Recommendation: increase plow rental rates by between 10% and 15% to attract the 100 extra vehicles required to address the anticipated snowfall this year
- Reason: renting vehicles is at most \$1,000 / hour more cost effective than purchasing the required plows, and maintains flexibility for future years
- Risks:
  - Unanticipated costs
  - Existing rental fleet aging (i.e. available number of rentals will dip significantly next year)
  - Drastic decrease in snowfall (expectation of the higher rental rate leads to relationship issues)
- **Next Steps:** Investigate strategies to smooth supply (i.e. how can we improve existing relationships with the snowplow owners?)



## **Snow Big Deal | Exhibit A**

### Annual Snowfall, New Hampshire (Inches, Past 10 Yrs and 2023 Forecast)



Note: Each inch of snowfall requires 1000 hours of plowing



## **Snow Big Deal | Exhibit B**

## Rental Cost Analysis

Cost consideration	
Current Rental Rate	\$50 / hour
Proposed Increase	10%

# Purchase Cost Analysis

Cost consideration	
Purchase Cost	\$60,000
Useful Life of Vehicle	5 years
Hourly Fuel Cost Per Vehicle	\$12
Hourly Labor Cost	\$8
Annual Maintenance Cost Per Vehicle	\$2,000
Annual Storage Cost Per Vehicle	\$4,000

Note: Vehicles are depreciated on a straight-line basis



## **SwitchDeck Motors**

**Author:** Becca Pyeon T'25, Charles Hill T'25, Jisue Choi T'25, Priya Ochani T'25



### **Delivery style**

#### Interviewee-led

Concepts & Skills Tested	Industry	Case Type
Market sizing Macroeconomics Competitive analysis Exhibit interpretation	Automotive	Market Entry

## Fit question

How would you approach a situation where you have to lead without authority?

## **Nugget of wisdom**

During the final stretch before interviews, focus on high-impact activities like reviewing past cases and honing specific areas of your case approach.



## Case Prompt

- Our client, SwitchDeck Motors, is a major US-based automobile company. They produce a range of vehicle types, including sedans, SUVs, and commercial vehicles (such as trucks, buses, etc.).
- They have hired our firm to determine how to enter the luxury vehicle market in a foreign country.
- How should our client consider this market entry opportunity?

### Interviewer guide

- · Case structure:
  - Framework
  - Exhibit 1 selecting market
  - o Q1
  - o Exhibit 2 selecting the car style
  - Exhibit 3 financial risks
  - Recommendation

- Type of case: Market entry
- A relatively straightforward case that tests candidates' ability to interpret exhibits and perform calculations
- Interviewee led



## SwitchDeck Motors | Case Prompt

## Case Prompt

- Our client, SwitchDeck Motors, is a major US-based automobile company. They produce a range of vehicle types, including sedans, SUVs, and commercial vehicles (such as trucks, buses, etc.).
- They have hired our firm to determine how to enter the luxury vehicle market in a foreign country.
- How should our client consider this market entry opportunity?

## Clarifying information

- Our client sells vehicles in the traditional dealership networks and direct to consumers.
- All products must achieve annual profits greater than \$100M in each market.
- The client focuses on luxury consumer vehicles.
- Our client currently produces only left-handed vehicles; they do not plan to expand their production capabilities into right-handed vehicles.



## **SwitchDeck Motors | Example Structure**

#### Market

- Competitive Landscape
  - Structure Monopoly?Competitive?
  - Ease of Entry
  - $\circ$  TAM
- Industry Growth
- Consumer Preferences

## Company

- Financial Capability
  - o Revenue
  - o Costs
- Non-Financial Capability
  - o Brand Awareness
  - Product portfolio
  - Distribution

#### Risks

- Regulations
  - o Tariffs & FX risk?
  - Foreign laws
- Competitive Response
  - o Reduced margins?
- Brand Dilution
  - o Reputation misaligned?

### Behind the Framework

#### Must-haves:

- Financials
- Industry

#### Nice-to-haves:

- Risks
- Competitors

**Differentiators**: Regulations, brand dilution, nonfinancial capabilities



### Market Entry Decision

· Which country should the client choose?

#### Provide Exhibit A

• This exhibit illustrates a variety of countries based on market competitiveness and size (SAM). The graph also gives information on customer willingness to pay. The color of each circle articulates whether the country uses a right-hand verses left-hand steering wheel.

#### Interviewer Guidance:

- The candidate should select Australia as the country that our client should enter based on the following:
  - o Australia has the highest WTP of all the countries, which is a desirable market feature.
  - Australia has the largest SAM out of the countries that drive left-handed.
  - o Australia has lower competitiveness than other potential options (such as South Korea).
  - Australia drives left-handed vehicles, so the client would not have to change the product's design.



### **Product Decision**

• Which style vehicle should the client sell?

#### Provide Exhibit B

• Each vehicle style must accrue profit of \$100M for the project to be approved.

#### **Interviewer Guidance:**

- The candidate should request information on total number of cars sold in Australia per year.
  - 100,000 cars are sold per year (this is the TAM).

Vehicle	Quantity	Revenue	Costs	Profit
Sedan	100,000 x 5% = 5,000	\$30K x 5,000 = \$150M	\$10M + (5,000 x \$20K) = \$110M	\$150M - \$110M = \$40M
Truck	100,000 x 1% = 1,000	\$55K x 1,000 = \$55M	\$20M + (1,000 x \$30K) = \$50M	\$55M - \$50M = \$5M
SUVs	100,000 x 5% = 5,000	\$50K x 5,000 = \$250M	\$20M + (5,000 x \$25K) = \$145M	\$250M - \$145M = \$105M
Hatchbacks	100,000 x 2% = 2,000	\$20K x 2,000 = \$40M	\$10M + (2,000 x \$10K) = \$30M	\$40M - \$30M = \$10M



#### Risks

- What is the most significant risk you foresee in entering the market?
- After the candidate suggests their idea, tell them the following:

"There is a very high likelihood that the Australian government will decide to levy a 3% import tax on luxury automobiles, effective next financial year".

How would this impact our evaluation?

#### **Interviewer Guidance:**

- The candidate should realize that price is constrained by customer WTP and therefore cannot increase and hence this tax will increase our costs, reducing our profitability.
- Reduction in profitability = \$50,000 \* 3% \* 5,000 cars = \$7.5 million



#### Provide Client Recommendation

#### Recommendation

The client should enter the Australian luxury car market with an SUV product

#### Reason

- The Australian market has highest WTP and similar competitiveness to other left-hand drive markets
- The SUV product is expected to earn \$105M annual profits, above the \$100M target

#### **Risks**

Australia may levy an import tax on luxury vehicles, which may reduce profitability below the target

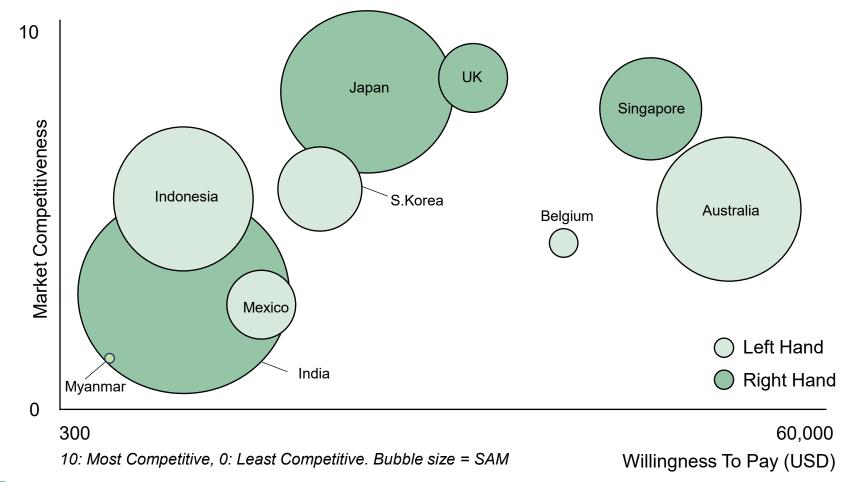
### **Next steps**

 Engage Australian officials in ways to avoid imposition of the levy, including lobbying and creating local jobs



## SwitchDeck Motors | Exhibit A

### Serviceable Addressable Market (SAM), selected Auto markets





## **SwitchDeck Motors | Exhibit B**

### **Australian Auto Market Research**

	SAM	Customer WTP	Import Cost	Production Cost	Marketing Cost
Sedan	5%	\$30,000	\$10M	\$15,000	\$5,000
Truck	1%	\$55,000	\$20M	\$20,000	\$10,000
SUV	5%	\$50,000	\$20M	\$20,000	\$5,000
Hatchback	2%	\$20,000	\$10M	\$10,000	\$0

Note: import costs are an annual fixed cost; production and marketing costs are variable costs



## **Tuck Air II**



## **Delivery style**

#### Interviewee-led

Author: Will Seex T'24

Concepts & Skills Tested	Industry	Case Type
Pricing strategy Breakeven analysis Creativity	Airline	Opportunity assessment

## Fit question

Describe an instance where you received critical feedback, and how you responded.

## **Nugget of wisdom**

Be strategic about how many mock cases you schedule in the final weeks; focus on fine-tuning rather than volume

## Tuck Air II



## Case Prompt

- Our client, Tuck Air, is a large national airline that is considering installing in-flight Wi-Fi capability to improve its customer experience.
- Currently, Tuck Air offers a no-frills, low-cost experience. Its fleet of 250 Boeing 737-500 aircraft are arranged in an economy-only configuration. The airline serves a mixture of business and leisure passengers.
- The client has tasked us to help to determine the required specifications for the network and to determine its financial viability.

## Interviewer guide

- Case structure:
  - Framework
  - o Q1 Brainstorm
  - Q2 Exhibit A
  - o **Q3**
  - o Q4 Brainstorm
  - Recommendation

Opportunity Assessment; Airline

Author: Will Seex T'24

- Tests creative but structured brainstorming and data-heavy exhibits.
- Key skills: Breakeven analysis
- Interviewee led



## **Tuck Air II | Case Prompt**

## Case Prompt

- Our client, Tuck Air, is a large national airline that is considering installing in-flight Wi-Fi capability to improve its customer experience.
- Currently, Tuck Air offers a no-frills, low-cost experience. Its fleet of 250 Boeing 737-500 aircraft are arranged in an economy-only configuration. The airline serves a mixture of business and leisure passengers.
- The client has tasked us to help to determine the required specifications for the network and to determine its financial viability.

## Clarifying information

#### **Business**

 Tuck Air operates exclusively domestic routes in a huband-spoke model, based out of Boston Logan Airport.

#### **Opportunity**

 A recent customer survey showed that the client lagged peers in terms of passenger experience. The survey highlighted implementing in-flight Wi-Fi service as a key improvement for the airline, particularly among business passengers In-flight Wi-fi works by connecting passengers' devices to onboard satellite or ground-based networks. Ku and Ka Band frequencies are commonly utilized for transmitting data to and from aircraft, providing high-speed connectivity for seamless browsing and communication.

#### **Target**

The client's policy is to break even on CAPEX projects within 3 years



## **Tuck Air II | Example Structure**

#### Customer

- Speed requirements
  - Streaming services
  - Video calls
  - Just Browsing
- · Duration of connections
  - Whole flight
  - Just a few hours
- Customer segments
  - o WTP

### Financial

- Up-front installation cost
- Revenue
  - Pricing model: flat fee, pro-rated, subscription
  - Estimated connections per flight
- Ongoing Costs
  - o Service fee
  - Maintenance

### Risks

- Negative customer reaction to paying
- Reliability risk
- Implementation risk
  - Aircraft stuck in the hangar

### Behind the Framework

#### Must-haves:

- Consideration of customer needs as the case is built around customer-centricity
- Financial information, moving towards break-even

#### Nice-to-haves:

· A sense of the risks involved

**Differentiators**: given candidates will have personal experience of this product, adding a personal touch is essential



## Brainstorm pricing

- What are some different pricing models and monetization strategies that the client could implement for its Wi-Fi service?
- Which of these ideas might be most suitable for Tuck Air?

Flat fee	Rated	Two-part	Bundling
<ul> <li>Free access</li> <li>Pay per flight</li> <li>Pay per day</li> <li>Subscription for month/year</li> </ul>	By time     By data use	<ul> <li>High and low speed tiers</li> <li>Free access for loyalty members</li> <li>Free access for partner firms</li> </ul>	<ul> <li>With streaming content</li> <li>With promotional item (beverage, etc)</li> <li>With partner (Starbucks, Avis, American Express)</li> </ul>

• Look for alignment with Tuck Air's no-frills model. Likely a flat fee or a per hour model will be most suitable, although including a partner could work too.



### Passenger requirements

- To reduce the complexity of the product, Tuck Air is only interested in a flat-fee-per-flight model.
- The airline must decide whether to install the Ku-Band or Ka-Band receiver in their fleet.
- The client has carried out an initial passenger survey. Let the candidate walk through the exhibit.

#### Provide Exhibit A

- Which receiver will best meet the requirements of Tuck Air's passengers at each fee level?
- Either can serve all customers at \$4, or business only at \$10. How much bandwidth does each need?
- Average aircraft has occupancy of 125 \* 80% = 100 passengers (from the note)

	Business	Leisure
Passengers accessing	(33% * 90%) ≈ 30% 30% * 100 = <b>30 pax</b>	(67% * 30%) ≈ 20% 20% *100 = <b>20 pax</b>
Data usage	30 pax * 200 MB = 6,000 MB/hour ( <b>6 GB/hour</b> )	20 pax * 800MB = 16,000 MB/hour ( <b>16 GB/hour</b> )

- Business segment requires 6GB/hour so can be served by the Ku Band receiver. Serving all customers requires (6 + 16 GB/hour =) 22 GB/hour, which would require the Ka Band receiver.
- Note: candidates may be more familiar with Mbps units. 1 MB/second = 8 Mbps



## Breakeven Analysis

- Given Tuck Air's requirement that new CAPEX projects must break even in 3 years, which receiver should the client install in its fleet?
- Breakeven = Installation Cost / (Revenue Annual Costs)

	Ku Band	Ka Band
Revenue	\$10 * 30 pax *1000 flights = \$300,000 per year	\$4 * 50 pax * 1000 flights = \$200,000 per year
Contribution Margin	\$300,000 - \$220,000 = \$80,000 per year	\$200,000 - \$140,000 = \$60,000 per year
Breakeven	\$200,000 / \$80,000 = <b>2.5 years</b>	\$300,000 / \$60,000 = <b>3.33 years</b>

• If candidate attempts to calculate the breakeven for the entire fleet, let them, but if they are struggling guide them to the per plane calculation



## Risks

• What risks should Tuck Air be aware of when installing an in-flight Wi-Fi service?

Product	Security	Implementation
<ul> <li>Upgrade risk: next big upgrade or product may be just around the corner. Mobile Data in the air?</li> <li>Speed: network may be congested if too many customers join, or if their activity is too data-intense</li> <li>Reliability: in-flight outage may cause customer dissatisfaction</li> </ul>	<ul> <li>Client: hackers may take control of the network</li> <li>Customer: client data security, particularly for business customers</li> </ul>	<ul> <li>Payments in-air required, posing development risk</li> <li>Assumptions may be flawed, need sensitivity analysis</li> <li>Roll out delays keeping planes in hangars.</li> </ul>



#### Recommendation

 You are heading into a progress meeting with the client, and they would like to hear your recommendation.

#### Illustrative example:

- **Recommendation**: Tuck Air should install Ku-Band Wi-Fi receivers in its fleet of aircraft and charge a \$10 flat fee to access the network.
- **Reason**: Ku-Band has the capacity to support the requirements of business customer segment (which has higher willingness-to-pay) while breaking even in 2.5 years
- Risk: the roll-out process may not be smooth or may take longer than expected, which could reduce fleet utilization
- Next steps: work with Tuck Air to define an implementation plan to mitigate roll-out risk



## Tuck Air II | Exhibit A

### Passenger Survey Results

Mostly travel for	Proportion of passengers	Likely to connect to Wi-Fi	Passenger data usage estimates	Willingness to pay
Business	33%	90%	200 MB/hour	\$10/flight
Leisure	67%	30%	800 MB/hour	\$4/flight

# Wi-Fi Receiver Specifications

Ku-Band				
Shared data capacity	14 GB/hour			
Installation cost	\$200,000/aircraft			
Annual costs (service fee, maintenance, etc)	\$220,000/aircraft			

Ka-Band				
Shared data capacity	32 GB/hour			
Installation cost	\$300,000/aircraft			
Annual costs (service fee, maintenance, etc)	\$140,000/aircraft			

Note: A Tuck Air Boeing 737-500 has a capacity of 125 passengers with an average load factor (utilization) of 80%, making on average 1000 flights per year



