



Management Consulting Association Case Book 2006

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Welcome

The business case holds an interesting spot in the peculiar world that is business school. Some will tell you it is a useless tool contrived by management consultants to inflict pain on would-be associates. Others say it provides great insight into the complex and dynamic world of strategic consulting. Still others argue that mastery of simplified business cases is an essential stepping stone towards solving the most complex corporate challenges. Wherever you stand on the continuum of case perspectives, one indelible fact exists: to land a job at a top tier consultancy, you must survive and thrive in a case based interview.

Much has been thought, stated, and written about the various aspects of the case interview. From framing the problem to delivering the perfect conclusion, MBA candidates wishing to prepare for interviews face no shortage of competent, and in many cases excellent, ideas on how to master the various aspects of a business case interview.

This work is the result of the efforts of MBA candidates from the Stern class of 2007. Like any good consultant, we applied gap analysis to the realm of case preparatory material available and concluded that a need existed for more relevant case examples to practice with as the hours before interview day dwindled away. (Okay, we either applied MECE gap analysis or we bitched a lot last January as we went through the same declining market share case for the eleventh time.) Hopefully, this work fills that void.

We wish you the best of luck in your interview preparation. May your projects always be interesting, your clients always accommodating, and your flights never delayed.

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Acquisition Panda-monium

Opening

A large national zoo is considering the acquisition of a rare giant panda. How would you help the zoo's management decide whether this is a worthwhile venture?

Answer

The interviewee should take a few moments to brainstorm the impact of the acquisition. He/she should consider the aspects of the actual acquisition, as well as the support of the panda. He/she should also think about the possible impact on revenue of a new attraction. If he/she wishes to progress the financial impact in detail ask him/her to consider other factors first.

Issues to consider for an acquisition:

- *Space / Capacity / Facilities*
- *Food / Diet*
- *Trainers / Expertise*
- *Environment / Temperature / Climate*
- *Mating arrangements / additions of more pandas*

Impact on Cost:

- *Facilities*
- *Training*
- *Food / Diet*
- *Maintenance*

Impact on Revenue:

- *Increase in attendance (volume of visitors)*
- *Extra admission fee?*
- *Programs / Events / Shows*

Analysis 2

As you identified, one of the issues that the zoo must consider is the financial impact of the acquisition. Calculate whether the acquisition is financially viable.

Background

Provide the following information if requested:

Currently, 600,000 people visit the zoo each year. Half are adults, half are children.

Admission is currently \$15 for adults, \$10 for children

Other zoos have acquired pandas, and have seen increases in overall attendance at the zoo. San Diego, for example, saw a 12% increase in the first year, an increase which it maintained into the future.

Costs of acquiring the panda are as follows:

- *Consultants fees already incurred to identify available pandas in other zoos and to advise on transportation requirements of \$200,000*
- *Acquisition fee of \$590,000 payable immediately*
- *Costs of building new enclosure is \$1,475,000 payable immediately*
- *Transportation costs of \$335,000 payable immediately*
- *Annual panda expenditure and maintenance on the enclosure is \$300,000 paid at the end of each year*

Applicable discount rate = 20%

Assume the gain experienced in the first year will be maintained in perpetuity. For simplicity, ignore any capital maintenance or growth.

Answer

The interviewee should calculate the NPV of the project.

The immediate cost of acquiring the panda is \$2.4 million (the consultant's fee is a sunk cost and should not be considered in this analysis).

*Assuming the zoo will have a similar increased attendance as San Diego, it is likely to see an increase in attendance of 12% on 600,000 people = 72,000, or 36,000 adults and 36,000 children at the 50/50 ratio. This translates into an increase in revenue of $(36,000 * \$15) + (36,000 * \$10) = \$900,000$. The maintenance each year is \$300,000 and so the net impact on earnings each year is a gain of \$600,000.*

Present value calculation:

	<i>Year 0</i>	<i>Year 1 onwards in perpetuity</i>
<i>Impact on Income</i>	<i>(\$2.4 million)</i>	<i>Annual gain= \$600,000 Perpetuity = \$600,000/20% = \$3 million</i>
<i>Present Value</i>	<i>(\$2.4 million)</i>	<i>\$3 million/(1.2)= \$2.5 million</i>

So the NPV is just positive by \$100,000. This provides evidence in favor of acquiring the panda. The interviewee should summarize the case by committing to a position and backing it up with evidence. Given a positive NPV there exist strong grounds to acquire the panda.



Competitive Strategy in Auto Insurance

Opening

Our client is an auto insurance company. It has just learned that a competitor has announced the initial roll-out of a new program in Texas that it calls an “as you use it” policy. A GPS device is installed in each insured’s car as part of the program, and reports the location of the vehicle on a minute-by-minute basis.

Our client wants to know whether it should respond.

Background

Provide the following information if requested:

- *The client company is unremarkable in the industry, on par with the top five players.*
- *No particular competitive advantage exists. The industry is rather commoditized.*
- *There is heavy price competition within the industry, and the industry is highly regulated.*

Answer

The interviewee may focus on the following issues raised by this fact situation:

- *Customers*
 - *What customers would this policy attract? What customers might it drive away?*
 - *Are there privacy issues? Legal issues?*
 - *Why Texas?*
- *Company*
 - *How much to install a GPS in every vehicle?*
 - *Who pays for it – the client or the customer?*
 - *What will the cost be for monitoring every GPS?*
 - *What processes need to be set up to deal with this product – monitoring, reporting, liaison with police for stolen vehicles?*
 - *What would the policy implications be when certain information was discovered – e.g. customers speeding, erratic driving*
- *Competitor*
 - *Is this competitor a national player?*
 - *What is its coverage/market share?*
 - *Are its prices / cost structure competitive?*
 - *Are the competitor’s customers similar or different than our client’s?*
 - *Are other competitors considering this?*

Conclusion

The point of this case is to identify the impact this program could have on the car insurance industry. The key aspect of course is the fact that cars using this insurance policy will be tracked at all times.

The interviewee should discuss issues of privacy and invasion as a consequence, but benefits afforded to those insured on this policy: someone who doesn't drive much, the elderly, or someone with a very short commute, may benefit from lower costs under this program.

Rental car companies can use this program to track the whereabouts of its vehicles. Some companies do this already, with the "black box" data recorders. The GPS system would be more involved. Rental companies should consider how this would affect its customers – would they want the rental company to know their every move? This brings us back to "Why Texas?" Rental companies likely have stipulations on cars rented in Texas that they are not driven over the border into Mexico. With GPS tracking, this practice could easily be monitored. There are legal / official benefits to this program, including potential aid to police / FBI / DEA institutions seeking to reduce illegal drug / immigrant trafficking across the US / Mexico border.

Additionally, the GPS system can be used to assess driving habits of the insured, and perhaps more accurately describe the "risk rating" of the driver. Insurance companies base policies and premiums heavily on risk ratings. A good driver, under this program, could likely be offered an extremely competitively priced premium – a concern for the client company. Additionally, if the pricing is solely based on usage, a poorer driver, who drives infrequently, but has been quoted high prices by other insurers, may be offered a lower rate by this new program.

The successful interviewee will engage in a conversation that addresses the risks and issues raised by the introduction of the new technology. The Texas location is important; they should recognize the proximity of a foreign country and the potential for the crossing of international boundaries. Privacy is another concern: what customers will be comfortable utilizing this program? Will the company introducing this be able to greatly undercut the client's premiums by appealing to certain low-usage drivers, and steal a great deal of market share?

There is no right answer; a thoughtful discussion that addresses these issues in a logical manner is a successful interview.



Consumer Products Competitive Shake-Up

Opening

A \$20 billion US consumer products company is seeking to realign its business strategy in order to maximize profit potential. The firm has traditionally focused on internal processes to drive profits, but recent industry trends and competitive shifts are forcing key executives to re-evaluate the company's competitive strategy. The client has asked you to make recommendations to that end.

Background

Provide the following information if requested:

Company

The company sells a broad range of consumer appliances (ovens, refrigerators, etc.) and accessories through two major outlets: major retail outlets and online.

The breakdown is 80% of sales through major retail outlets and 20% online.

Key Insight: \$16 billion of the client's sales are through brick-and-mortar retailers which gives those retailers an enormous amount of bargaining power (High Customer Power if using Porters')

The firm has traditionally used cost-efficiencies to drive profitability, and as a result has not focused on organic growth initiatives (revenue enhancements). Therefore many functional areas have become siloed and myopic, attempting to maximize functional profits rather than company profits.

The interviewee should ask about the major functional areas, and which are the profit centers.

Cost Centers: Marketing, R&D, Manufacturing, Call Centers

Profit Centers: Product Sales; Warranty and Service Contract Sales; Appliance Parts (for repairs, upgrades, etc.)

The client has seen decreasing product sales, in large part due to consumer dissatisfaction with product and service quality. Executives believe that the blind pursuit of functional profits has driven focus away from delivering highly-valued consumer products and service offerings to the end-consumer.

Key Insight: The client has maximized profitability from the cost-side, and now needs to search for ways to grow revenues – siloed functional areas means integrated initiatives have not been utilized and that profit-pursuit at the functional level may actually destroy downstream value, preventing optimal profit realization for the company as a whole.

Competition

The three major players in the industry, including the client, account for approximately 80% of all sales (the interviewee should inquire about the competitive shifts mentioned in the Opening)

The #1 and #3 players have recently merged and will now account for a combined 50% of all sales. Our client is the #2 player.

Key Insight: The interviewee should recognize that the client's market share is therefore 30% (and that the industry as a whole is therefore about \$66 billion - because 30% of the total market equals \$20 billion).

The merger of the two major competitors will give that new company significant bargaining power with the major retailer outlets in comparison to the client. It is therefore likely that the client's retail outlet sales will continue to decline. (High Competitive Rivalry if Using Porter's)

Consumers

The client draws a distinction between the following two groups:

Customers are the major retailers who purchase the client's products for resale.

Consumers are individuals that purchase products through retailers or online.

Key Insight: The end consumer is not the direct profit-maker for the client – as a result, the client has traditionally not focused on the needs of the end consumers and have seen significant drops in consumer satisfaction with regard to the entire product experience (from researching the purchase, to the buying process, to warranty management to repair service).

Answer

The main crux of this case is how to deal with increased competitive rivalry in a commodities business that is in large part at the whim of the powerful retailing outlets that purchase their products for resale to the end-consumer.

Suggested "Answers":

- 1) *The client should refocus resources to increase selling through the online space to mitigate the increased competitive and customer power. However, have the interviewee think through the risks associated with such a strategy:*

Risks:

- *Retailers may pull the brand from their shelves if the client places too much emphasis on direct-to-consumer sales by side-stepping the retail channel. Can the client afford to lose the retail play completely given a current 80% sales level?*
 - *Many end-consumers may not be comfortable purchasing online or would prefer to comparison shop in-store before deciding on a major purchase. Is there a natural ceiling to potential online sales?*
 - *What additional costs will the client need to incur to increase direct sales? Does it have the internal capabilities necessary for such a play? (shipping, logistics, technology, human resources, etc.)*
- 2) *The client needs to focus on realigning internal processes, metrics and goals to maximize company profit rather than functional profit. This will require a renewed focus on the end-consumer and on product quality. In essence, the current competitive and customer situation dictates that the model of pushing product through retailers may not work for the client, as the newly merged competitor will be able to offer better deals to retailers and take over floor space. By focusing on the end-user the client can own the "pull" for its products, and product demand will force the retailers to work cooperatively with the client and stave off competitive threats.*



Credit Cards at Commercial Bank

Opening

Our client is Commercial Bank which is analyzing growth strategies for its credit card business in a developing country. The Bank wants to focus on individual clients to whom it offers internet banking and retail channels. The Bank wants to measure the opportunities in individual credit cards as a stand alone business.

The target country has a population of 100 million. The most representative demographic segments are as follows:

- Hi Income: >\$3,000/month
- Mid Income: >\$1,000/month and <\$3,000/month
- Low Income: <\$1,000/month

Our client has asked us for the following two analyses:

- Estimate the Market Size of the individual credit card business for each of the demographic segments
- Identify the most attractive segments for the Bank

Before we commence that analysis tell me how you would go about assessing the potential of this new business.

Answer

One way to measure market potential is by annual revenues. The different sources of revenue for credit cards are:

- *Interest Income: interest rate x average outstanding balance*
- *Transaction Income: transaction fee x average consumption*
- *Membership Fee Income: Annual membership fee x number of credit cards*

The interviewee should also suggest other factors he/she would take into account including:

- *Costs associated with the different segments; such as Administrative Costs, Risk Cost, Service Cost and Marketing Costs*
- *Competitor analysis: who are the key players in the market and which segments are most competitive?*
- *Brand positioning: is current brand positioning compatible with the most attractive segments?*
- *Current coverage: is the bank ready to serve the most attractive segments in terms of geographical coverage for retail and in terms of customer service (e.g. sophisticated support for High income and straightforward support for Low income)*

Analysis 2

Let's now turn to the first analysis our client has requested. What is the approximate market size in dollars for this business?

Answer

Below is one suggested answer, but obviously a number of approaches might legitimately be used.

The first step is to go from population to number of credit cards. The interviewee should realize that not everybody will have a credit card; people under-age or without any income should be excluded. In a developing country we can assume that 50% of the population might have access to a credit card. Next we should breakdown the qualifying population into the three demographic groups to then calculate the number of credit cards:

- Hi Income: 10% of qualifying population, average of 2 credit cards per person*
- Mid Income: 20% of qualifying population, average of 1 credit card per person*
- Low Income: 70% of qualifying population, average of 0.5 credit cards per person*

The number of credit cards by segment and total would be:

Total population = 100 M

Total Credit Card Customers

Customer Segment	Customers (M)	Credit Cards per Customer	Total Cards
<i>Hi</i>	<i>5</i>	<i>2</i>	<i>10</i>
<i>Mid</i>	<i>10</i>	<i>1</i>	<i>10</i>
<i>Low</i>	<i>35</i>	<i>0.5</i>	<i>17.5</i>
Total			37.5million

The next step is to calculate the Bank's potential revenues from different sources.

Interest Income. *At this point, the interviewee should be provided with the monthly interest rates and average outstanding balances per credit card for the three segments:*

- *Hi Income: 4% interest rate, \$0 average outstanding balance*
- *Mid Income: 7% interest rate, \$300 average outstanding balance*
- *Low Income: 10% interest rate, \$140 average outstanding balance*

Transaction Income

For this calculation, provide the interviewee with the following information: the transaction fee is 1%, and the average annual consumption per credit card for the three segments is:

- *Hi Income: \$3,000/year consumption*
- *Mid Income: \$2,000/year consumption*
- *Low Income: \$1,000/year consumption*

Annual Membership Fee

Provide the interviewee with the following information when he/she gets to this point: the annual fee is fixed and is different for the three segments:

- *Hi Income: \$70 membership fee*
- *Mid Income: \$50 membership fee*
- *Low Income: \$30 membership fee*

Based on this information, the total revenue for the credit card market is summarized as follows:

Customer Segment	Total Cards	Interest Income				Transaction Fee			Annual Fee	
		Interest Rate	Average Balance	Interest Income / Customer	Total Interest Income	Trans. Fee (%)	Cons. per Customer	Total Trans. Income	Annual Fee (\$)	Total Annual Fee Income
Hi	10	4%	\$0	\$0	\$0	1%	\$3,000	\$300	\$70	\$700
50 Mid	10	7%	\$300	\$252	\$2,520	1%	\$2,000	\$200	\$50	\$500
Lo	17.5	10%	\$140	\$168	\$2,940	1%	\$1,000	\$175	\$30	\$525
Total	37.5				\$5,460			\$675		\$1,725

Based on this, the total income for each segment is:

Customer Segment	Total Income
Hi	\$1,000
50 Mid	\$3,220
Lo	\$3,640
Total	\$7,860

Analysis 3

What is your assessment of the most attractive segments for the Bank?

Answer

The figures show that the biggest segments are the Mid and Low income segments. But to make a final recommendation the interviewee should take other aspects into account, some of them mentioned above.

The Low income segment is the largest in terms of income opportunity but will require the following considerations:

- Higher default probability (discounted in the interest rate but not in terms of administrative costs)*
- Higher costs because it requires a higher number of cards and clients to serve*
- Higher marketing expenses if the current Bank brand positioning is not compatible with the segment (as hinted by the Bank description)*
- Higher cost to serve, since this segment is less likely to use low-cost automated channels (e.g. Internet or phone banking) and will require new branches to service the segment*

On the other hand, the Mid income segment is slightly smaller in terms of income opportunity but may be more attractive given the factors mentioned for the Low income segment. The cost advantages are impossible to quantify with the available information. However, they are strong enough to conclude that the Mid income segment is the most attractive to the Bank. The interviewee should be able to identify some of these items or additional ones and reach to the same conclusion.



Cutting Costs at To-Dye-For Fabrics

Opening

Our client is a fabric producer called To-Dye-For Fabrics. The company purchases fabric in bulk from overseas and then dyes batches of fabric in colors ordered by clients. It produces 1.4 million square meters of product each month and its average variable cost is \$0.60 per square meter.

Processed batches have the following distribution:

- 40% of the batches are greater than 5,000 square meters
- 30% of the batches are between 3,000 and 5,000 square meters
- 30% of the batches are less than 3,000 square meters

To-Dye-For uses two different processes to dye its fabrics:

Continuous Dyeing: where washing and dyeing are integrated in a continuous process. This process is used for 70% of the company's production and is cheaper for batches of over 5,000 square meters.

Batch Processing: in which the washing and dyeing machines are independent. The machines in this line need to be set up prior to each batch being processed. Batch processing is used with the remaining production and is cheaper for batches under 5,000 square meters.

If a batch has to be processed using a more expensive process, the cost is \$0.05 per square meter.

Our client has asked us to recommend how it might reduce its total costs. How would you approach this problem?

Background

Provide the following information if requested:

Client orders

Clients usually make one or two orders during a month. Those orders are aggregated and usually fulfilled within 15 days.

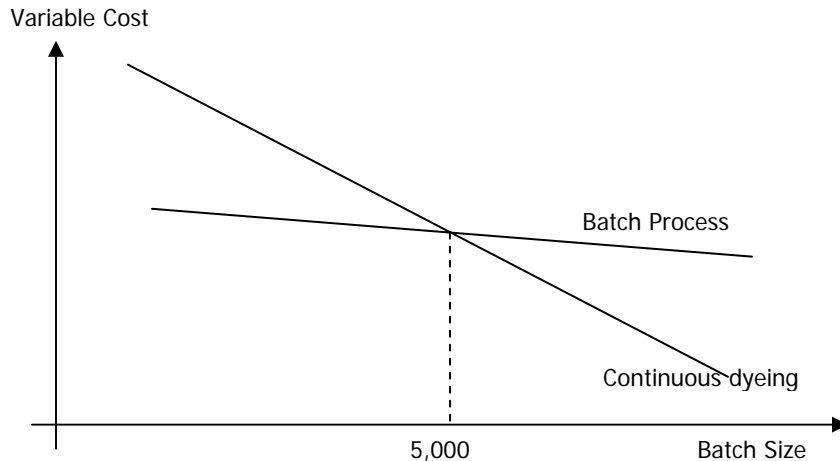
(If the interviewee wants to progress this issue, advise him/her that the 15 day fill time is not crucial to customers ...they are okay with having orders filled within a month)

Processes

The set-up time for the Batch process machine is one hour and the installed capacity for that process is 700,000 square meters/month (assuming no set-up downtime).

Answer

The variable cost curve for the two processes can be represented as follows:



In other words, it is more expensive for the company to process batches under 5,000 square meters in size via the continuous dyeing.

The interviewee should calculate the monthly production of 1.4 million square meters is currently being split into batches as follows:

- batches less than $3,000 \text{ m}^2 = 30\% \text{ of } 1.4\text{m} = 420,000 \text{ m}^2$
- batches between $3,000 \text{ m}^2$ and $5,000 \text{ m}^2 = 30\% \text{ of } 1.4\text{m} = 420,000 \text{ m}^2$
- batches greater than $5,000 \text{ m}^2 = 40\% \text{ of } 1.4\text{m} = 560,000 \text{ m}^2$

He/she should also calculate that currently the company is processing $70\% \times 1.4\text{million} = 980,000 \text{ m}^2$ of fabric using the continuous dyeing process.

This means that the company is incurring an over-cost of $\$0.05 \times (980,000 - 560,000) = \$21,000$ per month by having to use the continuous dyeing process for batches smaller than $5,000\text{m}^2$.

The interviewee should be able to infer that this means that the Batch Processing machines are working at full capacity. Given the total capacity of the Batch processing process is $700,000 \text{ m}^2/\text{month}$ and only $420,000 \text{ m}^2/\text{month}$ ($1,400,000 - 980,000$) are produced, that means that part of the time the machine is not producing because of set-up time. In fact we can calculate that 60% ($700,000 / 420,000$) of the time the machine is producing and 40% of the time it's being set-up.

Recommendation to reduce costs:

Having identified the nature of the problem, the interviewee should turn to recommending a solution.

One option is to buy another Batch Process machine. Even optimizing production, the 40% non-producing time won't be enough to accommodate the additional 420,000 m²/month that should be produced via Batch Processing. Only one machine is needed since the larger orders would need less set-ups than the <3,000m² batches.

If the interviewee reaches this point, you might ask them following question:

What would be the maximum price to pay for the new Batch process machine, knowing that the discount rate for the company is 10%?

Answer:

*Assuming perpetual life for the new machine, the maximum price is \$2,520,000 ($\$21,000 * 12 / 10\%$).*

A second option involves considering client needs and in particular their willingness to accept longer order fulfillment time. If that is possible, order aggregation is possible and thus, larger batches can be processed. This is likely to avoid the need to purchase an extra machine. Larger batches will be processed using the continuous dyeing technology that seems to be the most cost efficient.

Further recommendations for creating larger batches include integrating planning processes with clients; training the sales force to encourage order optimization; and designing incentives for both clients and the sales force.



Decline of Core Control

Opening

Our client is Comstock Telecom Company, a diversified technology corporation producing primarily telecommunications support equipment. You have been hired to evaluate a product known as “Core Control.” This product handles basic call connectivity—recognizing phone numbers dialed and connecting outgoing calls to recipients. The customers of this product are AT&T and the like, and our client competes against companies like Lucent and Alcatel for sales. This is an IP-driven business, and the market has experienced a significant downturn in the last year.

The CEO of Comstock Telecom has asked your team to evaluate the future of Core Control. How would you approach this problem?

Answer

The interviewee should quickly identify that this is a mature product and choose a framework that identifies the potential issues. One approach may look like this:

1) Company

- a. *What is Comstock’s strategy? Where does Core Control fit?*
- b. *How LEAN is Core Control? A mature industry often requires price leadership*
- c. *What are the financials of Core Control? Are we making money?*
- d. *What is Core Control’s outlook:*
 - i. *can we sell it off?*
 - ii. *can we milk it to fund R&D of new technology?*
 - iii. *can we bundle Core Control with a more profitable service?*
 - iv. *should we cut our losses?*

2) Competition

- a. *Who are they?*
- b. *Are they taking market share or leaving this declining market? how easily will they cede market share to us?*
- c. *Do they have advantages over us (cost leadership; brand strength; customer relations)?*

3) Customers

- a. *Who are they?*
- b. *Why aren’t they buying IP components (new technology, declining industry)?*
- c. *Can we grow the market?*

Analysis 2

The CEO wants to use Core Control revenues to fund new R&D. Last year, our client earned 15% EBIT on revenue of \$8b from Core Control. This year, our client's revenues are expected to decrease with the market rate (quantified: Year 1 = \$50b; Year 2 = \$25b). You've been asked to come up with a rough estimate of what the business might look like this year from a financial standpoint, and offer some thoughts on what this could mean going forward.

Answer

This is primarily a "numbers case," with the underlying exercise of estimating a cost structure. The essential task of this case is to estimate a cost structure for this year, determine what the EBIT will be, and discuss what this could mean for the business going forward. The interviewee's thought process in allocating costs is a crucial component of evaluation, and should involve some discussion of how and why he/she decides to allocate costs into the respective line items.

Revenues

Very simply, the interviewee can assume that revenues will decrease by the market "downturn" (i.e. 50%, from \$8b to approximately \$4b)

Costs

Interviewee should begin by identifying the following basic costs items (he/she can identify others, but if so, interviewer should suggest that he/she bucket them into the following 4 basic items):

- CoGS
- R&D
- S&M
- G&A

A logical next step would be for the interviewee to determine the total costs from last year

- EBIT was 15%, so total costs were 85% of sales, or \$6.8b

The interviewer should then ask how these total costs might have been allocated to the 4 basic costs items

One useful method is to first estimate how much each cost item will be as a % of sales (with total costs summing to 85% of sales). General breakdown should roughly align with:

- *CoGS = 50% of sales*
- *R&D = 20% of sales*
- *S&M = 10% of sales*
- *G&A = 5% of sales*

Generic logic:

- *CoGS will be largest cost item*
- *Since product is "IP-driven," R&D will be next biggest expense*
- *S&M and G&A will be smallest cost items*

As long as interviewee defends his/her reasoning, these percentages can be more/less than specified above.

Next, using these %'s, the interviewee can derive actual cost amounts for last year (total costs = \$6.8b):

- *CoGS = 50% x \$8b = \$4.0b*
- *R&D = 20% x \$8b = \$1.6b*
- *S&M = 10% x \$8b = \$0.8b*
- *G&A = 5% x \$8b = \$0.4b*

To extrapolate costs to this year, the interviewee should separate the above costs as fixed or variable (interviewer should prompt the interviewee to do so if not done on their own):

- *All or significant majority of CoGS will be variable (i.e. some small portion of CoGS may not vary with sales)*
- *All or significant majority of R&D will be fixed*
- *All or significant majority of S&M and G&A will be fixed (i.e. some small portion of S&M may vary with sales)*

Next, interviewee should split the calculated costs into fixed vs. variable. Exact cost breakdown will vary, but should fall within basic parameters outlined above (i.e. majority fixed vs. variable, or vice versa). For example:

- *CoGS = \$3.8 (var) + \$0.2 (fix) = \$4.0b*
- *R&D = \$1.6 (fix) = \$1.6b*
- *S&M = \$0.6 (fix) + \$0.2 (var) = \$0.8b*
- *G&A = \$0.4 (fix) = \$0.4b*

Thus, the interviewee will have derived (or thereabouts):

- *\$4.0b in variable costs*
- *\$2.8b in fixed costs*

The interviewee can then derive EBIT for this year:

- *With the 50% decrease in revenue, variable costs will decrease by 50%, with fixed costs remaining the same*
- *Thus, \$2.0b in variable costs, \$2.8b in fixed costs*
- *\$4.8 in total costs*
- *EBIT = (\$0.8)b*

Conclusion

Now that you have evaluated the outlook for Core Control, how would you advise the CEO to proceed from here?

Answer

- *Based on costs and revenue, interview should find that business will lose money this year.*
- *Interviewee should provide commentary (outside of limited case facts) about why it may or may not be a good idea to get out of this business, such as:*
 - *"market downturn could be an indication of the product's obsolescence"*
 - *"since this is an IP-driven business, business is cyclical and this year's investment in R&D could generate a rebound next year"*
 - *propose modifying the cost structure*
 - *Answers will vary, but the focus of this case in the EBIT calculation*



Declining Profits at a Fast Food Chain

Opening

The business we are talking about is a fast food chain, selling specialty food snacks and desserts. The first store opened 10 years ago, and today it has over 50 locations in 15 of the 50 US states. It continues to expand at a rapid rate. In an effort to increase sales and face increasing competition, the company has introduced a series of new products. While sales have increased in all stores in the country, some locations have experienced decreasing profits.

How would you help the company identify what the problem is?

Background

Provide the following information if requested:

- The food chain used to sell only sweet products, mainly purchased as snacks or desserts. The ingredients in these products include fresh produce items such as strawberries, bananas, and other fresh fruits. Increasing competition and stagnant unit and gross sales motivated the company to introduce savory products and increase traffic at off-peak hours (peak hours in this case are afternoons, when people generally have a snack or dessert).*
- The new products include a set of savory products with ingredients requiring special ordering and handling. These ingredients also include fresh produce such as lettuce, tomatoes, and cheese.*
- Most of the ingredients in both sweet and savory products include fresh produce*

Answer

An appropriate structure for this case is the profitability framework

Revenues

*Revenues = Price * Volume, and in this case even as the new savory products are slightly more expensive than the old ones, customers have reacted positively and have started purchasing them. However, there has been some product cannibalization, and the unit sales of sweet products have experienced some decline.*

Costs

Since revenues are not the main source of the problem, the interviewee should proceed to evaluate the cost side if the equation: $\text{Costs} = \text{fixed} + \text{variable}$. In this case fixed costs haven't changed. Most of the stores have been in operation for some years now, and the inclusion of the new products has not affected their operation significantly. Marketing and advertising campaigns have been recently launched to promote the new products, but the costs were evenly spread across all stores and are not of significant value.

The problem is with variable costs. Labor was already in place, and actually the new products increased activity in slow times, but there wasn't a need to hire additional personnel. The new products are sold mainly at hours where the operation used to be slow in the past and has actually decreased slack time of employees during those hours.

With all other costs being negligible, the main source of the problem is with the food cost. The bottom line of the problem is that since the new products require special handling, the cost of some ingredients is not the same for all store locations. The company has national contracts with its main suppliers, but as stores are located in different geographic locations, seasonality and varying distributing costs has forced suppliers to charge these ingredients at a premium.

Analysis 2

Given the problem is that the food costs are not constant for all stores, and that has decreased profitability at some locations, suggest potential solutions to address this situation.

Answer

- *Exercise bargaining power over suppliers: Since the company has several locations throughout the country and has signed national contracts with suppliers, it could try to negotiate discounted prices for "troubled" locations.*
- *Look for alternate local suppliers: Evaluate the possibility of purchasing certain products from local and smaller suppliers, generally selling at lower prices.*
- *Look for alternate and cheaper ingredients. This sounds risky because it could lower the quality of the food sold.*
- *Reduce the volume used. For the same reason, this sounds risky because it would change product recipes.*
- *Introduce alternate items at certain locations: This is also very risky, as it would take away uniformity from the chain and may upset some*

customers. On the other hand, the company could take advantage of local food preferences and offer unique creations to cater local markets.

- *Change the product mix: The total food cost is the sum of the individual food costs for each of the items sold. Promoting products with higher margins would reduce the overall food cost and contribute to increase profitability.*
- *Combos and promotions: Grouping low and high cost items in combo meals (e.g. entrée + beverage + dessert) could motivate clients to purchase more products and ultimately reduce the food cost by promoting a more efficient product mix. Also, through discounts and promotions of products with higher margins the company could improve the product mix.*

Analysis 3

Let's suppose that you decide that you want to launch a campaign to promote higher margin products and improve profitability on troubled stores. You are provided with the following information:

Before New Products were included:

Product Type	Average Price	Average Cost	Average Weekly Units Sold
Sweet	\$ 5.00	\$ 1.00	4,000

After New Products were included:

Product Type	Average Price	Average Cost	Average Weekly Units Sold
Sweet	\$ 5.00	\$ 1.00	3,000
Savory	\$ 6.00	\$ 3.00	1,250

Assuming that food cost is the only significant cost, what should be the product mix the company should sell, including the new products, to return to at least the same level of profitability without losing the increase in revenue due to new products?

Answer

Old Profit = Total Old Revenues – Total Old Costs

Old Profit = 4,000 x \$ 5.00 – 4,000 x \$ 1.00

Old Profit = \$ 16,000

New Gross Sales = \$ 5.00 x 3,000 + \$ 6.00 x 1,250

New Gross Sales = \$ 22,500

Define Variables

X = Sweet products sold

Y = Savory products sold

New Profit = Total New Revenues – Total New Costs = Old Profit

New Profit = (\$5.00 X + \$6.00 Y) – (\$1.00 X - \$3.00 Y) = \$ 16,000

New Profit = \$ 4.00 X + + \$ 3.00 Y = \$ 16,000 (1)

New Gross Sales = \$ 5.00 X + \$ 6.00 Y = \$ 22,500 (2)

Solving for X and Y using equations 1 and 2, you get that the company should sell 3,167 sweet products and 1,111 savory products.

Analysis 4

How does the total food cost under this new product mix compare to that under the less profitable scenario?

Answer

Old Food Cost = \$ 1.00 x 3,000 + \$ 3.00 x 1,250

Old Food Cost = \$ 6,750

As a % of Sales = \$ 6,750 / \$ 22,500 = 30%

New Food Cost = \$ 1.00 x 3,167 + \$ 3.00 x 1,111

New Food Cost = \$ 6,500

As a % of Sales = \$ 6,500 / \$ 22,500 = 28.9%

Change in Food Cost = (New Food Cost–Old Food Cost)/(Old Food Cost)x100

Change in Food Cost = (\$ 6,500 - \$ 6,750) / (\$ 6,750) x 100

Change in Food Cost = 3.7%

Analysis 5

If the company wants to negotiate the prices of new ingredients with its suppliers to reach the improved profitability levels with the old price mix, what should be the price discount it should ask for?

Answer

$$\text{Total Target Savings} = \$ 6,750 - \$ 6,500 = \$ 250$$

$$\text{Unit Savings} = \$ 250 / 1,250 = \$ 0.20$$

$$\text{Discount} = \$ 0.20 / \$ 3.00 \times 100 = 6.67\%$$

Conclusion

The interviewee should have identified that this is a profitability problem focused on the cost side rather than on the revenue side of the formula. After addressing the main cost items, he/she should have been more extensive in asking questions about the different cost items and should have identified that the problem was with the food cost.

As the interviewee prepares to wrap up, he/she should be able to recap the situation and cite a couple of the potential solutions to the problem. Further, he/she could use the numbers to provide some insight about the situation, mentioning how the new products have a higher food cost and how can some of the solutions could be translated into tangible results.



Exit Strategy for Top Rise Retailer

Opening

Our client is a family owned and operated apparel manufacturer named Top Rise. It has been in business for over 80 years and manufactures branded men's and women's knit clothing. This market is typically highly fragmented. All production occurs overseas although Top Rise sells primarily to U.S. based retailers.

Top Rise management has approached us with the following issue. It is 2006 now and they want to sell the business by 2008. They want to maximize the asking price by doubling the company's EBIT over the next two years. Our job is to determine if that goal is feasible.

To get started, the senior management team has offered to give us 20 minutes of their time to answer any pertinent questions before we begin. Please take a moment to determine what information you would need from your client to begin your analysis?

Background

Provide the following information if requested:

- *Branded Clothing means Top Rise is hired to manufacture clothing for specialty retailers such as Fruit of the Loom, Gap, Old Navy etc...*
- *Knit clothing includes all tops and bottoms made of raw materials consisting of cotton, fleece or a synthetic cotton blend, it does not include sweaters. (i.e. t-shirts, sweatpants, underwear etc...)*
- *The Apparel market being highly fragmented is from a manufacturer's perspective. There is no one manufacturer capturing more than 5% market share.*

Answer

There are several correct answers here. One possibility is using the 3Cs as an initial framework with the following pieces of information:

Company

What is the company's existing profit margin and how does it compare to industry averages?

Customers

Who are its core customers: large retailers, small retailers, Big Box discount retailers or specialty retailers?

How many customers – is the majority of capacity filled by one client?

Competitors

Who are the core competitors?

You should pick 2-3 pieces of information that the interviewee mentions and ask for an explanation as to why he/she raises those points and why they are important.

An alternative challenge could be to ask the interviewee to rank the top 3 pieces of information necessary and give a brief explanation as to why.

A possible response given the above info could be:

- Profit Margins for both the company and industry are important to understand if there are any organic opportunities for the company to grow EBIT by improving existing operations (i.e. if the company has a 5% profit margin and the industry average is 8% - there might be cost cutting or economies of scale to be leveraged to gain an additional 3% in profit with minimal change)*
- It is important to know what types of customers Top Rise serves to understand the bargaining power it could be up against. Put another way, if Top Rise manufactures clothing for Wal-Mart, it could face pressure from the retailer to lower prices in order to maintain its business. Or if 40% of Top Rise's quarterly capacity is occupied by Abercrombie – Top Rise could face issues with economies of scale and maintain cost levels if Abercrombie were to not fill its orders. This could lead to eroding profit margins.*
- Comparable sales growth rates for both Top Rise and the overall industry will show if the business is growing at the same rate as the market.*

Analysis 2

After the candidate has successfully navigated through Part I you should give the following information.

The Senior Management team at Top Rise has given us the following metrics that represent the average for the total Knit Apparel Manufacturing Industry:

Retailers

- 2005 Unit Sales were 35 million units
- Unit sales grew 6% from 2004 to 2005
- Average Unit Retail is \$120
- Retailers make a 50% gross margin per unit

Manufacturers

- Cost of goods sold per unit is \$33
- SG&A per unit is \$12

Answer

You should prompt the interviewee to take a moment to examine the data to see what possible conclusions he/she can draw. Calculations are necessary.

The interviewee should use the retail 50% GM and costs per unit to arrive at a profit margin for the manufacturers.

Candidate should have some knowledge of the income statement to determine the following:

Sales

(-)COGS

= Gross Margin

(-) SG&A Expense

*= EBIT Margin**

**The EBIT margin should be a main focus because the firm in question wants to double this measure. Therefore from Top Rise's perspective each pair of shoes would look like this:*

Revenue \$60

COGS (\$33)

GM \$27

GM 45%

Calculation = $\$120 \times 50\%$

Given

Calculation

Calculation = $GM\$ / Revenue = (27/60) = 45\%$

SG&A (\$12)

EBIT \$15

EBIT 25%

Given

Calculation = $GM\$ - SG\&A\ expense = (27-12) = 15$

Calculation = $EBIT \$ / Revenue = (15/60) = 25\%$

Conclusion 1: The interviewee should get to an EBIT margin percentage (25%) and then want to know more about Top Rise's profit margin numbers to draw a comparison to the industry average

Conclusion 2: The interviewee should note that the retail growth percentage is 6% and make the connection that if the overall industry is growing at 6% - Top Rise's business should also be growing at 6%

Having arrived at both of these conclusions the interviewee should want to know more about the performance metrics of Top Rise specifically.

The interviewee may use these numbers to calculate numerous other figures such as retail dollars (units x average unit retail) or 2004 unit or retail dollar sales using the growth percentage. This is a good demonstration of quantitative ability and knowledge of how the metrics fit together – although these are not necessary to solve the case. If you would like to check the interviewee's accuracy here are answers to the above mentioned calculations:

2005 Retail dollars = 35 m units x \$120 per unit = \$4.2 Billion

(The below assumes that 6% is true for both dollar and unit sales and that average unit retail does not change between 2004 & 2005)

2004 Retail dollars = \$4.2billion / 1.06 ~ \$3.96 Billion

2004 Unit Sales = 35 million / 1.06 ~ 33.0 million

Analysis 3

Once the interviewee has thoroughly examined the data set and has arrived at the above two conclusions provide him/her with the following second set of numbers:

Now that we have an idea as to the performance levels of the overall industry, here are some metrics that may help you:

Actual results for Top Rise:

	<u>2005</u>	<u>2004</u>
Revenue	\$600 m	\$565 m
COGS	\$330 m	\$310 m
SG&A	\$120 m	\$113m

What does this tell you?

Answer

The interviewee should perform the following calculations with this data set:

Revenue growth % from 2004 to 2005 (and compare to industry)

gross margins and EBIT margins for both years (compare to industry)

Top Rise's market share of total manufacturing industry

	<u>2005</u>	<u>2004</u>	<u>Growth</u>
Revenue	\$600 m	\$565 m	~6% (6.19%)
COGS	\$330 m	\$310 m	
GM\$	\$270 m	\$255 m	~6% (6.45%)
GM%	45%	45%	Flat growth
SG&A	\$120 m	\$113 m	
EBIT	\$150 m	\$142 m	~6% (6.19%)
EBIT%	25%	25%	Flat growth

Market Share = 600 m / 2,100 m ~ 30% (actual 28.6%) (note: 2,100 m comes from first data set. If total 2005 retail dollars are \$4.2 billion and they earn a 50% margin, that means that the total revenue for the manufacturers would be half of that amount = \$4,200 / 2 = \$2.1 billion (\$2,100 million))

Interviewee should recognize that this company is growing equal to or slightly above the industry and profit margins are aligned...therefore organic growth is not possible and the feasibility of doubling EBIT in two years is looking unattainable. Additionally, the interviewee should speak about Top Rise's current market share of 29% and briefly indicate what this could mean for the client.

Analysis 4

Now that we have determined that organic growth is not possible and because this company appears to be totally aligned with the industry in terms of EBIT margins and revenue growth what are some other opportunities for growth?

Answer

Possible suggestions: (a great answer would not only incorporate several ideas but also factor in the feasibility of achieving them within the two year time frame)

- Acquire smaller competitors in this 'highly fragmented market'*
- Extend manufacturing into additional product categories either organically or through acquisitions*
- Determine if facilities are running at 100% capacity and potential acquire new customers*

Analysis 5

[Provide copy of table - reproduced on separate page at end of this case]

Senior Management has collected this data on possible product extensions to drive growth. The following data is representative of the entire market within these categories.

	Kids & Baby Knits	Knit Accessories	Sweaters
2005 Sales	30,000,000	80,000,000	20,000,000
Average Unit Retail	\$100	\$60	\$120
Retail Revenue	\$3,000,000,000	\$4,800,000,000	\$2,400,000,000
Average Retail GM	50%	45%	55%
Manufacturing Revenue	\$1,500,000,000	\$2,640,000,000	\$1,080,000,000
Avg Manufac. Price	\$50	\$33	\$54
Avg COGS / Unit	\$18	\$10	\$25
Avg SG&A / Unit	\$8	\$5	\$10
Avg Op Income	\$24	\$18	\$19
Avg Manufac. EBIT	48%	55%	35%
Manufacturing EBIT	\$720,000,000	\$1,440,000,000	\$380,000,000
'04 – '05 growth rate	4%	5%	6%

Description of Product Categories:

1. Kids & Baby Knits = similar products to current production although for a different customer
2. Knit Accessories = scarves, belts, wraps, purses, hair accessories (all made from cotton or cotton blends)
3. Sweaters = All sweaters for men and women

Answer

The interviewee should be most concerned with the EBIT and growth rate of each potential product extension. He or she should recognize that current EBIT is \$150 million therefore; each of these segments is attractive because it could give Top Rise the potential for rapid growth (assuming they are able to successfully capture a significant portion of market share). The interviewee should also draw conclusions about how fast each of these markets is growing and potential market share necessary to capture.

What will separate an average interviewee from a great one will be their ability to further probe into these businesses and from a high level ask questions about synergies between the product lines. The interviewee should want to know more about capacity restraints, raw material procurement, and operational restrictions. For example: sweaters production would require different machinery than what is already owned by the factory – would the expected profits warrant the expense for equipment and training of employees?

Conclusion

Once the interviewee has had some time to understand the data and draw conclusions – ask them to give an elevator pitch covering a summary of their findings, what their immediate conclusions are and what pieces of information have lead them to their answer.

Answers will vary among interviewees ...one possible summary would be as follows:

After conducting interviews and analyzing both industry and company data, I would explain to our client that doubling EBIT over the next two years will be challenging and most likely will not happen without the acquisition of a smaller player. We did an assessment to identify organic growth opportunities but because Top Rise's growth and EBIT margins are in line with the industry as a whole there is no leverage there. Additionally, we looked at total market share of which Top Rise controls ~30% showing little room for growth. The only feasible option would be to acquire targets to incur rapid growth both in size and profitability. (No such data was available for review, but this is where I would look next.)

Finally, 3 product line extensions were researched and reviewed. While accessories are a high volume, high profit business, there could be potential manufacturing constraints and substantial capital expenditure that would limit upside realized in a two year period. Also, this particular market is seeing only 5% growth which is slightly less than its core business. Sweaters would be passed up for the low margins and capacity restraints. The kids and baby business would be the only feasible option because it would be possible to expand into this market using available resources. The only potential risk would be how fast the business is able to realize the upside potential and how easy it is to procure additional raw materials and build customer relationships.



Interviewee Handout (Top Rise Retail)

	Kids & Baby Knits	Knit Accessories	Sweaters
2005 Sales	30,000,000	80,000,000	20,000,000
Average Unit Retail	\$100	\$60	\$120
Retail Revenue	\$3,000,000,000	\$4,800,000,000	\$2,400,000,000
Average Retail GM	50%	45%	55%
Manufacturing Rev	\$1,500,000,000	\$2,640,000,000	\$1,080,000,000
Avg Manufacturing Price	\$50	\$33	\$54
Avg COGS / Unit	\$18	\$10	\$25
Avg SG&A / Unit	\$8	\$5	\$10
Avg Op Income	\$24	\$18	\$19
Avg Manufacturing GM	48%	55%	35%
Manufacturing EBIT	\$720,000,000	\$1,440,000,000	\$380,000,000
'04 – '05 growth rate	4%	5%	6%

Description of Product Categories:

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Marketing and all that Jazz

Opening

Your client is the Jazz at Lincoln Center (JALC), a leading not-for-profit arts organization located in New York City. Under the artistic direction of legendary jazz musician Wynton Marsalis, JALC is committed to providing top quality Jazz performance and education to the world.

JALC has been in existence for 25 years. Until 2003, JALC had been housed in the Lincoln Center Complex along side the Metropolitan Opera, New York City Ballet, and Julliard School for the Performing Arts. In 2004, JALC moved to the Time Warner Center – a high end commercial and corporate complex located on Columbus Circle. The move provided JALC with new, state-of-the-art facilities, greater capacity (from 3000 to 4000 seats), and performance venues with expansive views of Central Park.

JALC receives three primary revenue streams: subscriptions, single ticket sales, and donations. JALC, like all major performing arts organizations, relies on patron subscriptions to smooth demand and provide up-front cash flows. The general rule of thumb is that 50% of tickets should be sold to subscribers and 50% to single ticket holders.

The move to Time Warner Center has been a mixed blessing for JALC. In response to significantly higher fixed costs (rent, utilities, etc.), JALC had to increase ticket prices an average of 75%. However the move has also generated significant press attention and general buzz across New York City. Although attendance has been up since the move, subscription rates have declined in each of the first two years in the new venue.

You have been hired by JALC's Director of Marketing to assist in boosting subscription rates. On your way to the initial client meeting, you take a second to compose your thoughts and brainstorm on the problem at hand.

Answer

This is meant to be a very open ended question so push the interviewee to be exhaustive in his/her analysis. The tendency will be to focus in on pricing. That's fine, discuss pricing but then get beyond it to identify all outlying issues. Many frameworks will work, here is one approach:

Internal

Pricing

- *Obviously the increased prices are beyond customers' willingness to pay.*
- *How do margins compare with the old scheme?*
- *What would happen if we lowered prices? Less revenue, unpredictable cash flows, no upfront cash, low attendance at non-marquee shows*
- *Can we maintain elevated prices but boost willingness to pay? More perks for subscribers, look for higher-end customers*

Product

- *How has the product changed since the move?*
- *Does the new venue attract the same caliber of performer?*
- *Is the new venue as or more comfortable as the old venue?*
- *How does the location affect consumers' willingness to pay?*
- *What else are we selling beyond a show? Drinks? Merchandise?*

Parking?

Promotion

- *Is the advertising plan consistent with new location?*
- *Are we leveraging PR as effectively as we can?*

Customers

- *Marketing research to understand why old subscribers are leaving*
- *Why do people seem to prefer single tickets to subscriptions*

Company

- *Do we have fixed costs as low as possible?*

External

Competition

- *What new competitors/substitutes exist because of the move?*
- *How did old competitors respond to the move?*

Macroeconomic

- *Do people still enjoy watching jazz? Going to performances?*
- *Is the general economic downturn affecting people discretionary spending?*
- *How is tourism doing? Are we over the 9/11 backlash?*
- *Was there a shift in regulations because of the move? New taxes/zoning reqs?*

Analysis 2

At the client meeting, the Director of Marketing is convinced that JALC needs to significantly reduce ticket prices. She is particularly worried about subscriber retention. From 1993 to 2003, JALC had an average subscriber attrition rate of 10%. Over that same period, JALC had maintained subscription rates at 50% of house capacity. Since 2003 this situation has changed. The Director of Marketing presents you subscription data from 2003-2005 (figure 1) as proof that JALC needs to reduce prices. She asks you to take a look at the numbers and see if you agree. She further asks you to project what 2006 rates will be if prevailing trends continue.

Answer

The first key is to recognize that this picture looked very different in the past. Typically, 90% were resubscribers and 10% were new subscriptions. In 2004, this ratio shifted to about 50/50. In 2005 it moved to 70/30. How does this insight change your view of the case?

Next, notice that the new subscribers in 2004 resubscribed in 2005 (with 10% attrition). This is a good trend.

Now, let's project 2006. (Ed note: On the surface this seems like a gross assumption to make based on the limited data available. Lucky for us, consultants do this all the time. Press the interviewee to state his/her assumptions and forge ahead.) Break the 2006 subscribers into four groups:

- 2003 and prior subscribers: They left in droves over the past two years, but those that remain are likely dedicated jazz fans and should stick around. Assume 10% attrition giving us 350 subscribers*
- 2004 subscribers: 10% attrition from 2005 numbers gives ~550 subscribers*
- 2005 subscribers: Again 10% attrition from 2005 numbers gives ~380 subscribers*
- 2006 new subscribers: This is the most difficult to estimate. Looking at the last two years, in 2004 we had 650 new subscribers, 2005 we had 425. Based on this trend a reasonable estimate is 200 subscribers. Prior to 2003 we were regularly able to attract 150 new subscribers. The case mentions buzz and free PR so maybe we will be closer to the 2005 number of 425 new subscriptions? All in all, 200 seems like a reasonable estimate.*
- Adding it all up, a conservative projection is 1,480*

Analysis 3

Thanks to your convincing logic and comprehensive thought process, the Director of Marketing is convinced that your team can turn around JALC. As you shake hands and joke about the weather, a pained look comes over her face. "Wait a second. If we can grow our subscriber base by 10% a year we will soon have to move again," she says. Calculate how long it will be until JALC is at capacity with subscribers.

Answer

This is a rule of 72 problem: at 10% compounded annual growth a population will double every seven years.

JALC currently has 1,400 subscribers; capacity is 4,000 seats. In seven years there will be 2,800 subscribers and in 14 years there will be 5600 subscribers. Therefore the answer is around 10 years. You would get an "exact" number as follows:

$$\begin{aligned}2^{\frac{N}{7}} &= \frac{4000}{1400} \\ \ln\left(2^{\frac{N}{7}}\right) &= \ln\left(\frac{4000}{1400}\right) \\ \left(\frac{N}{7}\right)\ln(2) &= \ln(2.857) \\ N &= \frac{7 * \ln(2.857)}{\ln(2)} \\ N &= 10.6 \text{ years}\end{aligned}$$

Conclusion

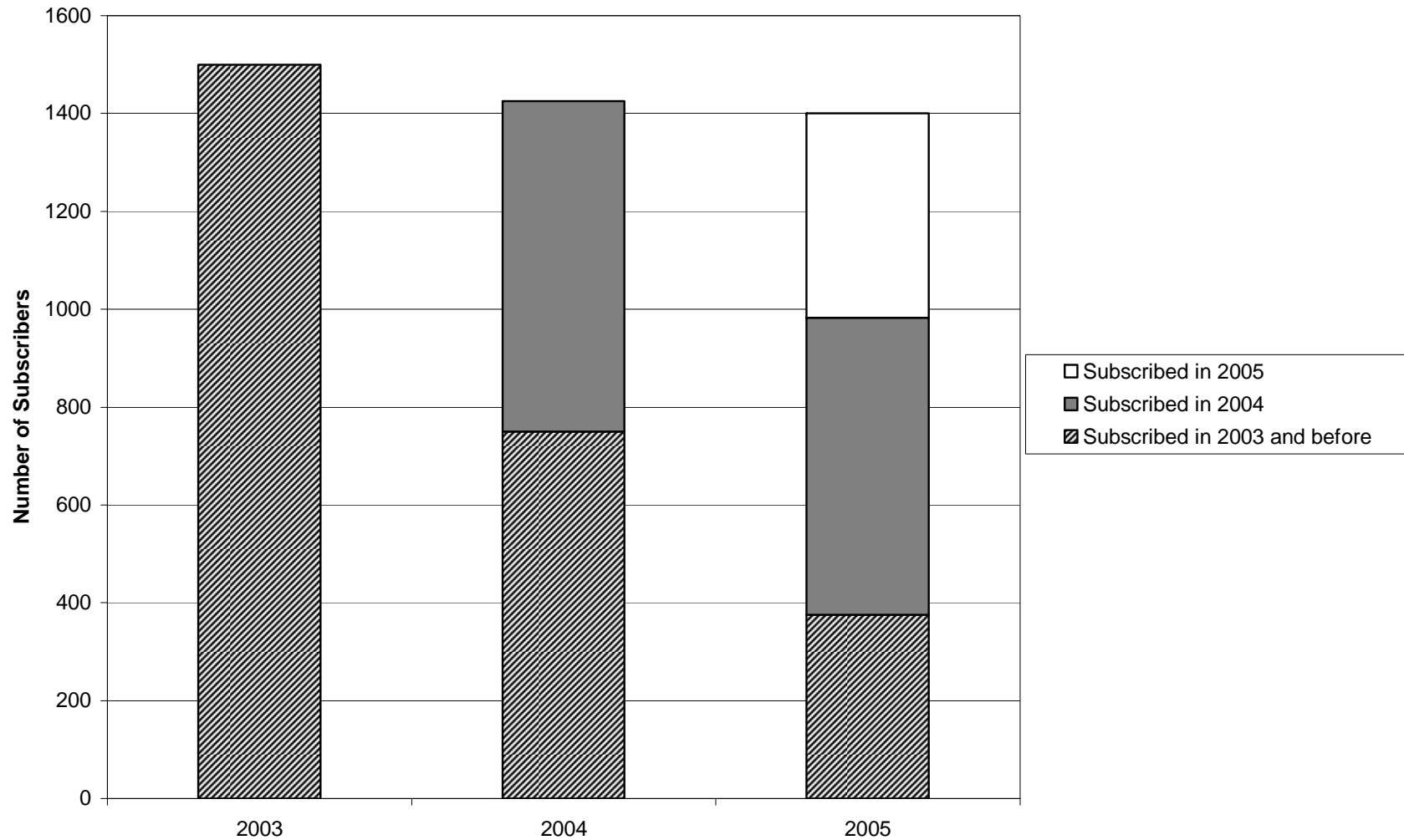
At the end of your first day on the study, you happen to run into Wynton Marsalis in the elevator. He asks how the study is going so far.

Answer

The interviewee should give a concise and complete summary of the key insights from the case. Press them to synthesize rather than summarize. A discussion of the next steps should also be included.



Figure 1: JALC Subscriber Data From 2003-5



New Ride at Stern Adventures

Opening

The Business Planning group at Stern Adventures, a leading amusement park located in Orlando that attracts 50 million people annually, must recommend to its CEO whether she should sign-off on a request to build a new ride for \$300 million. Guests purchase a single ticket to experience all of the park's attractions. Currently, the market cannot support a rise in that ticket price as a means to cover the investment expense. Should Business Planning recommend that the company's CEO sign-off on the capital request?

Background

Provide the following information if requested:

Admission revenue –Average \$30 per person

Food & Beverage revenue – Average \$20 per person

Visitors – 50 million / year

Discount Rate – 10%

This case will be solved on the revenue (not cost) side of the equation. Steer away from cost questions.

Price (Raising the admission/ticket price) – Since the Orlando theme park market is highly competitive, Stern Adventures cannot raise the admission price.

Promotion – In the company's 50 year history, the park has opened many new rides. On average, Stern Adventures sees a 500,000 sustained increase in attendance (number of additional tickets sold) when opening rides of this magnitude.

Discount rate – While \$300 million is a large investment, the interviewee should recognize that the half million additional people Stern Adventures expects will visit the park each year is pretty insignificant when the park already attracts 50 million. Disney has used a discount rate for its theme parks business of 10%.

Life of ride – The attraction will be built to the highest specifications and should last more than 100 years. Therefore, the investment can be treated as a perpetuity. For simplicity ignore any capital maintenance issues.

Answer

The solution:

1. $500,000 \text{ additional guests} \times (\$30 \text{ admission} + \$20 \text{ food \& beverage revenue}) = \$25,000,000$
2. $PV \text{ of perpetuity} = \$25,000,000 / 10\% = \$250,000,000$
3. $NPV = \$300 \text{ million (investment)} - \$250 \text{ million revenue} = (\$50 \text{ million}) \text{ NPV}$

Based on this negative NPV alone, Stern Adventures should not invest in this project. However, ask the interviewee if he/she can think of any additional reasons that an amusement park might make in justifying a project that appears will generate a \$50 million loss (strategic benefits).

These might include:

Line reduction – Lines at existing attractions will become shorter with an increased number of guest opportunities. If executed properly, this could increase guest satisfaction and they will then recommend it to others and/or encourage a repeat trip.

Extended stay – By giving guests more “things to do” while on property, should encourage guests to purchase additional meals and merchandise.

Wear-out – Guests need an incentive to return to the park. Building a new, highly visible attraction could encourage guests to visit the park more frequently.



Profitability at PTG & Partners

Opening

Our client is a law firm called Poleskey, Tobar, Girolami & Partners. PTG specializes in commercial property law. It has a commercial property team and a litigation team. It also has a smaller Trusts/Estates team that is engaged by individuals from the firm's various corporate clients.

The partnership has asked us to explore the reasons behind the partners' recent drop in profit share, which occurred despite the fact that all attorneys seemed to be working harder than the previous year.

How would you approach this problem?

Background

Provide the following information if requested:

Charge out rates

Partners \$400 per hour - unchanged from last year

Attorneys \$300 per hour - unchanged from last year

Average annual billable hours

Partners - 1,500 hours this year; 1,400 hours last year

Attorneys - 1,900 hours this year; 1,800 hours last year

Structure/Headcount

Average headcount this year:

	Partners	Attorneys
<i>Litigation</i>	<i>12</i>	<i>41</i>
<i>Commercial</i>	<i>20</i>	<i>51</i>
<i>Trusts/Estates</i>	<i>8</i>	<i>8</i>

At the start of the year several of the partners left to set up a new firm, taking with them a number of attorneys.

Average headcount last year:

	Partners	Attorneys
<i>Litigation</i>	<i>21</i>	<i>65</i>
<i>Commercial</i>	<i>24</i>	<i>60</i>
<i>Trusts/Estates</i>	<i>5</i>	<i>5</i>

Billing practices

The firm charges strictly for billable hours worked at the applicable hourly rate. No premiums or discounts are applied and no alternative billing arrangements are entered into.

Workflows

*The litigation team is extremely busy at present.
The commercial team is busy but coping.
The trusts/estates team is managing easily.*

Costs

Before providing the attached chart, ask the interviewee to describe what costs he/she would expect to see in a law firm.

Then provide the attached chart.

*Total costs for last year = **\$53.2m***

*Total costs for this year = **\$49m***

Answer

This is a simple profitability problem which can quickly get out of control on the math side. The interviewee needs to be organized and methodical.

The interviewee should identify revenue and cost buckets at an early stage.

Costs are not the issue in this case. However if the interviewee focuses on costs first the decrease in wages should provide an indication of the solution.

On the revenue side, the interviewee should be able to determine the drivers of revenue (e.g charge out rate, hours worked).

*You should encourage the interviewee to calculate revenues for each year:
(# of partners x hourly rate x annual hours) + (# of attorneys x hourly rate x annual hours)*

This year: $= (40 \times 400 \times 1,500) + (100 \times 300 \times 1,900)$
 $= 24m + 57m$
 $= **\$81m**$

Last year: $= (50 \times 400 \times 1,400) + (130 \times 300 \times 1,800)$
 $= 28m + 70.2m$
 $= **\$98.2m**$

...and profit per partner for each year:

(revenues - costs) / # of partners
This year: = (81 - 49) / 40
*= **\$800,000***

Last year: = (98.2 - 53.2) / 50
*= **\$900,000***

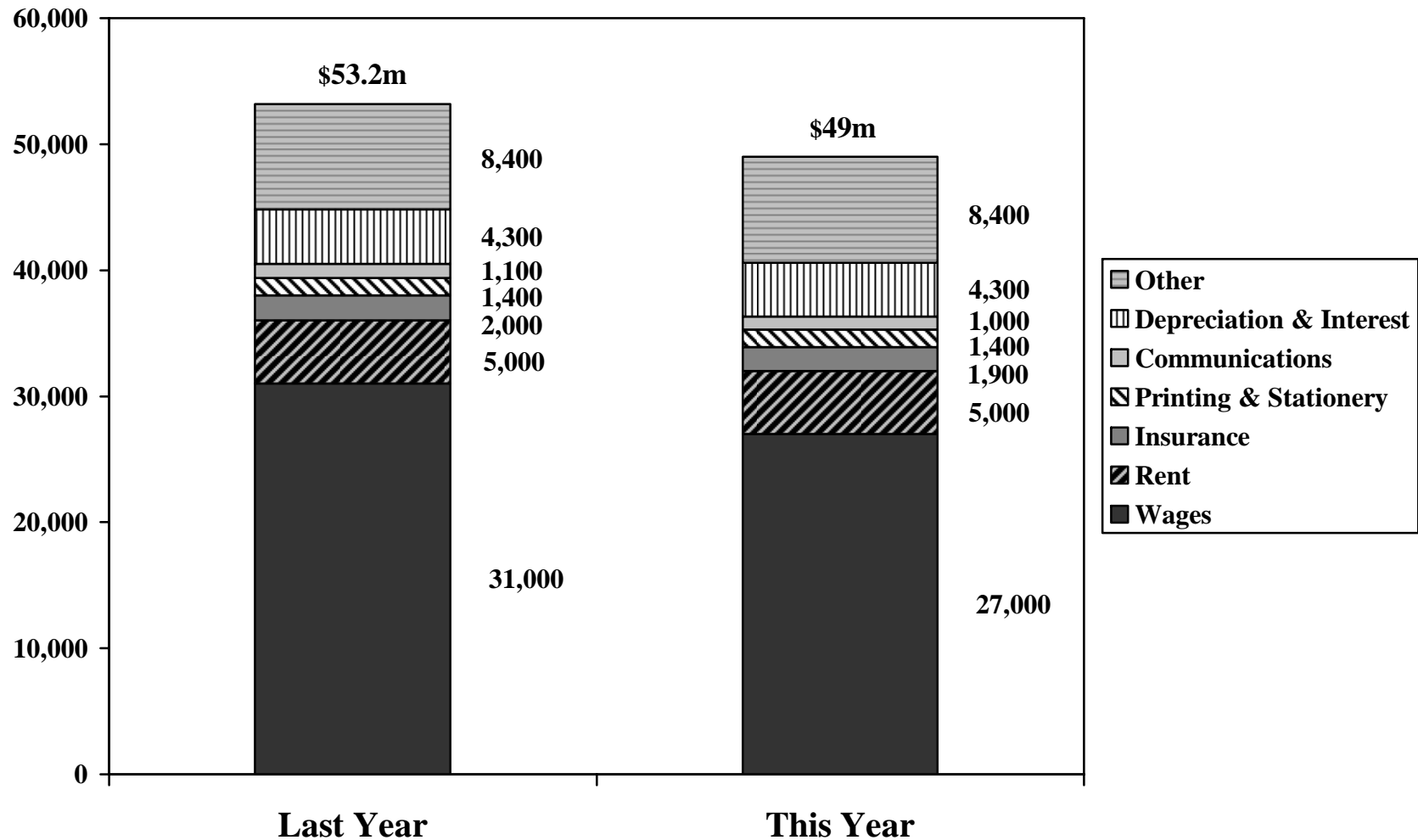
By this point the interviewee should be able to identify the reason for the drop in profit share. Do not settle for an explanation that just refers to the departure of partners and attorneys. That fact alone does not explain a drop in profit per partner (a departure of partners and attorneys might result in no change to the profit share or even an increase - as wage costs go down and there are less partners to share the profits). A good answer makes reference to the partner-attorney ratio having deteriorated (the "leverage" of the firm).

Finally, ask the interviewee what steps the partnership might take to remedy the situation. Answers might include:

- hire more attorneys, particularly in the litigation team given it is extremely busy*
- consider increasing charge-out rates*
- consider whether to retain the trusts/estates practice area, given the partner/attorney ratio in that team is 1:1 (note however the firm would also need to consider the negative impact on its clients of removing this service offering).*



Costs Handout (PTG Partners)



Reducing Wait Times at the Ski Field

Opening

The manager of a ski field has hired you to analyze how the time that skiers spend in the queue can be reduced. There are two options: increase the speed of the ski lift or build another equal lift. There are no budget constraints in the decision.

The ski field, with one lift and one slope, has a limit of 200 skiers and is full every day. The lift has a speed of 5 skiers per minute and it takes 10 minutes for the lift to carry a skier to the top of the slope. Skiers take 5 minutes on average to ski down and get in the queue again.

Which of the two options would you recommend the manager pursues?

Answer

The recommended approach to this problem is as follows:

1. Find the time skiers spend in the line (25 minutes, see below)
2. Analyze first option: Increase the speed of the lift, e.g. **5 minutes**. That would actually increase the queue time to 30 minutes (see below)
3. Analyze second option: build another lift, that would decrease the queue time to 5 minutes (see below)
4. The mountain can hold the double of skiers if another lift is built (told only if asked)

There are two methods one might take to calculate the queue time

<i>1st option</i>									
Ski lift	*	(Min cue	+	Min lift	+	Min skiing	=	# skiers / # lifts
5			X		10		5		200 / 1
<i>Starting case</i>			<i>A: Increase speed</i>			<i>B: Add a ski lift</i>			
# skiers	200	People per /	# skiers	200	people per /	# skiers	200	people per /	
Ski lift	5	min	Ski lift	5	min	Ski lift	5	min	
# lifts	1		# lifts	1		# lifts	2		
Min lift	10	Min	Min lift	5	min	Min lift	10	min	
Min skiing	5	Min	Min skiing	5	min	Min skiing	5	min	
Min cue	25	Min	Min cue	30	min	Min cue	5	min	

2nd option

Ski lift	5	skiers/min		Ski lift	5	skiers/min		Ski lift	5	skiers/min		
Lift	10	Min		Lift	5	min		Lift	10	min		
Skiing	5	Min		Skiing	5	min		Skiing	5	min		
Skiers	200	Skiers		Skiers	200	skiers		Skiers	200	skiers		
<i>Starting case</i>				<i>A: Increase speed</i>				<i>B: Add a ski lift</i>				
	Speed	Time			Speed	Time			Speed	Time	Lifts	
Lift	5	10	50	Lift	5	5	25	Lift	5	10	2	100
Skiing	5	5	25	Skiing	5	5	25	Skiing	5	5	2	50
Cue	5	X	125	Cue	5	X	150	Cue	5	X	2	50
Total			200	Total			200	Total				200
Min cue	25	Min		Min cue	30	min		Min cue	5	min (*)		
(*) With two lift the minutes in the cue are calculated as $(50/2) / 5 = 25$												

(*) With two lift the minutes in the cue are calculated as $(50/2) / 5 = 25$

(The interviewee can use another hypothesis for lift time reduction in option A; but the conclusion must be the same)

Conclusion

Building a new lift is a better option for queue time reduction.

If there is time, you could ask the interviewee to brainstorm additional measures the manager might take to reduce queue time (e.g. build a cafeteria, lengthen the run, increase ticket's price, etc.)



Reinvigorating Paterno Mutual

Opening

Your client is the distribution department of The Paterno Mutual, a major diversified financial services provider. Paterno Mutual has been in business for over 150 years and is generally recognized as the most respected provider of whole life insurance in the United States. Paterno Mutual has approximately 10% market share in the whole and term life insurance businesses, two highly fragmented industries. In the last five years, Paterno Mutual has also begun to sell limited investment products including mutual funds and annuities.

Originally incorporated in Dayton, Ohio, Paterno Mutual began as a regional company serving the American Midwest. Although the company now has offices across the country, over 60% of its business is still derived from Middle America.

Paterno Mutual, like many insurance companies, is divided into two parts – production and distribution. The production department is responsible for pricing policies (accomplished by actuaries), designing new insurance products, investing accumulated funds, and distributing benefits. The distribution department is responsible for selling new policies. Paterno Mutual employs a “captive agent model” which means that insurance agents (called Field Representatives) by contract can only sell Paterno Mutual products. All agents are independent contractors who are organized into 100 regional network offices. Each network office is headed by a Managing Director who is also an independent contractor, contractually tied to the corporate head quarters. Each network office has approximately 100 Field Representative attached to it. Managing Directors are all former successful Field Representatives.

Paterno Mutual enjoyed steady growth over the first 140 years of its existence however over the last ten years management has seen profits and market share stagnate. It has hired your team in an attempt to reverse this trend. On the plane ride to your initial team meeting in Dayton, you take a few minutes to brainstorm your new client’s situation in preparation for the initial team problem solving session.

Answer

This case, like most cases, starts with a very broad question and asks the interviewee to suggest a basic framework and start to analyze the client's situation. One approach is to utilize the three Cs:

Company

Is our product mix changing to meet customer needs?

Is our pricing strategy optimized and consistent with market demands?

Are we marketing our product appropriately? Has our advertising budget changed?

Is a captive agent model still appropriate?

How has the introduction of investment products affected agent productivity?

Customer

How can we better segment our customers to maximize service and profitability?

Why hasn't our business grown faster on the coasts? What about international opportunities?

How are customer preferences changing with respect to insurance?

Competition

How has the competitive landscape changed? Is the industry expanding or consolidating?

What new services are our competitors offering?

How has our competitors' message changed? How are customers responding?

Analysis 2

After your initial brainstorming session with the client it is clear to you that the Field Representatives are the key to profitability at Paterno Mutual. You are convinced that if Paterno Mutual can just hire more Field Representatives or boost Field Representative effectiveness (e.g. profit per FR), Paterno Mutual will begin growing again. Furthermore you are surprised to learn how different each of the Network Offices operates and wonder if these differences are affecting performance. You identify three dimensions that may affect Office performance: Time Spent Recruiting, Density of Middle Management, and Time Spent Training. You run a quick analysis to compare average Office performance against Offices that are strong in each dimension. You use three metrics to evaluate performance: Profit/FR, Recruitment Rate, and 5yr retention rate of FRs.

The results of this analysis are contained on Figure 1. Excited with your results you rush to your engagement manager to share with him your findings.

Note to interviewer: This is a complex chart so make sure you understand it before presenting it to your interviewee.

Answer

The interviewee should begin by analyzing the chart. The first column is the benchmark (the average network office) it should be compared to the next three columns (high performing network offices). For example, offices that spend a lot of time recruiting seem to be less profitable than the average network office; offices with a high density of middle management seem to be more profitable. The candidate should continue this way in order to understand all data. Once the candidate understands the chart, they should synthesize the data. Two major trends emerge:

- 1) Offices with a high density of middle managers seem to outperform in all categories*
- 2) Offices that spend a lot of time recruiting seem to underperform in all categories*

Note: In the real situation on which this case was based, the reason time spent recruiting was low was actually due to bad data; press the candidate to focus on the density of middle management finding. Ask them to speculate on why this effect is being observed.

Analysis 3

Having reviewed your results, your engagement manager declares you a rock star, but presses you to dig deeper. At his suggestion you decide to compare Middle Management Density across all Network Offices to see how it affects FR profitability.

The results of this analysis are contained on Figure 2. Again you eagerly rush to your EM to share your results.

Answer

This graph compares profitability (normalized by number of FRs) to number of middle managers per field representative. The candidate should recognize that the optimal number of FRs to have per middle manager seems to be 5 because at that level FRs are the most profitable. When the density of middle management is lower (i.e. $FR/MM > 5$), representatives are less productive. Also, when density of middle management is too high (i.e. $FR/MM < 5$) there seems to be a management overkill effect and FRs become less productive.

Ask the candidate to summarize the graph. They should conclude that if all Network offices shifted to the optimal FR/MM ratio then system-wide performance should increase. For most offices this implies hiring more middle managers; for a few offices it implies we need to cut middle managers.

Analysis 4

Much to your dismay your EM seems unimpressed with your findings. He finds the idea that hiring more middle management may boost system-wide profitability to be a long shot and states that even if we could elevate all NOs to the high performing level, any boost in profitability would barely offset the additional costs of hiring more managers.

You disagree and decide to calculate the upside potential if all NOs were migrated to the level of the top performing offices. In order to simplify your calculations you look at figure 2 and break all network offices in four groups as shown in figure 3.

Answer

Revenue from migrate NOs to GP3 performance level:

*GP 1: 20 NOs * (100 FR/NO) * (\$400,000/FR) = \$800M*

*GP 2: 25 NOs * (100 FR/NO) * (\$200,000/FR) = \$500M*

*GP 4: 25 NOs * (100 FR/NO) * (\$200,000/FR) = \$500M*

GP 1 + GP 2 + GP 4 = \$1.8B

Cost of additional Middle Managers:

*GP 1: 20 NOs * (15 MM/NO) * (\$100,000/MM) = \$30M*

*GP 2: 25 NOs * (10 MM/NO) * (\$100,000/MM) = \$25M*

*GP 4: 25 NOs * (-5 MM/NO) * (\$100,000/MM) = (\$12.5M)*

GP 1 + GP 2 + GP 4 = \$42.5M

Increase in Profits to Paterno Mutual:

\$1.8B - \$42.5M = \$1.375B

Conclusion

Happy with the way your first day on the study has gone, you pack up your things and head for the hotel. As you enter the elevator, you run into Paterno Mutual's CEO who asks how the study is going so far.

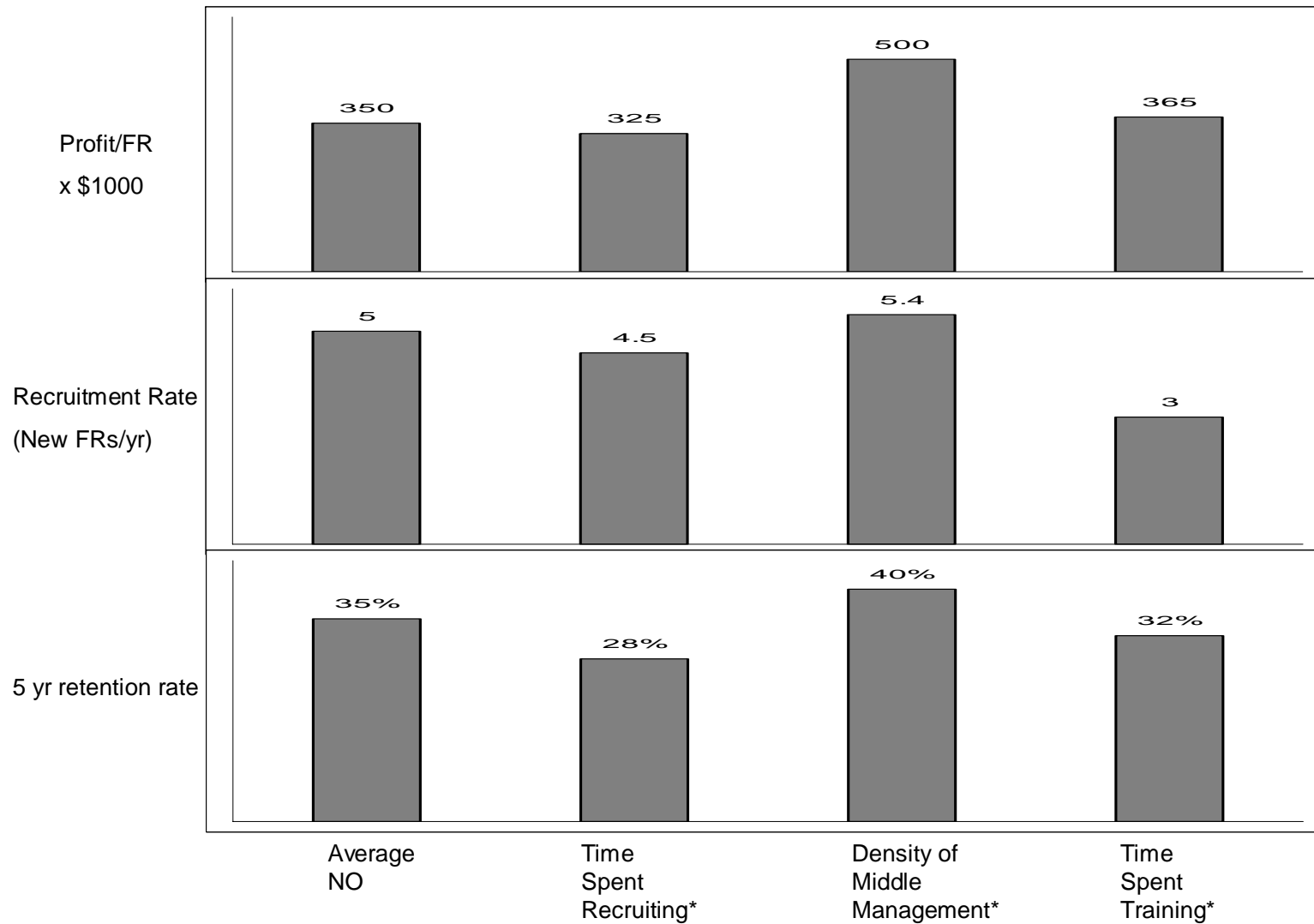
Answer

Push the candidate to give a strong but concise conclusion. Here is one example:

We are working to reinvigorate growth for your company. So far we have focused on elevating field representative performance. It seems that middle management density is the biggest driver of representative profitability. If we can migrate all network offices to the optimal field representative to middle manager ratio we can boost corporate profitability by 1.4 billion dollars. Next we plan to look at the cultural impact of such a switch as well as start to build a roll-out plan.



Figure 1: Comparison of Top Performing NOs Across Performance Dimensions



*Indicates Average of Top 10 performing NOs in category

Figure 2: Middle Manager Density by Network Office

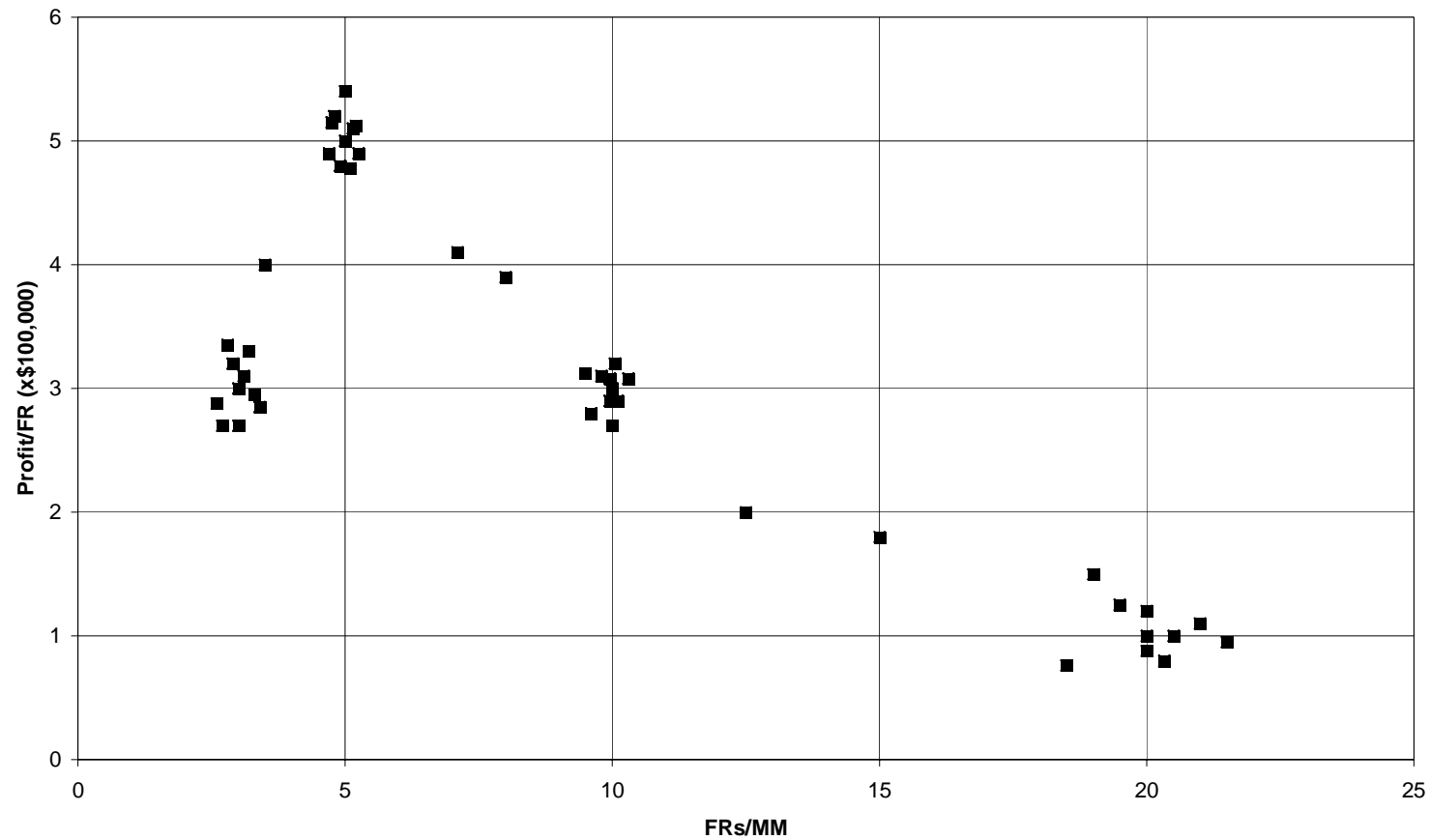


Figure 3: Middle Manager Density by Network Office Simplifying Assumptions

Group #	# of NOs	FR/MM	Profit/FR
I	20	20	100,000
II	25	10	300,000
III	30	5	500,000
IV	25	4	300,000

Note: Average Middle Manager Salary is \$100,000/yr

Sales Strategy for Will-o'-the-Wisp Studios

Opening

You work for a major New York City consulting firm and have just met with Roger Bishop, CEO of Will-o'-the-Wisp Studios, a small motion-picture studio that produces animated features. Mr. Bishop is concerned because DVD sales were much lower than had been projected for the studio's latest release – *Hopping Time*. Further, he is also concerned that this decline in sales will repeat itself with the studio's next release, *Great Sands 2: The Oasis*. You must decide, should he be worried about the decline and if so, what actions should he take to counter this potential downturn?

Background

Provide the following information if requested:

- *Will-o'-the-Wisp has been highly successful in releasing family-friendly, animated movies that focus on the exploits of talking animals and mythical beasts.*
- *Will-o'-the-Wisp releases only three movies a year (one during the winter holidays and two during the summer).*
- *Will-o'-the-Wisp distributes their movies through Poe & Parker Inc., a much larger movie studio. The distribution agreement between the two companies stipulates the following:*
 - *Poe & Parker oversees the distribution and marketing of Will-o'-the-Wisp's films.*
 - *For use of Poe & Parker's distribution network, Will-o'-the-Wisp pays Poe & Parker 20% of their gross box-office receipts.*
 - *Will-o'-the-Wisp must also compensate Poe & Parker for all marketing costs that Poe & Parker spends on Will-o'-the-Wisp's movies.*
 - *Poe & Parker has exclusive rights to distribute the DVD releases of any material based on previous Will-o'-the-Wisp theatrical releases (such as direct-to-video sequels).*
 - *Poe & Parker has the exclusive rights to produce and release television programs based on the characters in any Will-o'-the-Wisp theatrical release.*
- *Large movie companies can survive a bad year by relying on the steady stream of income their film libraries generate. Will-o'-the-Wisp, having a catalog of only 15 movies, lacks that security.*

Industry Trends

- *The DVD market for the entire industry is shrinking. Consumers have grown content with the personal libraries they have amassed. The market for catalog titles is showing signs of saturation*
- *The home entertainment market is fragmenting as options such as the internet and on-demand cable have captured a larger portion of consumers' dollars and time.*
- *Animated talking animal films, which had been a consistently successful genre at the box office, are now beginning to underperform.*

Competition

- *In the past, Will-o'-the-Wisp had only considered two studios as direct competition.*
 - *Legends Studios, another of the Hollywood majors, has a long history of producing animated features for children.*
 - *Badger Pictures, another major, has a specialized department that was specifically created to produce animated releases.*
- *Recently the cost of animation has dropped significantly. This has led to almost every studio, both major and minor, producing animated fare.*
- *Most of these recent animated features have focused on the hi-jinx of a group of talking animals.*

Technology

- *Will-o'-the-Wisp is a leader in the animation industry; however, decreases in animation costs have significantly narrowed the gap between innovator and follower.*
- *The emergence of high-definition DVD technology has signaled an eventual change to the format. This will encourage consumers to reinvest in their DVD libraries. However, an industry standard has yet to be established for the technology.*
- *The fragmentation of the industry has also opened avenues for potential growth. For example:*
 - *The Internet looks to become a viable source of movie distribution as sites such as Amazon.com and Yahoo have begun broadcasting films.*
 - *Mobile devices such as iPods, cellular phones, and the PSPs have also provided a window of distribution that had not existed in years past.*

Consumer Products

- *Will-o'-the-Wisp controls the licenses on all of its characters; this constitutes the third largest stream of income for the company after theatrical and DVD revenue.*

Answer

The purpose of this case is to challenge the student to tackle problems that are specific to the demands of a specialized industry. In this instance, Will-o'-the-Wisp is facing growing competition due to competing technology, the commoditization of its genre and diminishing marginal returns from a primary revenue stream (DVDs).

Although there is no one "right" solution to Will-o'-the-Wisp's problems, there are some that seem more sensible than others. These include:

- Steer production away from talking animal pictures to avoid the oncoming glut that looks to saturate the market.*
- Explore less expensive direct-to-video DVD releases based on new characters. Through direct-to-video releases Will-o'-the-Wisp can build their library, create new franchises and increase their consumer products revenues.*
- Exploring cash streams that new technology has made possible such as ringtones, ring backs, and online games.*

Additionally, Will-o'-the-Wisp should also be weary about jumping too quickly into a new technology. It must balance being on the forefront with moving to far ahead (for example, picking a high definition DVD format before an industry standard is set).



Taking Just Jets to Market

Opening

We have been approached by the CEO of a start-up company called Just Jets. The company has developed a small jet and needs our assistance in formulating a strategy to take its product to market.

To date the company has spent \$500 million in developing a prototype of the jet it calls the Fusion500. The Fusion500 seats six people and comes appointed with leather seats and the safety features of a Boeing or Airbus jetliner. However it has little legroom for passengers and no bathroom. It is simple enough to be flown by only one pilot and travels at over 430 miles an hour - which is much faster than other light aircraft that carry a similar number of passengers.

The Federal Aviation Administration says it's on track to complete the certification of the jet within the next two months.

The CEO has asked us for advice on a strategy to take the Fusion500 to market.

We are meeting with the CEO in twenty minutes. What issues would you want to explore with him initially?

Background

Provide the following information if requested:

Price

Just Jets plans to sell the Fusion500 for \$1.5m.

Costs

<i>Rent per annum</i>	<i>\$5m</i>
<i>Financing costs per annum</i>	<i>\$14m</i>
<i>Plant & equipment per annum</i>	<i>\$25m</i>
<i>Salaries of full time permanent employees</i>	<i>\$1m</i>
<i>Variable labor cost per jet</i>	<i>\$100,000</i>
<i>Materials per jet</i>	<i>\$1m</i>
<i>Fixed overhead per annum</i>	<i>\$5m</i>
<i>Variable overhead per jet</i>	<i>\$300,000</i>

Competition

Boeing and Airbus do not produce a jet similar to the Fusion500 and there are no indications that they intend doing so.

Gulfstream, Cessna, Bombardier and Dassault all make corporate jets, although none of them presently manufacture a jet of the size and performance of the Fusion500.

Just Jets understands that three companies may be developing a very light jet, namely Cessna, Honda and a start up Canadian company.

Answer

You are looking for the interviewee to construct a logical and coherent framework to analyze this new product and its prospects.

Many answers will be appropriate. This is an opportunity to drill down into an interviewee's answers and get them to explain their reasoning and why issues are important.

One approach is to use the 4Ps of price, promotion, product and place to set out issues to be discussed with the CEO.

Also very relevant is the customer segment the company is targeting (which will lead onto the second question).

Finally, the interviewee may want to explore the relevant supply chain and how the company intends extracting value from it.

Analysis 2

The CEO has indicated an interest in two potential markets in particular: the corporate jet market and the Air Taxi market. The latter market is made up of operators who intend using the Fusion 500 to ferry passengers between cities currently underserved by the big airlines.

Just Jets does not have the resources to position itself in both markets. The CEO is convinced it must choose one.

The corporate jet market is well-established with big players such as Gulfstream, Cessna, Bombardier and Dassault dominating. This year the market for small to mid-size jets is estimated at \$4 billion. Just Jets believes it could be a niche player and secure $\frac{3}{4}$ of one percent of that market.

The Air Taxi market is very much in its infancy and harder to estimate. Present estimates indicate sales will be in the range of \$200m to \$600m. If we take the midpoint of this range, what market share would Just Jets need to secure to generate the same sales as the corporate market?

Answer

*Estimated sales in corporate market = 0.75% x \$4 billion
= \$30 million
Midpoint of Air Taxi market = \$400 million
Market share required in Air Taxi market = 7.5%*

Analysis 3

Aside from just potential revenues what issues should Just Jets take into account when choosing between the Air Taxi and Corporate markets?

Answer

The interviewee can discuss numerous considerations here. You should engage him/her in discussion and probe the answers you are given. Ask why, dig deeper, and test understanding. The interviewee should be able to rationally and confidently discuss issues such as:

- *potential competitor response, including the strength of the competitors*
- *market growth*
- *geography - location of key customers*
- *supply chain issues*
- *power of customers*
- *risk- the Air Taxi market is considerably riskier than the corporate jet market*
- *profitability - the air taxi market has few if any competitors and Just Jets may be able to command a higher margin*

Porter's five forces is a useful framework to employ in comparing the two markets.

Analysis 4

The CEO has also indicated he wants to know how many Jets the company needs to sell in its first year to breakeven ignoring sunk costs. It would be helpful if you could provide a rough estimate.

Answer

$$\begin{aligned}\text{Breakeven Volume} &= \text{fixed cost} / \text{net profit margin per unit} \\ &= \text{fixed cost} / (\text{price} - \text{variable cost})\end{aligned}$$

If the interviewee does not recall the formula then give it to him/her and still require him/her to perform the calculation.

The interviewee will need to ask appropriate questions to obtain the information he/she needs to perform the calculation. Price and cost information are provided above.

Annual fixed costs = \$50m

The price of a jet is \$1.5m

Variable costs are \$1.4m.

$$\begin{aligned}\text{Breakeven volume of jets} &= 50 / (1.5 - 1.4) \\ &= \mathbf{500 \text{ jets}}\end{aligned}$$

Conclusion

The CEO has just entered the room. He looks at you and says "So, what are your thoughts on my new plane?" How do you answer?

Answer

You are looking for the interviewee to be structured and concise here. He/she should pull approx three key points you have discussed and summarize them appropriately for the CEO. The interviewee should also indicate the next steps they would take in the project (e.g. confirm estimated financials, conduct marketing research to refine market; etc.)



Telecomm Cost Reduction Strategy

Opening

You are in a meeting with the CFO of a large telecom service provider with annual revenues of \$67B.

The CFO has asked you to develop a program that will reduce costs by \$2B a year. The CFO would like you to suggest areas of focus, using a structured approach, and to identify risks and performance indicators for your cost reduction strategy.

Background

Provide the following information if requested:

Revenue Breakdown (\$67B) and growth

- *Local Services: \$33B, down 1.6% from last year*
- *Long Distance Services: \$2B, up 33% from last year*
- *Information Services: \$6B, down 10% from last year*
- *Broadband Services: \$1B, up 35% from last year*
- *Wireless Services: \$25B, up 15% from last year.*
- *75-200 difference services across those 5 units*

Other information

Operating Income = 20% of revenue, down 50% from last year

Operating Expenses = \$54B, up 15% from last year

203,000 salaried employees, down from 228,000 last year

Weighted average salary = \$80,000 / year / employee

Expecting a 4% salary increase this year

External expenditures (part of OE) = \$49B

Of that \$49B, \$37B is direct external expenditures, \$12B is capital expenditures

There are about 50,000 suppliers

Current Strategies include

(Interviewee could suggest some of these, but feel free to bring them up)

- *Bundling of services*
- *Debt reduction program: \$53B down to \$45B*
- *Accelerated deployment of broadband services*
- *Enterprise services growing, expect 1200 new customers this year*
- *Focused capital expenditures – on growth*
- *Geographic focus → US only*
- *Cost Reduction \$2B annually*

Answer

For the cost reduction strategy, the interviewee should work towards a logical solution with a few major options, and then go into more detail about one or more of them.

Possible Solutions

- *Consolidate suppliers*
 - *Bundling*
 - *Bulk discounts*
 - *Contracts*
- *Outsource functions*
 - *Call centers*
 - *Services*
 - *Manufacturing / Operations / Logistics*
- *Focus Areas*
 - *Growth Businesses*
 - *Broadband*
 - *Long Distance*
 - *Wireless*
 - *Non-growth*
 - *Local – reduce / divest?*

Conclusion

The “key” to this case is a dialogue with the interviewer and interviewee that brings the focus to local services, where 50% of the corporation’s revenue is made.

Some math: Local services, \$33B dropping 1.6% is a loss of about \$0.528B. Info services, \$6B dropping 10% is about \$0.6B. Both are about equal areas of concern, though local services should be the main focus.

The interviewee may ask about costs associated with local services. There are 60,000 technicians employed by the corporation, and they are in a union. It is a declining business model – most services, maintenance, and repairs are handled by computer systems, so there is little need for the number of technicians currently employed. If just 10%, or 6,000 of the technicians are let go, at \$80,000 per employee, that equates to a savings of \$0.48B, or about 25% of the cost reduction target.

The reduction in headcount of technicians in local services is one option. This option carries some risks.

Risks

- *Loss of services*
- *Customer base – meeting the needs / demands of the customer base in a timely fashion*
- *Competition – what are the competitors doing? How do they handle service calls?*

Performance Indicators

- *Cost tracking – improvements*
- *Efficiency improvements – service calls, repairs*
- *Customer service / satisfaction surveys*
- *Product offerings*

There should be other considerations brought up by the interviewee. The reduction in available technicians may require the establishment of a call center to handle perhaps an increase in service calls that cannot be handled by computers automatically, or without human intervention. There may be start-up, training, and maintenance costs associated with this call center.



Venture Golfing in the Caribbean

Opening

Your consulting firm has just signed a new client, Venture Golfing, a real estate company that specializes in buying premium tracts of land and transforming them into top-rated golf courses. To date they have only bought properties within the United States and Canada but are now looking to expand into other territories. In particular, they have been offered a large section of beachfront property on an independently governed Caribbean island. They are very interested in pursuing this opportunity but want your advice first. Should they proceed or pass?

Background

Provide the following information if requested:

General

- *The property belongs to a world-renowned athlete who is looking to sell after 25 years of ownership. It consists of 15 acres of mostly beachfront property.*
- *The island only has one other golf course, which is in high demand but not rated very highly.*
- *The seller has agreed to allow Venture Golfing to option the property for six months. After this time period, Venture Golf would either have to buy the property or relinquish their rights to it.*

Construction Costs

- *The island is non-union and labor costs are subsequently less than those in the United States*
- *As the island has several large resorts, there is a ready supply of water and food.*
- *Electricity is readily accessible and inexpensive.*

Government Obstacle

- *Non-citizens are not permitted to own property. Foreign entities must work through a title-holder who lives on the island. There are a number of companies that exist for this purpose; however, it would take some time to find a reliable agent with whom to work.*
- *The property is not zoned for a golf course, but instead is zoned as a residential area*
- *Government bureaucracy is notoriously slow. Even without challenge, something as rudimentary as petitioning for a zoning change could easily take over a year to resolve.*

Environmental Laws

- *Five hundred year old ruins have been found on a neighboring lot. If any were uncovered on this property during construction, all work would need to stop. However, ruins are uncommon and chances of uncovering any are slight.*

Social Costs

- *The property neighbors on four large residential lots, all owned by wealthy retirees.*
- *From a preliminary investigation, the neighbors do not seem to welcome the idea of construction next door to them.*
- *The only road that connects the property to the island's main highway runs through two neighboring properties; building a new road would require going through one of the neighboring properties as well.*

Answer

Moving forward with this acquisition is not recommended. Buying an option would only allow Venture Golf to delay its purchase decision for six months. Changing the zoning requirements could take well over a year to arbitrate and the decision may end up not being in Venture Golf's favor.

Moreover, limited highway access, unfriendly neighbors and the potential of unearthing an archaeological find all stand as cogent reasons not to pursue the decision.



Water Management Acquisition

Opening

Our client is a large diversified international conglomerate, with businesses in the telecom, medical, automotive, and power generation industries, among others. The conglomerate has recently acquired a U.S.-based company that handles waste management and filtration of water. The U.S. “water market” is large (\$400b annually), and very fragmented (the number one player has \$2b in turnover).

Our client has asked us to develop a growth strategy for this “water management” company. How would you approach this problem?

Answer

Products

The client and its competitors offer four basic “products”:

- *“off-the-shelf” devices and system components (anything from a simple household water filtration device you could buy in a hardware store, to a more sophisticated product for use in a plant)*
- *Complete water filtration/management system installation*
- *Operations (i.e. system operated by the company for its customer)*
- *Service (i.e. after installation, service provided to system as necessary)*

The four products each have different profit margins:

- *devices and components = 20% EBIT*
- *complete systems = 10% EBIT*
- *operations = 50% EBIT*
- *service = 30% EBIT*

Interviewee should follow up by asking about the revenues associated with these products, which are very different:

- *off-the-shelf / components = \$20 - \$20,000 per sale*
- *complete system = \$20m for one-time installation on avg. (note: larger projects can be more, smaller can be less)*
- *operations = \$5m in revenue per year on avg. (note: larger projects can be more, smaller can be less)*
- *service = variable, dependent on installation (generally <\$1m)*

Customers

There are three basic customers of these water systems:

- 1) Municipal (i.e. "City of NY")*
- 2) Industrial (i.e. corps, plants)*
- 3) Residential (i.e. households, apt. complexes)*

Interviewee should deduce, through questions or assumptions that:

- Municipal customers are the largest projects, and thus largest revenue streams*
- Industrial can be medium to large projects*
- Residential are smallest projects, and generate low revenue*

Interviewee should also determine that each customer demands different product types

Interviewer can direct interviewee towards this information with leading questions such as:

- What might be some other differences between these customer segments?*
- Could these different customer segments have different needs?*

Once interviewee identifies that "customers will demand different products," interviewer should provide the following:

- municipalities demand components and operations only (since systems are already in place)*
- industrial corporations need components, complete systems, and operations*
- residential requires off-the-shelf components only*
- All customers are likely to need **service**, residential to a lesser extent*

Lastly, interviewee should be told that the growth rates in each of these customer segments are as follows:

- municipal = 5%*
- industrial = 35%*
- residential = 25%*

Region

While the conglomerate is international, this case focuses on the U.S. market, so should the interviewee ask, limit growth strategy to U.S. market (although suggestions of pursuing opportunities abroad are not "wrong," per se)

Answer

“Typical” correct strategy will focus on industrial clients, providing complete systems and operations.

- *Interviewee should identify that systems and operations have sales synergies—at least that it is a natural strategy to leverage the sale of an installed complete systems to market the sale of operations services*

Additional strategy will include provision of operations services to municipalities

- *While municipal market only growing at 5%, there are large existing installations, and operations services on these will generate significant revenues and high EBIT*

Interviewee should identify residential market as least desirable

- *Although growth is high in this segment, since the demand here is only for low-revenue components, growth strategy should not include this segment*

Interviewee should recognize that service, despite 30% EBIT, is an add-on sale that will exist regardless of strategy taken.

