UCLA Anderson
SCHOOL of MANAGEMENT

MCA
MANAGEMENT CONSULTING ASSOCIATION

Student Case Book

2015-16 Recruiting Season

Table of Contents

Fit questions

Week #	Question
1	Walk me Through your Resume
2	Why consulting / why this firm?
3	Tell me about a time when you failed
4	Tell me about a time when you resolved a conflict
5	Wildcard (i.e. “Explain Time Value of Money to a 5 year old”, “Teach me something new in 2 minutes”)

UCLAAnderson
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PARKER CAREER MANAGEMENT CENTER

Case Interview Feedback Form

Interviewer		Start Time	____:____
Date		End Time	____:____
Case Name		Rating Key	
Casebook & Year		N = No, Y = Yes, E = Exceptional	

OVERALL

	N	Y	E
- Overall Rating			

Strengths:

Areas of improvement:

PROBLEM SOLVING

	N	Y	E	
- **Case starts** are **logical, coherent**, and tell a story				**Comments:**
- Makes **insightful comments** about industry / business problem				
- Shows **creativity in structuring** and solving the problem				
- Drives the case forward – forms **hypothesis with reasoning**				

ANALYTICAL / QUANTITATIVE

	N	Y	E	
- Graph analysis / calculations are **accurate and done efficiently**				**Comments:**
- **Uses data** to develop **high-level recommendations**				
- **Generates insights** from the data / calculation				

COMMUNICATION / PRESENTATION

	N	Y	E	
- Maintains sufficient **eye contact**				**Comments:**
- Tone and rate of speech show **confidence**				
- Body language reflects **collaborative** & easy-to-work-with behavior				
- **Notes** are **legible**, highlighted, reference, and easy-to-follow				

BUSINESS SENSE / MACROVIEW

	N	Y	E	
- Clearly highlights **risks** and **next steps**				**Comments:**
- Defines **assumptions** where applicable				
- Recommendations consider the **macro business problem** as well				

Week 1

Case 18: Drug Store Profitability (I of II)
McKinsey, Round 1

Problem statement narrative

Our client is a drug store chain, similar to CVS, They are losing profits in the last few years. Can you help us identify the reasons and means to improve the profits

•The candidate should answer the following questions during the course of the case discussion

•Is the loss of profitability due to product mix, store mix, increasing costs or decreasing revenue? Or a combination of all the above

•What can the company do to improve profits – focused discussion around one area of improvement from above list.

Guidance for interviewer and information provided upon request(1)

Store details:

•Stores are typical to cvs, located in several areas. They have pharmacy, health and beauty, and general merchandise.

Sales and Profitability by square feet and product type

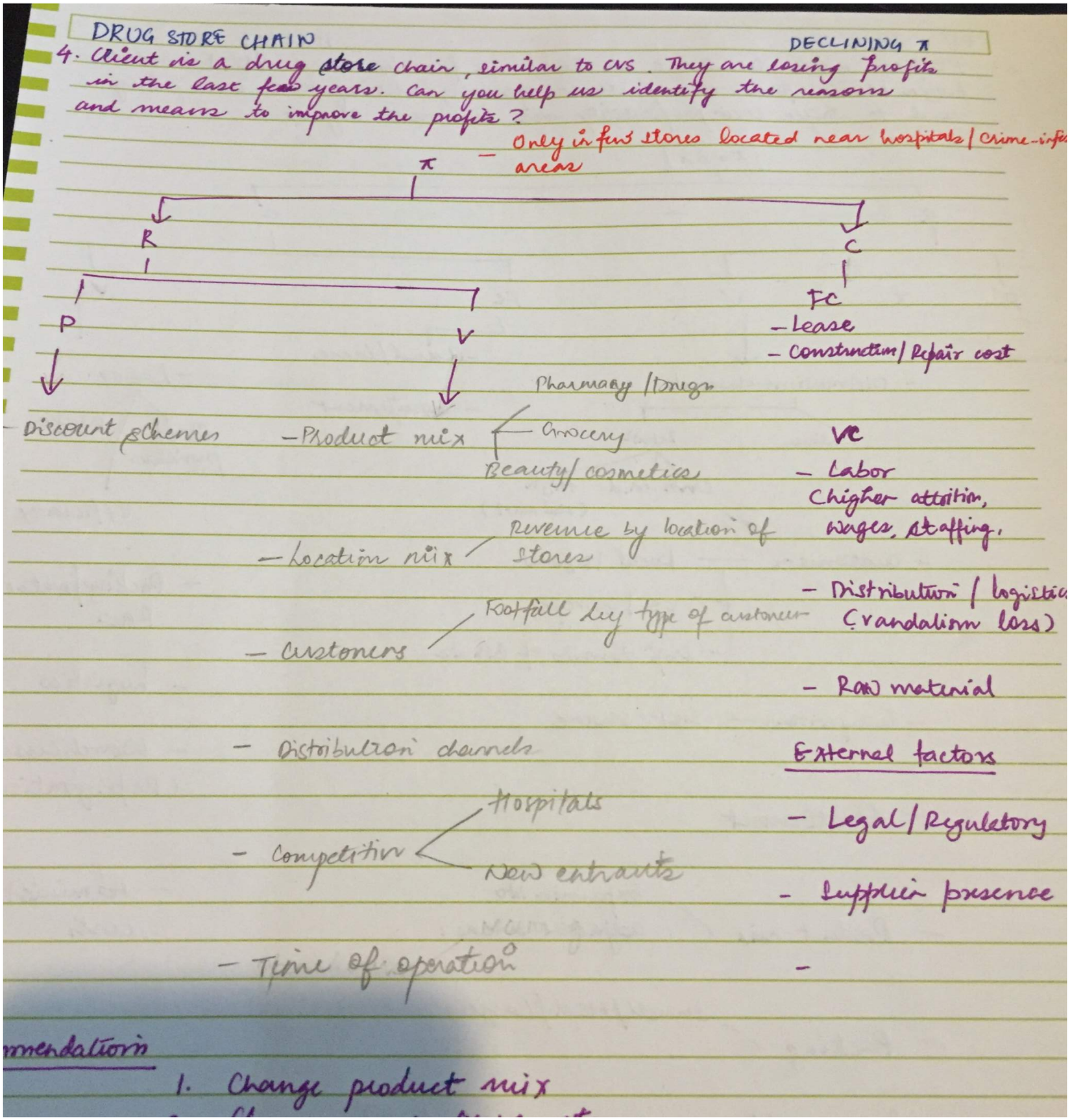
Product Type	Sales/Sq Ft	Profits
Pharmacy	$20,000/sqft	5%
Health and Beauty	$10,000/sq ft	20%
General Merchandise	$5000/sq ft	10%

60% of the stores are located around hospitals, with heavy competition and in some crime infested areas – these stores make 10% loss

Remaining stores make 25% profits

Case 18: Drug Store Profitability

Sample framework



Case 18: Drug Store Profitability (II of II)
McKinsey, Round 1

Additional questions for candidate	Solution guide
• What factors affect profitability of a particular store	**Conclusion** The firm is losing profits due to several reasons 1) Product mix 2) Store Mix 3) Location details The company should look at 1) Changing product mix 2) Closing bad stores 3) Improving on locations • Key: Good MECE structure, deep dive analysis in one area, bringing different points together in final analysis

Case 7: Snacks Manufacturer Defending Market Share Introduction

Problem Statement Narrative

Our client is PLD, a global manufacturer of snack foods and beverages. PLD has been a market leader in China's potato chips (PC) market for over two decades now but is facing increasing local competition. Most notably this year, the company's volume share in South China region declined from 60% to 20%, and the company hired us to find out why and how to react.

How would you approach this question and what would you recommend him?

This is a competitive strategy case.

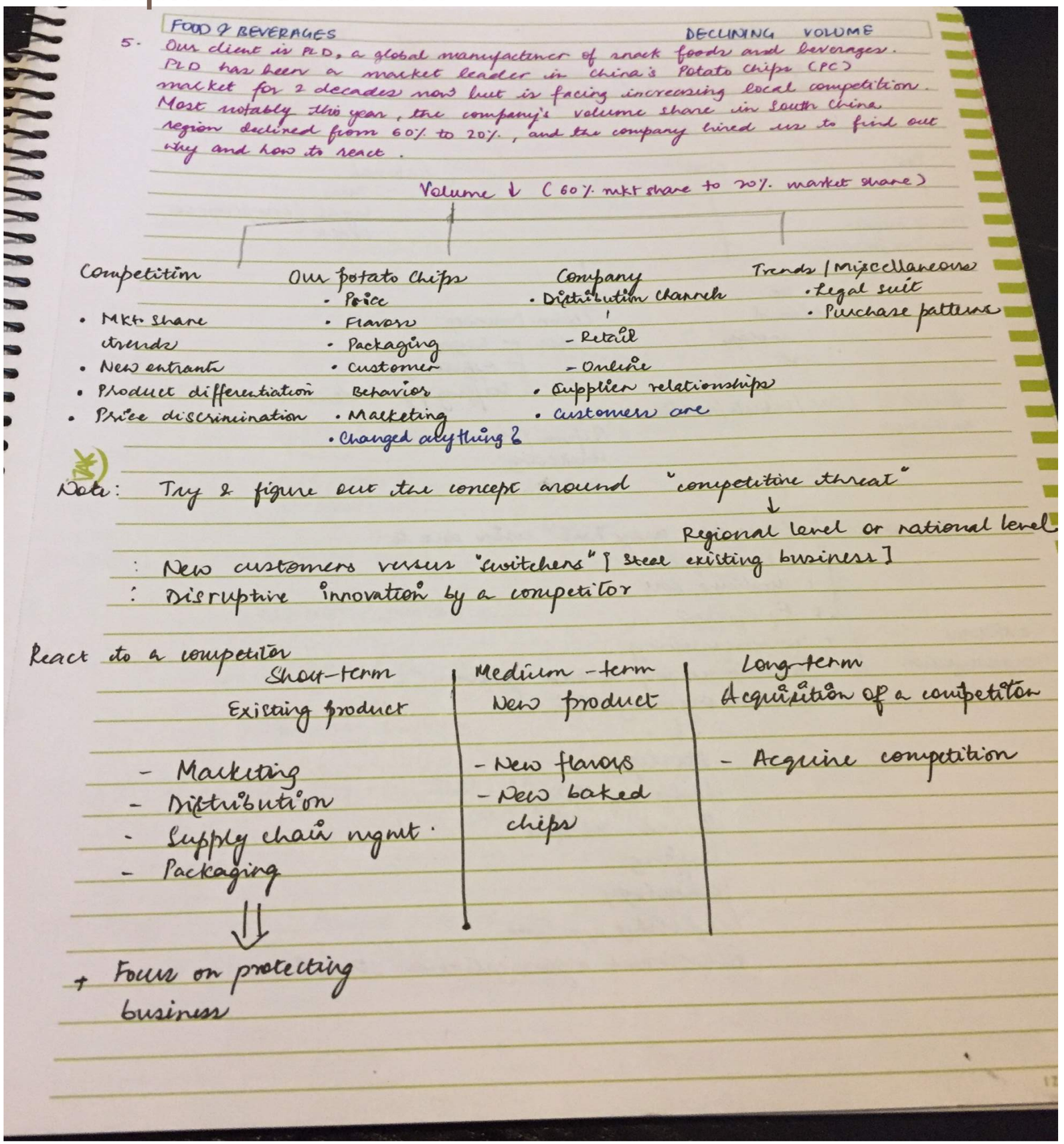
For the first part, the interviewer should diagnose the root cause of share loss by understanding changes in both market size and the client's volume (Vol. Share = Vol. / Market Size) in South China region. After realizing that the share loss is primarily driven by Market Size increase due to a disruptive innovation brought by a new local competitor, the interviewer should guide the discussion on whether this is a real competitive threat – given the client's volume had been relatively stable and their user base intact.

For the second part, interviewer should guide creative thoughts on innovation, supply chain management and sales/marketing strategies to react to the situation. This is the fun part and the interviewee can recommend several strategic choices in both short term and long term.

Case Type: Competitive strategy case / innovation

Case Style: Guided in part 1, open end in part 2

Case 7: Snacks Manufacturer Defending Market Sample Framework



FOOD & BEVERAGES — DECLINING VOLUME

5. Our client is P&D, a global manufacturer of snack foods and beverages. P&D has been a market leader in China's Potato Chips (PC) market for 2 decades now but is facing increasing local competition. Most notably this year, the company's volume share in South China region declined from 60% to 20%, and the company hired us to find out why and how to react.

Volume ↓ (60% mkt share to 20% market share)

Competition
- Mkt share trends
- New entrants
- Product differentiation
- Price discrimination

Our potato chips
- Price
- Flavors
- Packaging
- Customer Behavior
- Marketing
- Changed anything?

Company
- Distribution channels
  - Retail
  - Online
- Supplier relationships
- Customers are

Trends / Miscellaneous
- Legal suit
- Purchase patterns

Note: Try & figure out the concept around "competitive threat"
↓
Regional level or national level
: New customers versus "switchers" [steal existing business]
: Disruptive "innovation" by a competitor

React to a competitor

Short-term	Medium-term	Long-term
Existing product	New product	Acquisition of a competitor
- Marketing - Distribution - Supply chain mgmt. - Packaging	- New flavors - New baked chips	- Acquire competition

↓

+ Focus on protecting business

Case 7: Snacks Manufacturer Defending Market Share Introduction

Overview for Interviewer

(Information to be provided If asked)

Product

Products

- Consumers see current potato chips products as commodities, so average price is similar across competition. Currently all potato chips are fried but PLD is considering to introduce baked products which use minimal or no oil in production.

Consumer

- There're primarily two groups of consumers in the PC market – the Fun Seekers who prefer current fried products for crispy mouth feel and the LOHAS group who strongly demand baked products with less or no oil. Fun Seekers make 80% of total market consumption but more people are switching to the LOHAS group.
- Assume no seasonality in consumption.

Market Size and Competition

- Last year, PLD recorded 500,000 tons of sales in national PC market with 40% share, followed by WWT (10%) and DLT (5%)
- South China Region accounts for 10% of overall PC market. Last year PLD sold 120,000 Tons of PC in this region with 60% market share. Rest of the market goes to WWT (20%) and DLT (20%).

	South China	Volume	National	Volume
PLD	60%	120,000	40%	800,000
WWT	20%	40,000	10%	200,000
DLT	20%	40,000	5%	100,000
Total		200,000		2,000,000

Case 7: Snacks Manufacturer Defending Market Share Introduction

Step 1: Diagnose the change in volume share (60%->20%) in South China:

Volume / Market Size (Discussion based on South China region)

a) What's our volume this year? It's 100,000 Tons till end of Sep.

- Interviewee should realize this is about 10% volume growth, as last year 90,000 Tons(12,000 * 9/12) was sold by end of Sep, assuming no seasonality.
- The interviewee should also realize market size grew dramatically (100,000/ 20% = 500,000 Tons by Sep, versus 200,000 Tons full year last year)
- Interviewee should then understand the market share loss was not caused by volume decline, but by a jump in market size.

b) How were competitors doing? WWT and DLT volumes are also growing at 10%

- Interviewee should realize WWT and DLT were growing at the same rate as us so were not driving market growth; it must be that new competitors entered the market.
- Most importantly, the new competitors now command a majority market share. (volume by PLD+WWT+DLT = 200,000 *(1+ 10%) = 220,000 tons, which is less than half of the nowadays market of 500,000 tons)

Case 7: Snacks Manufacturer Defending Market Share Introduction

Step 2: Understand what are the new competitors doing and the implication to PLD:

a) Could you tell me about the new competitors?

- There was only one new competitor, XCD which entered the market in the middle of this year
- This competitor was doing exceptionally well. An excellent candidate would quantify XCD's performance by looking at its monthly sales – XCD was in the market for only 3 months (now is Sep) but generated 280,000 tons of sales! It means XCD's monthly volume was more than 8 times of ours (280,000 / 3 = 93,000 tons, for us it's 100,000/ 9 =11,000 tons)

b) Why this competitor is doing so well?

- Explore 4P: Product, Price, Place and Promotion (in a less rigid way).
- The interviewer will hint that the key is product – they introduced a baked product
- Interviewee should realize it was the LOHAS group who was buying the newly launched baked product.

c) What do we know about LOHAS group in South China? LOHAS group was only 20% of the market volume but now more than half. Frequency of eating potato chips has not changed for either of the two groups.

- Interviewee should start thinking where the new LOHAS consumers came from.
- Apparently most of them were NOT "switchers" coming from the Fun Seeker group, considering LOHAS is now bigger than Fun Seekers despite Fun Seeker groups were actually growing (volume growing with frequency stable).
- An excellent candidate would reason that the majority of LOHAS consumers this year were previous non-users of potato chips. Reasons could be that these people concerned about oil in the fried product. They are now coming into the category to buy XCD's baked product which is not oily.

Case 7: Snacks Manufacturer Defending Market Share Introduction

What would it be your overall recommendation to the client?

a) Is this a real threat?

- A good candidate should consider both short term and long term.
- In the short term, XCD seems to be growing on its own without stealing users from us, and they are only selling in a small regional market (South China only 10% of national volume).
- But in the long term, giving the LOHAS trend and XCD's huge success in South China, XCD is likely to go nationally. In fact, South China was only a test market for them.

b) How should we react?

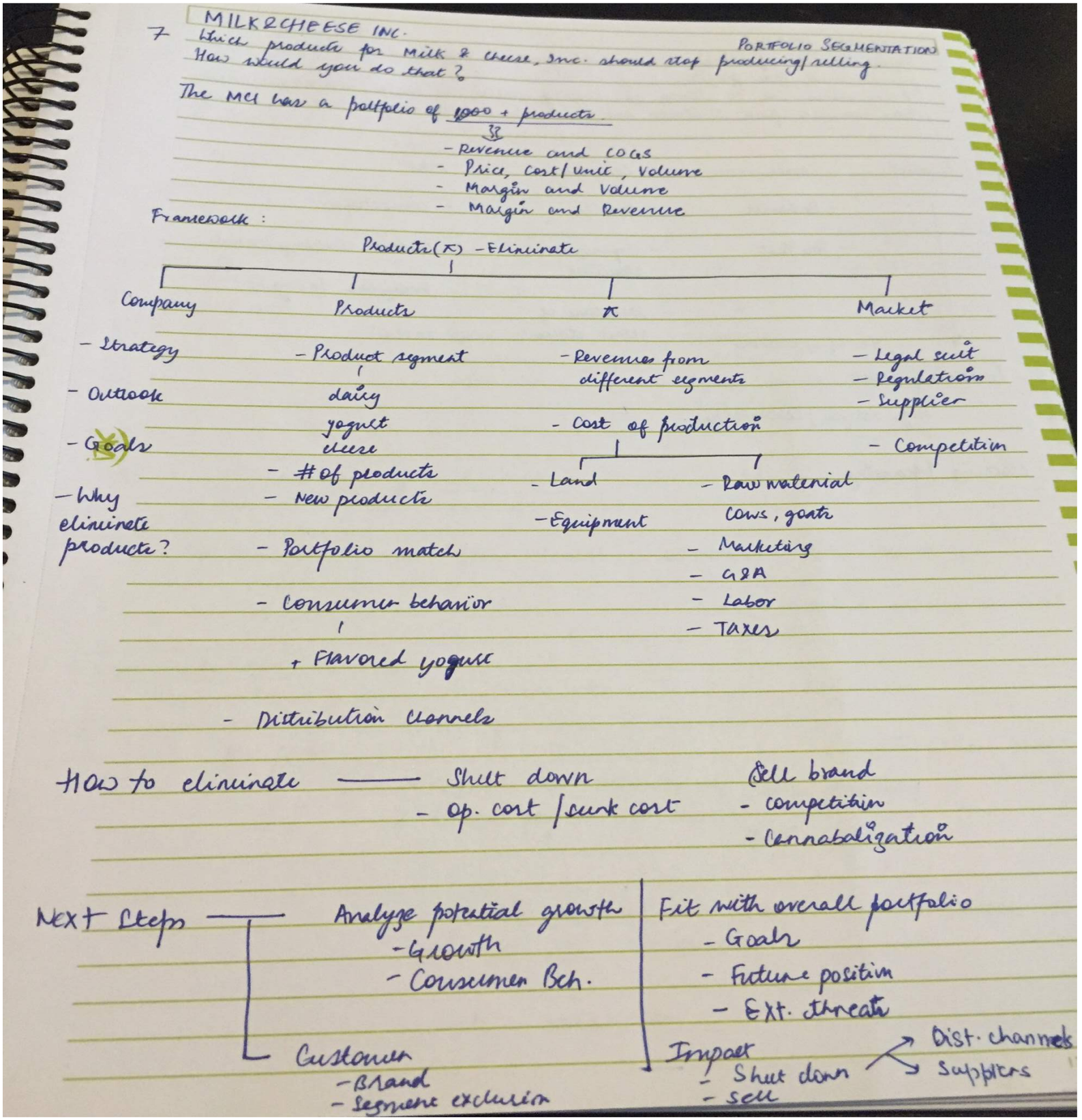
- In short term, focus on protecting our business in South China and other regions by increasing marketing investment, do promotions or introducing new flavor to excite the Fun Seekers group.
- In long term, come up with our own baked product or consider buying the new competitor.

Case 8: Milk & Cheese, Inc.

Profitability *BCG*

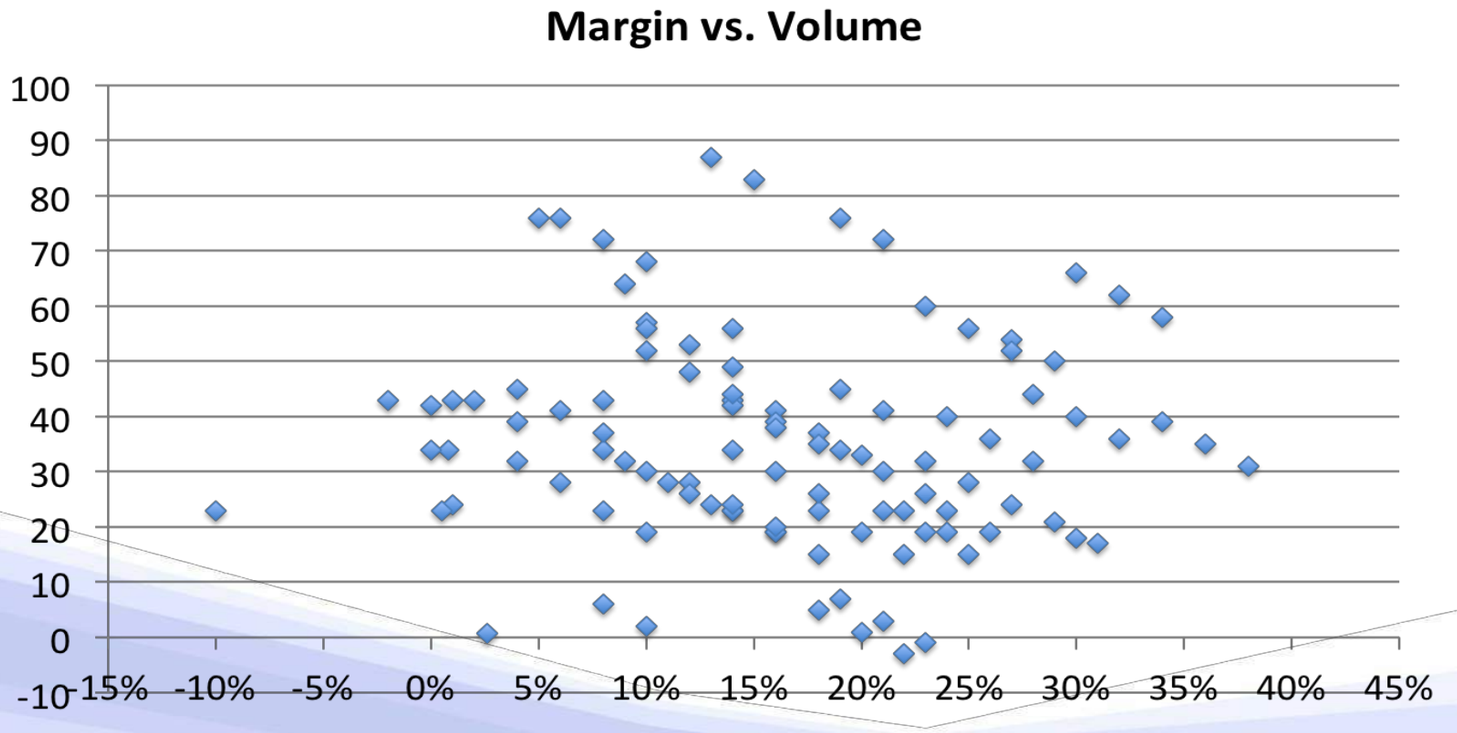
Prompt	Another team in your firm is already working on costs and expenses. Your team is focusing on MCI portfolio. **Your role is to analyze which, if any, products MCI should stop producing/selling. How would you do that?**
Guidance	The candidate must consider that MCI has a portfolio of 1,000+ products. That being said, the candidate should understand that, in the real world, it would be spreadsheet with 1,000+ lines, and columns describing the product and one of the following options: • Revenue and COGS • Price, Cost/unit and Volume • Margin and Volume • Margin and Revenue The last one is easier to work in this case, but we will use margin vs. volume, and considering that there is no relevant difference in prices among the products. Therefore, a scatter plot is the best option. Once the candidate asks for it, show him/her the graph on the next page.

Case 8: Milk & Cheese, Inc.
Sample Framework



Case 8: Milk & Cheese, Inc.

Profitability *BCG*



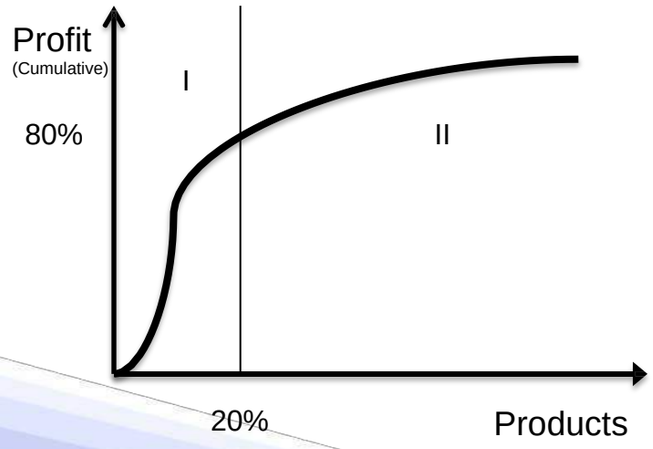
Case 8: Milk & Cheese, Inc.

Profitability *BCG*

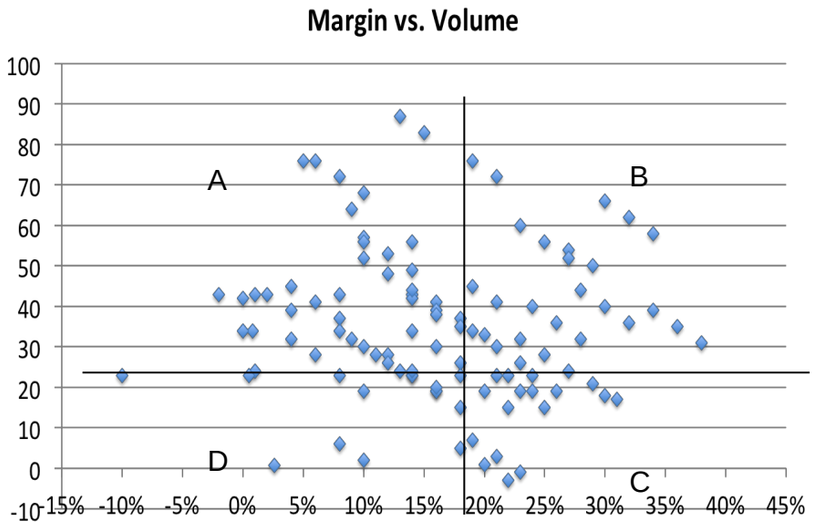
Guidance	If the candidate asks, provide the following information: • SG&A is not affected by the potential changes • Average volume is 35k tons • Average Margin is 16% The candidate must do his/her own graphs: Pareto (80/20) or dividing the prior graph in four squares, using the averages as axis. If the candidate does not realize it, show him/her the next page.

Case 8: Milk & Cheese, Inc.

Profitability



BCG



Case 8: Milk & Cheese, Inc.

Profitability *BCG*

Guidance	In the first graph, the idea is “all the products in the category I is important for the company. The problematic products will be in the category II”. There are ~200 products in category II. In the second graph, consider that there are at least 200 products in each zone. The idea is: “the products in the zone D should be considered our targets to be no longer in MCI portfolio”. Finally the candidate should arrive at a conclusion along the lines of: “Based on our analysis, there are at least 200 products that are not bringing relevant contribution to MCI profit. MCI should consider selling these products to minor competitors or simply stop its production, if selling these products to competitors represents a major risk.”

Case 8: Milk & Cheese, Inc.

Profitability *BCG*

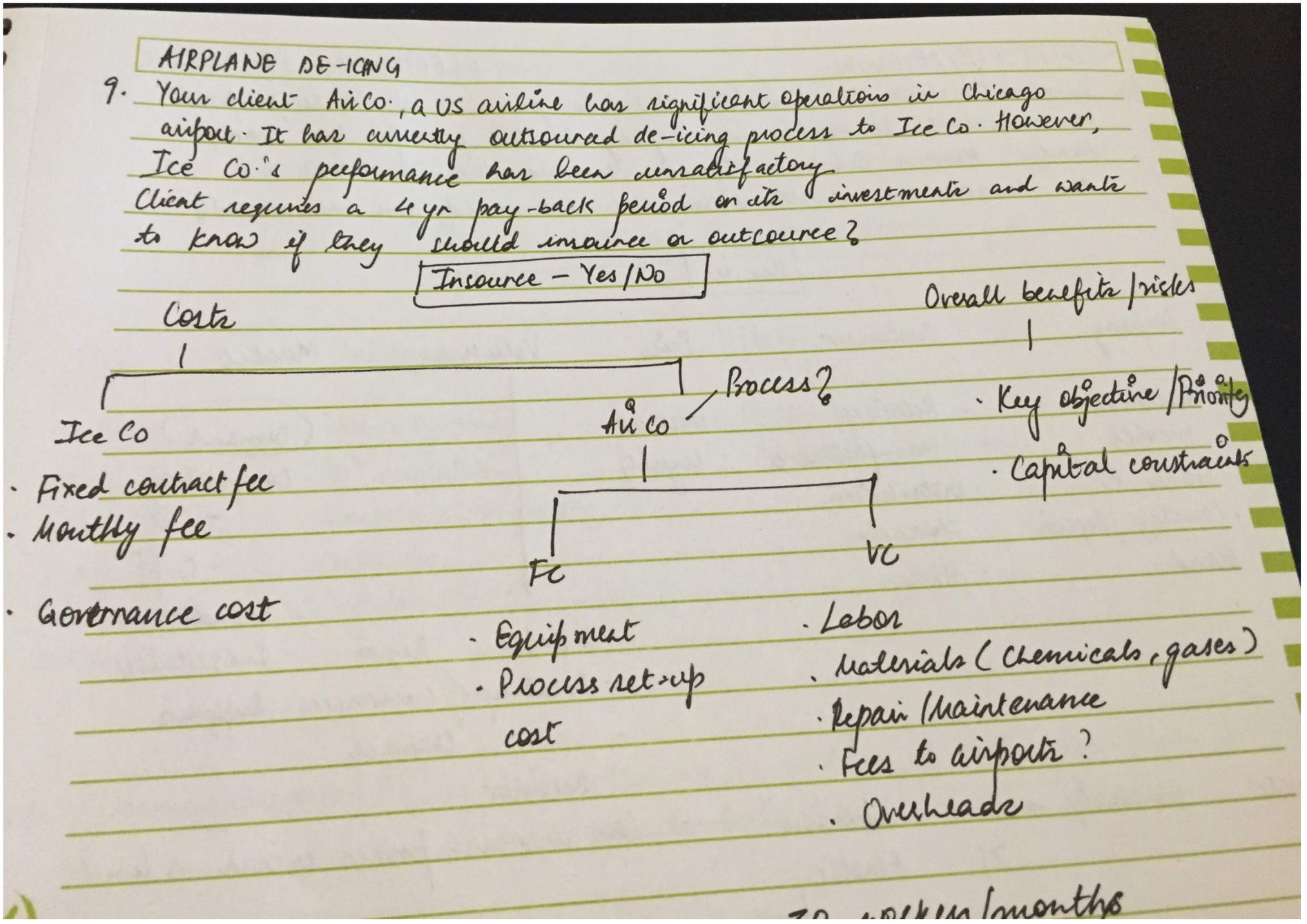
Performance Evaluation	**Expected:** • Structures a sound profitability framework • Figures out the graph analysis is the best method • Suggests the scatter plot or the 80/20 chart **Good:** • Complete all "Expected" requirements • Suggests both analyses methods • Quickly asks for information to understand the goals of the company (desired/undesired margins) **Excellent:** • Complete all "Good" requirements • Suggests more than one alternative to deal with the problematic products (stopping, selling, empowering, analyzing potential growth, etc.) • Analyzes risks of suggested solutions (e.g., selling to major or minor competitors may jeopardize MCI businesses) • Could solve the case without much help from the interviewer

Case 4: Airplane De-Icing (I of IV)
Bain, Round 1

Problem statement narrative
Your client is AirCo, a U.S. airline that has significant operations at on the of Chicago airports. **Due the cold weather, the client's place often have to be de-iced, but because the need de-icing is very unpredictable, the client decided to outsource the de-icing to IceCo last year. However, IceCo's performance has not been satisfactory.** **The client is considering in-sourcing airplane de-icing, but currently does not have enough resources do the de-icing in-house.** **The client requires a 4-year payback on investments and wants to know if they should in-source or outsource the de-icing?**

Guidance for interviewer and information provided upon request(1)
• **Cost comparison on in-sourcing vs. outsourcing – see Handout 1, but first have candidate outline what the major cost bucket are.** • **If the client in-sources the de-icing, they will need to hire 150 people for the whole icy season, but the actual number of workers per month fluctuates and can get as high as 60. We have to pay workers for the whole month, even if we only need them for one week** • **Each worker costs $4,000 / month** • **There are 5 months in the icy season** • **The performance problems result from IceCo taking too long to de-icy the planes, leading to delays. We cannot quantify the impact of this.**

Case 4: Airplane De-Icing
Sample Framework



Case 4: Airplane De-Icing (II of IV)
Bain, Round 1

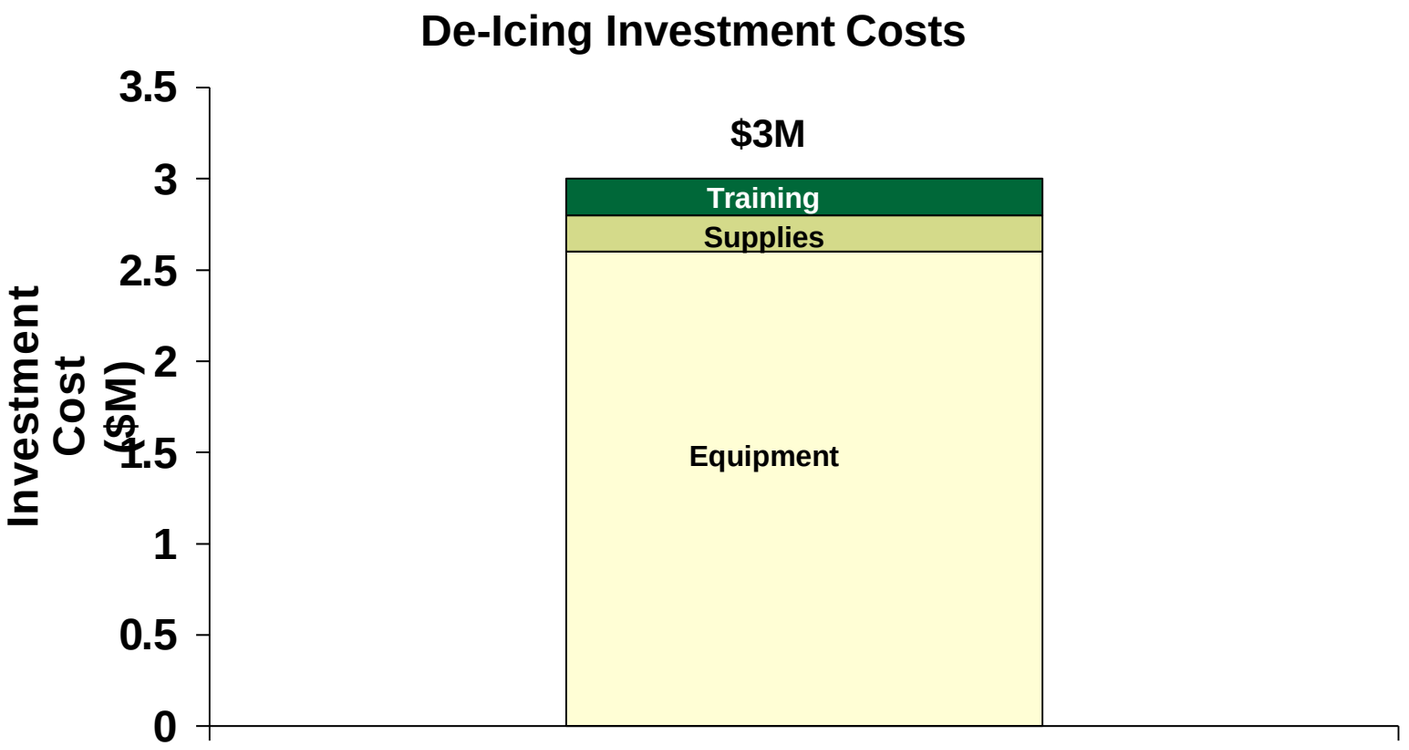
Comparison of Outsourced vs. Insourced De-Icing Costs

	IceCo	Client
Number of Events	3000	3000
Fee per Event	$300	NA
Labor Costs	N/A	?
Cost per Gallon of Chemicals	$5	$5
# of Gallons of Chemical per Event	40	40
Cost per Event	?	?

Candidate: Please complete and explain the 2nd column

Case 4: Airplane De-Icing (III of VI)

Bain, Round 1



Case 4: Airplane De-Icing (IV of IV)
Bain, Round 1

Calculate in-sourced labor costs per event

3000 events/season x 5 months/ event = 600 events/month

150 workers/season / 5 months/ season = 30 workers/month

30 workers/month x $4000/worker/month = $120K/month

Labor cost/event = $120K/600 = $200 per event

Calculate in-sourced labor costs per event

Outsourced cost:
$300 + $5 x 40 = $500/event

In-sourced cost:
$200 + $4 x 40 = $360

Savings = $140/event

Calculate payback period for the investment

Savings per year:
$140/event x 3000 events/yr = $420K

Payback:
$3M/$420K = 7 years > than 4 year payback requirement

To decrease payback period…

Reduce investment costs – lease equipment instead of purchasing it.

Decrease labor costs to increase savings per event: re-negotiate labor contracts; explore more flexible options instead of hiring by month.

Try to quantify impact of performance problems so these benefits can be monetized and added to the payback calculation.

To improve IceCo's performance…

Implement SLAs that require IceCo to meet pre-determined performance metrics.

Tie IceCo fees to meeting SLAs.

Week 2

Case 14: American Beauty Company

Introduction

Problem statement narrative

American beauty company is, as the name suggests, a high quality beauty products company. They have done very well both in US and globally and enjoy great brand recognition. One of their major products is hair color. ABC manufactures high quality 'use at home' hair color products. They sell through retail and drugstores, will all manufacturing in-house. They have an 800 number for customer support. Recently they have been experiencing declining revenues and market shares. The retailers have complained about their products as the competition Bell International takes over. The firm has been called in to advise ABC on what to do.

Question 1:
How would you start thinking about this problem?

Its an open ended question. There can be number of ways to approach this problem. Crucial here is to look at the big picture and come up with three or four major areas that you would like to explore given this specific product, industry and the situation. Do not get caught in the profitability trap due to mention of declining revenues.

A good answer would include following:

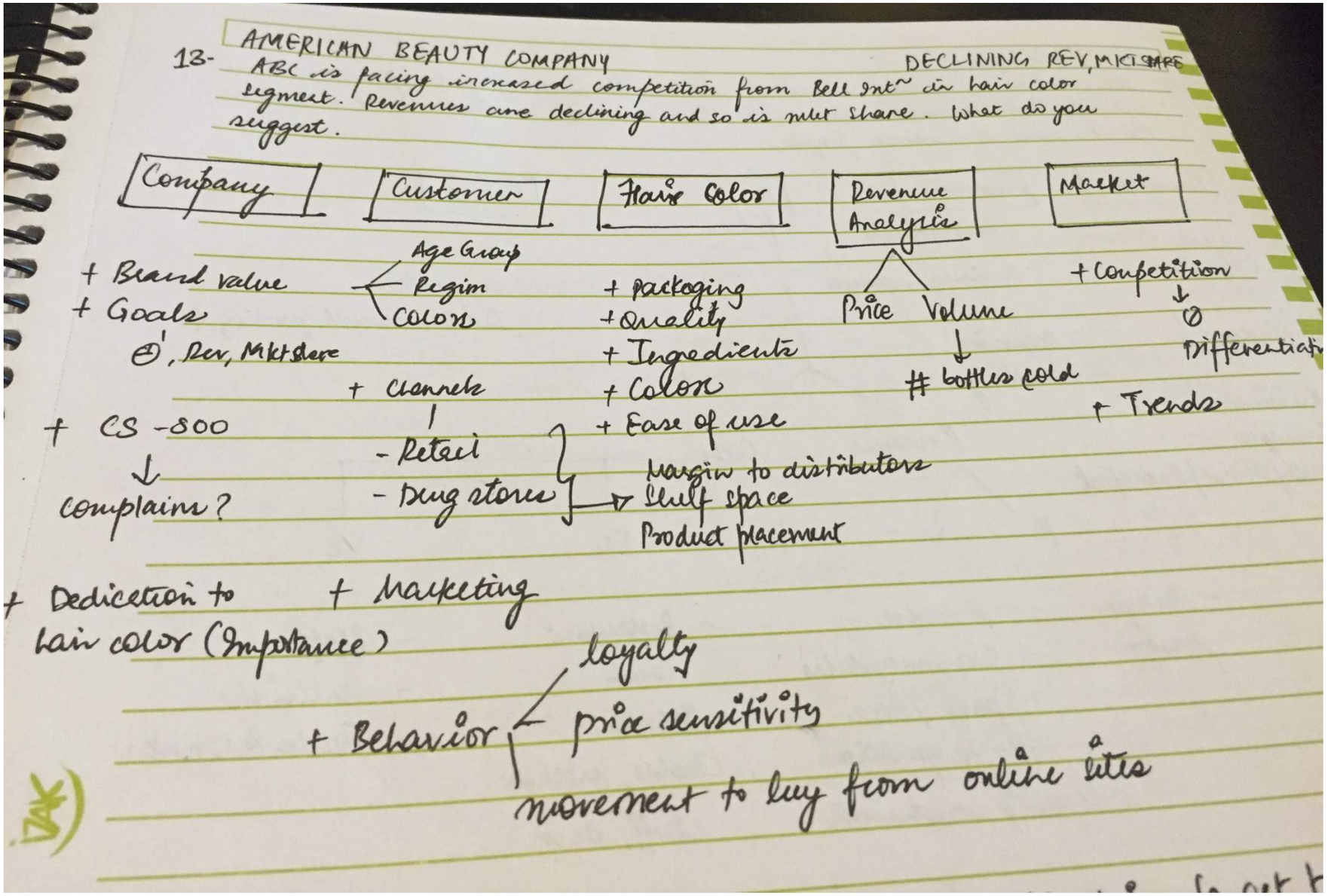
Product
- Attributes
- Ease of use Value proposition Price
- Benchmark against competition & your value proposition
- Market share and trends

Customer
- Target market segment(s)
- Brand loyalty
- Price sensitivity
- Important attributes
- Typical customer behavior. What they like / dislike about our product
- Buying habits

Distribution channel
- Distribution network
- Shelf space & positioning relative to competitors Share of distribution network compared to competitors

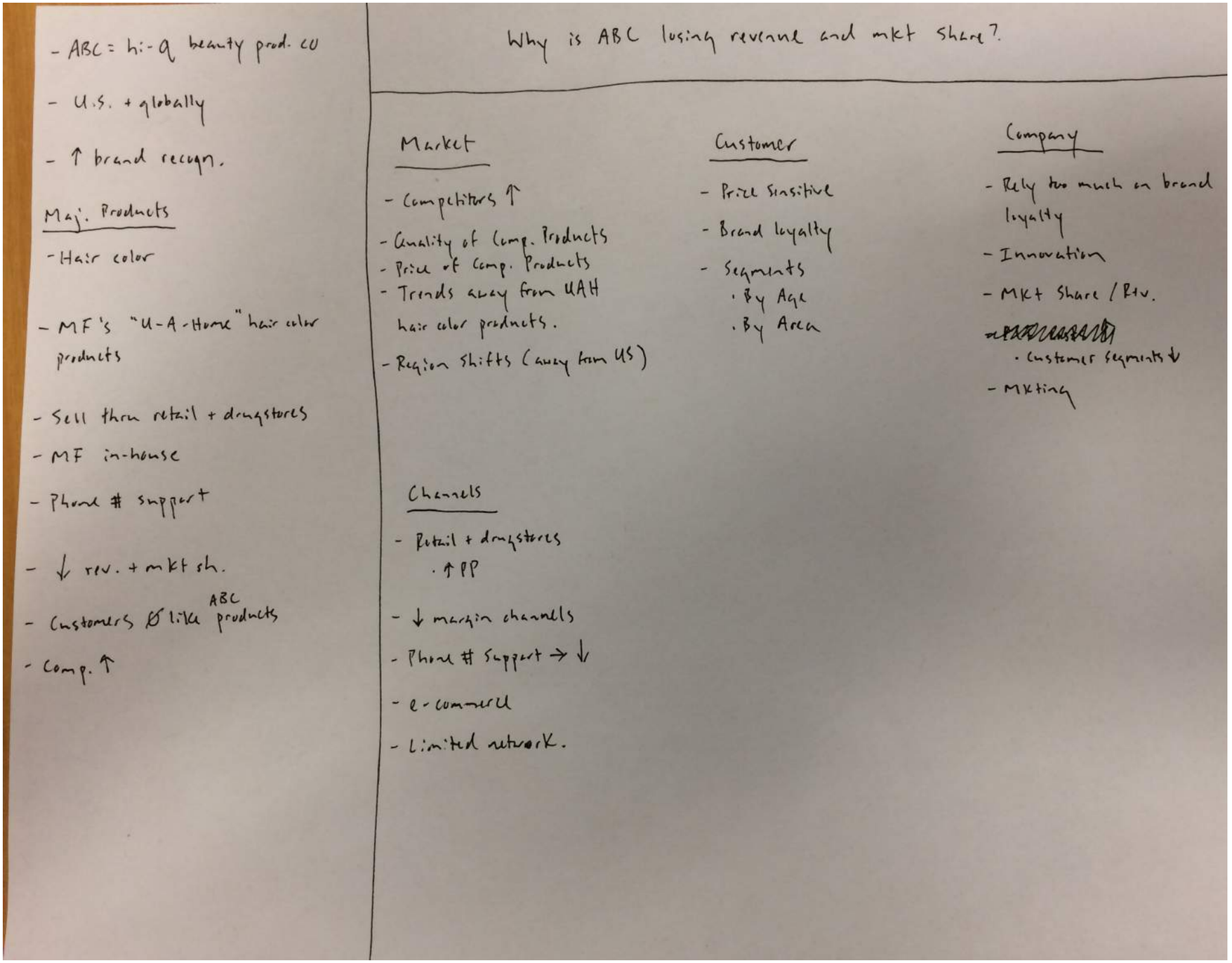
Case 14: American Beauty Company

Sample framework



Case 14: American Beauty Company

Sample framework



- ABC = hi-q beauty prod. co
- U.S. + globally
- ↑ brand recogn.

Maj. Products

- Hair color
- MF's "U-A-Home" hair color products
- Sell thru retail + drugstores
- MF in-house
- Phone # support
- ↓ rev. + mkt sh.
- Customers ∅ like ABC products
- Comp. ↑

Why is ABC losing revenue and mkt share?

Market

- Competitors ↑
- Quality of Comp. Products
- Price of Comp. Products
- Trends away from UAH hair color products.
- Region shifts (away from US)

Customer

- Price Sensitive
- Brand loyalty
- Segments
  - By Age
  - By Area

Company

- Rely too much on brand loyalty
- Innovation
- Mkt Share / Rev.
- [illegible]
  - Customer segments ↓
- Mkting

Channels

- Retail + drugstores
  - ↑ PP
- ↓ margin channels
- Phone # support → ↓
- e-commerce
- Limited network.

Case 14: American Beauty Company
Question 2 and 3

Question 2: One of their biggest market segments is 18 – 55 yrs old women. But their share has been declining recently. Why do you think this might be happening? How would you approach this issue?

There might be a number of issues here. You could suggest doing a market research to break down the issue into brand awareness, trial % and re-trial and acceptance %, access (distribution) to figure out which one of these may be critical for ABC. You can also suggest benchmarking against competitor products.

Question 3: Using the data below, what sales are required for ABC to have 50% of the women's market in 2 years?

Segment	Size ($ Mn)	Growth rate
Women	800	5 %
Men	200	20%
Teens	100	10%

It will be good to point out that based on this data looks like their biggest segment, women, is maturing fast.
Total Women's Mkt in 2 yrs = 800 * (1.05)^2 = 882
50% mkt share = 441

Case 14: American Beauty Company

Question 4

Question 4: What is the dollar market share for ABC currently? What will the mkt share be in 2 yrs?

You will need to ask for the current and future mkt share data. Current mkt share is as below. Assume they keep the same mkt share in 2 yrs.

Segment	Size ($ Mn)	Growth rate	Current Mkt share
Women	800	5 %	50%
Men	200	20%	10%
Teens	100	10%	30%

It will be good to notice that ABC has quite low penetration rates in men's segment. ABC's
current $ mkt share = .5 * 800 + 0.1 * 200 + 0.3 *100 = 400 + 20 + 30 = 450
Total mkt in 2 yrs = 800 * (1.05^2) + 200 * (1.2^2) + 100 *(1.1^2)= 882 + 288 + 121 = 1291
ABC's mkt share in 2 yrs = 441 + 28.8 + 36.3 = 506.1
Mkt share % = 506.1 / 1291= 39.2%

Case 14: American Beauty Company

Question 5

Question 5: The team also did a customer brand awareness and perception survey in the 18 – 55 yrs women segment for ABC benchmarking its products against the competitor Bell. The results of the survey are in the table below. What do you notice and what do you suggest ABC can do about it?

Survey 1: Brand awareness, 18 – 55 yrs, Women

Bell users	80% know about ABC
Non users	40% know about ABC, 60% know about Bell
ABC users	95% know about Bell

Survey 2: Perception of quality, 18 – 55 yrs, Women

Segment	ABC is higher quality	Bell is higher quality
ABC users	95%	85%
Bell Users	70%	95%
Non users	55%	85%

You can see from the results of both the surveys that despite its high quality and brand recognition, the competitor Bell fares better amongst customers in both dimensions whether users or non users.
ABC should focus on improving its brand awareness and perception of quality. For brand awareness, they have to focus on advertising. To improve its perception of quality, they should invest in promotions, joint marketing efforts with retailers to push their product and trials.

Case 14: American Beauty Company

Recommendation

Recommendation	A good recommendation will include the following major points: Based on the analysis so far, it seems like the main reason for declining revenues and market shares is that the competitor Bell has achieved better brand awareness and perception of quality in the market compared to ABC. Hence ABC should focus on improving these through advertising and aggressive promotions and marketing. Going forward, it seems like ABC has very low penetration in the men's segment. They should target these segments for future growth opportunities since the women's segment seems to be maturing. Also, the total market size of teens seems really low. There might be opportunities there to expand the total market size through innovative products, increased usage and acceptance of hair color products.

Case 6: Town Mayor
Company: McKinsey & Co.

Case Question: The client has just been elected to be the Mayor of a town of 500k people in the United States. The town has experienced some hard economic times and there has been a slight decline in the population. The Mayor's election platform was centered on a message of economic revival with a plan to be launched in the first 100-days. The Mayor has hired you to help develop the plan. What information would you like to know about the city and what is your plan?

Instruction to the interviewer: The objective of this case is

- To see if the candidate can come up with a comprehensive framework to get to a solution
- To see if the candidate can complete some quantitative analysis
- To see if the candidate can demonstrate creativity

Sample Structure:

- Location and the surrounding cities
- Current businesses and environment
- Government support – tax incentives, infrastructure support, etc.

Question: What could've caused the population/economic decrease?
Possible answers:

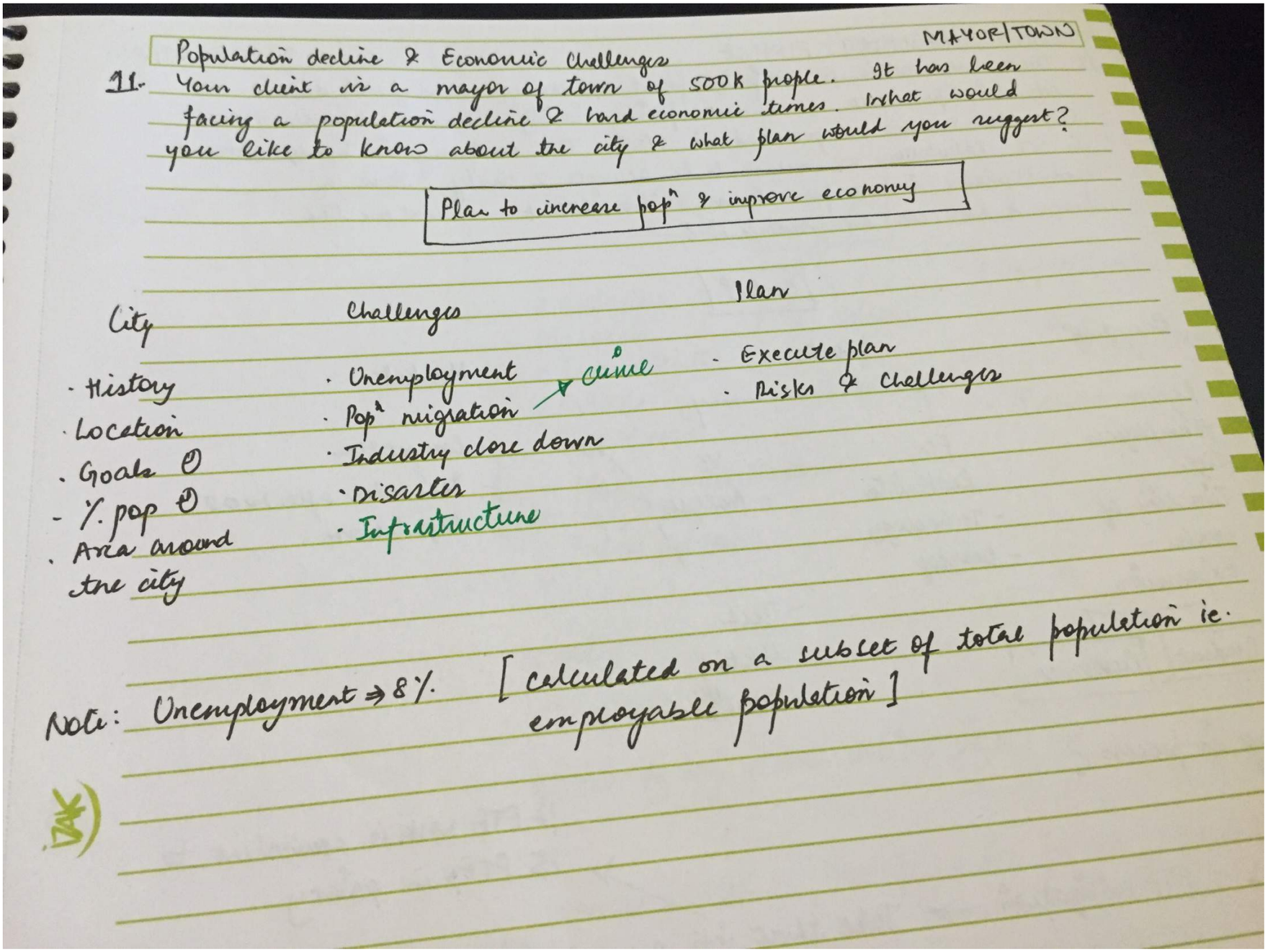
- Poor macro conditions
- Tax increases
- Aging population
- Deteriorating infrastructure
- Surrounding cities are having poor times
- Increasing crime rates
- Major airlines cut numerous flights too and from the city

Quantitative Analysis: Unemployment is currently 8% and the Mayor would like to increase the population by 5% and decrease unemployment to 5%. How many new companies will they need?
Solution: 60% of the population can work and the average company size is 500 employees. <u>This is needed to solve this problem, only give it to them if they know they need to ask for it.</u>

Population	500,000		
% Eligible to Work	60%		
Possible Workers	300,000		
Current Unemployment	8%		
	Current	**Goal**	
Employed	276,000	299,250	=300,000*1.05*.95
Unemployed	24,000	15,750	=300,000*1.05*.05

This requires creating 23,250 new jobs
At 500 jobs per company, this is ~50 new companies/plants

Town Mayor – Sample Framework



MAYOR/TOWN

Population decline & Economic Challenges

11. Your client is a mayor of town of 500k people. It has been facing a population decline & hard economic times. What would you like to know about the city & what plan would you suggest?

Plan to increase pop^n & improve economy

City	Challenges	Plan
· History	· Unemployment → crime	· Execute plan
· Location	· Pop^n migration → crime	· Risks & Challenges
· Goals ⓘ	· Industry close down	
· % pop ⓘ	· Disaster	
· Area around the city	· Infrastructure	

Note: Unemployment ⇒ 8%. [calculated on a subset of total population ie. employable population]

Question: What could be done to get the ~50 companies/plants?
Possible answers:

- Get current companies to expand locally
- Offer to build roads to and from the plants
- Tax Incentives
- Lobby other governors of "at-capacity" cities to suggest your city (think L.A.)
- Lobby federal government for more federal jobs
- Active marketing of the city as a destination spot

Question: The state is looking to build a new university and is considering this city. Is that a good thing? Should the Mayor support this?

Possible Concerns:

- The town is older (retirement community) and not ready for this
- No central location geographically to put a large university
- How will the university be funded? What will the cities role be?
- What is the time frame?
- Will progress be able to be made before the next elections come up?

Final: Ask the candidate to give a 30-second summary

Case 9:Electronics Warehouse -medium- McKinsey&Company, Round 2

(Source: Case Interview from McKinsey&Company, Round 2)

Context:

Our client is an electronic warehouse selling all kinds of electronics and home appliances. It was founded in 1990 and currently owns 375 stores located in all major cities across the US.
They have a healthy profit margin and represent a major player in the electronics retail market, but the CEO hired us to help them grow even quicker.
Recently they opened a number of smaller conceptual stores and these stores are less profitable than the regular ones.
We have the task to help them grow aggressively while maintaining the profitability.

Interviewer: What are the key areas to investigate in order to determine why the new stores are not profitable?

A good answer will identify the followings:
I would like to look into the following areas:

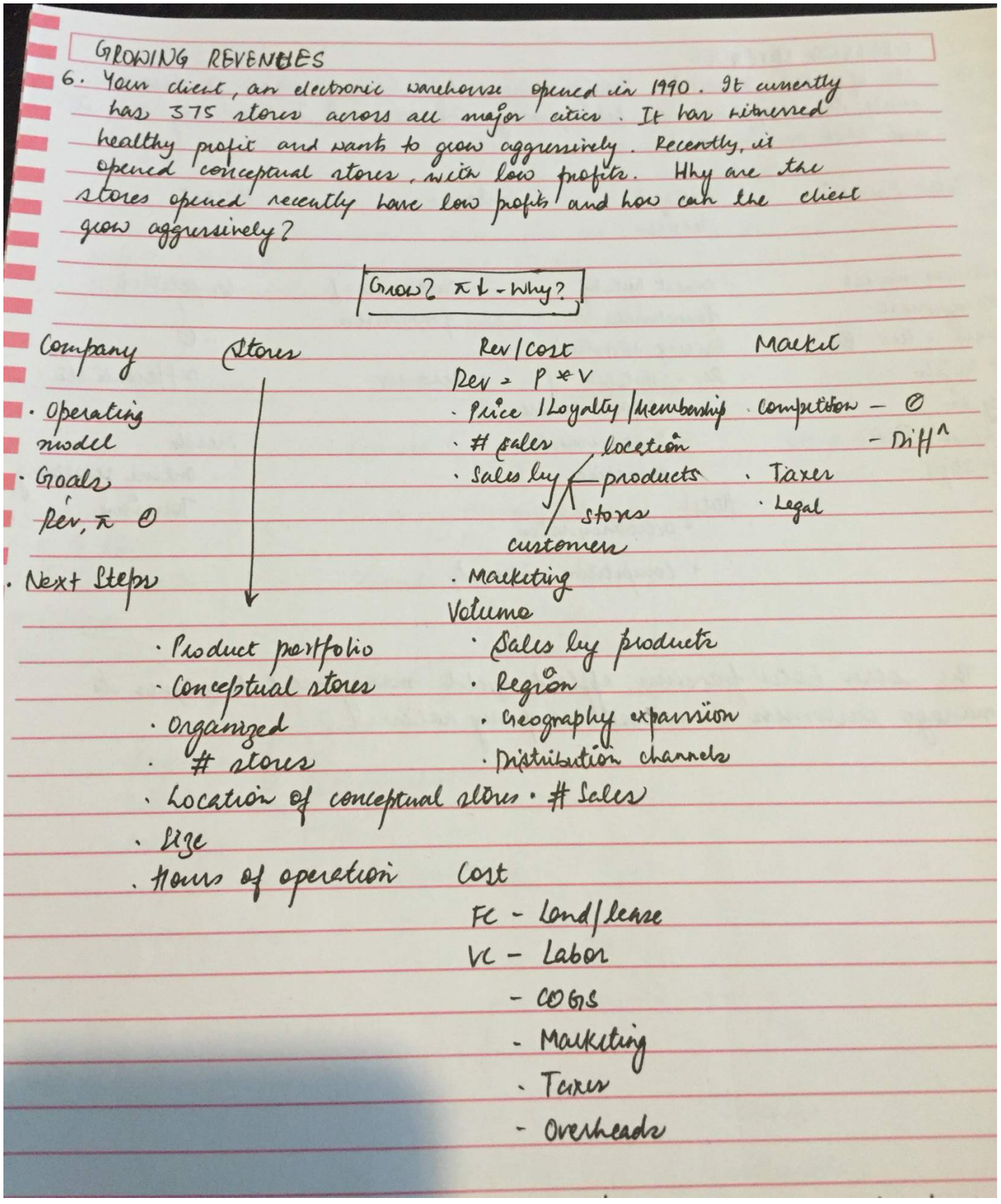
- Revenues:
  - Type of products sold in these stores
  - Assortment
  - Number of customers entering these stores
  - Type of customers(income levels, family status, etc) and how the assortment in the stores meets their needs
- Costs:
  - As related to the volume sold (mainly fixed costs)
  - Labor costs; maybe higher trained personnel
  - Distribution costs(from suppliers to the store)
- Competition:
  - What is the presence of competition in the area
  - What kind of stores the competition has in the area
- Other:
  - Number of hours open
  - Type of stores
  - Location of the stores
  - What are the customer's needs and how our client manages to met them

Interviewer: How many stores do they need to open in order to secure a 20% market share in 5 years?

Information to be provided upon request:

Current electronic Retail Market = $150B
Current Market Share = 10%
Electronic Retail Market in 5 years = $200B
Aggressive growth would mean achieving 20% market share in the next 5 years.

Electronics Warehouse
Sample framework



GROWING REVENUES

6. Your client, an electronic warehouse opened in 1990. It currently has 375 stores across all major cities. It has witnessed healthy profit and wants to grow aggressively. Recently, it opened conceptual stores, with low profits. Why are the stores opened recently have low profits and how can the client grow aggressively?

Grow? π↓ - Why?

Company
- Operating model
- Goals
  Rev, π ⊙
- Next Steps

Stores
- Product portfolio
- Conceptual stores
- Organized
- # stores
- Location of conceptual stores
- Size
- Hours of operation

Rev/Cost

Rev = P * V
- Price / Loyalty / Membership
- # Sales
- Sales by: location, products, stores, customers
- Marketing

Volume
- Sales by products
- Region
- Geography expansion
- Distribution channels
- # Sales

Cost
- FC - Land/lease
- VC - Labor
  - COGS
  - Marketing
  - Taxes
  - Overheads

Market
- Competition - ⊙ - Diff^
- Taxes
- Legal

Case 9: Electronics Warehouse -medium- McKinsey&Company,Round 1

(for simplicity of the calculation take into account that the current stores are all of the same revenue size and the future ones will have the same average revenues; the candidate should realize that this calculation would be different if that was not being considered)

Current state:
Market = $150B
Market share = 10%

- χ Revenue = 10% * $150B = $15B
- χ Revenue per store = $15B/ 375 = $40M

In 5 years:

Market = $200B
Market share = 20%

- χ Revenue = 20% * $200B = $40B

- χ Growth needed in revenues = $40B- $15B = $25B
- χ No of stores needed = $25B / $40M = 625 (but new stores will be only specialized that have lower revenue)

Interviewer: Is their current strategy a successful one?
A good candidate will realize that the result is not feasible (they have 375 stores from 1990 – 18 years)

Interviewer: How can they achieve their objectives?

Possible options:

- Open only the old type of stores
- Choose locations with a specific type of inhabitants (income, family status, hobbies, etc)
- Introduce new products and use the customer database to sell them
- Implement marketing campaigns, loyalty cards
- Make contracts with schools, institutions, hotels, etc
- Become a distributor for small electronics stores
- Raise prices on non price-sensitive products
- Acquire/merge with a competitor
- Get into other channels like online sales, door to door sales
- Start selling services (repairs, installations, etc)

Case 12: Pharma Acquisition -medium- McKinsey&Company, Round 1

(Source: Case Interview from McKinsey&Company, Round 1)

Context:

Our client is a global pharmaceutical company that produces over the counter drugs and has its headquarter in Frankfurt, Germany.
They are thinking of acquiring another pharmaceutical company located in San Francisco, that produces nutritional drugs (for weight loss, diabetes, etc).
The CEO hired us to advise whether they should acquire the company or not.

Interviewer: What are the key areas to investigate in order to determine whether the acquisition is a good idea or not?

A good answer will identify the following:

- First I would need to understand the rationale for the acquisition, that can be for:
  - acquiring resources (increase capacity, increase distribution, broaden product line, technology, human capital, R&D, brand name, customer base) or
  - cost reduction (economies of scale, economies of scope).

It is very important that the acquisition makes sense economically (positive NPV), but we also need to look into the organizational issues (will potential synergies be realized, is the firm in the position to perform the integration).
In addition, I would assess the geographic differences of the two companies under discussion.
Finally I would look into the likely response of competitors if the acquisition occurs and maybe alternatives to acquisition and compare it to the acquisition itself (other target, organic growth)

Information provided upon request:

- **Purpose of acquisition: increase profits**
- **The SF company has 4 drugs in the market**
- **Both companies are selling their products globally.**
- **The R&D department is based in the same location with the HQ**
- **Revenues from an approved drug of the San Francisco based company is $1.5M**

(show the next chart to the candidate)

Drug authorization % for San Francisco based company

Case 12: Pharma Acquisition - medium- McKinsey&Company, Round 1

Interviewer: We just discovered that we can improve the yield form phase 2 to phase 3 by investing $150K in the R&D technology.
By how much should the yield increase so as to break even?

Other information given upon request:
The present value of launching a product is $1.5M

Solution guide:
To break even, cost needs to be equal to revenue
If x = the increase in the success rate from phase 2 to phase 3 then:
$150,000 = x * 70% * 90% * $1,500,000
=> x = 15.8%
(it means that the success rate should increase by approximately 15.8%/40% = 40%)

Interviewer: What are the risks involved with this acquisition?

(The candidate should be able to recognize the different risks involved)

- the strategic rationale
- likely response of competitors if acquisition occurs
- organizational issues: different locations for the HQ, integration of the two organizations
- profitability of the acquisition (NPV calculation)
- alternatives to the acquisition

Week 3

Case Title:	Alpha Capital
Company:	McKinsey & Company
Interview Round:	1st Round – Summer Associate
Case Tags:	Private equity
Duration:	25 minutes

Question:
Alpha Capital is a private equity firm that is looking to buy a high-end male fashion retail chain, named BNG. This is a private retail chain, and was started in California 20 years ago. Alpha Capital is looking to see a 25% ROI in 3 year's time. They want us to help them decide whether to buy BNG, and to assess BNG's economic growth in 3 years.

Things Interviewee Should Consider / "Framework":
- Macroeconomic conditions
- Competitive landscape
- Comparisons between locations of a multi-site retail business

Facts to Share (if prompted):
- BNG has 10 retail outlets, all in California, and its annual revenue is $60 million
- BNG sells men's jeans, shirts, and shoes, all of which are sold only in their own boutiques to control the high-end image
- All clothing is manufactured in the U.S.
- The owner will sell the chain for a one-time payment
- Since this is a McKinsey case and the interviewee will be asked specific questions, please see the walkthrough for additional information

Summary of Key Insights:
- It's important to be able to come up with as many ideas as possible to answer the interviewer's questions.
- Focus on analytics of the visual aide(s), as it gives great clues to the solution the interviewer may be hoping for.

Walkthrough of Solution:

Q1: What factors would you look at to assess BNG's prospect of growth?

- Context
  - Macroeconomic Factors
  - Industry size / growth rate
  - Competitive Landscape
- Positioning
  - Consumer Perceptions (e.g. what is the size and growth rate of current demographic? Can brand be leveraged to appeal to different/wider target?)
  - Pricing (potential for optimization?)
  - Channels (e.g. potential to sell in department stores?)
  - Product (potential to expand product line to wallets, etc.? lower-end line?)
  - Brand awareness (especially outside California for potential growth)
- Operations/Organization
  - Strength/Incentives of management team
  - Efficiency of operations (potential to manufacture overseas?)

Q2: The owner of BNG is willing to sell the chain for a one-time payment. The chain currently experiences 20% profit, and will earn $60million next year. What factors should Alpha Capital look at to determine the maximum price to pay for BNG?

- *Additional information provided after relevant questions*
  - *Growth will be 10% for the next 3 years*

Q3: Calculate the maximum amount Alpha Capital would be willing to pay for BNG.

- *Additional information provided after relevant questions*
  - *Assuming no cost of capital (interviewee should state this assumption or ask if there is a discount rate that's appropriate)*

To receive 25% ROI, Alpha Capital would be willing to pay $31.6 million.

Q4: BNA's 10 stores have been experiencing dramatically different revenue. What do you think are the causes for this variability?

- Location
  - Consumer population/demographics
  - Foot traffic - walk-by (mall) vs. drive-to (strip mall)
  - Proximity to competitors
  - Marketing support (are there local marketing campaigns?)
  - Proximity to supply chain – possibility of stock-outs?
- Human Resources
  - Quality/ experience of store managers / salespeople

- Monetary incentives of store managers / salespeople
- Others include local differences in Product Selection, Store Size, Store Layout, Signage, In-Store Promotions, etc. As the interviewer, reject these hypothetical sources of variability, saying things like "No, all stores have the same product selection and all stores are the same size, etc."

Q5: What are some of the drivers of growth of BNG?

- External Drivers
  - Macroeconomic conditions
  - Competitive pressures
  - Fashion trends
- Internal Drivers
  - Products – variety, quality, etc.
  - Marketing communication
  - Channel selection – location of stores, lower-end line in department stores?
  - Operational efficiencies – manufacture overseas?

Q6: (Exhibit B) – shows the price sensitivity graphs for 1. Belts/shoes and 2. Shirts & Pants.

We see that BNG is in the inelastic portion of a double-kinked demand curve for belts/shoes, and they are in the elastic portion of the demand curve for shirts/pants.

From this chart, what do you think BNG can do to increase their profits?

- Firstly, they should increase price on belts/shoes
- Instead of a current revenue of Price * Volume = 1 * 1 = 1, they could increase price to 1.2 and volume would only lower to 0.9, so they would have revenues of 1.2 * 0.9 = 1.08 This would increase profits by AT LEAST 8% because they would boost revenue 8% while decreasing variable costs through selling less product.
- Secondly, in shirts/pants, they could decrease price to 0.8, which would increase volume to 1.8, for total revenue of 0.8 * 1.8=1.44, BUT we cannot tell whether this would increase total profitability unless we knew more about their cost structure

One tactic could be to:

- Decrease price of J/S/P to increase traffic into stores
- Increase price of B/S to extract more profits

What do you think is the meaning of the two "kinks" in the belts/shoes demand curve?

These kinks are our competitors' price points. Perhaps our competitors have a high-end line of belts/shoes as well as a low-end line of belts/shoes.

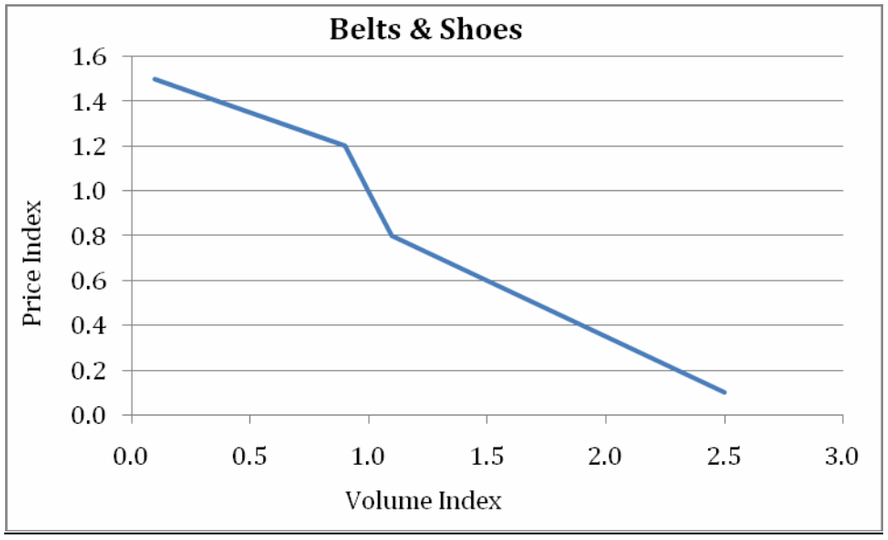
Q7: BNG is considering opening 14 new stores. The CEO wants you to tell him what factors are the most important for him to consider as he opens these stores.

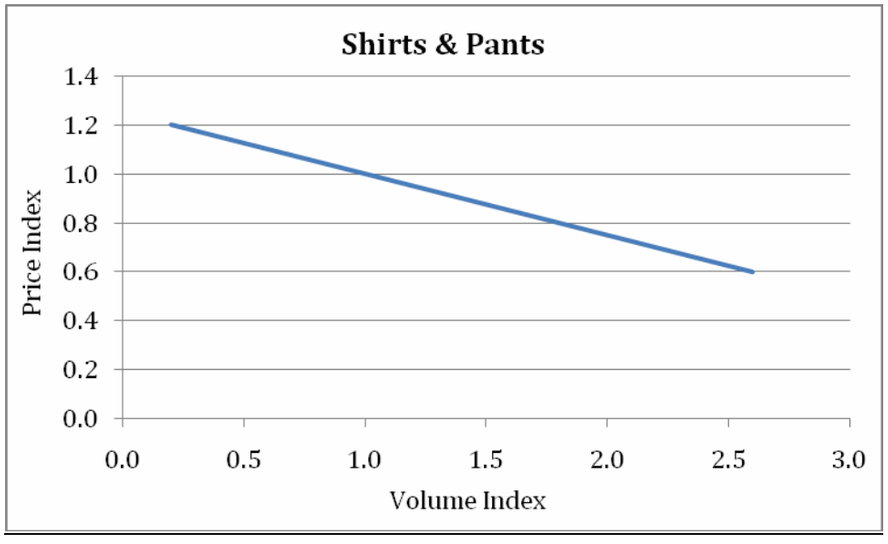
~~Summarize findings.~~

Exhibit A:

	Year 1	Year 2	Year 3	Total
Profit	$12.0 million	$13.2 million	$14.5 million	$39.5 million

Exhibit B:


Belts & Shoes
Price Index
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Volume Index


Shirts & Pants
Price Index
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Volume Index

Case 13: Euro Logistics

Strategy *McKinsey & Company*

Prompt	Euro Logistics is a big logistic company. It wants to improve its customer satisfaction index. **What should they do?**
Guidance	Provide the following information upon request: • The company is a large logistic company (such as Maersk). They provide the logistic services only in Europe • They have many trucks, sea port terminals all around Europe and cargo ships • The logistic market is very competitive and Euro Logistic understands that offering a better customer service is a good way to differentiate themselves in this market

Case 13: Euro Logistics

Strategy *McKinsey & Company*

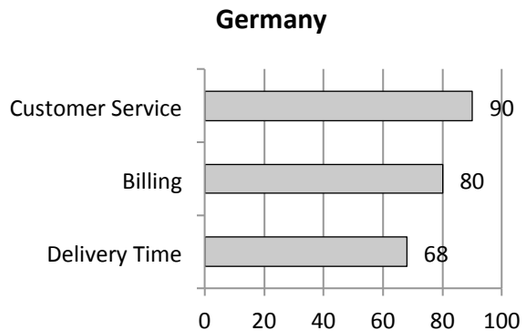
Guidance	The candidate should provide a framework that touches the value chain of the company. When he/she talks about customer satisfaction, he/she should consider that the customer evaluates the company based on contact with the service, from the start to the end of the experience. When the candidate asks how the customers evaluate the Euro Logistics' service level, provide Exhibit 1.
Prompt	**What can you conclude from this table? Is there a particular measure or country that Euro Logistics should pay a special attention?**

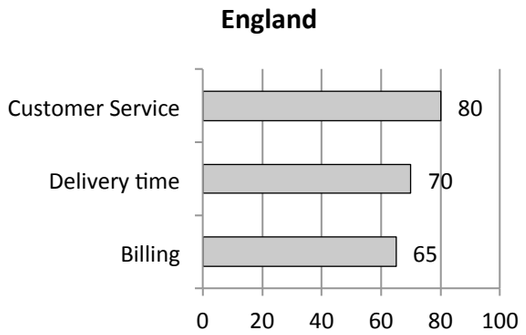
Case 13: Euro Logistics

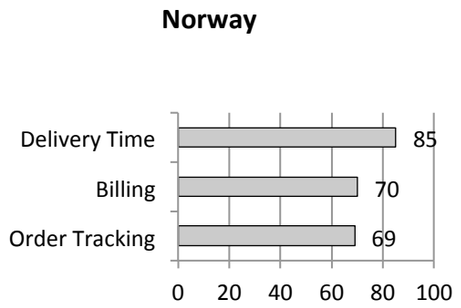
Strategy *McKinsey & Company*

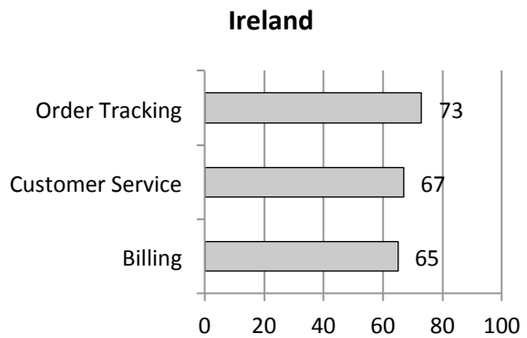
Exhibit 1: Customer Satisfaction Survey

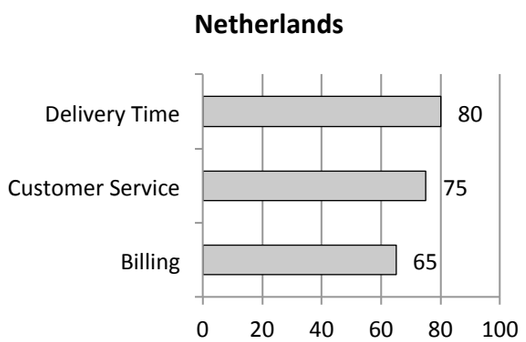
The tables below represent a survey filled by over 250 companies. The charts shows in order of what is most important for the companies in each country. Scores above 75 are considered good.

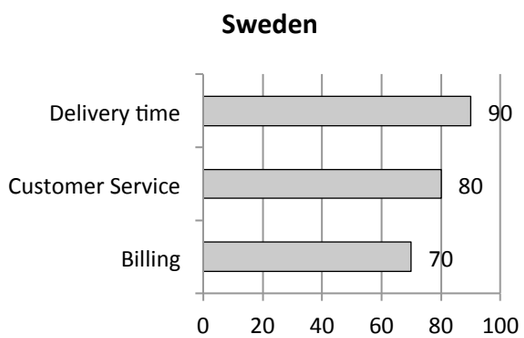


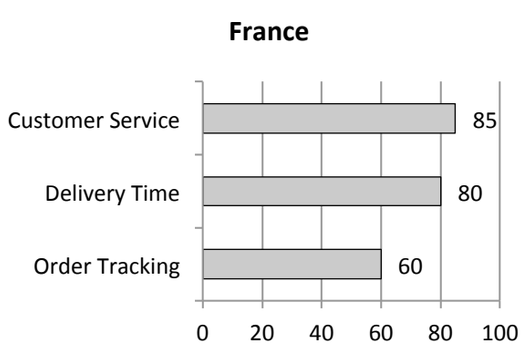


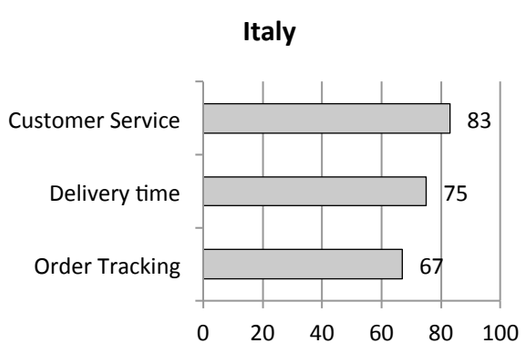












Case 13: Euro Logistics

Strategy *McKinsey & Company*

Guidance	Provide the following information to accompany Exhibit 1: • Billing: bills should be provided within 30 days before its due date without any billing mistake. Mistakes or delays reduces the score of this point • Customer Service: all orders are received through a call center. The call center is also used to answer any questions that the customers might have. Delays to pick-up the calls and/or failing to give the right answer reduces the score for this point • Order Tracking: an online tool that allows the customer to track the shipment in real time. Lagged information or lack of detailed information reduces the score for this point • Delivery Time: delivering the shipment on schedule, without any delay. Delays reduces the score The candidate should realize that following: • Billing and Order Tracking are the points that has the lowest average scores and they are considered important by most countries • Customer Service is very important and highly rated • Delivery Times have some bad rates, but the delays are caused because of delays in customs. The only thing Euro Logistics can do is provide a more realistic delivery deadline

Case 13: Euro Logistics

Strategy *McKinsey & Company*

Prompt	Euro Logistics wants to improve its Billing and Tracking Order systems. Our team estimates that it will cost then 5 M Euros to buy each of these new systems, but we estimate that the new systems will reduce the churn rate (% of customers lost per year) by 20%. **Should they do it? What's the payback period of this investment?**
Guidance	Provide the following information upon request: • Current Yearly Revenues = 150 M euros • Current Churn Rate: 25% • Net Margin = 30% • Goal: payback in less than 2 years Revenues lost per year = $ 150 M x 25% = 37.5 M euros Savings provided by the new system = $ 37.5 M x 20% = 7.5 M euros Payback period = Investment / Savings = 10 / 7.5 = 1.3333 years = 1 year and 4 months The candidate should recommend investing.

Case 13: Euro Logistics

Strategy *McKinsey & Company*

Performance Evaluation	**Expected:** • Provide a MECE framework • Understands the charts on the exhibit and correctly recommends that the client focus on Billing and Tracking Orders • Correctly calculates the payback period **Good:** • Completes all "Expected" requirements • Asks relevant questions right after the first prompt is read **Excellent:** • Completes all "Good " requirements • Provides a framework that touches at least 4 points of the company's value chain

Case 10: Beverage Manufacturer

Introduction

Problem Statement Narrative

Our client is one of the top three beverage manufacturers in the U.S. They are thinking of launching a new flavored non-sparkling water product. The company is a vertically integrated beverage manufacturer that makes the drinks, has five bottling plants, and owns their own distribution channels.

They have asked us to determine whether or not they should launch the new product, how to do it, and what the marketing strategy should be.

Overview for Interviewer

Let the interviewee ask questions based on his or her structure. They should quickly ask questions about some of the following issues:

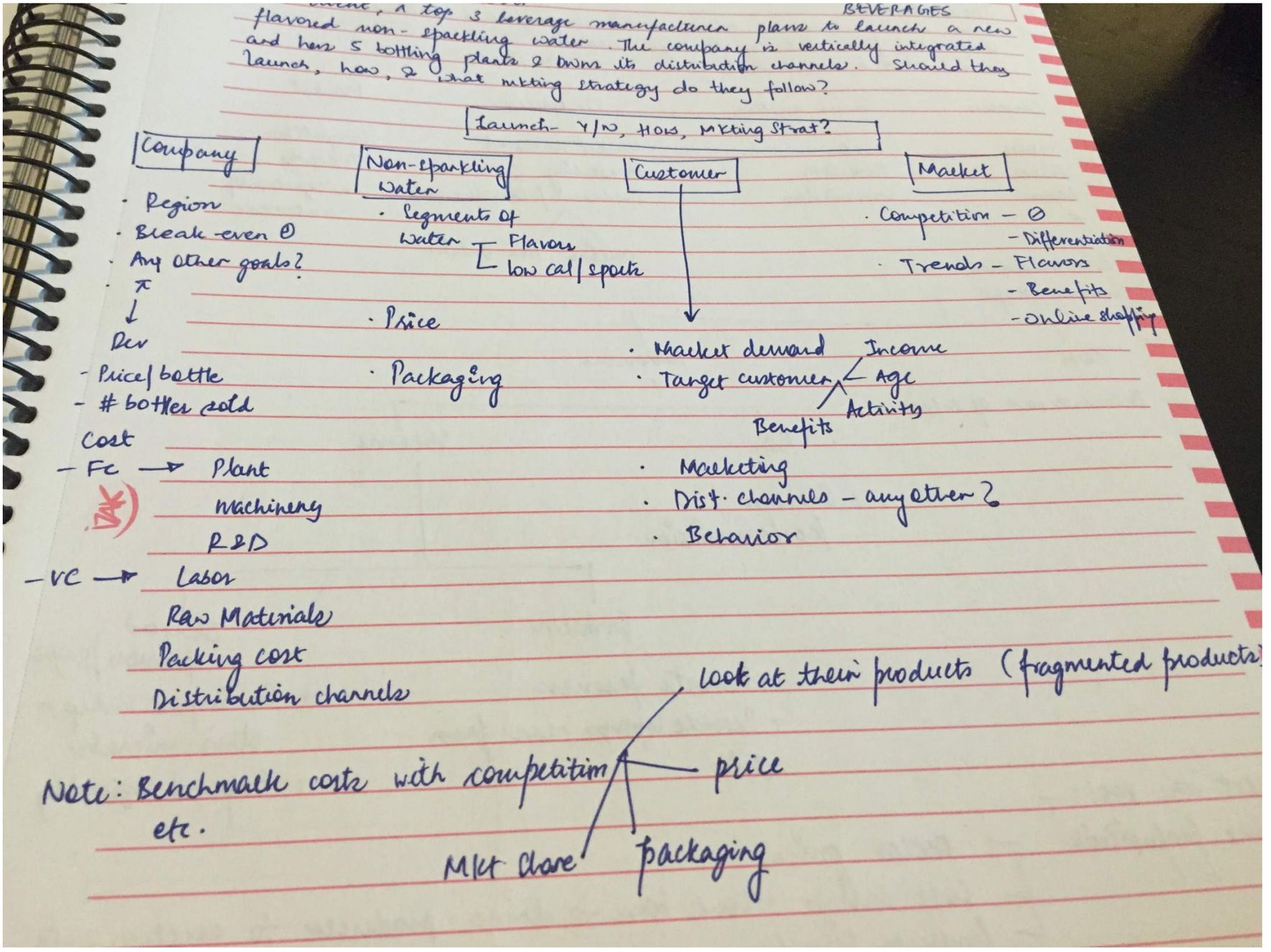
- Size of the entire flavored water market
- Breakdown of the flavored water market by category (i.e. sparkling vs. non-sparkling)

Information to be Provided Up Front

The information provided in the statement is all the candidate receives at this point. Once the candidate asks questions related to the market, please hand out the next page.

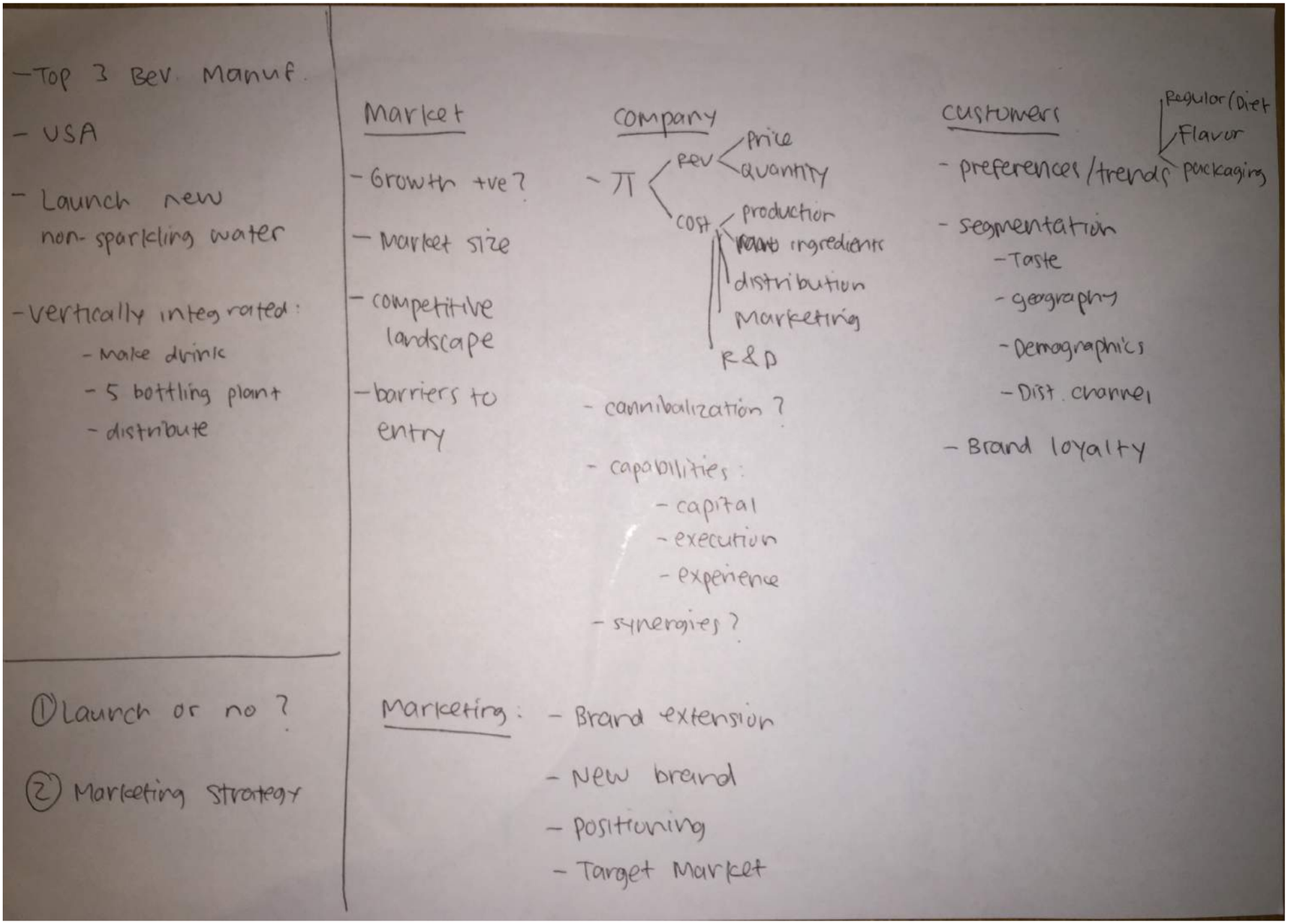
Case 10: Beverage Manufacturer

Sample Framework



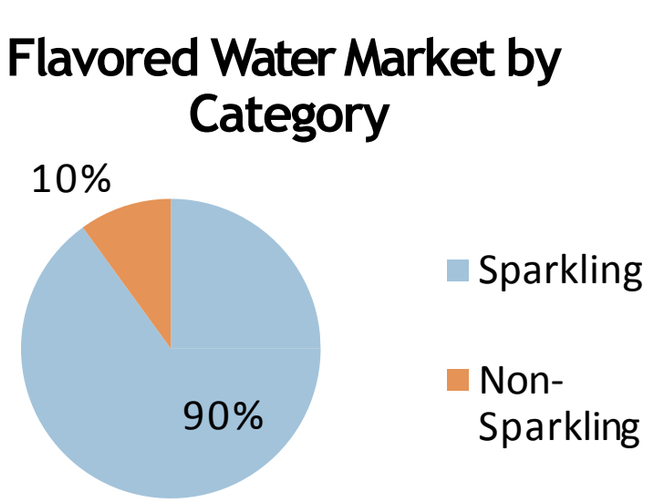
Case 10: Beverage Manufacturer

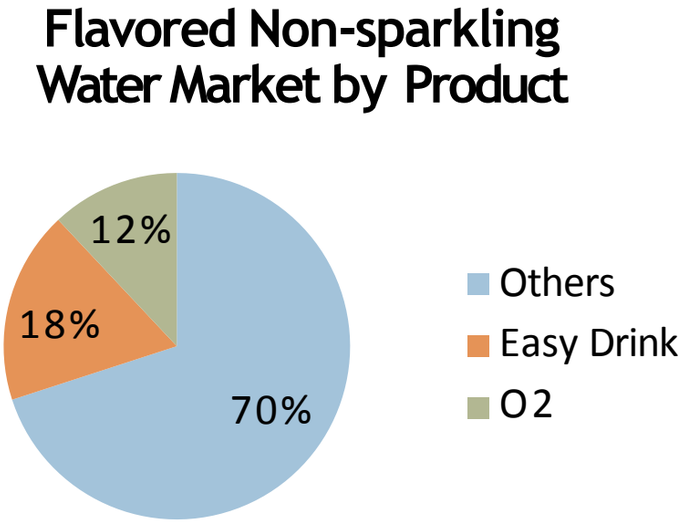
Sample Framework



Case 10: Beverage Manufacturer

Provided Data





Case 10: Beverage Manufacturer

Market Sizing

What insights do you draw from the information provided?

The interviewee should now volunteer some key insights, which should include:

- Non-sparkling water represents a small share of the overall market
- Only two competitors have large market shares → our client may have an opportunity to emerge as a third large competitor in this highly segmented market

What is the potential size of the non-flavored water market?

The candidate should ask what units the market size should be calculated in (i.e. revenue, bottles sold, etc). In this case, ask the candidate to calculate both the size of the non-flavored water market in terms of number of bottles sold and revenue.

The following information should be provided to the candidate upon request:

- There are 8 million gallons of water sold in the entire flavored water market per year
- All drinks in the flavored non-sparkling water market are packaged in 16 oz bottles and our client plans to do the same
- There are 64 ounces in a gallon
- We can assume that drinks are priced, on average, at $1 per bottle

Math

The interviewee should go through the following calculations:

- 10% of 8 million gallons = 800,000 gallons of non-sparkling water sold per year
- Each bottle contains 16 oz; since there are 64 oz in a gallon, then there are 4 bottles per gallon
- 800,000 gallons * 4 bottles in a gallon = 3.2 million bottles sold per year
- 3.2 million bottles * $1/bottle = $3.2 million revenue per year

Case 10: Beverage Manufacturer

Breakeven Analysis

How long would it take the client to break even on a new product in the non-sparkling water market?

Information to be provided upon request:

- Variable cost per bottle of flavored non-sparkling water = 90 cents
- Start-up launch costs, including all initial R&D and marketing costs = $400,000

Math

$400,000 / 10 cent profit per bottle = 4 million bottles need to be sold to breakeven

The interviewee should note that 4 million bottles is larger than the entire annual market for such products, so it will take a few years to reach this amount (assuming there is no change in the overall market size).

The interviewee should determine a reasonable market share goal. The important thing is not to come up with an exact market share target, but to back up whatever assumption s/he makes with logical reasoning. For example, here is a possible thought process:

- Since the new entrant is a major company, it should have strong brand name power and distribution networks. Since the other main competitors have 12% and 18% and our product is backed by a strong company, our company will come in somewhere in that range. Let' s use the mid-point 15% as an estimate.
- 15% of 3.2 million bottles = 480,000 bottles to sell per year → approximately 0.5 million bottles
- 4 million bottles to breakeven / .5 million bottles → it will take approximately 8 years to breakeven
- Candidate should note that 8 years is an "eternity" in a market like beverages where new beverages emerge constantly and trends change quickly

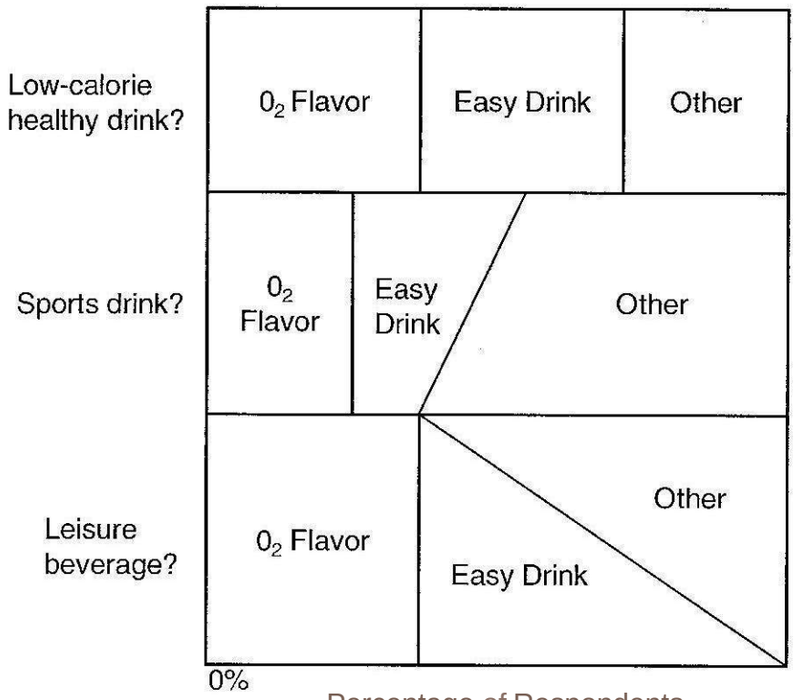
Case 10: Beverage Manufacturer

Positioning

If our client wanted to go ahead with the product launch, how should they position the product in the market?

The interviewee should ask for information on how the two main competitors are positioning their drinks currently. When s/he asks, provide them with the following results from a recent customer survey:

Respondents' preferred beverage type



Percentage of Respondents

Case 10: Beverage Manufacturer

Final Questions and Recommendation

What insights do you draw about positioning from the previous chart?

The client's new product will be in the "other" category and should try to gain share among that sub-market

The client should position the product as a sports drink or leisure beverage, since those are the categories where "other" has the largest market share

What risks should our client consider when thinking about proceeding with this venture?

Possible answers include:

- Changes in the customer preferences for beverages (i.e. flavored water is a fad)
- Response from competitors
- Cannibalization (i.e. how many other similar products does our client make?)
- Unfavorable breakeven time period given previous analysis

Final recommendation to CEO?

A good response will include some variation of the following points:

- This is probably a questionable investment at best
- It will take a substantial amount of time to breakeven, probably longer than what is reasonable for a product in the beverage industry
- If the client still decides they want to launch a product in this space, they should leverage their strong brand and distribution network to market a sports drink and/or leisure beverage

Case 10: Bagging Co. (Popcorn)
Company: BCG 2nd round

Bagging Co. makes rolls of grease-proof paper. The production of this paper is unique in that there are many mechanical differences in the production process compared to other paper production lines. In particular, these machines require a larger upfront capital expenditure. Bagging Co. sells this grease-proof paper to bag converters. The bag converters add glue and produce the actual bag of popcorn, then turn around and sell it to major packaged food companies for resale.

Recently, the R&D dept. at Bagging Co. discovered a means to reduce grease soakage by 10x. This is achievable by a relatively simple modification to the current equipment at a negligible cost.

Should Bagging Co. make the new paper?

Instructions to the Interviewer: The objective of this case is

- To understand the market impact of a new technology / product
- To conduct quantitative analysis in order to understand industry economies
- To form a pricing strategy

Sample structure:

- Identify profitability drivers for client and client's customer
- Opportunity identification

Question: *Where might the value be in this product?*
Possible Answers:

- End users (popcorn consumers)
  - "cleaner" experience
- Bag converters
  - Reduced costs
  - Stronger pricing power vs. non-adopting competitors
- Novel applications (other markets – to be explored later)

Question: *Where would there be more value – End users or bag converters?*
Answer:

- End users probably don't care –usually dump bag into a bowl, not really concerned about grease drip on outside
- Bag converters may care more – if they can reduce costs or raise prices somehow with superior packaging

Additional info to be given:
Bag converters like the product. They currently create double-ply popcorn bags and now would be able to create single-ply.
Bag converters current cost breakdown –

- *$.30 / 2 sheets*

- *$.10 / receptor (film applied to bag)*
  - *$.05 / popcorn*
  - *$.05 / other manufacturing costs*
- *$.50 TOTAL COST*

Client cost breakdown-

- *$.10 / sheet (1/2 FC, 1/2 VC)*

Question: *How much does grease soakage decrease using single-ply of new paper?*
Answer: *5x*

Question: *What is driving bag converters desire for this product?*
Answer:

- Need to explore current economics and what changes (2-ply to 1-ply). Costs will decrease.
- $.15 → $.35 NEW TOTAL COST
- Adopting bag converters can potentially squeeze out competition by lowering prices and maintaining strong profit margin

Question: *What is client's profit margin without technology?*
Answer: Profit is $.05 / sheet, or $.10 / bag, or 33% margin

Question: *How should the client price a sheet of the new grease-resistant paper?*
Answer:

- VC = $0.05 / sheet still
- Assuming same level of production, FC becomes $.10 / sheet.
- Total cost is $.15/sheet
- Sale price to bag converter can logically fall in a range from $.15 to $.30
  - $.15 produces no client profit
  - $.15 - $.25 produces less profit / bag than current product, no advantage to client
  - >$.30 costs more to bag converter than current product, no advantage to bag converter
  - $.25 - $.30 produces advantage for both client and bag converter

Question: *What are other applications / markets for this new technology?*
Possible Answers:

- Grease-resistant food storage (anything from Tupperware to restaurant to-go boxes)
- Other packaging materials
- Auto mechanics industry (bolts, rings…etc.)
- Restaurant industry (floor mats for instance)

Week 4

Case: EasyNav

McKinsey, Mock Interview

Problem statement narrative

EasyNAV is a multi-national third-party fund accounting company based in New York. Asset managers, such as Fidelity or other smaller investment shops, often outsource the calculation of their daily fund prices to third-parties such as EasyNAV. These fund prices, called Net Asset Values, or "NAVs," represent the per-share price of the fund, which then becomes published to the general public, e.g., in the Wall Street Journal. Given the high financial stakes, asset managers require EasyNAV to be both highly accurate and timely in their NAV calculations. This is still a highly manual process due to the number of data sources required to collect this information and inconsistency in data formats delivered to EasyNAV. Although business growth has been strong over the last five years, EasyNAV has seen its costs rising more quickly than its revenues. At the current trajectory, costs will exceed revenues within the next decade, and something must be done. *What are the causes of EasyNAV's rising costs, and what can be done to reduce them?*

Overview for interviewer

The initial problem statement specifically asks the candidate to explore EasyNav's rising costs. Therefore, the candidate should ignore typical Profitability frameworks that explore Revenues in addition to Costs.

After the candidate develops a framework the interviewer should move on to the subsequent questions.

Case Type: Profitability / Operations
Case Style: Command & Control

Information to be provided upon request

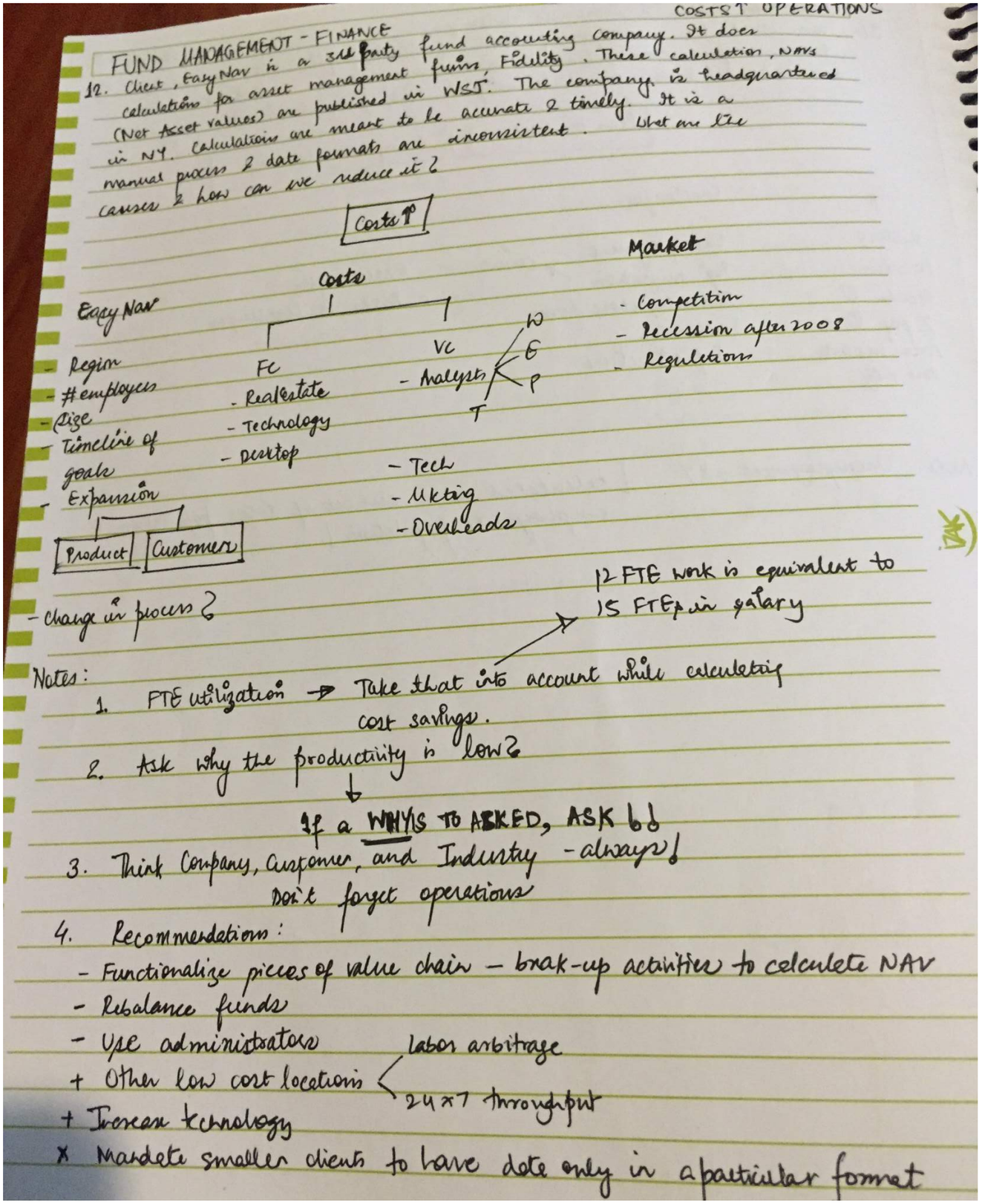
Steps EasyNav uses to calculate NAVs:

1. Verify the number of shares of each security that is held within the fund
2. Verify the number of outstanding shares of the fund itself
3. Receive and confirm the market-close prices of each security in the fund (must wait) for the equity markets to close; 4pm EST)
4. Use all available data to calculate NAV and send to requisite publishers – Wall Street Journal, Financial Times, etc. (must submit by 6pm EST)

Case: EasyNav

McKinsey, Mock Interview

Sample framework



Potential Issue Tree & Approach to Solving the Case

Key elements of analysis to solve the case

Company

How does EasyNAV operate?
- Workflow process
- Balance of labor

Possible follow-up and guidance to interviewer

- Bottleneck of waiting for market-close prices will cause EasyNAV to have to staff to this peak period of capacity demand, leaving periods of time earlier in the day that are left with slack capacity.
- Dedicated fund accountants who process each account from start to finish are more costly than functionalizing roles along the value chain.

Customer

Who are they?
- Influx of small asset managers
- Shift in customer mix

Possible follow-up and guidance to interviewer

- Smaller asset managers have simpler systems leading to ad hoc/manual methods of delivering data to. EasyNAV, which increases labor & cost
- Greater business from new customers vs existing customers requires greater expense in initial account setup.

Industry

What are the industry trends & norms?
- Shift to wider range (and complex) investment products
- Technology adoption rates

Possible follow-up and guidance to interviewer

- Shift from typical mutual funds to derivatives add to complexity and are more difficult to price.
- Few third-party fund accounting companies relying on technology to calculate NAVs resulting in high labor costs.

Question 1 – Cost Reduction

Question

EasyNAV has 125 fund accountants today (the FTEs who calculate NAVs) who typically are assigned 3-6 funds each, which they work with from morning until end of business. These fund accountants tend to be very busy during the end of the day in order to meet submission deadlines. Separately, EasyNAV also has a staff of 25 fund administrators who deal mainly with the publishing of quarterly and annual prospectuses (i.e. a report of fund performance). In addition to its operations in upstate New York, EasyNAV has fund accounting operations in Melbourne, Australia, which handles some internationally domiciled funds. What are some possible ways for EasyNAV to improve their workflow and reduce costs?

Information to provide up front

None

Provide information if asked

None

Overall approach, good shortcuts & solution

Possible solutions:
-- Functionalize pieces of the value chain to properly align resources with work load. For example, instead of one fund accountant following a fund from beginning to end, break up the steps to calculating a NAV.
-- Rebalance funds across different fund accountants to ensure that the most complex funds are handled by the best fund accountants (load balancing).
-- Utilize the fund administrators group to help process funds during the peak end-of-day period. Since their work output is on a quarterly basis, they may have capacity to assist the fund accountants during crunch time.
-- Utilize all locations (U.S., London, India) to better load balance work through time zone arbitrage. For example, end-of-day activities for London would take place during quieter morning/noon times for the U.S., so excess capacity in the U.S. could be used to help London during peak times.
-- Utilize potential low-cost regions of the globe for additional offshoring.
-- Increase use of technology to reduce manual processes

Question 2 – Productivity Loss

Math Question

Due to market changes, the team believes that productivity per FTE has dropped over the past five years. Because more complex funds take more manpower to process, EasyNAV normalizes the difficulty of each fund by assigning funds a "complexity point score," which allows a fair fund-to-fund comparison (e.g., a fund with complexity score 15 takes three times as long to process as a fund with complexity score 5). The team needs to determine the level of severity of this productivity drop. To do this, data in Exhibit 1 has been collected. Using this data and any other data you might deem necessary, what is the percentage drop in productivity over the past five years, where "productivity" can be expressed as complexity points per FTE?

Information to provide up front

Exhibit 1 should be provided after problem statement is read.

Provide information if asked

- Large funds have an average of 10 complexity points each
- Small funds have an average of 20 complexity points each
- Number of large funds has grown 25% over the last five years
- Number of small funds has grown 120% over the last five years
- Number of fund accountant FTEs has grown 150% the past five year

Overall approach, good shortcuts & solution

Solution: 20% drop in productivity

	5 years ago	Today
# large funds	100	**125** [=100*(1+25%)]
# small funds	200	**440** [=200*(1+120%)]
# FTEs	50	**125** [=50*(1+150%)]
# complexity points for large funds	**1,000** [=100*10]	**1,250** [=125*10]
# complexity points for small funds	**4,000** [=200*20]	**8,800** [=440*20]
Total complexity points	**5,000** [1,000+4,000]	**10,050** [=1,250+8,800]
Complexity points / FTE	**100** [=5,000/50]	**80.4** [=10,050/125]

Question 3 – Resource Allocation

Math Question

After meeting with EasyNAV management, the team is asked to explore potential savings by utilizing fund accountant downtime in one geography to assist another geography during their peak time between 4-6pm. Specifically, they would like us to examine how the Melbourne location could assist the New York location. Additional information uncovered:

-- Melbourne is 16 hours ahead of New York
-- FTEs are paid an equivalent of USD $50,000 per year
-- New York has 100 FTEs staffed throughout the day, Melbourne has 60 FTEs
-- Utilization of FTEs varies throughout the day based on the

-- Due to natural variances in workload per day, a location's average utilization cannot exceed 80% of the total available FTEs. That is, an average safety cushion of 20% FTEs is required all times of the day to allow for very busy days. Both location's full-staffing levels reflect New York to meet the average need of 80 employees in peak hours).

If all available slack capacity in Australia could be diverted to help work on New York-processed funds during their peak activity period of 4-6pm, how much could be saved in labor expense by reducing the New York staffing requirement?

Information to provide up front

Exhibit 2 should be provided after problem statement is read.

Provide information if asked

Utilization is a measure of how much of a location's total available FTE resources are being used (demanded) at any given time, e.g., if a location has 5 FTEs on hand, and the utilization is 60% at noon, then the demand for work is 3 FTEs at that time.

Overall approach, good shortcuts & solution

See following slide.

Question 3 – Solution

Math Solution

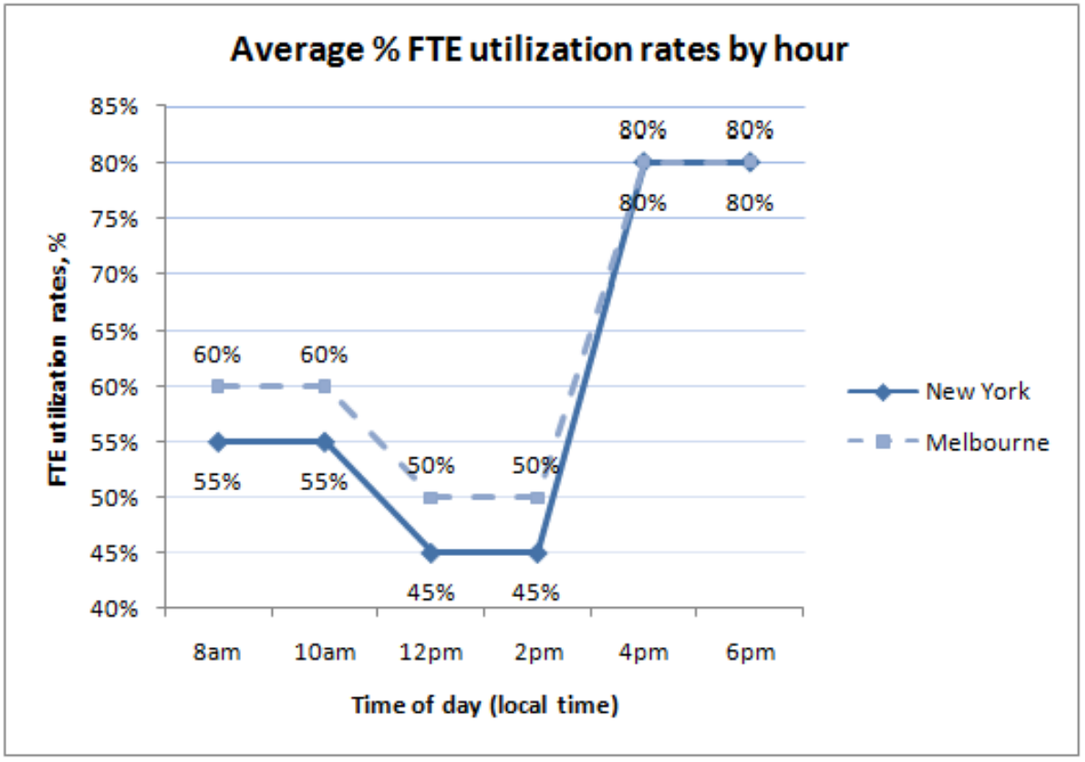
Solution: EasyNAV will save $750,000/yr, or about 15% of total New York FTE spend

- Time zone conversion: 4-6pm peak period in NY is 8-10am in Melbourne
- Available resources in Melbourne:
  - -From the exhibit, average utilization in Melbourne from 8-10am is 60%, therefore there is 20% capacity before reaching the 80% threshold (average utilization cannot exceed 80% during any period of the day)
  - -Therefore, 20%*60 FTE = 12 FTEs available to assist NY
- New resource requirement in NY by utilizing Melbourne:
  - -During the peak time of 4-6pm, NY has an average of 80% FTE utilization, meaning that 80%*100 FTEs = 80 FTEs needed/working during this time
  - -By utilizing Melbourne, EasyNAV can reduce the 80 FTE demand by 12: 80-12 = 68 FTEs required in New York
- Savings due to reduction of FTE requirements in NY:
  - -EasyNAV can reduce staff in NY so that the 68 FTEs required during the peak time represent 80% staffing requirements
  - -Therefore, 68 FTEs/80% = 85 FTEs
  - -FTE savings of 100-85 = 15 FTEs
  - -Dollar savings of 15 FTEs*$50,000 = $750,0000

EasyNAV Exhibit 1

	5 years ago	Today
# large funds	100	
# small funds	200	
# FTEs	50	
Complexity points / FTE		

EasyNAV Exhibit 2



Sample Recommendation

Recommendation	EasyNav's primary cost driver is the mismatch between FTE resources and demand. The client can reduce these costs by utilizing slack capacities between New York and Melbourne. Such an arrangement will allow EasyNAV to reduce its labor by 6 FTE, a savings of $300,000/year.
Risks	Trade-offs to maximum efficiency (e.g. potential loss of quality or less-skilled labor in offshore agreements, loss of ownership, etc)
Next Steps	EasyNAV may benefit from greater automation of manual processes and, in addition, can work with its clients to mandate standardized data submissions to streamline NAV calculations.

Case 17:State Social Service -medium- Bain&Company, Mock

(Source: Mock Case Interview from Bain&Company)

Context:

Your client is a U.S. state's social services agency. The agency is responsible for administering the state's social work programs.
Recently, the state legislature passed a law that will change the agency's funding structure.
Previously, the agency had been funded at a fixed dollar amount. Now, under the new law, the agency will be paid according to performance, as measured by the number of interviews they conduct with state social work clients.
The agency has hired you to determine how the change will affect them and what they should do about it.

Interviewee: Before we going into the problem of the case I would like to understand how this agency is functioning, what are the activities that are performed by the agency.

Interviewer: For the purpose of simplicity, the agency's only activity is conducting interviews.

(The key to this case is figuring out how the funding change will affect the agency, then identifying the issues resulting from the change.
A strong candidate will first try to understand the agency's previous funding structure, then ask about the new funding structure, then recognize that the agency will experience a budget shortfall, then make data-driven recommendations for closing the shortfall.)

I would start by looking at the funding process and here I would like to first understand how the agency was previously funded, then I would like to look at the new funding procedure and how the change between the two is going to affect them. After identifying the effect, we can look into ways to improve the current status and other options to get funding.

Interviewee: How was the agency previously funded?

Interviewer: Previously, the agency received $50,000 per employee per year.

Interviewee: How much of that cost went to salary and how much to overhead and other costs?

Interviewer: On average $30,000 went to salary and $20,000 went to overhead

Interviewee: How many employees does the agency have?

Interviewer: Unknown. This case is on a per-employee basis.

Interviewee: How will now the agency be funded?

Interviewer: The agency will be paid $25 per interview.

Interviewee: How many interviews does each state social worker conduct per day?
Interviewer: Currently each social worker conducts an average of 5 interviews per day.

Social State Service

U.S.
Social services agency

Funding Structure
- taxes?
- donations?

Prior - fixed $

Now / Future - $ for perf.

Perf: # ~~of~~ int. with social workers.

What Δ's?
What to do?

What Δ? What to do?

Prior

Rev/Inputs
- How much?
- What sources?

Costs

FC
- Buildings/ Rent?

VC
- labor/ workforce
- admin - processing costs.
- How many ~~interviewers~~ workers?

Future

Income
- How many interviews (volume)
- How much per interview
- exceeding thresholds? ⇒ incentives?

Costs
- ~~ake~~/ Can we Δ how people are paid?
- FC stay same? - ~~Ba~~ings?
- outsourcing / streamlining options

Recco	Risks / Cont	Next Steps

Case 17: Social State Service -medium- Bain&Company, Mock

Interviewee:

250 work days per year * 5 interviews * $25 = $31,250
That is the agency continues to operate as it has been; in this case the agency will incur a $18,750 per employee per year budget shortfall

They should try to find ways to close this funding gap, either by boosting revenues (e.g. increase the number of interviews, seek other funding sources) or by cutting existing costs.

Interviewer: Sounds good.

Interviewee: Can the agency increase the number of interviews it conducts per social worker per day?

Interviewer: Under the current system, the agency could boost the number of interviews from 5 to 6 per day.

Interviewee:
250 work days/year * $25 *6 interviews per day = $37,500
This will bring the shortfall in revenues to $12,000 per employee per year

How long does it currently take to conduct an interview?

Interviewer: It takes one hour; 40 min of ehich is the interview and 20 min is follow-up data entry

Interviewee: It seems that it takes a lot of time to enter the data in the system. Is there any way to reduce this 20 min (using a better note-taking technology for ex.) ?

Interviewer: The agency has found a very inexpensive transcription software program that would allow them to cut the 20 minutes to 10

Interviewee:
10 min saved * 6 interviews per day = 60 minutes saved in a day
This will provide an extra interview per day =>
250 work days per year * 7 interviews per day * $25 = $43,750
This will bring the gap to $6,250 per employee per year

Interviewer: There is no other way to squeeze more interviews in a day.

Interviewee: What about exploring a private charitable funding?

Interviewer: the agency can garner $1,000 per employee per year from a private charitable trust

Interviewee: It still leaves us with a gap of $5,250 per employee per year. I would continue now by looking into ways to reduce costs. And I would especially look into trying to reduce overhead cost. Can the agency merge some of its facilities usage with other state agencies to reduce overhead costs?

Case 17: Social State Service -medium- Bain&Company, Mock

Interviewer: Yes, the agency can consolidate its offices into other state agency buildings at a savings of $4,000 per employee per year.

Interviewee:
We are now at $1,250 gap per employee per year.
Are all social workers paid evenly? If not, maybe we can reduce the salaries of the higher paid employees.

Interviewer: No and Yes. 30% are paid only $25K/year 40% are paid $30K/year And 30% are paid $35K/year. We've determined that the agency can convert half of the workers at the highest pay grade to the lowest pay grade.

Interviewee:
So the new salary structure will be:
45% at $25K/year
40% at 30K/year
15% at $35K/year
Saving : 15% *($35K - $25K) = $1,500 per employee per year

(a good candidate will now summarize the case and will provide recommendations)

The funding change will result in a budget shortfall of $18,750 per employee per year if we continue to operate as we have been.

Here are my recommendations for closing the gap:
Closing the gap by increasing revenue:

- Without any operational changes, we can boost the number of daily interviews from 5 to 6 per employee.
- By instituting a simple transcription service we can increase that number to 7. This will increase revenues by $12,500, closing the gap to $6,250.
- Additional charitable funding will give us $1,000 per employee per yr, closing the gap to $5,250.

Closing the gap by decreasing costs:

- Consolidating our offices, facilities and overhead with other state agencies will save us $4,000 per emp per year.
- Staffing restructuring will save us an additional $1,500 per emp per year.

This will actually bring $250 additional revenue per employee per year. Some of it will pay for the new IT system.

Case 1: Engineering and Construction Company
Company: Booz & Co.

A large engineering, procurement, and construction company has seen their valuation drop recently. They build large refineries and large industrial plants. They are global in nature and operate in four main regions. This company is a recent roll-up of three smaller companies that operate independently. They have $1bn in revenue.

Instruction to the interviewer: The objective of this case is

- To see if the candidate can comprehensively explore the possible reasons and causes of declining market valuation
- To see if the candidate can structure and articulate an intelligent structure with which to approach the problem
- To see if the candidate can complete simple mathematical analysis

The case should start with the candidate hypothesizing the reasons that could lead to declining valuation. This is a simple test of idea generation. Ask the candidate to list a structure with which they will approach the problem. Does it seem reasonable and comprehensive?

Case Facts:

- Revenue growth has been strong organically and from acquisitions
- There is a backlog of work – lots of business
- Margins have been shrinking

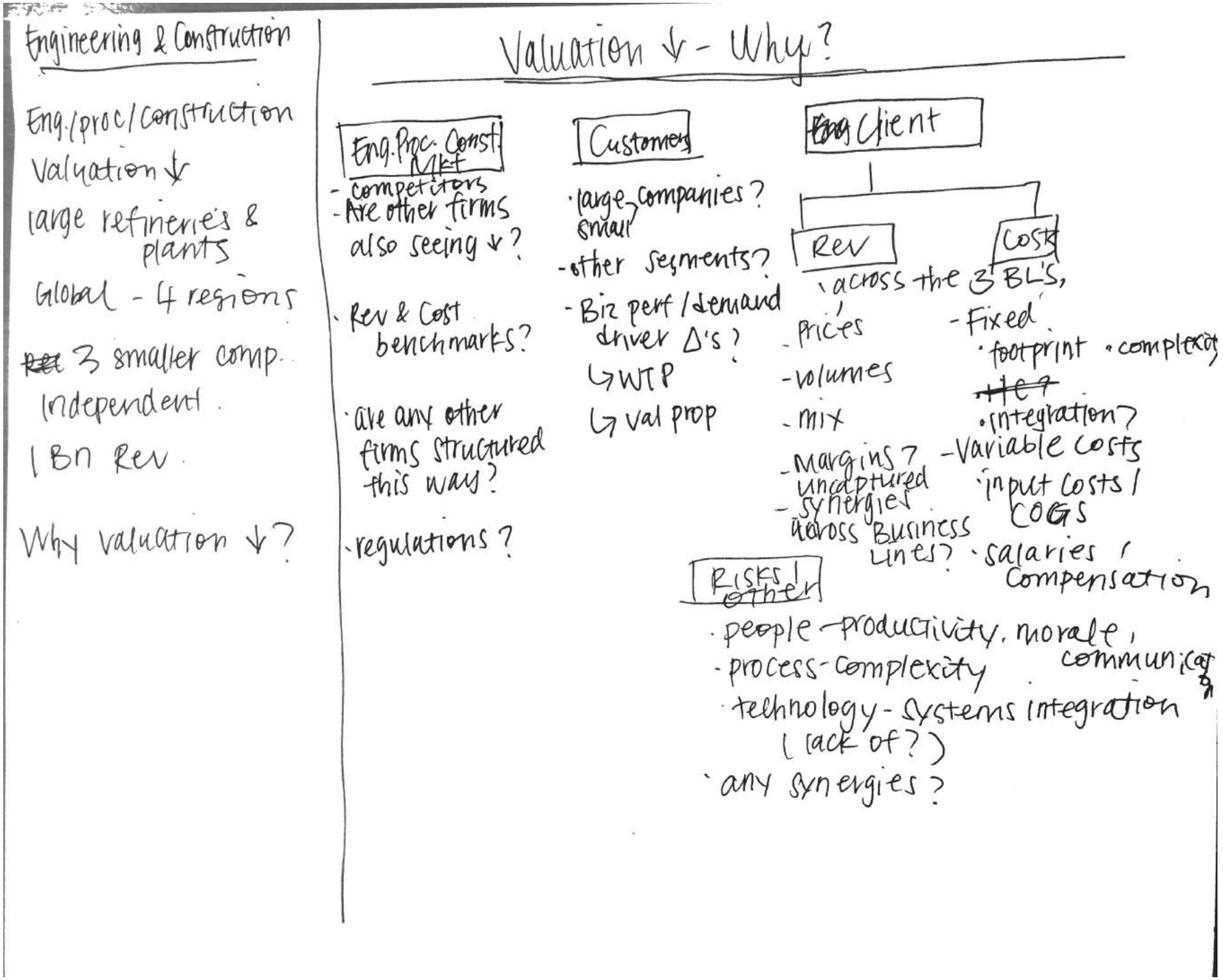
Question: What would you think the main reasons for shrinking margins would be?
Possible Answers:

- Lack of integration of the three units
- Poor reporting
- Competing business units
- Multiple procurement units
- Lack of cross-selling over the units
- Lack of knowledge sharing across units
- High-revenue but unprofitable clients
- No prioritization of backlog
- Sales force compensation structure
- Declining business need for their services – long-term

Math Problem: The Company thinks they have an idea as to where they could improve their costs after integrating. Their goal is to increase their margins by 10%. (Note: the candidate has already been told the company has $1bn in revenues)

Business Unit	# of Engineers	Utilization
1	1,800	50%
2	3,000	90%
3	1,200	50%

Case 1: Engineering and Construction Company
Company: Booz & Co.
Sample Framework



Question: The industry benchmark for optimal utilization is 80% and engineers make $100k each. Will they make their margin goal? Is this a significant savings?

Math Solution:

Business Unit	# of Engineers	Utilization	Effective Man-Hours
1	1,800	50%	900
2	3,000	90%	2,700
3	1,200	50%	600
Total	6,000		4,200

4,200 = # of Engineers * 80%

# of Engineers needed = 5,250

6,000 - 5,250 = 750 positions could be eliminated

750 * $100k = $75m

$75m / $1bn = 7.5% margin increase

Question: What would you think are some possible concerns with integrating the three units?
Possible Answers:

- Different corporate cultures
- Different global areas of operations
- Do they operate in fundamentally different businesses?
- Lack of a sufficient reporting system
- Will the dynamics of the integration be communicated clearly
- Time frame of integration – 3 months versus 3 years

Final: Ask for a 30-second wrap-up

Case 14: Wind Turbines -hard- Booz&Company, Round 1

(Source: Case Interview from Booz &Company, Round 1)

Context:

Our client is the largest European manufacturer of wind turbines (used to generate electricity by harnessing wind power). The client currently has production capability in the US and has elicited your help to determine:

1. **Where to build its manufacturing plant?**
2. **How many plants to build?**

This problem only concerns North American Operations.
Wind energy is currently growing in China and the US. By 2009, there will be capacity issues in the US.

We first need to understand the demand for wind turbines and the market share that our customer can achieve. Being a growing market I would also want to assess the market growth. This will help us understand if we need additional capacity.

Then I would continue by assessing if we actually need a plant in the US. Maybe we can import wind turbines from other locations at cheaper cost that opening a plant.

In order to try to suggest a location for the plant we need to understand some of the factors that will influence this location:

- Where the supply will be coming form, taking into account infrastructure, labor, taxes, competition, shipping costs
- Where the customers are located
- What level of service we need to provide to these customers
- Is it possible to outsource manufacturing
- Where are manufacturing costs cheapest

The last component that cannot be ignored is competition. We need to know how segmented the market is and how the competition is doing.
Taking into account that China is the second growing market I would also like to assess the possibility of exporting turbines to China.

Information given only if requested:
Importing turbines to the US or Asia is impractical because each weights 80 tons and there are import tariffs that add additional costs.
The plant will be online by 2010 and the expected demand for our client's products is 1,500 units.
If prompted this is 40% of the market.
Market growth for the next 5 years is 10% by volume.
There are 2 existing US manufacturers of wind turbines with one being the dominant player. There is no differentiation between the different products.

Sample Framework

Wind Turbines

European wind turbine manuf.

Production in US.

① where to build?

② How many?

Only US ops.

China growing

2009 - max capacity

Where to Build? How Many?

Why?

- Export to China?
- Sell domestic in US?
- Europe?
- etc.

What is sucess?

- Market share Goals
- TT or BEP Goals.

Company Success factors

- core comp.
- prior experience
- similar project benchmarks.
  - FC - investment
  - ~~VC~~
- Risk / BEP tolerance

Wind Turbine Mkt

- $ or units sold, Δ.
- Green / LEED certifications?
- Who buys?
  - corporations?
  - governments?
  - where are they?
- WTP?
- Margin by Cust. Segment?

~~Company~~ How? — JV Build Acquire.

- ~~core competency~~
- ~~done this before?~~

Location & #

- where is demand (customers)
- where is supply
- How much $ to ship? transport?
- optimize costs?

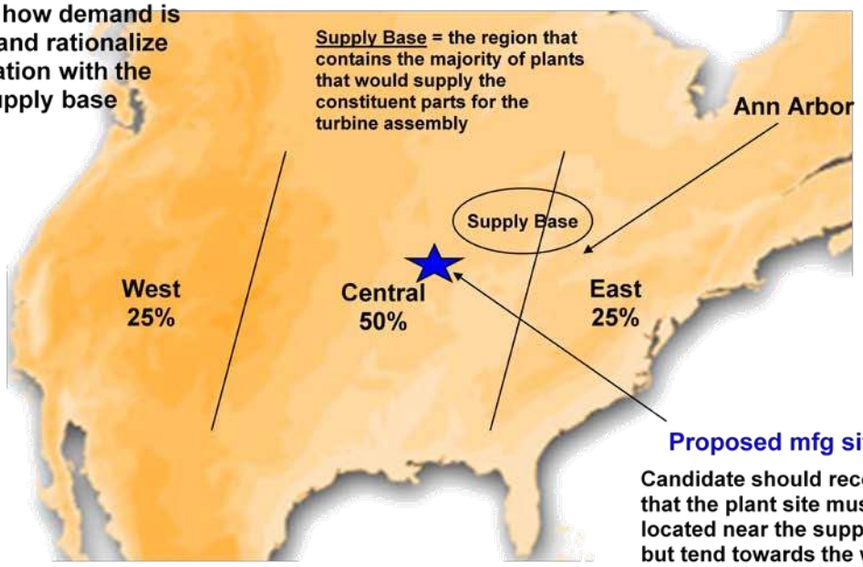
Case 14: Wind Turbines -hard- Booz&Company,Round 1

Possible structure for the solution - use to guide candidate):

Key Areas	Part & Material Supply	Manufacturing	Transport	Installation	Service
Guidance for each area (do not read verbatim)	Factors: Infrastructure, labor, tax, competition, etc Candidate should realize that the competition is competent and seek to understand from where they currently source. Competition sources from the mid – west (heavy auto supply base) Shipping costs and an integrated supplier network are most important drivers	Assembly is not terribly complex (low tech). Once the different subassemblies are in house, the mfg is simple mechanical assembly (very little welding or complex processes) All engineering design is done in Europe. Product mix – only one type of turbine is currently slated for production in the US.	Transport the finished turbines must be by rail to achieve any efficiency. Need to understand where the demand is. Building the plant closer to the areas of heavy demand will reduce transportation costs.	Customers will be required to perform their own installation. Our client provides nominal support when required but installation is not difficult.	Our client is interested primarily in making and selling turbines Routine maintenance can be performed fairly easily by any trained technician. There are numerous independent contractors that are licensed to repair the turbines (fragmented market, low barrier to entry – unattractive market)

Interviewer notes (not to be given to candidate):

Candidate should attempt to understand how demand is distributed and rationalize the mfg location with the mid-west supply base



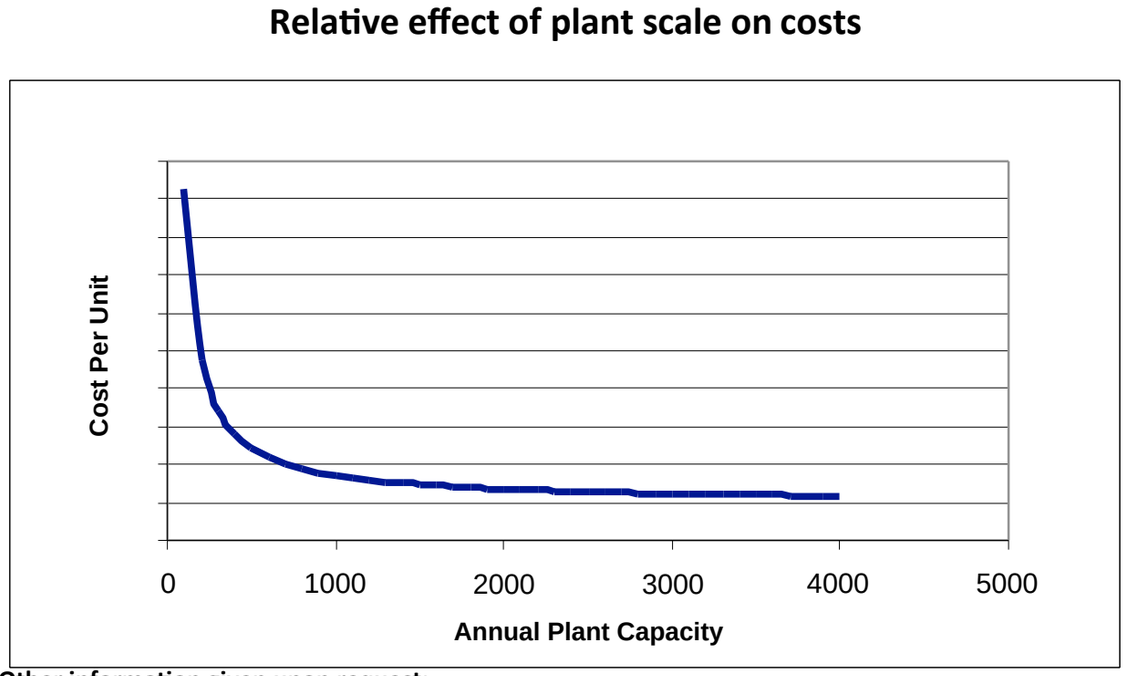
US Market Share by Region

Candidate should recognize that the plant site must be located near the supply base but tend towards the west to be closer to demand

Case 14: Wind Turbines -hard- Booz&Company,Round 1

Economies of scale:
Candidate should immediately ask how economies of scale affect the production costs of each turbine.

Chart to be given only upon request:



Other information given upon request:
A 1,500 units plant would cost $40 million dollars investment ($30 million being the building). Each additional 500 units in capacity will increase the costs by $15M
If 2 plants were built, the additional operation costs would be 15M/ year. The transportation savings would be 7M per year.
Note that we cannot build a plant with a lower than 1,500 units capacity

Calculation of Future Demand Growth:

Future Demand Projection

Year	40% share	Market
2010	1,500	3,750
2011	1,650	4,125
2012	1,815	4,538
2013	1,997	4,991
2014	2,196	5,490
2015	2,416	6,039
2016	2,657	6,643
2017	2,923	7,308

*10% market share growth

* constant market share

Case 14: Wind Turbines -hard- Booz&Company,Round 1

For 3,000 units capacity(the capacity that the client will need to have by 2017 with a 10% increase in the market size and same market share):

If only one plant built:
Cost = $40M + $15M*3 = $85M
Note that the capacity does not have to be added from the beginning and the high capacity will decrease the cost per unit

If 2 plants built:
Cost = $40M*2 + ($15M-$7M)*8 years= $144M

A good candidate will make a recommendation:

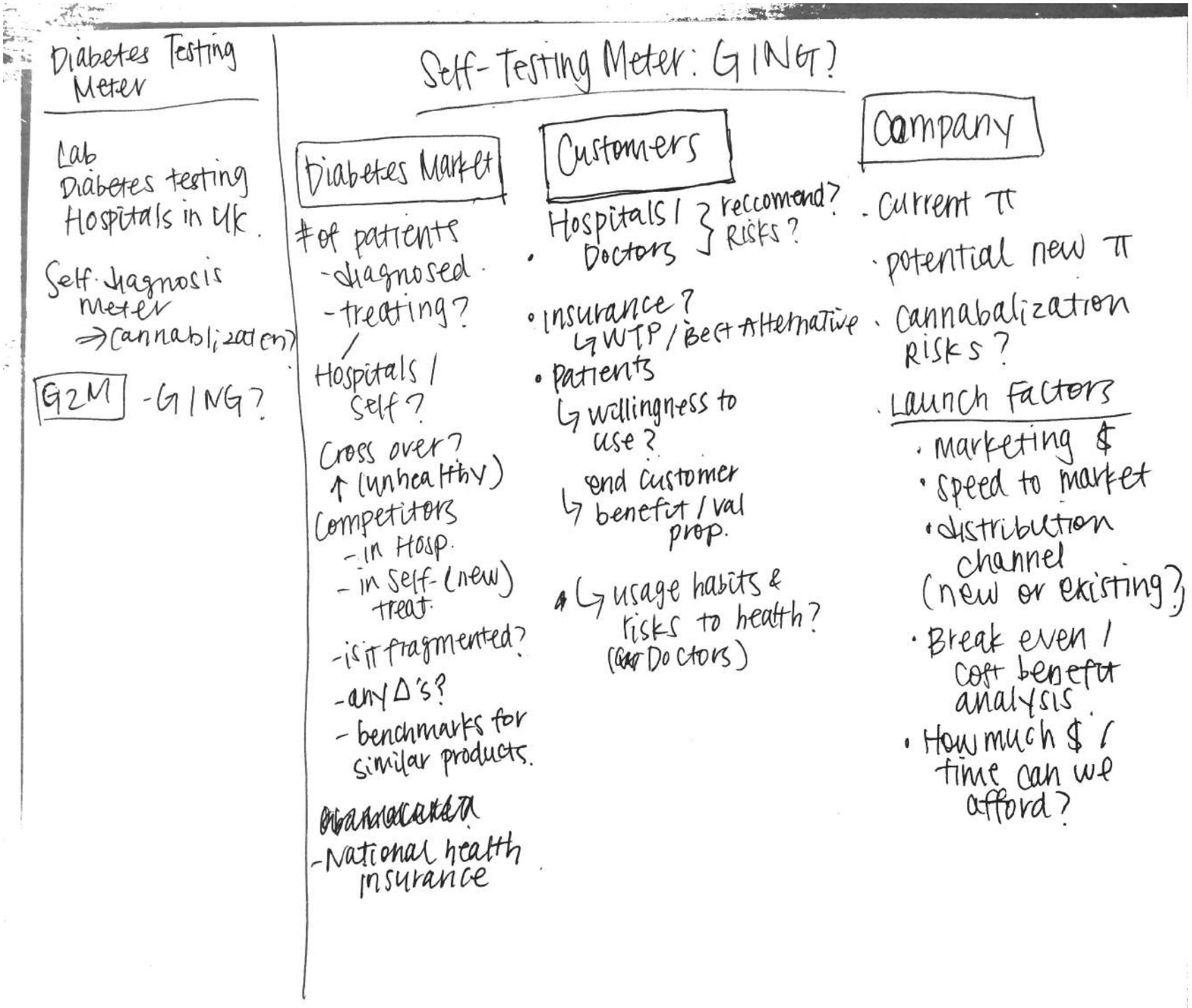
With all these information my recommendation is for them to build 1 plant that should be located near but to the southwest of the mid west supply base. I suggest only one plant because the costs associated with building and operating 2 plants are higher than for only one plant. However this plant needs to be sized to accommodate the future growth (approx 100% increase by 2017 given no increase in share). Even in this case, the costs are a lot higher for having two plants over one plant. There are some other risk associated that were not taken into account here, like competition. We would need to assess the competitive response and the effect it will have on the market share.

Case 17: Diabetes Testing Meter (I of II)

McKinsey, Round 1

Problem statement narrative	Guidance for interviewer and information provided upon request[1]
Our client is a laboratory that provides diabetes testing services to hospitals in UK. They have developed a self-diagnosis meter that patients can use to do testing on their own. They have hired us to determine if we should take this product to the market: ***The candidate should answer the following questions during the course of the case discussion:*** **•Is there enough long-term demand for this product, given the current competition?** **•What options does the company have, in terms of taking this product to the market?**	**<u>Demand Estimation:</u>** **•30% of people and 5% over 65 have diabetes** **•Out of total population of 10M, 20% are above 65** **•No growth in % or population** **<u>Competition</u>** **•There are 4 other competitors, with market shares of 25%, 25%, 15%, 15%** **•Client has a 20% share** **•Growth was over 20% until 2 years ago and has been stagnant since.** **<u>Revenues and Costs</u>** **Fixed Cost is $2.5M and marginal cost is $20. Per Unit revenue is $25.** **<u>Additional points</u>** **Patients could opt to use both methods (e.g., self test and also the hospital testing)** **Product could be promoted as a prevention device (e.g. a low cost option to check for diabetes)**

Case 17: Diabetes Testing Meter (I of II)
Sample Framework



Case 17: Diabetes Testing Meter (II of II)
McKinsey, Round 1

Additional questions for candidate	Solution guide
• Are there any cannibalization effects with regards to hospitals in terms of introducing the product? • If the product can't be launched within UK, what else can the lab do with the product?	**Conclusion** Due to the limited number of customers available and low future growth, the product should not be launched in the market The company should look at markets outside UK, or sell it to hospitals or competitors. •Key: Good structure, good estimation techniques, risks analysis and breakeven analysis, recognition of long-term growth potential

Week 5

Case 25: Stew's Connections

Market Entry *BCG* *Round 2*

Prompt	Our client is a start-up with the ability to deliver broadband internet to commercial airlines. How would you help them think about their offering?
Guidance	*About the case: This is a market entry case where candidate are required to evaluate the feasibility of a new product in conjunction with the airline industry. The candidate should use a comprehensive framework, walk the interviewer through it and be prepared for analytical detours throughout the flow of the case.* *The calculations represented here are only one approach and interviewees may take other approaches, depending on the assumptions made. The interviewer should be mindful of this and allow for flexibility.* *Industry & Market Size Discussion: The interviewee should have mentioned this as a major bucket in his/her framework.* *Use the information below to provide guidance as necessary.* *Broadband for the airlines* *There is general interest in broadband internet from the airline industry. The start up would have to invest relatively little up front and would keep most of the revenues. They would charge the customers on a per flight pricing model.* *Size of the Market* *Ask the candidate to estimate the market size and hand over Exhibit 1. Inform the candidate that there are 3,000 planes. Full answer in chart below* *Pricing* *In order to finish the market size, the candidate should ask for the price per flight. Hand out Exhibit 2 and ask candidate to set the price.*

Case 25: Stew's Connections

Market Entry *BCG* *Round 2*

Analysis

Class	First	Coach
Seats/Plane	20	180
Load Factor	.75	.75
Full seats/plane	15	135
Biz Travelers	100%	30%
Laptop users/plane	15	40.5
Total laptop users/plane	55.5	
3000 planes x 2000 legs/plane x ~50 laptop users/plane = 300,000,000 approximate annual potential user-legs.		

Case 25: Stew's Connections

Market Entry *BCG* *Round 2*

Analysis	Assume 100 passengers (for ease) at the various price/penetration combinations. 30 users at $5=$150/flight 25 users at $10=$250/flight 20 users at $15=$300/flight 10 users at $20=$200/flight 5 users at $25=$125/flight Set price at $15.
Guidance	*Breakeven Analysis* *Given the information already revealed in the case and the information below the candidate should calculate a break-even point.* *Information to be given if asked:* *The company has discovered that if they can generate $250,000 per plane in annual revenue, they will be profitable installing the technology on that plane.*
Analysis	250,000/2,000 legs/plane = $125/leg $125/$15 about 8 users/leg 50 laptop users/leg, and at $15, there's a penetration rate of 20%, so we estimate 10 users/leg. Response: Yes, they should break even.

Case 25: Stew's Connections

Market Entry *BCG* *Round 2*

Guidance	*Other factors* *Probe the candidate for breadth and understanding of new market entry. Ask him/her about the following aspects of this project.*
Analysis	**Competition** The interviewer should probe deeper into the competition especially with regard to Intellectual Property. For this case, the company has the patent on the high speed connection. What about low-speed internet connections? **Risks** Ask the candidate which risks are associated with the business model. Use your judgment when considering their answers.
Performance Evaluation	Candidate should provide a crisp recommendation – A crisp recommendation should be roughly 30 - 45 seconds long and should include clear bullet points that support an overall recommendation. For example, "Enter the market for reasons 1, 2 and 3" **Expected:** Accurate arithmetic with solid profitability and breakeven calculations. **Good:** Candidate provides a framework that includes exploration of all possible options and offers a clear recommendation that summarizes key findings in under 30 seconds. **Excellent:** Candidate considered sufficient number of other factors while maintaining poise through "what else" line of questioning at the end of the case.

Case 25: Stew's Connections

Market Entry *BCG* *Round 2*

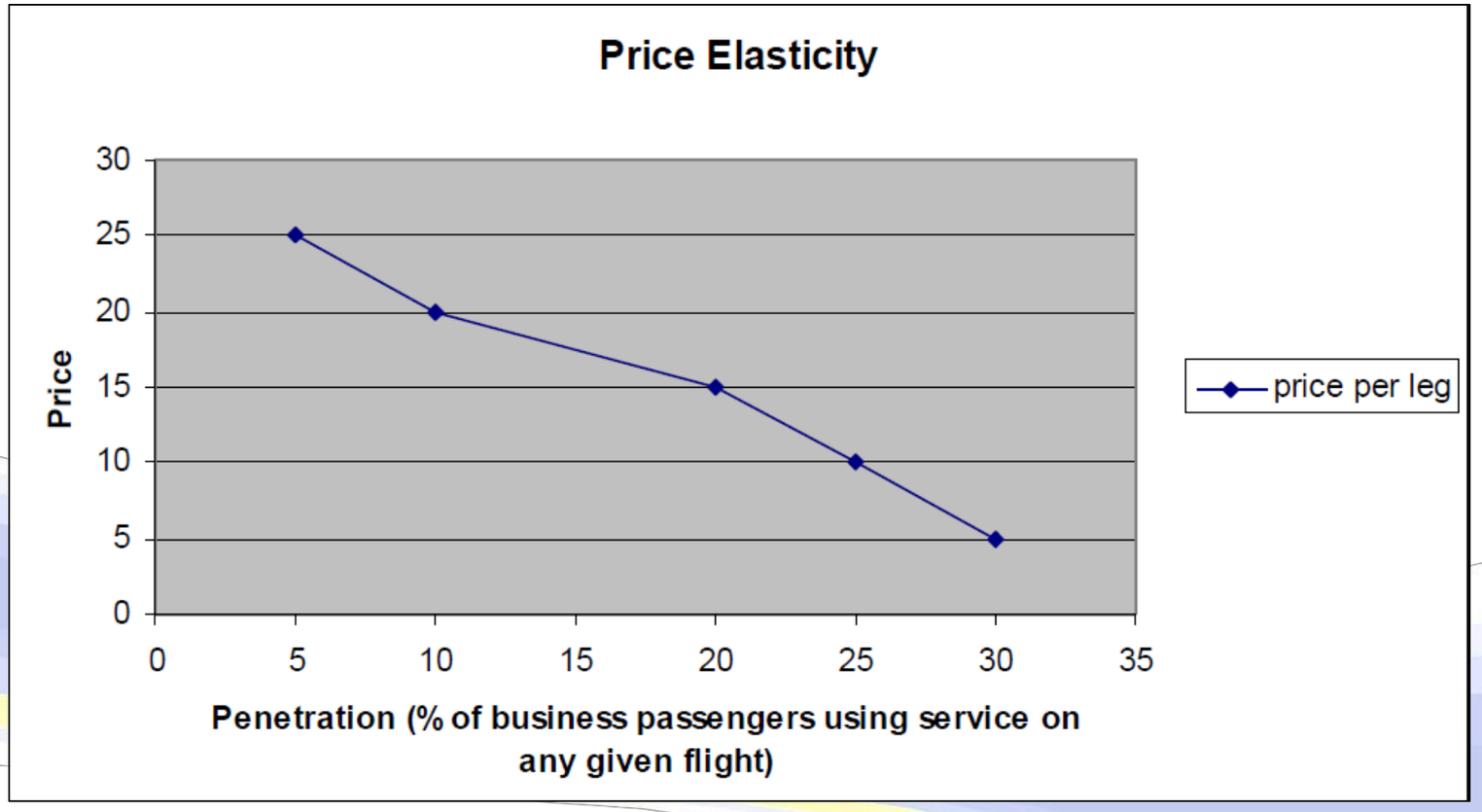
Exhibit 1

Exhibit 1			Passenger mix by cabin	
			First	
Annual flights legs per plane	2000		Business	100%
Average seats per plane	200		Leisure	0%
Average load factor	75%			
Cabin seating:			**Coach**	
First class	10%		Business	30%
Coach	90%		Leisure	70%
Note: 90% of business travelers carry laptops; 0% of Leisure travelers carry laptops				

Case 25: Stew's Connections

Market Entry *BCG* *Round 2*

Exhibit 2



Molds R Us – Bain 1st Round

Problem statement narrative

Our client is a private equity firm interested in Molds R Us, small company that makes plastic moldings for houses in Russia. They want to know if we think investing in this company is a good idea. The firm also wants to understand what the 2011 market for moldings, particularly in plastics, will look like.

Guidance for interviewer and information provided upon request

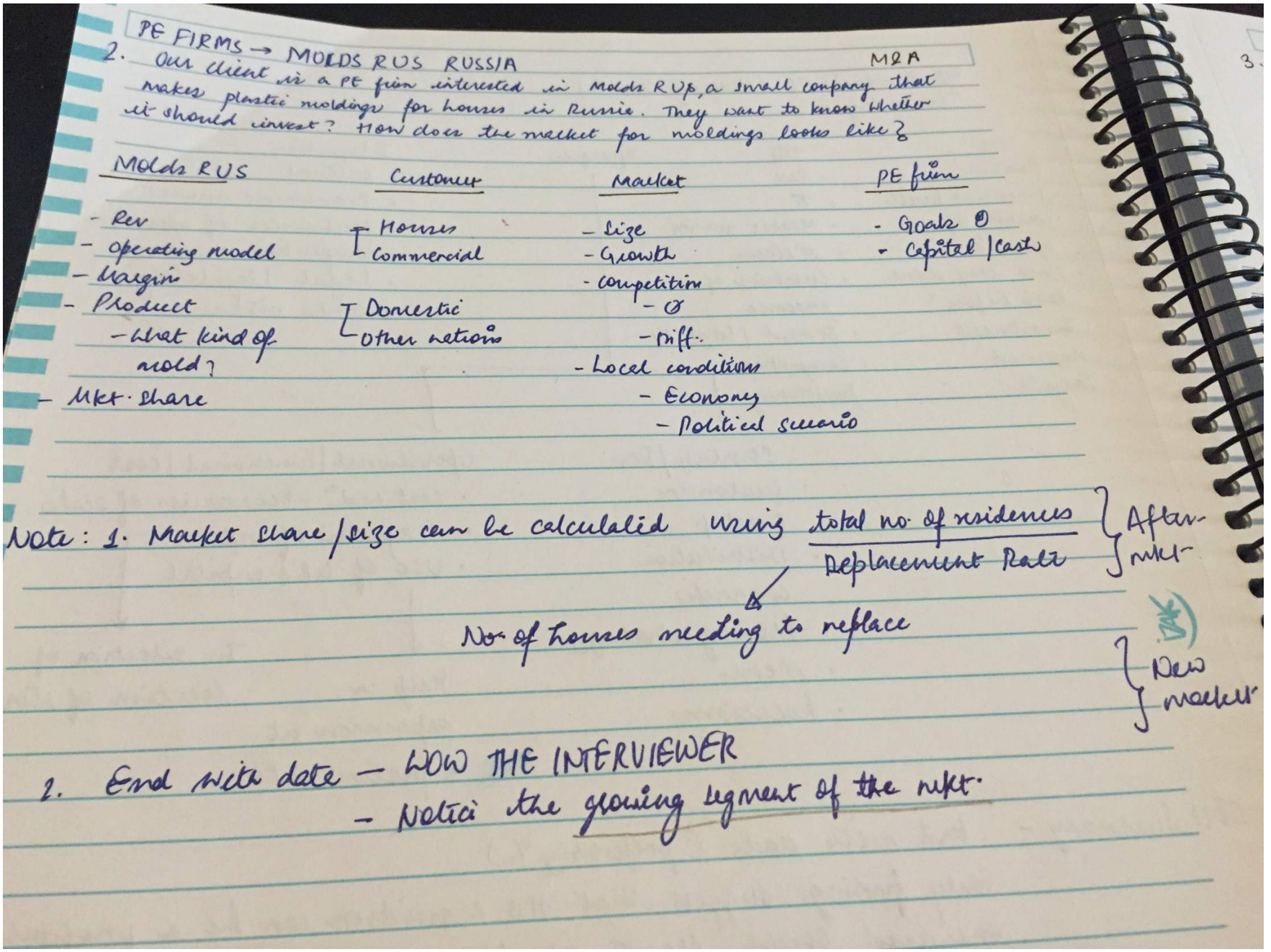
- The PE firm wants to see growth of 20% in the first year to justify this purchase
- This company only plays in the Russian market and the PE firm is not interested in expanding across borders
- This company is the only player in plastic moldings
- Moldings are used where walls meet the ceiling to add a decorative appeal to houses and are only used in residential buildings
- All housing starts require moldings in the year they are started, and are all completed by the next year
- Molding Product Mix (Exhibit A)
- Market Size and Competitive Landscape (Exhibit B)

Difficulty: Hard

Industry: Manufacturing

Type: Mergers and Acquisitions

Molds R Us – Bain 1st Round
Sample Framework



PE FIRMS → MOLDS RUS RUSSIA

MRA

2. Our client is a PE firm interested in Molds RUs, a small company that makes plastic moldings for houses in Russia. They want to know whether it should invest? How does the market for moldings looks like?

Molds RUS
- Rev
- Operating model
- Margin
- Product
  - What kind of mold?
- Mkt. share

Customer
- Houses
  - Commercial
  - Domestic
- Other nations

Market
- Size
- Growth
- Competition
  - Ø
  - Diff.
- Local conditions
  - Economy
  - Political scenario

PE firm
- Goals ⊕
- Capital / costs

Note: 1. Market share / size can be calculated using $\frac{\text{total no. of residences}}{\text{Replacement Rate}}$ → No. of homes needing to replace } After-mkt

} New market

2. End with data – WOW THE INTERVIEWER
   - Notice the growing segment of the mkt.

Molds R Us – Bain 1st Round
Sample Framework

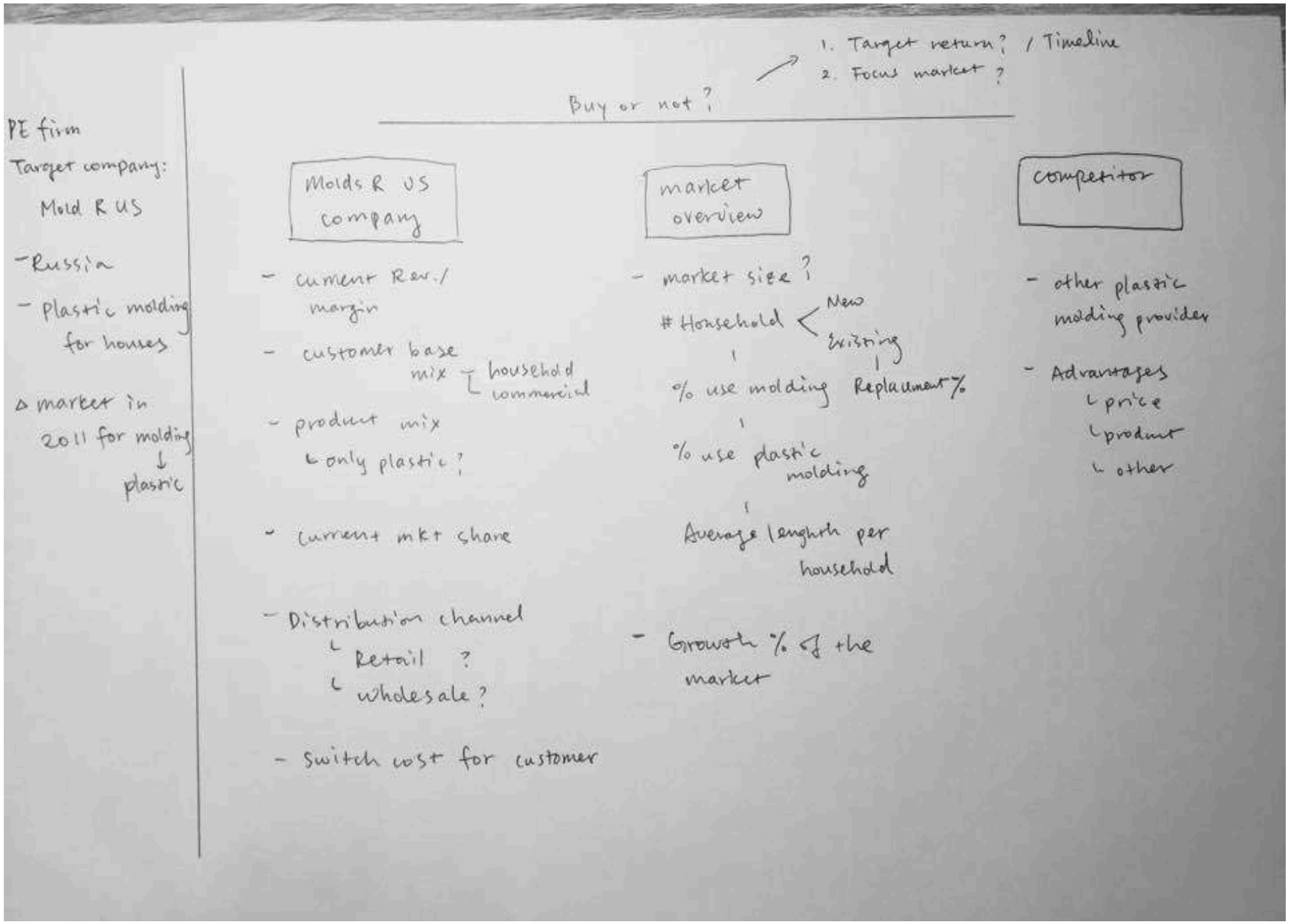


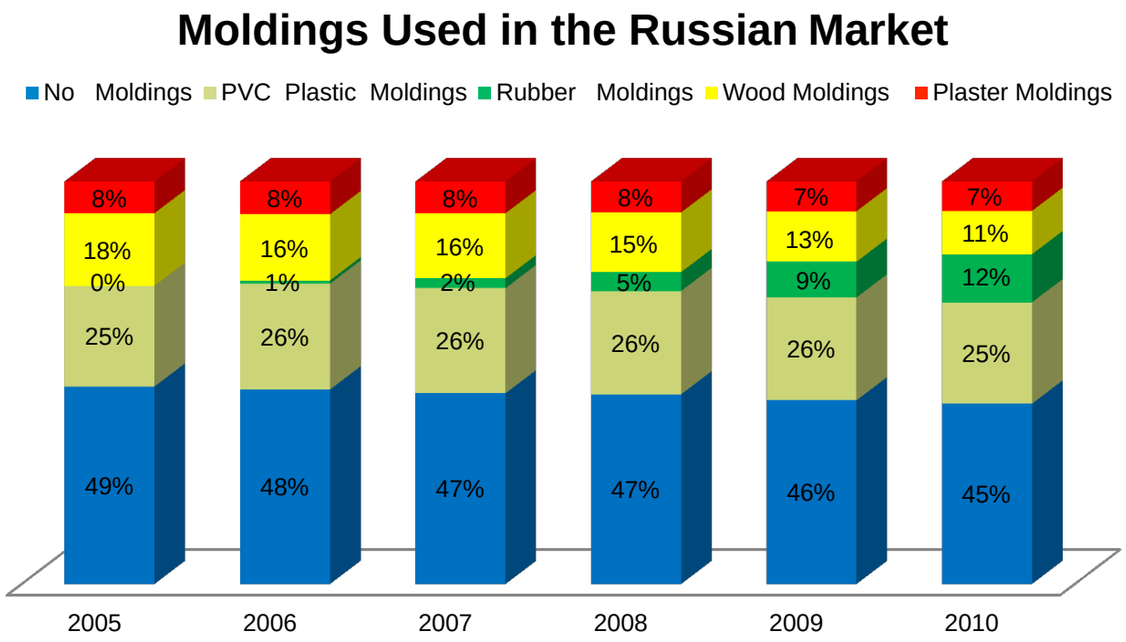
Exhibit A: Types of Moldings

Molds R Us

Molding Options	No Moldings	PVC Plastic Moldings	Rubber Moldings	Wood Moldings	Plaster Moldings
Price per 10 Meters	0	1 Ruble	1.5 Rubles	5 Rubles	15 Rubles
Installation Requirements	None	Need Contractor	DIY	Need Contractor	Need Contractor
Replacement	None	Every 5 years	Every 7 Years	Every 10 Years	Every 25 Years

Other Important Information
A contractor can lay down 1000 feet of molding per hour
A contractor makes, on average, $50 Rubles per hour
DIY-Do it yourself or self installation
The average house has 4000 Meters of walls

Exhibit B Moldings Used in the Russian Market



	2005	2006	2007	2008	2009	2010
Total Residences	29,689,297	30,145,394	30,696,939	31,375,374	32,170,804	33,122,149
Housing Starts	456,097	551,545	678,435	795,430	951,345	1,245,890

Molds R Us

Case Progression

Case Progression
▪ Once the candidate lays out a framework and asks the relevant questions you should give them Exhibits A and B.
▪ After the candidate analyzes the exhibits **ask them to calculate their estimate for the number of meters of plastic moldings being sold in 2011**. This can be done by multiplying the market share of plastics for 2010 by the number of residences in 2011 (2010 residences + 2010 starts) plus the estimated housing starts in 2011. This gives the expected number of houses using plastics in 2011. Given that plastic moldings are replaced every 5 years, the candidate should realize that only 1/5 of existing households will be replacing their moldings in 2011.
▪ MATH: 34.3M Residences + ~1.4M Starts = Approx. 35.7M houses in 2011
▪ 34.3M Residences*25% market share of plastic moldings = 8.6M houses
▪ 8.6M Residences/5 years (replace moldings) = 1.7M existing houses replacing moldings in 2011
▪ Estimated 1.4M Housing starts in 2011 *25% market share = .35M
▪ So, 1.7M existing homes + .35M starts = 2.05M Houses in 2011 using plastic moldings.
▪ 2.05M*4K meters of wall per house = **8.2B meters of plastic moldings** being sold in 2011.

Case Progression

Estimating the growth opportunity

Once the candidate lays a framework and asks the relevant questions provide them Exhibits A and B

- After reviewing the charts and graphs the candidate should notice the stagnant pace of the market share of plastic moldings.
- A good candidate will begin to calculate the overall changes in market size to see if there is enough growth to make this deal worthwhile.
- Either way, have the candidate calculate the overall market growth rate from 2005-2010.
- This will begin to clue the candidate into the major issue, that the growth will not be high enough for the PE firm to move forward with these moldings.
  - Existing homes growth rate ~((33.1M – 29.7M)/29.7M) / 6 years (2006-2010) = 2%
  - New homes growth rate ~((1.25M-.45M)/.45M) / 6 years = 30%
  - The key here is for candidate to recognize that the market of plastic moldings for existing homes (about 85% of market) far outweighs housing starts (about 15% of market - see calculations on previous slide) and thus recognize that overall market growth will fall well short of required 20%. Actual growth rate < 10%.

Once candidate recognizes low growth rate ask them for their final recommendation to the PE firm

Conclusion

Recommendation

The PE firm should not purchase Molds R Us.

- Plastic molding market share is stagnant among all moldings sold.
- The overall growth in housing does not make up for the stagnant growth and they will not grow revenues by 20% in their first year.

Next Steps

- The PE firm should look at rubber molding companies to see if there is an opportunity to purchase an organization because of high growth of market share in the market.
- They should look at the sales and marketing of Molds R Us to see if there is opportunity to spurn sales to increase growth by investing in marketing, distribution, or sales channels.

Upscale Restaurant
McKinsey Final Round

Problem narrative

Our Client is a upscale restaurant in TianJin, serving government officials and high-level business customers. Its monthly revenue is 1.2 Million Yuan. The CEO recently hired McKinsey to help them increase profits.

Information provided upon request

As China's economy is booming, the upscale dining market is growing at 20% every year.

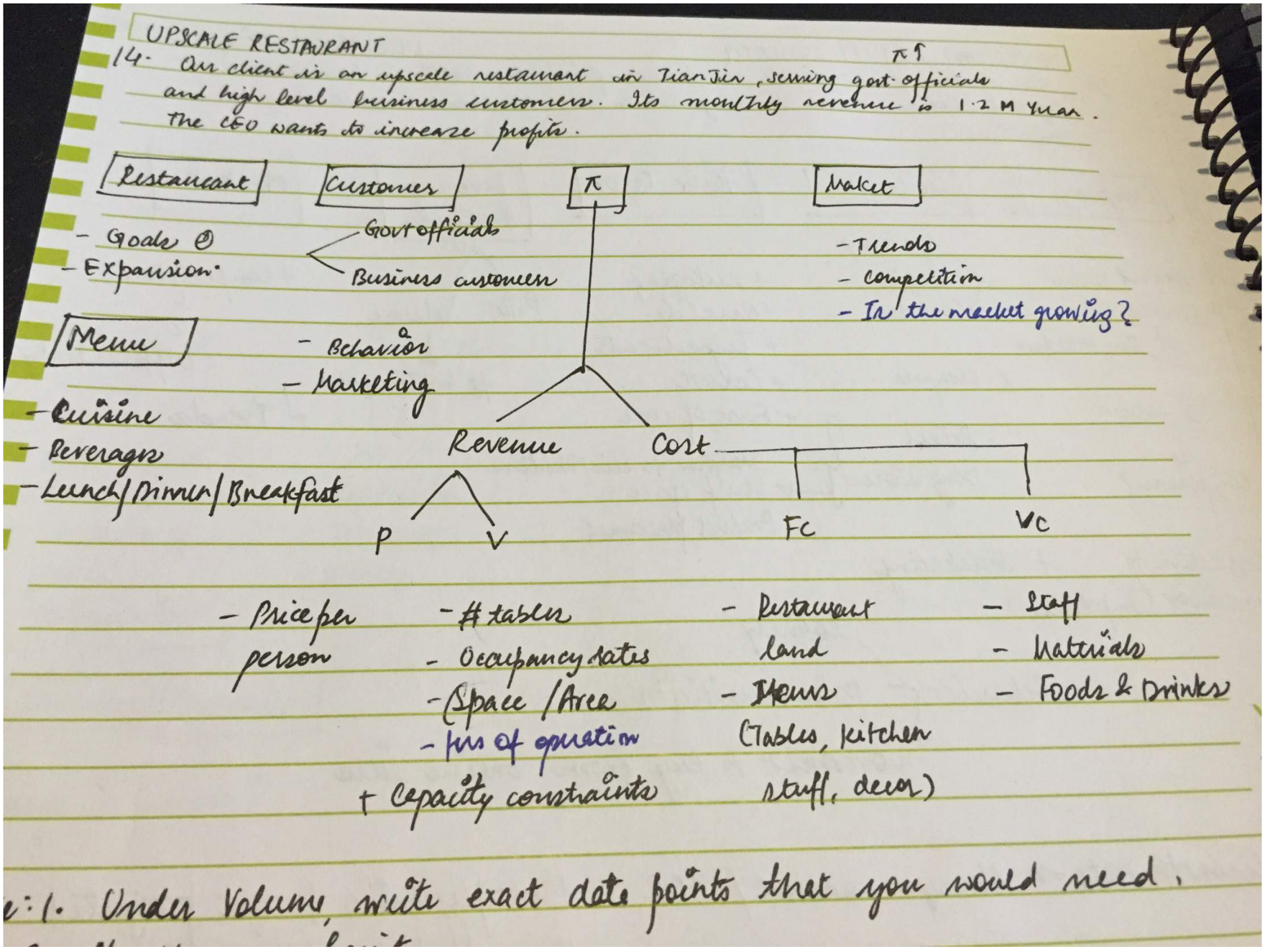
Customers for high-end dining are generally price insensitive.

All competitors are earning money. Competitors' price and value proposition are similar.

Variable costs across industry is 50% of revenue. Assume no fixed costs.

On weekdays, there is always a line for individual rooms. As a result, the restaurant has to turn away half of its customers due to capacity constraint.

Upscale Restaurant
Sample framework



Upscale Restaurant
McKinsey Final Round

Information provided upon request by Candidate

Individual Room : 20 tables		
	Week Day	**Weekend**
Lunch	Occupancy: 80% Price per person: 150 Party size per table: 4	Occupancy: 30% Price per person: 100 Party size per table: 4
Dinner	Occupancy: 100% Price per person: 300 Party size per table: 6	Occupancy: 50% Price per person: 200 Party size per table: 6

Big Room : 20 tables		
	Week Day	**Weekend**
Lunch	Occupancy: 20% Price per person: 100 Party size per table: 4	Occupancy: 30% Price per person: 100 Party size per table: 4
Dinner	Occupancy: 30% Price per person: 200 Party size per table: 4	Occupancy: 30% Price per person: 200 Party size per table: 4

Upscale Restaurant
McKinsey Final Round

Reason for low profits
Government officials and business customers prefer individual rooms to big rooms because of their requirement for privacy. Currently our client is not meeting customer demand.

Question	Solution
What are potential solutions for this situation?	▪ Raising price. ▪ Turning big room tables into individual rooms.

Upscale Restaurant
McKinsey Final Round

Question

Through market research, we have determined that if we raise weekday individual room price by 33% , we will lose 10% of customers. How will it change our profitability?

Solution

For weekday lunch, changing the price will result in 10% customer loss.

	Previous	Now
Customer	4 x 20 x 80% = 64	64 x (1 - 10%) = 58
Price	150	150 x (1 + 33%) = 200
Revenue	64 x 150 = 9600	58 x 200 = 11600
Profit	9600 x 50% = 4800	11600 x 50% = 5800
Incremental Profit		5800 - 4800 = 1000

For weekday dinner, the underlying demand is 200% of current capacity, so raising price WON'T reduce volume.

	Previous	Now
Customer	6 x 20 = 120	120
Price	300	300 x (1 + 33%) = 400
Revenue	120x 300 = 36K	120 x 400 = 48K
Profit	36Kx 50% = 18K	48K x 50% = 24K
Incremental Profit		24K – 18K = 6K

Daily Incremental Profit: 1K + 6K = 7K

Upscale Restaurant
McKinsey Final Round

Question	Solution
A second solution is converting half of big room tables into 5 individual rooms. It will take 2 weeks for the restaurant to finish the decoration, during which time the restaurant has to be completely shut down. The decoration will cost 100K Yuan. What is the total cost of this project?	Cost ▪Capital investment: 100K ▪Opportunity Cost: ~300K** (2 weeks of profits) *** Note: The observant candidate will quickly calculate this from the initial revenue info given at beginning of case rather than making heavy calculations involved with calculating it from the table of data. Total cost = 400K Yuan

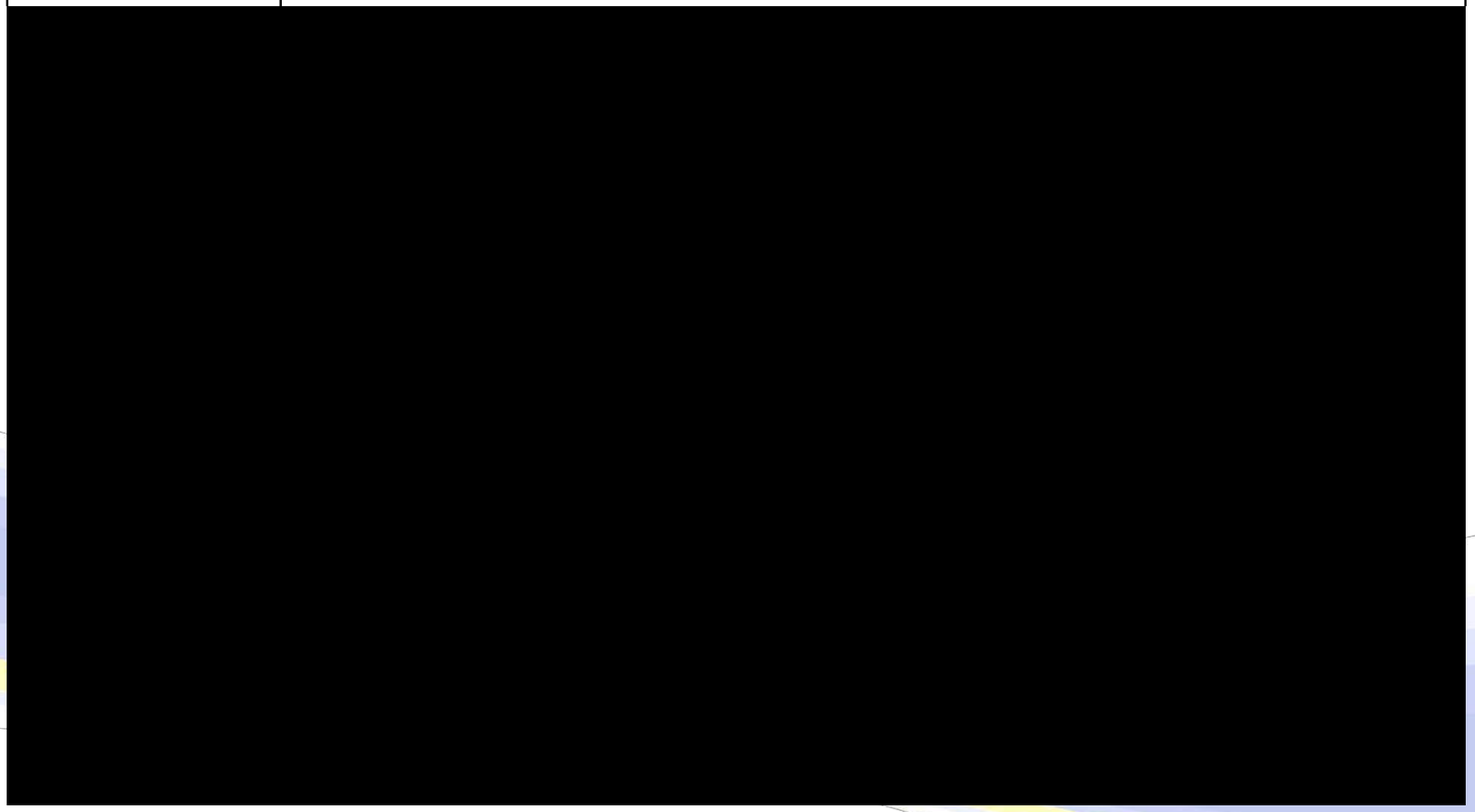
Extra Practice Cases

Market sizing

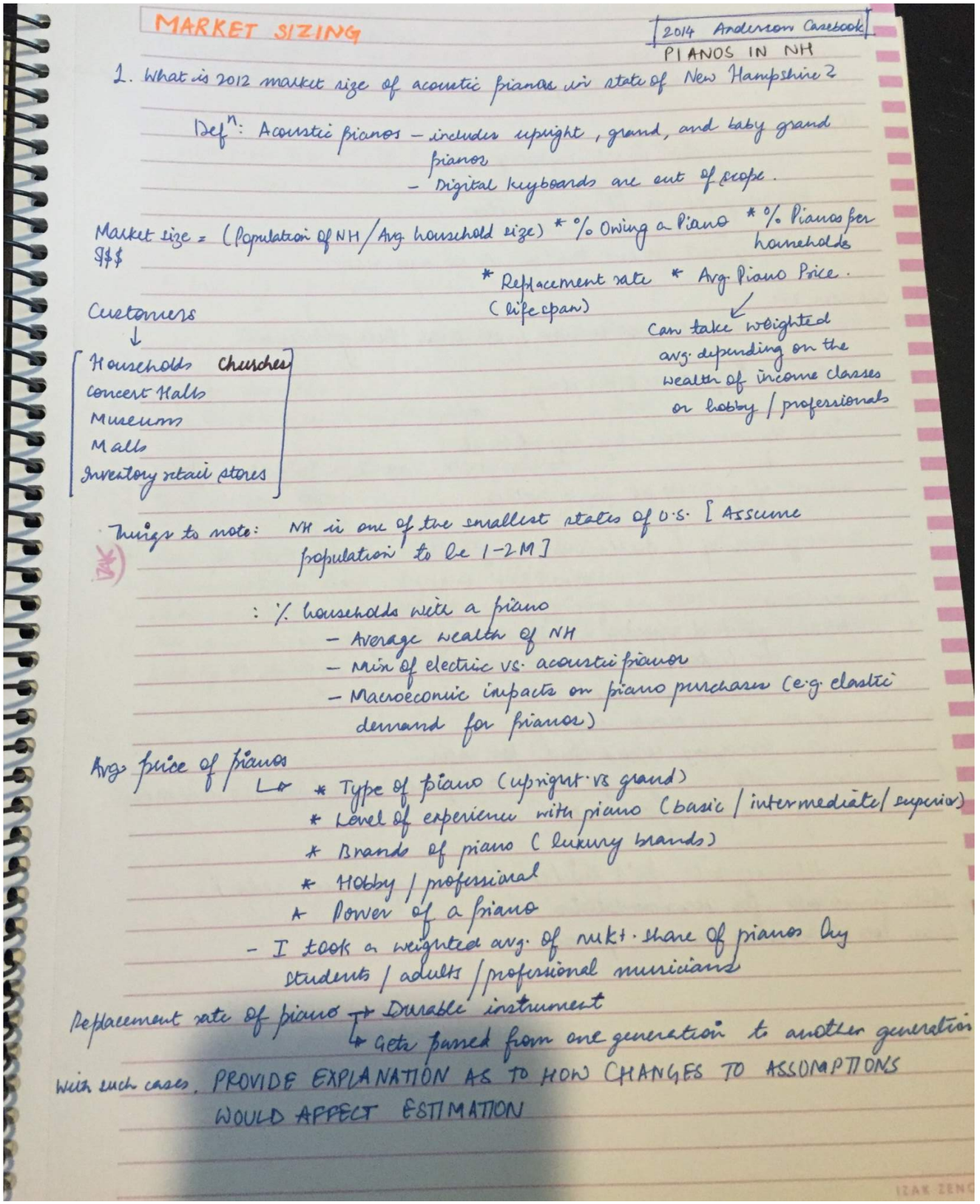
Case 3: Pianos

Market Sizing

Prompt	What is the 2012 market size of acoustic pianos in the state of New Hampshire?



Case 3: Pianos
Sample Framework



MARKET SIZING

2014 Anderson Casebook
PIANOS IN NH

1. What is 2012 market size of acoustic pianos in state of New Hampshire?

Def^{n}: Acoustic pianos – includes upright, grand, and baby grand pianos
– Digital keyboards are out of scope.

Market size = (Population of NH / Avg. household size) * % Owning a Piano * % Pianos per households * Replacement rate * Avg. Piano Price.
$$$

(lifespan)

Can take weighted avg. depending on the wealth of income classes or hobby / professionals

Customers
↓
Households churches
Concert Halls
Museums
Malls
Inventory retail stores

Things to note: NH is one of the smallest states of U.S. [Assume population to be 1–2M]

: % households with a piano
– Average wealth of NH
– Mix of electric vs. acoustic pianos
– Macroeconomic impacts on piano purchases (e.g. elastic demand for pianos)

Avg. price of pianos
* Type of piano (upright vs grand)
* Level of experience with piano (basic / intermediate / superior)
* Brands of piano (luxury brands)
* Hobby / professional
* Power of a piano
– I took a weighted avg. of mkt. share of pianos by students / adults / professional musicians

Replacement rate of piano → Durable instrument
→ Gets passed from one generation to another generation

With such cases, PROVIDE EXPLANATION AS TO HOW CHANGES TO ASSUMPTIONS WOULD AFFECT ESTIMATION

Case 3: Pianos

Market Sizing

Guidance	Average Household Size:
	• Reasonable estimate = US average of ~2.5 is acceptable (or 2-3 if candidate chooses to round)
	
	% of Households with an acoustic piano:
	• Here you should have the candidate talk through what the factors are in piano ownership:
	  − Average wealth of households in NH (relatively higher than other states in the US)
	  − Mix of electric keyboards vs. acoustic pianos
	  − Macroeconomic impacts on piano purchases (e.g. elastic demand for pianos)
	• Reasonable estimate: likely under 5% of all US households. Acceptable answers from candidates range from 3-10% of households, given reasons listed above
	
	Average price of piano:
	• Prices of pianos vary by piano type (i.e. upright pianos are less expensive than grand pianos)
	• Reasonable estimate: $5,000-$10,000
	
	Replacement rate of pianos:
	• Candidate should reason that households will not purchase a piano each year and should divide the number they have arrived at thus far by the average life of a piano (or multiply by the replacement rate)
	• Candidate should further reason that pianos are on the more durable side of musical instruments
	• Reasonable estimate: pianos should last 30-50 years
	
	Calculation:
	(1.5 Million People / 2.5 People per HH) = 600,000 HH * 5% Piano Ownership = 30,000 Piano HH * $7,500 per piano = $225,000,000 Total Market Size / 40 years = $5.6 MM / Year

Case 3: Pianos

Market Sizing

Performance Evaluation	**Expected:** • Candidate develops a structured approach to finding a solution • Clarifies assumptions that he/she makes based on reasonable logic **Good:** • Completes all “Expected” requirements • Picks easy numbers or rounds appropriately to simplify calculations • Clearly walk the interviewer through the calculations **Excellent:** • Completes all “Excellent” requirements • Arrives confidently at the final number • Provides an explanation as to how changes to assumptions would affect the estimation

Case 2: Chinese Cars

BACKGROUND
Firm: Roland Berger
Round: 2005 Summer, First
Content: Market sizing, qualitative and quantitative

CASE QUESTION

Our client is a large Chinese conglomerate with a lot of cash on its hands. They decided to invest this money in a plant that, by the end of this year, will have a full production capacity of 8 million aluminum wheels annually. Management assumes that it will be able to sell 20% of its production in the domestic Chinese market.

The company hired Roland Berger to determine if it can sell the remaining 80% of its production to the US market, which is the largest vehicle market in the world. What do you think?

INTERVIEWER BRIEFING

Recommended approach:
This case is essentially asking you to do two things:
1) Determine the size of the US car market so that you can understand the relative impact of the Chinese company's goals.
2) Assess the feasibility of entering the US market and provide suggestions on how this company might go about doing so.

Market Sizing: Determine how many wheels your client could supply to the US market – both in number of wheels and number of cars (1/4 of the wheel number). Then ask about the size of the US new car market and the secondary market to determine what share the company would need to capture to sell 80% of its production in the US.

Feasibility and Possible Actions: This is where you need to drill down to uncover automobile industry dynamics:
- How do OEMs get the wheels for the cars they produce?
- How would a Chinese company distribute its wheels to the US market? Directly or through intermediaries?
- How entrenched are supplier relationships? Do OEMs buy based on price only, or do the relationships matter too?
- What regulations are involved in supplying an OEM?

Once you understand how the supplier-OEM relationships work, you can provide some suggestions on how this company might feasibly enter the US market.

Key Facts:

- 17 million vehicles produced in the US each year. 70% equipped with aluminum wheels.
- 10% of used car owners whose cars are less than 5 years old buy aluminum wheels
- 85 million cars in the "after market," 24 million of which are less than 5 years old
- Most companies will select one supplier who will supply the aluminum wheels for the entire life-time of a car model. Suppliers are usually selected 24 months before a new model goes into production and have stringent quality controls.

EXAMPLE DIALOGUE

Interviewee: Okay. I'd like to first determine the production figures of the Chinese manufacturer and compare them to the size of the total US automobile market. This will help me understand the relative size of the Chinese company's production numbers and whether their plan is realistic. Once I know how much market share the Chinese company wants to capture, I'd like to discuss the US automobile industry dynamics to determine if/how the Chinese company should enter the market.

Let's start with their production numbers. Let's assume that cars require only 4 aluminum wheels and that spare tires are made out of some less expensive material. This means that your client produces wheels for 2 million cars per year. 80% of 2 million gives us wheels for 1.6 million cars, which we are trying to sell in the US. So how big is the US new car market and how large is the secondary market (people who buy aluminum wheels for an older car)?

Interviewer: *About 17 million vehicles are produced in the US each year. About 70% are equipped with aluminum wheels. About 10% of used car owners whose cars are less than 5 years old buy aluminum wheels.*

Interviewee: That means that roughly 12 million new cars each year are sold with aluminum wheels. Can we assume that there are about 280 million cars in the after-market, about 1 car per person, considering that people in New Jersey own on average 2 cars?

Interviewer: *No, that number is much lower. There are about 85 million cars in the after market, but only about 24 million are less than 5 years old.*

Interviewee: I see. That means the after-market is about 2.4 million sets of aluminum wheels per year. Considering that your client needs to sell 1.6 million sets, they'd have to capture a 66% market share, which seems very unlikely in such a fragmented market. That means we should probably focus on the new car market. How do the major car companies procure the aluminum wheels they put on their cars?

Interviewer: *That's a good question. Most companies will select one supplier who will supply the aluminum wheels for the entire life-time of a car model. Suppliers are usually selected 24 months before a new model goes into production and have stringent quality controls.*

Interviewee: We probably would have to add another 12 months to even get on a company's preferred supplier list, which increases the lead time to about 3 years before we can hope to

supply aluminum wheels to a major US car manufacturer. Since you mentioned earlier that your client's plant will be ready for production by the end of this year, this does not look like a viable option either. What about trying to expand distribution on a broader basis than just the US?

Interviewer: *They thought about that as another option, but they would really like to work with just the US.*

Interviewee: Assuming that your client can produce quite a bit cheaper in China than most competitors can in the US, it might make sense to sub-contract some of this production capacity to suppliers of the major US car manufacturers. This is probably less lucrative than selling directly to end-customers or car manufacturers because the client would have to share its profit margin with the supplier. That said, it would probably be the most efficient way to enter the US market on a large scale.

Interviewer: *Yes, this is exactly what they did.*

Case Title:	Gas Station
Company:	Bain & Company
Interview Round:	1st Round – Full Time
Case Tags:	Market sizing
Duration:	25 minutes

Question:
How many gas stations are there in Japan?

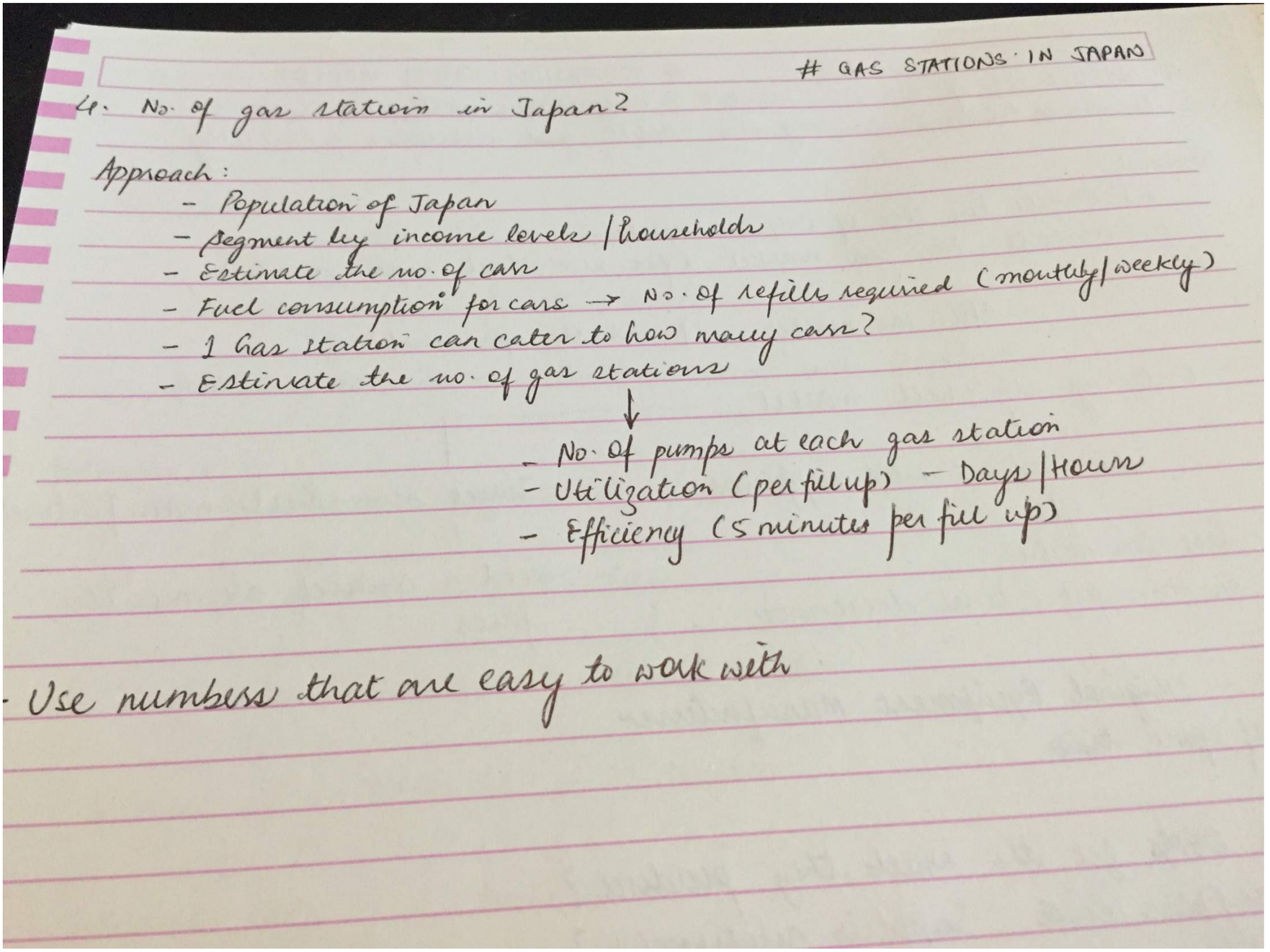
Follow-up question: If you had 2 hours to refine your data, how would you spend them? (i.e. which assumptions are most important; the "drivers")

Things Interviewee Should Consider / "Framework":
There are several other ways to attack this one, including a simple scale-up (a town of 80k might have 20 gas stations, so just proportion that up to 120M people…) or some sort of parallel to the United States, as long as cultural differences are considered.

Facts to Share (if prompted):
- Population of Japan = 120 million
- Public transportation is very convenient and widely used, so car ownership and usage is much lower than in the U.S.

Summary of Key Insights:
Be sure to have a couple of suggestions on how to approach the problem. You will be asked for multiple solutions, and why one is better than another. Be organized with your numbers.

Case Title:	Gas Station
Company:	Bain & Company
Interview Round:	1st Round – Full Time
Case Tags:	Market sizing
Duration:	25 minutes
	Sample framework



Walkthrough of Solution:

The following is a sample solution:

Equate supply with demand:

Work in tanks filled, since we will deal with the amount of time it takes to fill a tank

Demand = households * % car ownership * tanks filled per month * days/month
+ business demand = above # * (ratio of trucks to cars on the road) * (ratio of frequency of fill-ups, i.e. every day vs. once/month)

40M * 40% * 1 tank/month * month/30 days = 500,000 tanks/day +
500,000 * (1 truck/20 cars) * (one fill-up per month/every day, or 30) = 750,000

Total supply = 1.25 M tanks per day

Each station has about 10 pumps

It takes about 5 minutes for each fill-up.

Under 100% utilization, that would equal 10 pumps * 12 * 24 = 3000 fill-ups per gas station per day

To figure out utilization, divide up the day and make some assumptions

0:00 – 6:00 = 5%
6:00 – 10:00 (around rush hour)= 50%
10:00 – 16:00 = 20%
16:00 – 20:00 (around rush hour) = 50%
20:00 – 24:00 = 20%

Take the weighted average = (6*.05 + 4*.5 + 4*.2 + 4*.5 + 4*.2)/24 = 25%

So there are 25% of 3000, or 750 fill-ups per station per day

1.25M/750 = about 6600 gas stations

Follow-up question: 6600 seems low. Go through each assumption and do a gut-check

- Over a 24-hour span, are gas stations really 25% utilized? Probably not…
- % car ownership and fill-ups per month will be big drivers
- Since business use is so large, the ratios used in that equation are also quite important

Case 2: Penguins?!?

Market Sizing *Bain & Company*

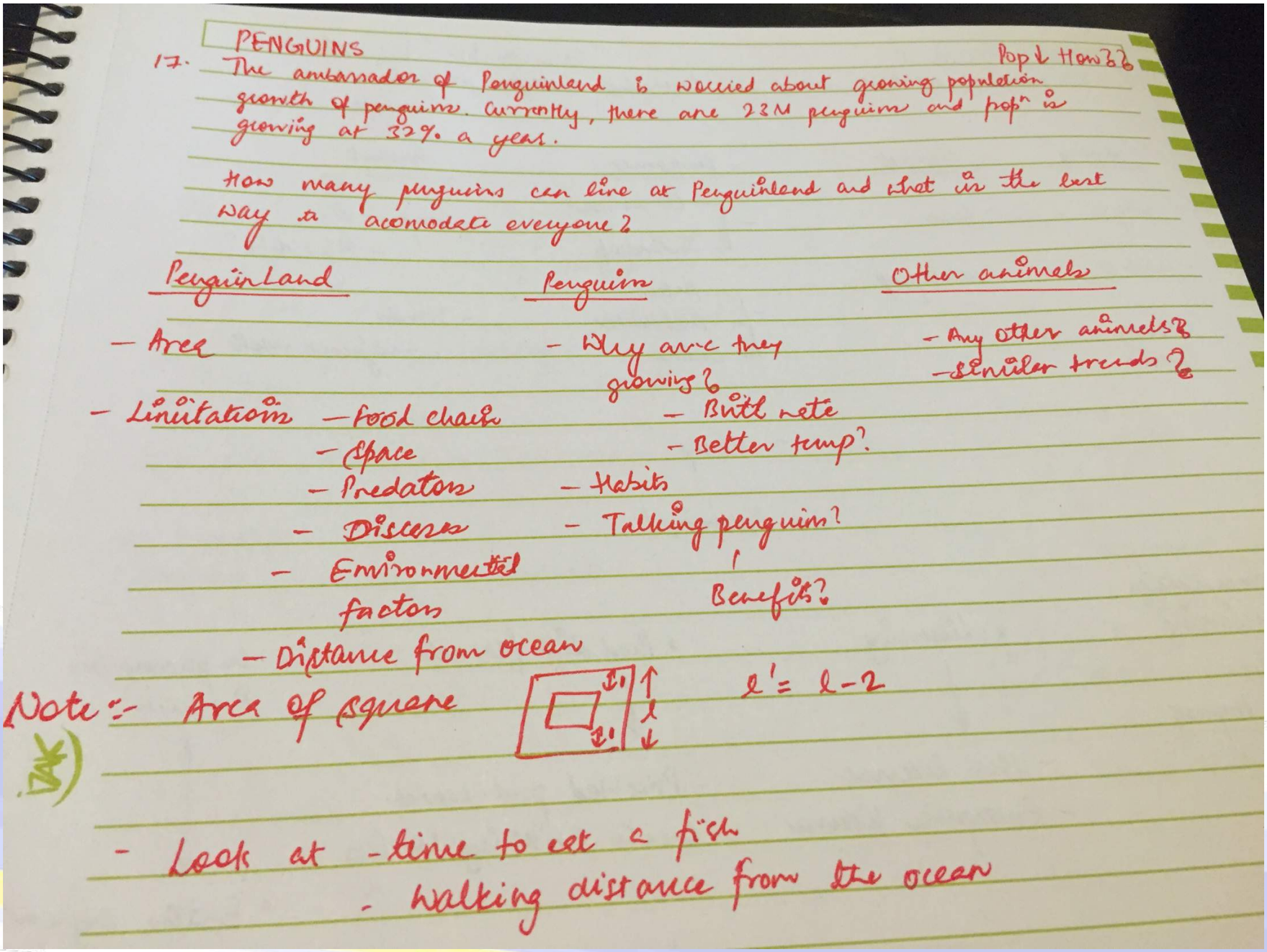
Guidance	Important: Try not to laugh… This is a real case from Bain & Company. It's a hard case. The candidate will have to think out of the box to solve it. Therefore, it's not a case for beginners. Before the candidate start his/her framework, ask him/her what he/she knows about penguins.
Prompt	Penguins have evolved. Now they can talk and they are organized as an advanced society. The ambassador of Penguinland (former Antarctica) has reached out to Bain & Company because he is worried about the growing population growth of penguins. Currently, there are about 23 million penguins and the population is growing 32% per year. **How many penguins can live at Penguinland and what is the best way to accommodate everyone?**
Guidance	The candidate must calculate how many penguins can live in Antarctica. That means, the candidate should be thinking on what the penguins eat (fish), how far can they be from the ocean, etc. The penguins are not involved in commercial activities. They still act as penguins. Orient the candidate to think out of the box.

Case 2: Penguins?!?

Market Sizing *Bain & Company*

Guidance	The candidate should present a framework touching on food habits, predators, space for building their nests, etc. The key driver in this case is how far they can live from the ocean.
	
	Information to be given upon request:
	• Predators: the penguins negotiated with all predators. The polar bears now live in a Zoo in San Diego and the whales lives at Sea World.
	• Food: There are a lot all over the ocean. It's more than enough to feed every penguin.
	• Penguin habits:
	  • They are all married and have a baby penguin
	  • They need space for both penguins to live and a nest for the baby
	  • Penguins do not need space for leisure. They need space just to sleep
	  • Penguins must eat everyday
	• Penguinland (Antarctica) area: Provide exhibit 1. Allow the candidate to approximate the map to a square.
	
	If the candidate does not realize that he needs to calculate the Antarctica area, ask him to do so.

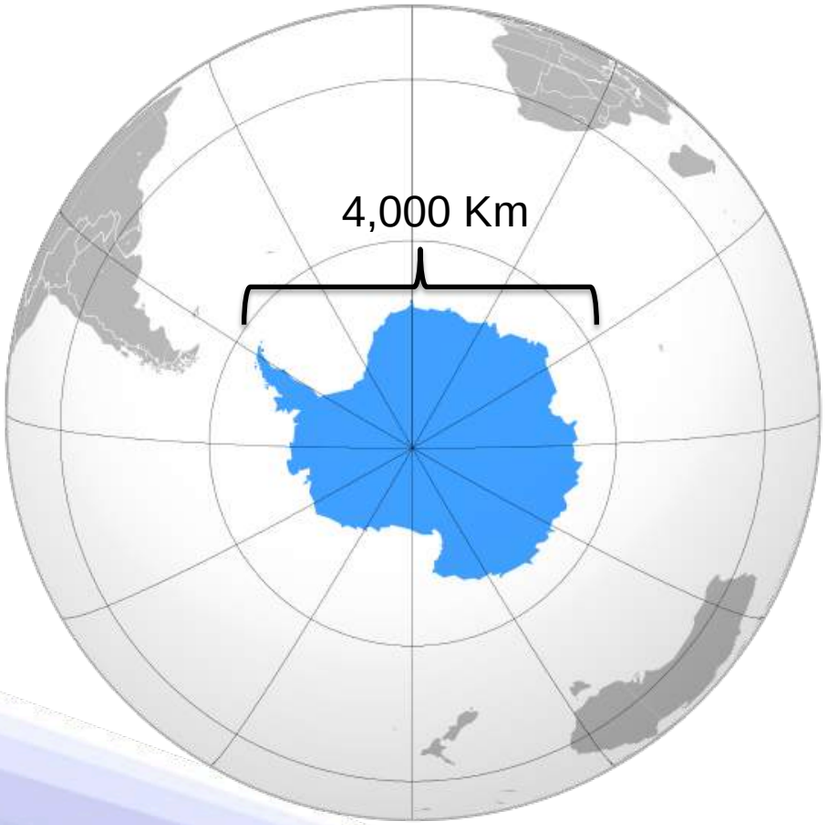
Case 2: Penguins
Sample framework



Case 2: Penguins?!?

Market Sizing *Bain & Company*

Exhibit 1: Penguinland Map



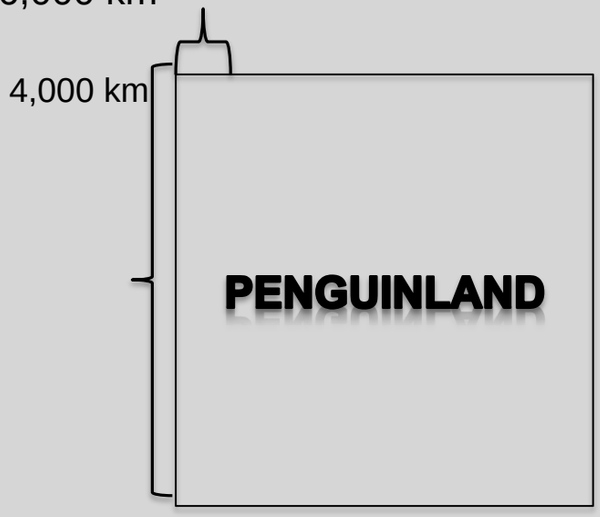
Case 2: Penguins?!?

Market Sizing *Bain & Company*

Guidance	Calculation: Approximating the map to a square: Area = 4,000 x 4,000 = 16,0000,000 km^2 Now that the candidate has calculated the Antarctica area, he needs to calculate how far can a penguin live from the ocean. He/she will need to calculate how fast can a penguin walk and how many hours per day can a penguin walk. Information to be given: • Penguins only walk and eat during the day. They must sleep the whole night • Penguins must eat every day or they will die • Even if a penguin stays in the ocean for only 1 second, it's enough to eat one fish • The longest day of the year has 22 hours of sunlight • The average size of penguin leg is 20cm. The average size of a human leg is 1m • Humans can walk at an average of 5km per hour The candidate must realize that the walking speed can be written as a function of the leg length. Therefore, if a penguin has a leg that is 1/5 of a human's, the penguin speed will also be 1/5 of the human's speed. In this case: 1 km per hour. Since the longest day of the year has 22 hours of sun light (and 2 hours of night), the shortest day of the year has only 2 hours of sunlight. Since the penguins must walk from their nest to the sea and from the sea to their nest, they cannot live from more than 1 hour (1km) from the sea.

Case 2: Penguins?!?

Market Sizing *Bain & Company*

Guidance	Now that the candidate figured that the penguins can live only 1km away from the sea, he/she needs to calculate the total habitable area and how many penguins can be fit in this area. The total habitable area can be approximated* to 4 rectangles of 1km by 4,000km. Area = (1 x 4,000) x 4 = 16,000 km^2  *Note: The correct area calculation is (4,000 km x 1 km) + (4,000 km x 1 km) + (3,998 km x 1 km) + (3,998 km x 1 km) = 15,996 km^2, but is ok to round to 16,000 km^2 Orient the candidate to estimate the number of penguins. He/she will need to know the size of the penguins. Information to be given upon request: Penguin size = 1 m^2 Nest size = 1 m^2 Remember the candidate that the penguins need space to move from their nests to the sea. Therefore, they will need roads.

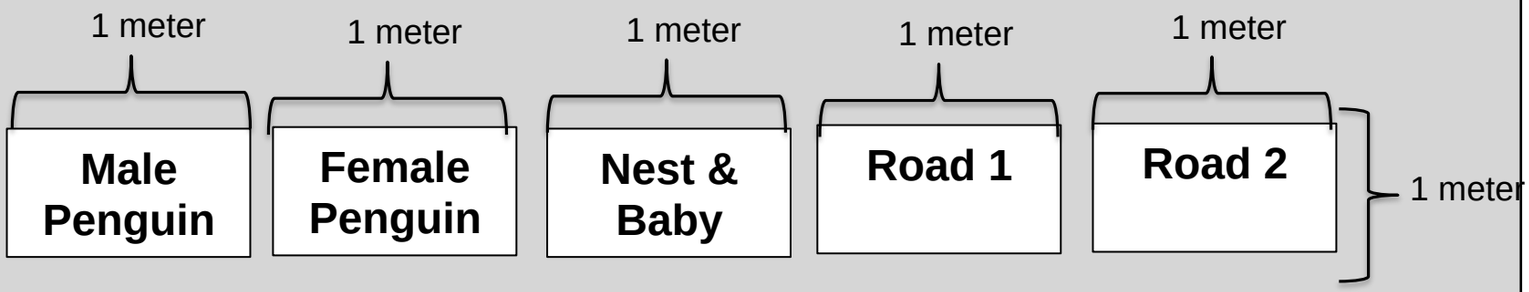
Case 2: Penguins?!?

Market Sizing *Bain & Company*

Guidance

Tip: the penguins will need roads. Ideally, they will need 2 roads, so some penguins can go to the sea while others are coming back the their nests.

The optimum solution is to allocate the penguin as follow:



According to this layout, it's possible to accommodate 3 penguins (1 male, 1 female and 1 baby) for each 5 square meters.

$$Total\ Number\ of\ Penguins = \frac{Habitable\ Area\ (in\ m^2)}{Home\ layout\ size}\ x\ 3\ penguins$$

$$Total\ Number\ of\ Penguins = \frac{16{,}000{,}000{,}000\ m^2}{5\ m^2}\ x\ 3\ penguins$$

$$Total\ Number\ of\ Penguins = 9{,}600{,}000{,}000\ penguins = 9.6\ B\ penguins$$

Case 2: Penguins?!?

Market Sizing *Bain & Company*

Performance Evaluation	**Expected:** • Correctly calculates the number of penguins • Needed some help to understand the drivers to calculate the maximum penguin population **Good:** • Completes all “Expected” requirements • Suggests that the map can be approximated to a square or circle • Develops a framework that contains important issues such as Predators, Feeding Habits, etc. • Understands that the penguins must walk 1km to reach the sea and then they need to come back **Excellent:** • Completes all “Good“ requirements • Understands that the calculations must consider the shortest day of the year • Suggests the same allocation layout • Could solve the case without much help from the interviewer

Strategy

Case: Mighty Mining Company

(inspired by) McKinsey, Round 2

Problem statement narrative

Your client is a global mining company with a location in South Africa. This particular location is performing below average financially. McKinsey has been hired to identify the problem and make recommendations to address it. What would you do first to approach this problem?

(Note to interviewer: This leadoff question is meant to focus on actions one would take before diving into the framework – actions such as collecting data, visiting the location to observe operations, interviewing employees, etc)

Overview for interviewer

This question is intentionally vague, as many Partner level cases can be, to encourage the candidate to ask questions at this stage.

This is command and control, so start with the first question, then provide the detail to the right and ask for a full analysis (framework). After the framework is developed by the candidate, dive deeper into cost and operations and ask follow-up questions.

Case Type: Operations
Case Style: Command & Control

Information to be provided after actions identified

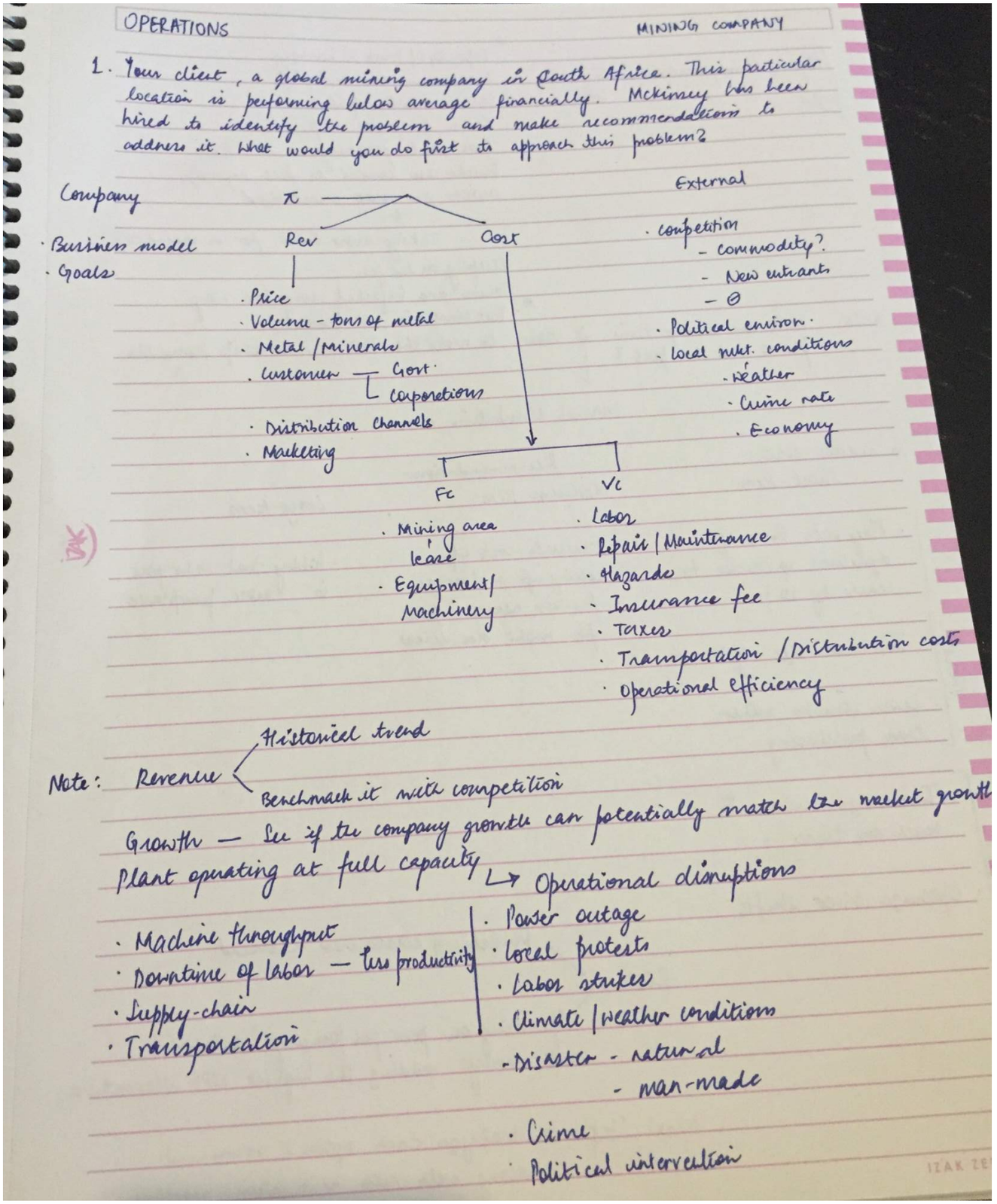
The processing plant is located 160 miles inland and it uses a fleet of large trucks to transport minerals from the plant (which is located near the mineral source) to a port city. The minerals are then loaded onto barges and shipped to clients around the world. The plant needs to operate at maximum capacity to meet customer demand.

The minerals produced are commodities with low margins.

Case: Mighty Mining Company

(inspired by) McKinsey, Round 2

Sample Framework



Potential Issue Tree & Approach to Solving the Case

Key elements of analysis to solve the case

Revenues

Revenue: explore historical data, trends, product specific data

Benchmark against competitors and other corporate locations.

Possible follow-up and guidance to interviewer

Although important to mention, the focus of this case is cost and operations so don't let the candidate spend too much time here.

Costs

Costs: explore fixed costs (PP&E, overhead) and variable costs (material, labor)

Transportation: considering this product is a commodity, transportation makes up a large portion of the product cost and should be separated out.

Possible follow-up and guidance to interviewer

If the candidate has not already done so, ask them to identify the key cost line items on the income statement and elaborate on the COGS for this industry.

COGS: Labor, Materials, Shipping/Logistics

Operating Expenses

Administrative, Overhead, D&A

Operations

Explore operational issues that might lead to poor performance such as interruptions in operations (is plant operating at full capacity, is it running 100% of the time or are there power outages or other disruptions, are there local protests, is theft or local unrest impacting plant), employee skill level, employee morale, etc

Possible follow-up and guidance to interviewer

If the interviewer gives a vague response such as "I would want to understand the local market conditions" then push for specific examples of operational issues that would impact a plant in the middle of South Africa.

It is important that the candidate identify general operating issues and locally impacted issues.

Follow-up Questions

Follow-up question #1

In gathering data from the client, you find that transportation costs are significantly higher as a portion of COGS than any other African plant location. Why might this be? (If the 160 mile trip from plant to port has not been mentioned, inform interviewer of the transportation details here)

Guidance for interviewer:

Response should cover a range of ideas as the interviewer is looking for out of the box thinking. Some ideas might be: the plant is sending trucks that are not full increasing trips needed, drivers are not going directly to the port (poor route planning, sleeping on the job, etc), trucks are hijacked along the route, drivers must pay bribes to get through certain road blocks.

Follow-up question #2

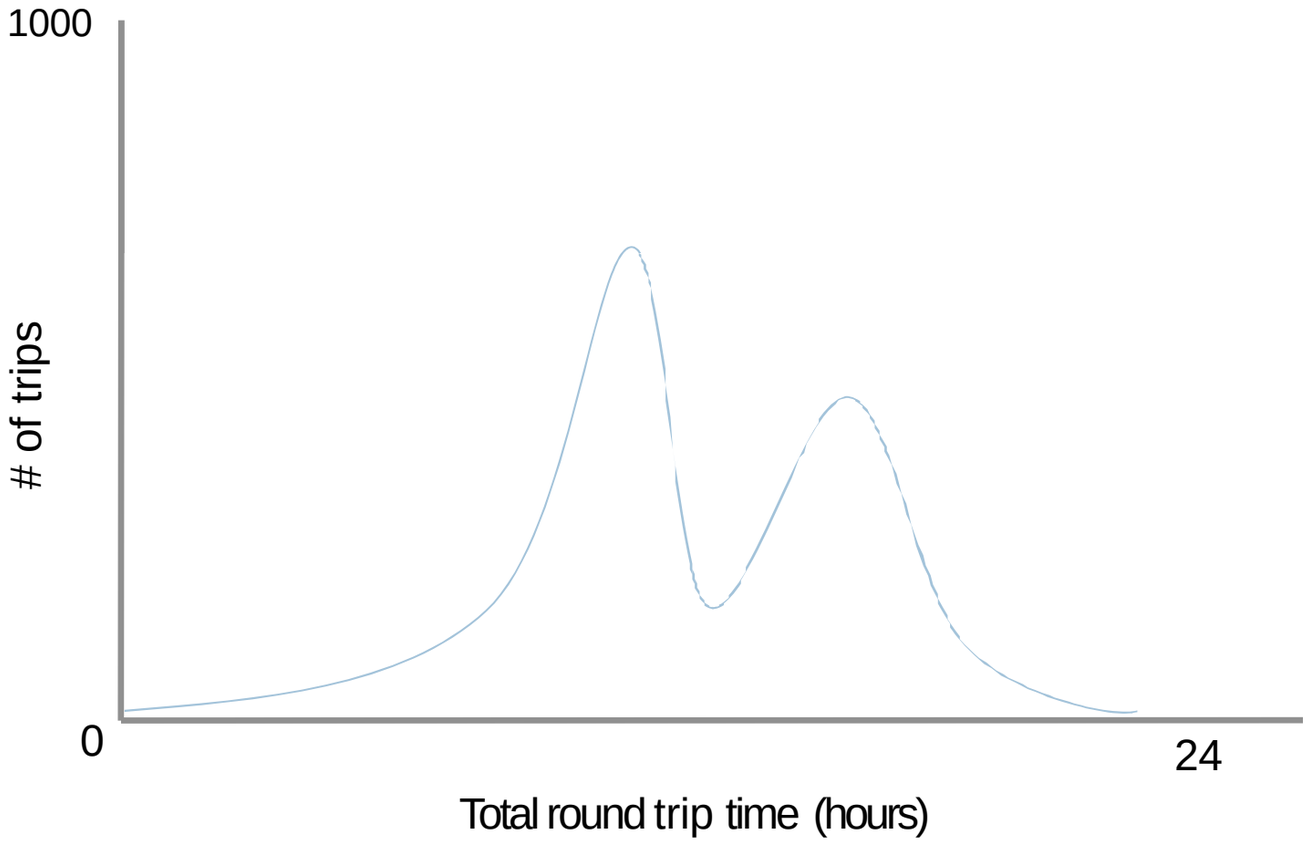
You collect historical data on the average time it takes a truck to make the 200 mile trip from the plant to the port, what should you expect the graph to look like?

Interviewer: (The graph should be a normal distribution) You expected the graph to be normally distributed but your data reveals the following graph. What can you draw from this data?

Guidance for interviewer:

The candidate should identify that the first peak is expected (per the normal distribution) but the second peak needs to be analyzed. Ask for ideas of what might cause the second peak. These could include certain drivers taking too many breaks, traffic patterns, etc.

Mighty Mining Trip Time Distribution



Final Question and Sample Recommendation

Follow-up question
You discover that the port closes at 10pm and any truck that does not arrive by 10pm must wait until the port opens again at 4am to drop off its load and return to the plant. The minimum roundtrip travel time is 7 hours and the plant owns 20 trucks; however, a barge needs 30 truckloads to reach capacity and ship out. What would you recommend Mighty Mining to do about this situation? Remember: the plant must operate at max capacity to meet customer demand

Sample Recommendation	Rather than crunch numbers around optimization, it is sufficient that the candidate identify that there are several bottlenecks in the supply chain (travel time, port hours of operations, capacity of trucks versus barge) and recommend potential solutions that may be considered: • In the short term, the company needs to identify the latest a truck can leave and still arrive by 10pm. They could use employee incentives to encourage drivers to reduce rest stops along route to make the 10pm cut-off. Driver shifts should be rearranged to optimize material delivered to the port. • In the long term, see if they lobby that 24 hour port operations is more profitable for all parties. • Evaluate the costs of setting up a storage facility by the port for night deliveries against purchasing more trucks. • Analyze costs of upgrading fleet to larger size trucks. • Consider leasing trucks vs. purchasing.
Risks Next	Since location already is poor performing, must analyze cost of capital to ensure that investing in capital improvements is highest NPV alternative (ship from other better plants?). Changes in customer demand could lead to an investment that is not needed long term.
Step	I would analyze these options and present a final recommendation for the client including justification for any investment needed by the company to mitigate the risk of senior management not wanting to invest.

Case 7: Chemical Brothers Int.

Valuation *DMCC* *Unknown Round*

Prompt	Your client Chemical Brothers International (CHEMBRO), is a major chemical producer, has retained your firm‘s services to evaluate the feasibility of acquiring another major player in the industry, Plastics of America (POA). Both companies are bulk commodity chemical producers. Your task is to analyze the future prospects of POA‘s major product line, a chemical used in the production of plastics. Should Chembro acquire POA?
[redacted]	
Prompt – Part II	What strategic issues need to be addressed in evaluating an M&A proposal?
[redacted]	

Case 7: Chemical Brothers Int.

Valuation *DMCC* *Unknown Round*

Analysis	The candidates framework should cover the following buckets. Allow the candidate to ask for information about the major categories before giving the information. If the candidate is missing one of the buckets, prompt them with a question to get them on track. **Market Analysis** ▪ End-users come primarily from the automotive industry ▪ Market size has been slowly declining over the last five years ▪ Within the last couple of years, prices have declined rapidly **Competition / Industry Analysis** ▪ There are 10 major producers; the largest one with a 35% share; number two has 25%, and POA is third with 20%; the remaining share is divided amongst others ▪ The two largest competitors earn a small return; POA is slightly above break-even; the rest are operating at break-even or at a loss ▪ Relative capacity utilization in the industry is 60 to 70 % and has been so for the last 3 years. POA is also currently working at 75% of capacity ▪ The two largest competitors are highly diversified with this particular product line representing no more than 20% of their revenues ▪ Highly regulated industry with expensive pollution control equipment ▪ High barriers to entry because of the low profits and high investments required **Product value proposition / brand portfolio** ▪ The price has been driven by self-destructive cuts from the leaders to gain temporary share points ▪ We do not foresee the development of any significant byproducts. ▪ Other possible uses: None. ▪ Complementary Assets: 50% of POA's sales are to the automobile industry

Case 7: Chemical Brothers Int.

Valuation *DMCC* *Unknown Round*

Analysis	**Finance and Operations** ▪ Cost is based on size/efficiency/age of plant, etc. Within the industry, POA is in an above average position. ▪ There are several operational improvements that could be implemented, and management has not been aggressive in its pursuit of quality and cost controls. ▪ Great economies of scale exist in marketing and transportation. (Not quantifiable) ▪ Operational synergies could represent an additional $30 million in profits
Prompt – Part III	After discussing the above-mentioned qualitative aspects in some detail, provide the candidate with **Exhibit 1** when the conversation shifts to the topic of valuation. Ask candidate to compute the present value of acquisition.
Guidance	*You may allow the candidate to use 10% rate of return and not 9% (12% Return on Capital – 3% Growth Rate) if requested. However ask him the effect on NPV of a higher vs. lower discount rate, to gauge his understanding of the concept. Answer: Higher discount rate means lower valuation.*
Analysis	NPV analysis: Based on the information from Exhibit A, the net present value of the target company is = $90M / (10%) = $900 million (assume perpetuity), which is less than the purchase price tag of $950 million. Industry Attractiveness: not particularly attractive, unless the larger competitor can use economies of scale and dominant position for economic gain.

Case 7: Chemical Brothers Int.

Valuation *DMCC* *Unknown Round*

Performance Evaluation	**Expected:** Candidate identifies that the purchase price is higher than the NPV. Recommendation wrap-up should clearly include a —go/ no goll decision followed by quantitative (valuation) and qualitative (industry and compatibility analysis) facts.. **Good:** A strong candidate will recognize that this case deals with internal factors (synergies and economies of scale) as well as some external factors (opportunity costs and industry attractiveness). **Excellent**: An excellent candidate will include some of the following additional insights. A more comprehensive NPV would include the new cash flow from synergies, as well as the previously calculated NPV. Therefore the $900 million + [Synergies 30M/(12%-3%) = 333M] = $1,233M value of target > 950 price tag. In addition to the cash flows expected from synergies, the potential economies of scale and tax advantages from funding the acquisition with debt could be seen as other sources of revenue. These considerations further improve the deal. ▪ Competitive and regulatory responses to block the merger are reasonable to assume due to concerns over industry concentration. ▪ Benchmarking the value of the POA acquisition to other similar M&A in the industry. ▪ Consider what multiple of operating profits other acquisitions been valued at?

Case 7: Chemical Brothers Int.

Exhibit 1

Purchase Price	**$950 M**
Annual operating income before tax	$90 M
Cash	*$30 M*
No. of employees	*2000*
Return of capital	*12%*
Market risk premium	*7%*
Growth rate	*3%*
Tax rate	*40%*

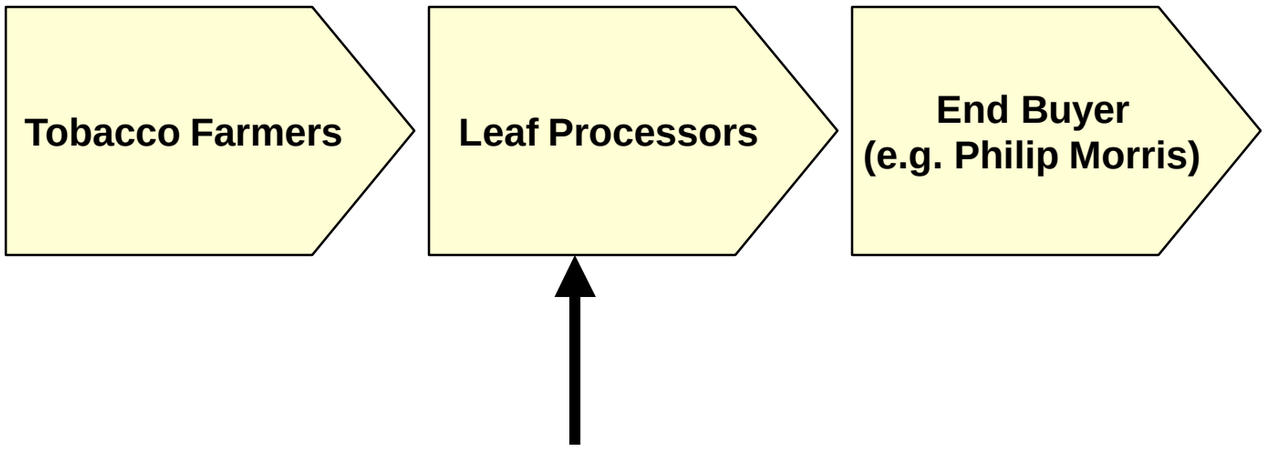
Case 12: Tobacco Leaf Processor (I of III)

Booz Allen - Home Team, Round 1

Problem statement narrative	Guidance for interviewer and information provided upon request[1]
Tobacco is a commodity and revenues in the tobacco industry are flat. See Exhibit 1 for value chain. **The #2 and #3 tobacco leaf processors are considering a merger. The new merged company will be 75% of the #1 company.** **Over the past five years, #2 has had flat revenues and slight profitability. #3 has had declining revenues and profitability. Both are global organizations with operations, plants, and distribution at a global level. They overlap in most, but not all, markets.** **What factors should the firms consider in determining whether to merge? What are the opportunities and barriers?**	**Market: Only one product and one segment. There are 4-5 end consumers that purchase processed tobacco leaf (e.g. Philip Morris).** **Competition: #1 has a total market share of 35-40%. Besides the top three players, there are 5-6 much smaller firms.** **There has been no innovation in tobacco leaf processing for many years.** **Organizations: #2 is highly centralized with a bureaucratic structure. #3 is decentralized and entrepreneurial.**

Case 12: Tobacco Leaf Processor (II of III)

Booz Allen - Home Team, Round 1



This is the part of the supply chain that we are concerned with.

Case 12: Tobacco Leaf Processor (III of III)

Booz Allen - Home Team, Round 1

Opportunities	Barriers
Synergies: merged company can cut redundant costs (they have market overlap). Lack of industry innovation makes cost cutting a promising competitive tactic. Candidate should be able to see that the benefits of the merger is driven by cost not revenue.	**Management / Organizational** issues due to very different cultures. What can #2 and #3 do to mitigate this? •#2 will have more power in the merger. (Mergers are often not of equals. In this case, #2 is bigger and more profitable and thus more powerful.) •#2 will not be likely to want to change culture much (it didn't help #3 with profitability), but #3's entrepreneurial culture may help with innovation. • Open forums pre-merger to manage expectations of merged culture. • #2 should be open to valid suggestions from #3. • #3 should have clear role/stake in merged organization. •Retention issues likely with culture shift, no matter how expectations are managed. **Competition** •Merged company will have ~30% market share (75% of #1's 40% market share). •#1 may feel threatened € #1 may engage in tactics to protect market share. **Macro: Regulatory Issues** - Globally, the merged company will be #2 in market share, but in some countries, it will be #1. This raises regulatory/monopoly issues that the merged company may need to contend with.

Case 6: Due Diligence on Clothing Retail Specialist

Introduction

Problem Statement Narrative

A PE fund is thinking about acquiring a clothes retail specialist, leader on the French market. The French clothing retail market is composed of 2 segments:

- Urban: trendy, high quality, quite expensive
- Suburban: mass market, lower quality, low prices

We only have a few data on the target: total annual sales $800m, 800 stores, 4 brands on both the urban and suburban markets.

The PE fund hired us to help them do the due diligence of the firm, in order to assess if it's worth bidding for it or not.

How would you approach this question and what would you recommend him?

This is similar to a strategy case, in which you have to assess the market opportunities, competition, and the companies competitive advantage.

In a real due diligence project in consulting firm, the project team will develop framework and identify key areas to assess, and then ask questions to the target. Therefore, an ideal candidate in this case interview should be able to come up with a framework that is appropriate to assess a clothing retail company, and be able to ask relevant questions in each aspect.

The format of this interview is largely driven by the interviewer. However, an ideal candidate should be able to drive insights and implication on each question asked by the interviewer, and used those to form a view and the conclusion

Case 6: Due Diligence on Clothing Retail Specialist

Framework

Step 1: Develop an overall framework to assess the target

Market:

- Size & growth (volume and price)
- Trends
- Market segments characteristics
- Drivers of this market
  - Buyer & supplier powers
  - New entrants & substitutes
  - Competition
    - Market shares & their evolution
    - Market fragmented or not?
- Distribution channel
- Regulation

Company standalone:

- Business and revenue models (how do they generate cash?)
- Competitive advantage?
- Specific asset, knowledge, resources, capabilities?
- Key financials & cost structure
- Management

Deal itself:

Case6: Due Diligence on Clothing Retail Specialist

Step 2: Interviewers will probe questions according to the framework developed

Market:

- The market is flat in value over the last 5 years (~$25Bn) but volumes have been growing over the same period (~2% per year). What could explain this?
  - According to market value = volume x price, the only reason that can explain this situation is a decrease in price offsets the increase in volume

- What could be the drivers of the decrease in prices?
  - Candidate should explore different reasons based on what might be relevant, combining and distilling from various 4Cs, 5Cs, 4Ps concept. Here, customers, competitions and supply chain are most likely to explain cost drivers
  - Change in demand: consumers asking for lower prices; customers are buying more clothes in each season and look for cheaper options
  - Development of new types of players: H&M and Zara with trendy but low price products
  - Decrease in supply cost, such as outsourcing to lower cost countries such as China, Vietnam, Cambodia, Philippines, etc.

Case 6: Due Diligence on Clothing Retail Specialist

Step 2: Interviewers will probe questions according to the framework developed

Company:

- Cost structure: which type of indicators could you use to assess the profitability of a retail store? Especially if you want to benchmark stores from the same brand.
  - An ideal candidate should have basic understanding that retail is driven by floor space
  - Indicators: sales / sq feet, (or sales / employee)

- For one given brand, we have: 15 suburban stores: average size = 1500 sq ft and average profitability (sales / sq ft) = $1,500 per sq ft, 20 urban stores: average size = 800 sq ft and average profitability = $2,800 per sq ft. What is the total annual sales of this brand?
  - Basic quant question.
  - Suburban: 1500*1,500*15 = $33.75m
  - Urban: 800*2,800*20 = $44.8m
  - Total = $78.55m

- If I tell you that the sum of the sizes of the stores (both urban and suburban) is 40,000 sqft, what would be the profitability margin (in sales/sqft) of the brand?
  - Total sales / total size = $78.55m / 40,000 sqft = ~$2,000 / sqft
  - Basic quant question following the previous question. An ideal candidate should cross-check this result with data given: answer should be in the range between $1,500/sqft and $2,800/sqft based on the data given in previous question

Case 6: Due Diligence on Clothing Retail Specialist

Step 2: Interviewers will probe questions according to the framework developed (con't)

Company:

- We'd like to speak about a concept which is very common in the retail industry. To do so, let's look now at the target's investment plan:
  - Year 1 – it opened its first store and gross margin was 10%
  - Year 2 – same store but gross margin increased to 25%
  - Year 3 – same store but gross margin remained flat to 25%. Manager decides to open new stores from now on
  - Year 4 – 1 additional store: total gross margin = ~18%
  - Year 5 – 3 additional stores: total gross margin = ~17%
  - Year 6 – 10 additional stores: total gross margin = ~16%
- Overall gross margin kept decreasing over those years and the PE fund is worried about that. Is the fund right to worry about it? Why/why not?

  - Ideal candidate should distinguish the difference between individual store gross margin and total gross margin, the concept of "average"
  - Candidate should also ask for additional questions and draw curves to visualize the situation. For example, ask evolution of sales for 1 store, then evolution of costs; could also ask what happened in year 1, 2, 3, etc.
  - Hints from interviewer would be given when candidate probe the right question: 1) all stores are similar, 2) no cannibalization or coordination diminishing returns, and 3) mainly fixed costs
  - **Key concept:** the ramp-up concept in retail industry. One given store reaches its full potential only after a 2 year ramp-up period. The total gross margin will depend on the mix of new stores and matured stores.
    - The gross margin of a new store is 10% after 1 year, 25% after 2 years and remains flat afterwards
    - In year 4, two stores – one new and one matured, the average gross margin = 10%+25% / 2 = ~18%
  - The fund should "de-average" the total gross margin and look at the margin evolution of the same stores, i.e. the SS (same

Case 6: Due Diligence on Clothing Retail Specialist

Step 2: Interviewers will probe questions according to the framework developed (con't)

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    - The gross margin of a new store is 10% after 1 year, 25% after 2 years and remains flat afterwards
    - In year 4, two stores – one new and one matured, the average gross margin = 10%+25% / 2 = ~18%
  - The fund should "de-average" the total gross margin and look at the margin evolution of the same stores, i.e. the SS (same

Case 6: Due Diligence on Clothing Retail Specialist

Step 2: Interviewers will probe questions according to the framework developed (con't)

Company:

- Based on your answer, if there were 3 additional stores and 2 stores in year 7 and 8 respectively, what was the evolution of the overall gross margin?

  - The total gross margin should increase as the expansion slowed down and more existing stores would reach their mature state. The overall impact of new stores on total gross margin would decrease.
  - ➔ An ideal candidate should be able to draw on this question to identify the conclusion and implication. Candidate should state that if the target's total gross margin increased after year 7 and 8, then the fund should not worry as the decrease in total gross margin in previous years were due to rapid expansion.

Case 6: Due Diligence on Clothing Retail Specialist

Recommendation

Can you summarize what we did together in 1 min?

An ideal candidate should be able to summarize the key facts during the discussion and draw implication.

- Despite the total market value is flat but business volume is increasing. The decrease in price may drive the less competitive players out of the market.
- During this period, the target seems to have maintained a healthy margin and the interim drop in margin was due to the rapid expansion. It also seems that there are still rooms for further expansion until the market becomes saturated.
- In order to make a more informed decision on the investment, we might need to look into how other competitors are playing in the market, the supply chain management to maintain cost competitive. However, with information we have now, there is no significant risk observed yet and hence should still be a "go" before assessing other aspects.

Case 17: Contract Manufacturer Co.

Bain & Company

Prompt	Your client is Contract Manufacturer Co., which produces components for a number of diverse products. They have grown quickly and had 2011 revenues of $17 billion. They now serve 350 customers across nearly 20 industries, including consumer electronics, mobile phones, healthcare, and defense. They are dependent on their end-markets, e.g. how many consumers buy mobile phones next year, but they only "see" this demand through their customers, e.g. Apple and RIM. They are therefore very vulnerable to changes in market demand but find it difficult to estimate this demand. Third party sources, e.g. financial analysts and market research organizations who follow the space, are also very inaccurate. The CEO of Contract Manufacturer Co. has become increasingly frustrated by their vulnerability to the market and their inaccuracy in predicting end-market demand. He wonders whether they should be better able to identify market trends and in particular, whether they could better utilize data they have accessible via their customer relationships. **How would you go about advising the CEO? Should Contract Manufacturer Co. be able to develop a proprietary view of their markets?**
Guidance	This is a high-level, strategy case that should lead to an interesting, open-ended discussion rather than a focused analysis. The objective is to test the candidate's ability to quickly understand an industry that is not often discussed and think creatively and holistically about a business problem. The candidate should have most of the information needed in the prompt but may ask clarifying questions before beginning his/her framework. Provide the following information upon request: • Services: customers turn to Contract Manufacturer Co. or their competitors to provide parts quickly and cheaply. They are involved in some design and after-market services but most of their business (revenue) comes from simply manufacturing the parts requested. Customers will generally request parts 3-months in advance

Case 17: Contract Manufacturer Co.

Bain & Company

Guidance	• Competitor landscape: Contract Manufacturer Co. is in a competitive space. Contract Manufacturer Co. is one of the leading players, with about 10% market share. Their largest competitors are Chinese and Taiwanese
	• Organizational structure: Contract Manufacturer Co. is structured by industry verticals, which it terms "sectors," e.g. mobile phones or healthcare would be "sectors." They have sales and account teams dedicated to customers in these sectors and a VP leads each sector. They have a strategic planning group at the corporate level, but it is quite new and not very mature
	• Profitability: Contract Manufacturer Co. is a profitable business but their margins are only 3-5% so they depend on volume
	• Geographic scope: Contract Manufacturer Co. is based in the US but has operations worldwide. Their customers are also global
	• Costs: Contract Manufacturing Co.'s costs include procurement of supplies, manufacturing costs, and labor costs. When customer request parts, Contract Manufacturer Co. needs to invest significant sums in machinery and technology
	
	Ideal recommendations should touch on some of the areas below. The candidate should be measured against the quality of the questions posed and the level of the discussion overall. The candidate should sound interested in the potential for better market intelligence but realistic about the state of the company and whether this is feasible in their environment.
	• External best practices (What):
	  • The candidate may be curious to better understand whether other companies similar to Contract Manufacturer Co. (e.g. their competitors or proxy industries) are able to develop accurate views of their end-markets.
	  • Analysis indicates that in the contract manufacturing space, companies are not very mature at market intelligence. Their competitors do not appear to be any further along in this process.
	  • Best-in-class companies, however, have established market intelligence functions that capture market data, including publically available data (financial statements, research reports, etc.)

Case 17: Contract Manufacturer Co.

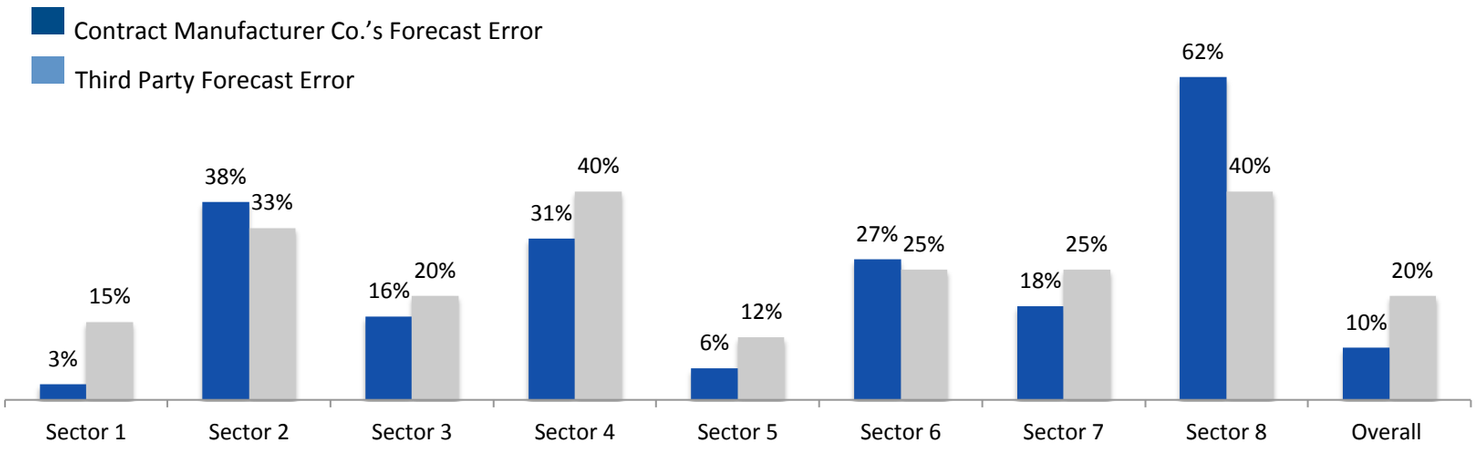
Guidance	• Motivation and justification (Why):
	  • The candidate should be curious about the benefits of developing a more accurate view of their markets. The candidate may postulate a few reasons or ask for guidance
	  • While it is difficult to quantify the benefits of better market intelligence, overall it is clear this is beneficial because of the strategic decisions and risks the company is able to take
	  • Specifically, a sophisticated business is able to do the following:
	  1. Accurately forecast revenue
	  2. Improve account planning, e.g. revise production, capacity and resource plans
	  3. Develop long-term strategy, e.g. identify capability gaps and evaluate need for M&A or R&D to fill the gaps
	  4. Build credibility with the investor community by communicating an accurate annual view of the market and corresponding strategy
	• Customer willingness (How):
	  • The candidate may be curious to understand whether customers would be willing to share their strategy and plans with their suppliers, since that is ultimately what a proprietary view of the market will depend on
	  • Our research indicates that most customers were open and willing to discuss their strategies with Contract Manufacturer Co. since they understand that it furthers both organizations' objectives
	  • Customers in certain industries/sectors, however, remain reluctant to share much
	• Sector applicability (Where):
	  • One vital insight is that the ability for Contract Manufacturer Co. to develop an accurate view of the market differs across sectors; that said, there is the potential to improve their market intelligence gathering in all sectors
	  • One way to determine applicability is to use a matrix (see Exhibit 2), plotting need for market intelligence on one dimension and ability to accurately develop a view of the market on the second dimension; the recommendation would then be for the client to first focus on sectors where there is the greatest need and ability to improve market intelligence, in order to get the biggest wins first

Case 17: Contract Manufacturer Co.

Guidance	• Roles & responsibilities (Who):
	  • The candidate may consider who in the organization would be best suited to improve market intelligence gathering
	  • The organization has a centralized strategic planning team that could be responsible for gathering and tracking publically available data; ultimately the sales and account teams will need to be trained to listen and engage their customers in discussions about market direction
	  • There is no right answer about who should own this process
	• Next steps (When):
	  • The candidate should attempt to think through immediate next steps. There is no right answer but the candidate should understand that this is a capability that will take time to develop and will not transform over night
	  • Some next steps might include:
	  1. Getting buy-in for this idea across the organization
	  2. Performing analysis to understand in what sectors to prioritize efforts
	  3. Consider running a market intelligence “pilot” in a few sectors
	  4. Evaluate the systems in which they currently capture customer data and ensure they will allow for more mature data gathering
	  5. Begin to more comprehensively track publically available data
	
	As the discussion progresses, the interviewer should give the exhibits to the candidate:
	• Exhibit 1: the first insight here is that third party forecasters are just as inaccurate and indeed in most cases, more inaccurate than Contract Manufacturer Co. at forecasting the market. The taller the bar, the greater the forecast error and therefore the less accurate the forecast. The second insight is that the accuracy differs across sectors, so the candidate should begin to think about the applicability of this work to specific sectors
	• Exhibit 2: this is one way to prioritize the sectors (the candidate may have recommended an alternative approach). The insight is that the client should focus their efforts on the top right quadrant (see Exhibit 2, for interviewer only)

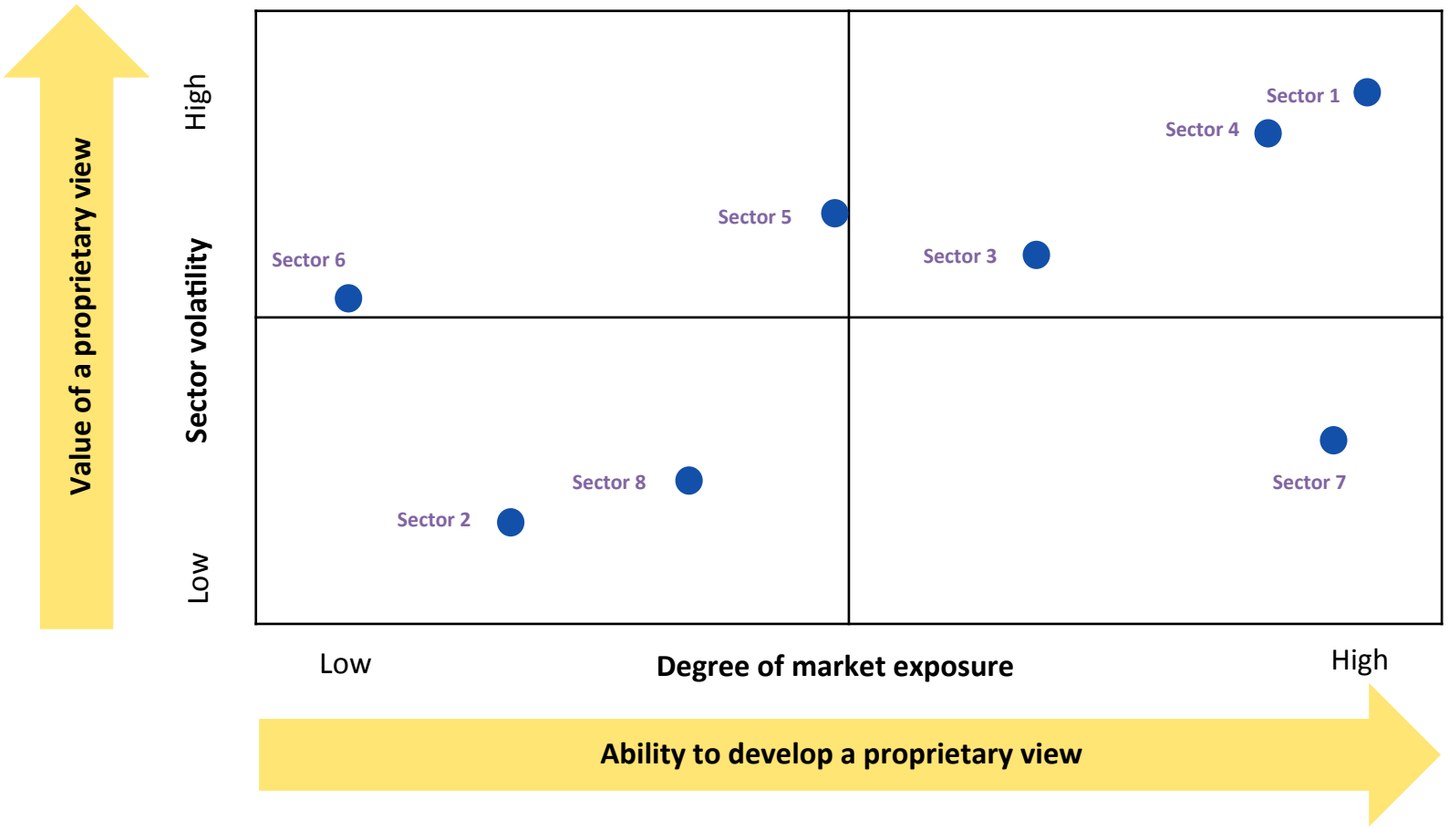
Case 17: Contract Manufacturer Co.

Exhibit 1: Annual revenue forecast errors



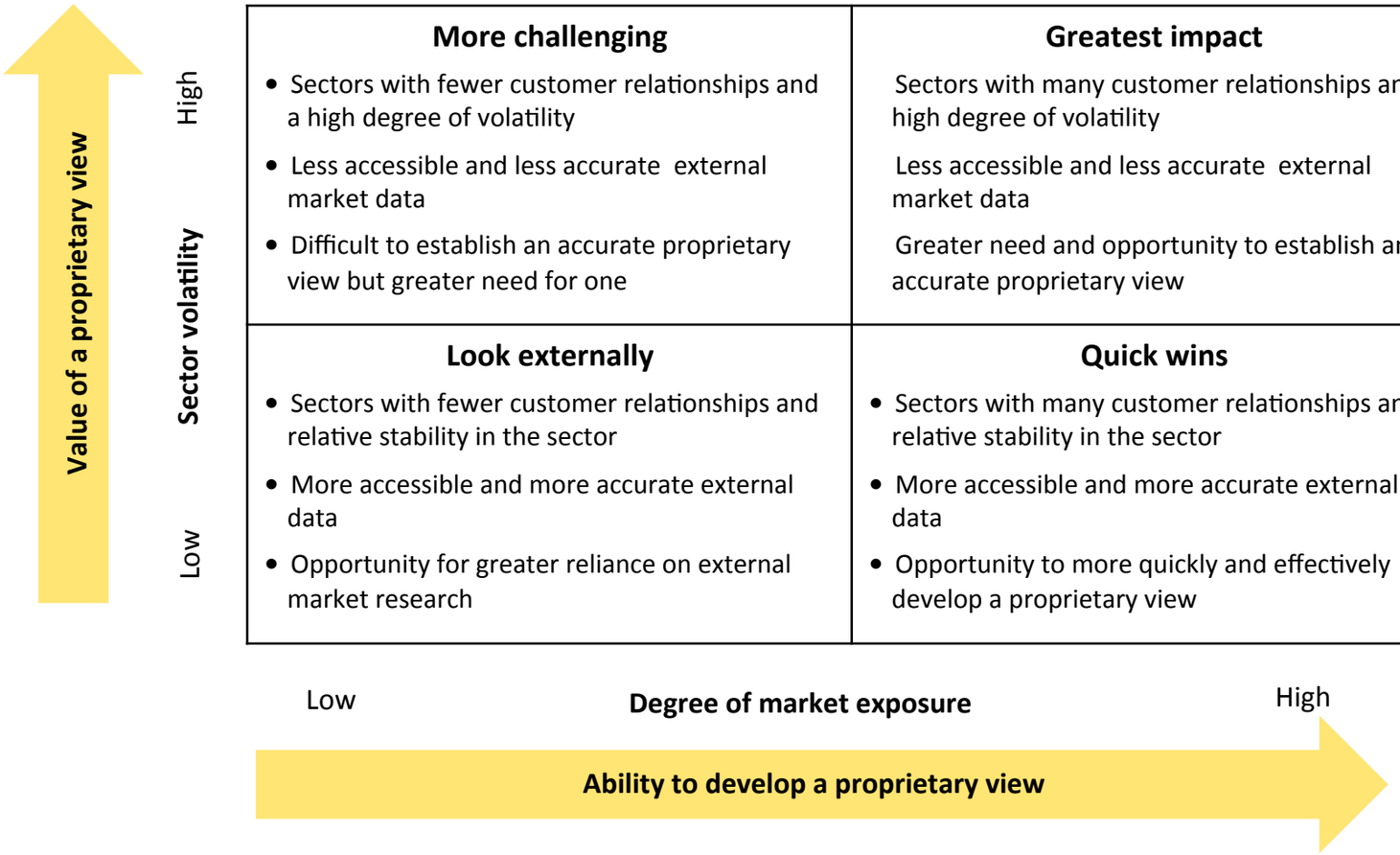
Note: Contract Manufacturer Co. is forecasting each sector's revenue for the next year; the third party source is forecasting the size of the overall market (sector) next year

Case 17: Contract Manufacturer Co.



Case 17: Contract Manufacturer Co.

LEVEL OF EFFORT REQUIRED DIFFERS ACROSS SECTORS



Case 17: Contract Manufacturer Co.

Bain & Company

Performance Evaluation	**Expected:** • Understands the client situation and question at hand • Develops a framework that addresses an overview of the issues at play **Good:** • Completes all "Expected" requirements • Asks some of the clarifying questions to narrow the focus of their framework (or after developing the framework, as part of the discussion) • Leads a good discussion around the issues • Reaches a conclusion with minimal prompting **Excellent:** • Completes all "Good" requirements • Raises most issues listed and suggests some other, creative areas not mentioned in the case • Provides a high level overview of next steps the client should take to implement some of the suggestions and risk mitigation

Hotel Co. Spinoff

Bain Style Case: Difficult

Problem statement narrative

Your client is Hotel Co., an international hotel corporation that owns and operates 2,700 hotels worldwide, as well as a separate timeshare business with 75 properties worldwide. Their hotel rooms are typically sold on a per night basis, whereas their timeshare properties are sold more like traditional homes via a mortgage which in turn gives the buyer the right to stay at a timeshare property for a set period of time each year.

The CEO of Hotel Co. has approached you and has asked for guidance on whether or not they should spinoff their timeshare business into a separate stand alone entity called Timeshare Co.

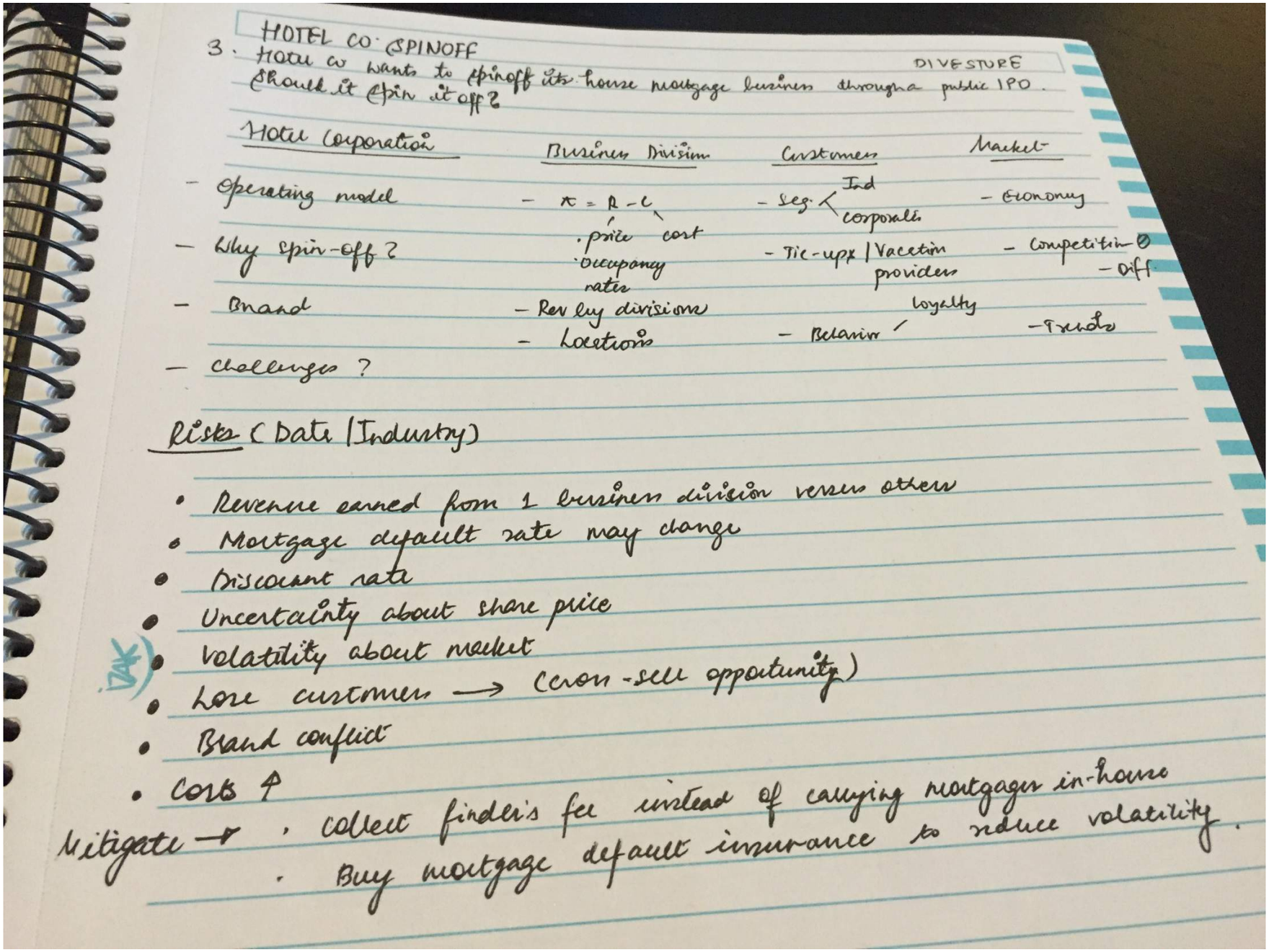
Guidance for interviewer and information provided upon request

- Hotel Co. wants to weigh a few criteria, including the financial impact, risk, and strategic outlook.
- Hotel Co. only uses a five year timeframe for all financial decisions.
- Hotel Co. would be spun off and taken public, with 20% of the IPO proceeds being paid back to Hotel Co. The remainder of IPO proceeds would go to Timeshare Co. and the underwriters.
- Hotel Co.'s bankers think they can sell 10 Million shares at $220 each.

Hotel Co. Spinoff

Bain Style Case: Difficult

Sample framework



Hotel Co. Spinoff

Bain Style Case: Difficult

Question 1: Financial Impact

Questions for the candidate

What is the financial decision making process for whether or not to spin off Timeshare Co.?

- Provide Exhibit 1 (Profit Projections)
- Candidate should notice that industry home sales are a good proxy for Timeshare Co.'s revenues, and forecast out five years of profits.
  - 2011 Forecast: -50M
  - 2012 Forecast: 0M
  - 2013 Forecast: 100M
  - 2014 Forecast: 150M
  - 2015 Forecast: 250M
- Total 5 year forecast profits of Timeshare Co: 450M.
- Per the opening information, if spun off, Hotel Co can expect 20% of IPO proceeds. Bankers expect to IPO 10 Million shares at $220 each, or $2.2 Billion total. 20% of $2.2 Billion is $440M to be earned by Hotel Co. if they spin off.
- Based on those amounts, **it does not make financial sense to spin off Timeshare Co**. ($440M if spun versus five year projected revenues of $450M if kept in-house.)
- Mitigation: $450M revenues are expectations and subject to a lot of risk and variability versus little to no risk if Hotel Co. just takes the IPO payment.

Hotel Co. Spinoff

Bain Style Case: Difficult

Question 2: Risk

Questions for the candidate

What is the risk decision making process for whether or not to spin off Timeshare Co.?

- Provide Exhibits 2 (Mortgage Default Rates) and 3 (Mortgage Portfolio's Contribution to Profits)
- Exhibit 2: Candidate should notice that default rates spiked in 2008/2009, and seem to remain much higher than in the past.
- Exhibit 3: Candidate should notice how important mortgages are to overall success of business. Mortgage revenues always account for around 95% of total revenues.
- Main takeaway: Timeshare Co.'s revenues are risky given the variability of mortgage default rates, and it seems as though default rates will never return to pre-2008 levels. A "new low" seems to have been established around 4.5%.
- Thus, it seems risky to keep Timeshare Co.'s business in house. The economic uncertainty with mortgage portfolios puts too much risk into Hotel Co.'s business. **Spinning off Timeshare Co. would get rid of a lot of risk to Hotel Co.**
- Mitigation: While spinning off the business would be one way to achieve less risk, there are other options available to reduce risk from Timeshare Co.
  - Connect timeshare buyers with mortgage companies and collect a finder's fee instead of carrying mortgages in-house
  - Buy mortgage default insurance to reduce volatility

Hotel Co. Spinoff

Bain Style Case: Difficult

Conclusion

Recommendation

Spinoff Timeshare Co.

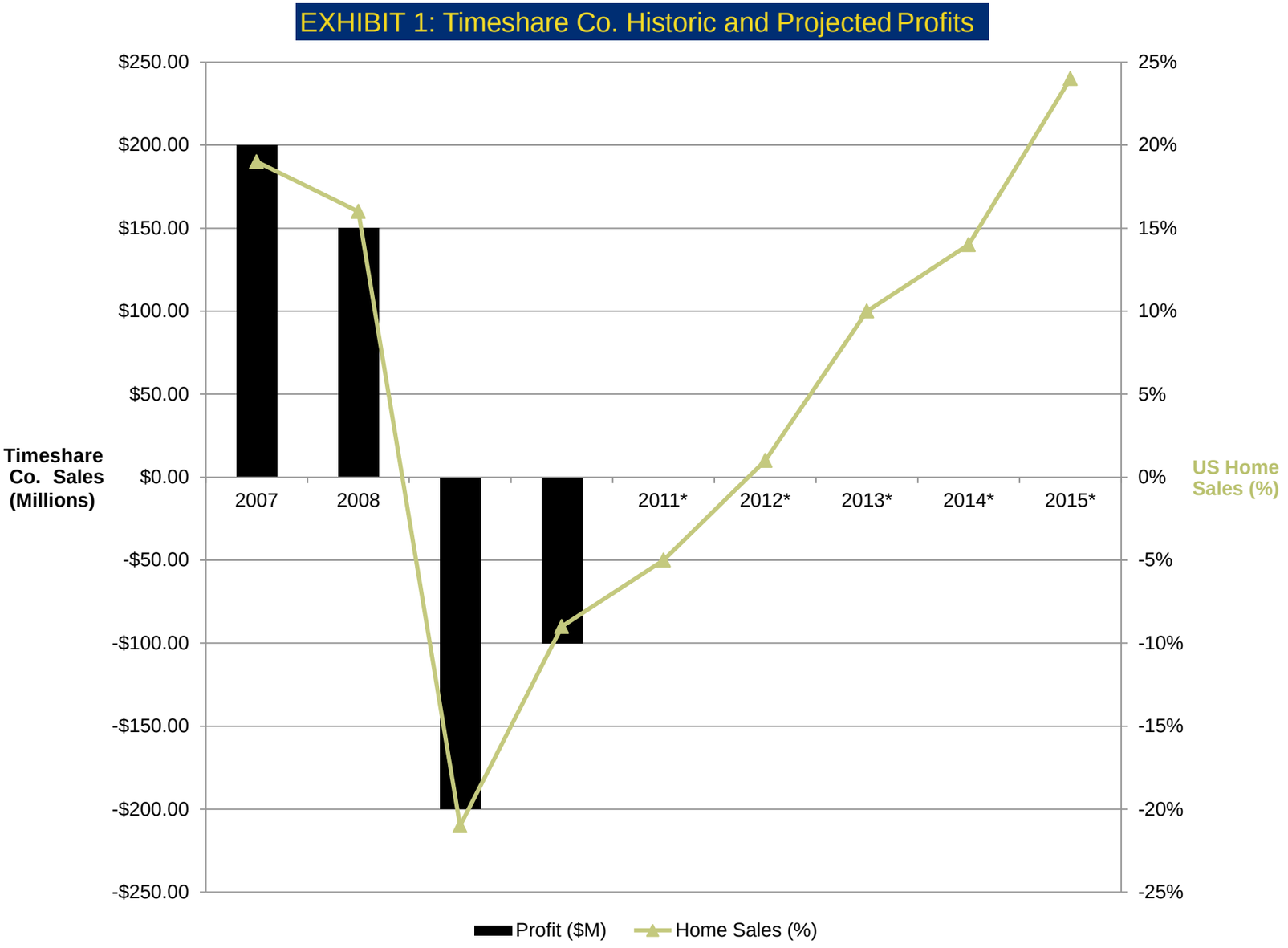
- IPO proceeds are only slightly less than the 5-year expected profits, but profits are extremely volatile.
- It also makes sense from a risk standpoint. While there are other ways to reduce risk, spinning off Timeshare Co. helps achieve a reduction in risk.

Next Steps

- Must examine the impact of cross selling. How many timeshares are sold to hotel customers? How can we continue to cross sell after a spin off?
- Must consider other ways to reduce risks at Timeshare Co apart from simply spinning off the business.

Hotel Co. Spinoff

Bain Style Case: Difficult



Hotel Co. Spinoff

Bain Style Case: Difficult

EXHIBIT 2: Mortgage Default Expectations

Year	Default Rate
2007	1.5%
2008	8.5%
2009	11.0%
2010	9.5%
2011*	8.5%
2012*	6.0%
2013*	4.5%
2014*	4.7%
2015*	4.3%

Hotel Co. Spinoff

Bain Style Case: Difficult

EXHIBIT 3: Mortgage Portfolio's Contribution to Profits

Year	Portion of Profits
2007	95.0%
2008	94.0%
2009	92.0%
2010	94.0%
2011*	95.0%
2012*	96.0%
2013*	95.0%
2014*	97.0%
2015*	96.0%

Corrections

The Coffee Grind:

Number of households says 100K, should be 100M, and 10K should be 10M.

FoodCo:

Only clarification needed is that the $7M increase is from revenue growth to 22M and cost reduction to 14.64M.

Airplane De-Icing:

Problem Statement Narrative:

Your client is AirCo., a U.S. airlines that has significant operations at one of the Chicago airports.

Due to cold weather, the client's planes often have to be de-iced, but because the need to de-ice is very unpredictable, the client decided to outsource the de-icing to IceCo last year. However, IceCo's performance has not been satisfactory.

The client is considering in-sourcing airplane de-icing, but currently does not have enough resources to do the de-icing in-house.

The client requires a 4-year payback on its investments and wants to know if they should in-source or outsource the de-icing?

Guidance for Interviewer and information provided upon request:

Cost comparison on the in-sourcing vs. outsourcing – see Handout 1, but first have candidate outline what the major cost buckets are.

If the client in-sources the de-icing, they will need to hire 150 people for the whole icy season, but due to the unpredictability of the cold the actual number of workers in any given month might fluctuate to as high as 60. We have to pay workers for the whole month, even if we only need them for one week.

Each worker costs $4,000 / month.

There are 5 months in the icy season

The performance problems result from IceCo taking too long to de-ice the planes, leading to delays. We cannot quantify the impact of this.

Airplane De-Icing Chart:

Change the cost per gallon of chemicals for the client to $4

Also note that this table shows number of events per icy season (i.e. per year)