

# Case Interview Preparation 2013 - 2014

Welcome to the MCA!

Our goal is to provide you with the resources and support to ace the consulting interview process. But this book is just one part of that. You'll build the skills you need to succeed at the Case Prep Sessions we will offer throughout the fall. Each session will focus on a key component of case interviews, and those identified with an \* will be followed by a dedicated hour to do a practice case with your peers. We will also offer case practice weeks, where MCA executives will help you break down cases and answer any case prep questions you may have. The current schedule is as follows:

Session	Focus	Delivered By	Date
1	Introduction to case interviews	Promeo	October 19-20, 2013
2	In-depth structuring and frameworks*	MCA	October 22, 2013
3	Case practice week	MCA	October 29, 2013
4	Case interview tools*	MCA	November 5, 2013
5	Case practice week	MCA	November 19, 2013
6	Communication in case interviews*	MCA	November 26, 2013
5	Taking case interviews to the next level	Promeo	December 7-8, 2013

In between sessions, though, it's up to you to prep as much as possible. This book gets you started with 30 of our favourite cases – and you'll find many others on our website at <http://www.rotman.utoronto.ca/consulting/resources> (Password: mcaresources).

**FINAL TIP:** It is difficult to find high quality cases – we recommend that you save these cases for mock interviews with your peers. **In other words, do not read through this book on your own**, as once you have read a case, it is no longer effective as a mock interview.

Looking forward to seeing you at the Case Prep sessions!

# The Case List

(in approximate order of difficulty)

	Gave	Rec'd		Gave	Rec'd
1. Gift Wrapping Paper			16. Nextel Cup – Car Racing		
2. Butcher Shop			17. Pharmaceutical Distribution		
3. Travel Agency			18. Book Retailer		
4. Cable Company			19. Molds R Us		
5. Tissue Paper			20. Juice Producer		
6. Sheep Auction			21. Airline Broadband		
7. Insurance Provider			22. Auto Manufacturer		
8. Luxury Car Maker			23. Business School Journal		
9. Appliance Insurance			24. Sandwich Bags		
10. Charcuterie Processor			25. School Buses		
11. Multipurpose Tool			26. Retail Discounting		
12. HVAC Service Provider			27. La Seine Soft Drinks		
13. Upscale Restaurant			28. Electronics Retailer		
14. Frozen Dough			29. Trucking		
15. Software Product			30. Hong Kong Port		

## Additional Cases & Suggested Resources

	Gave	Rec'd	Websites:
			<b>CaseInterview.com</b> Organized by ex-McKinsey consultant Victor Cheng, caseinterview.com provides access to: <ul style="list-style-type: none"> <li>• Daily emails with interview tips</li> <li>• Look Over My Shoulder audios and videos of actual candidates being reviewed while they go through a case interview</li> <li>• Access to online math drills</li> </ul>
			<b>Books:</b>
			<b>Case Interview Secrets</b> by Victor Cheng Released in 2012, it's an updated and more robust version of the caseinterview.com website. Provides details on the different case interview styles and tips for exceling
			<b>Case and Point</b> by Marc Constantino A well organized book that walks through the full consulting interview process from research on the firms, to math drills, and skills to showcase during both your case and behavioural interviews.
			<b>Crack the Case</b> by David Ohrvall The latest version provides sample frameworks, 43 cases, and 150 videos to help prepare you for the interview process.

# Overview of Key Concepts

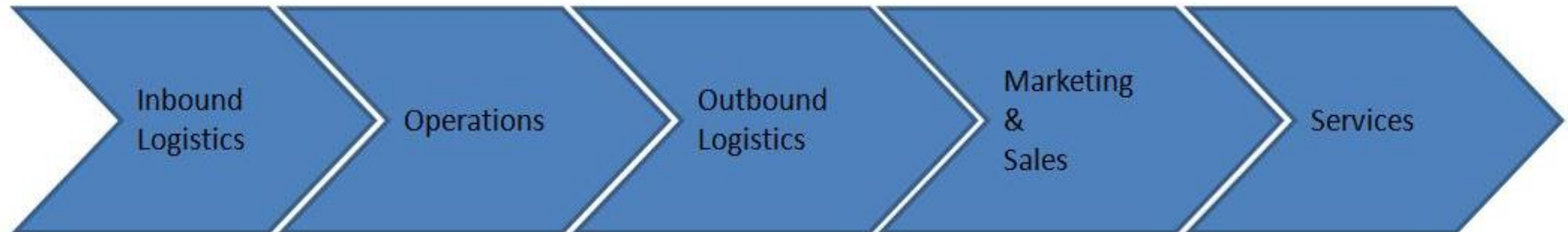
# General Framework: Profitability

Area	Key Drivers
Revenue	<ul style="list-style-type: none"><li>• Volume (Affected by: Price, Customer Service, Distribution/Inventory/Capacity, Demand, Competition, Substitutes, Market Forces)</li><li>• Price (Affected by: Competition, Elasticity, Differentiation, Segments/Price Discrimination)</li><li>• Product Mix</li></ul>
Costs	<ul style="list-style-type: none"><li>• Fixed Costs (Affected by: Overhead, Marketing, IT, SG&amp;A, PP&amp;E)</li><li>• Variable Costs (Affected by: Inputs, Labour, Distribution, Maintenance, Packaging)</li><li>• Other considerations that could affect costs: Accounting (allocations), foreign exchange, regulations</li></ul>

# General Framework: Business Situation

Topic	Key Drivers
Customers	Market Size Segments Needs Purchase Drivers Price Elasticity Retention/Loyalty
Product	Nature (benefits, why someone would use it) Commodity vs. differentiated Substitutes Lifecycle Packaging/bundling
Company	Capabilities Distribution channels Cost structure (mainly fixed vs. variable) Intangibles (brand) Organizational structure/incentives
Competition	Concentration and structure Best practices Barriers to entry Potential reactions

# General Framework: Value Chain



## •Collection Service

- Time
- Request Processing

## •Self Return

- Plant Scheduling
- Plant capacity
- Proximity to plant

## •Product Quality

- Quality Expectation
- Order fulfillment
- Customer Visit

## • Ordering

### • Order Fulfillment

- Emergency Load
- On Time Delivery
- Customer Pick Up

### • Inventory Management

#### • Transaction Management

- Reporting
- EDI
- Reconciliation
- Audit
- Invoice Accuracy

## • Account Management

### • Pricing

- Pricing Structure
- Total Cost of Acquisition

### • Invoicing

- Credit process
- Understanding the value of our product
- Understand what customer needs

## • Customer Call Center

### • Problem resolution

- Speed
- Solution

### • Customer Survey

- Audit variance reconciliation
- Customer Location Audit



# Marketing Concepts: 4 P's

4 P's	Considerations
Product	Features and capabilities Quality and reputation Service and warranties Packaging and size Positioning and market segmentation
Promotion	Consumer awareness Loyalty Advertising medium Buying process Trial/repurchase
Price	Perceived value Willingness to pay Retail/discounts Economic incentives Skimming
Place (distribution)	Channels Coverage Inventory Transportation

# Marketing Concepts: 3 C's

3 C's	Considerations
Company	Strengths/Weaknesses/Opportunities/Threats Strategy and vision Available resources/capacity Experience/Learning curve Culture
Competition	Industry Size/Number/Market Share Economies of Scale/Scope Capabilities/Experience Resources
Customer	Perceptions Loyalty Switching Costs Purchase Behaviour Segmentation Market characteristics/trends

# Economics Review

Concept	Definition
Adverse Selection	<p>Situation in which an individual's demand for insurance is aligned to their risk of loss (i.e. people with the highest expected value will buy insurance) and the insurer cannot account for this correlation in the price</p> <ul style="list-style-type: none"> <li>• Restrict choice</li> <li>• Equalize information</li> <li>• Signaling</li> </ul>
Consumer Surplus	<p>Economic gain achieved when consumers purchase a product for a price less than their willingness to pay</p> <ul style="list-style-type: none"> <li>• <math>\text{Consumer Surplus} = \text{Willingness to Pay} - \text{Price}</math></li> </ul>
Economies of Scale	<p>The average cost per unit for a business entity is reduced by increasing the scale of production.</p>
Economies of Scope	<p>The average cost for a business entity is reduced by producing two or more products</p>
Elasticity	<ul style="list-style-type: none"> <li>• If <math>E &gt; 1</math>, decrease price to increase revenue</li> <li>• If <math>E &lt; 1</math>, decreased price leads to lower revenue</li> </ul>
Insurance	<p>Form of risk management used to hedge against the risk of a loss in which the cost is equal to expected loss.</p>
Law of Diminishing Returns	<p>At some point in the production process, the addition of one more unit of output, while holding everything else constant, will eventually lead to a decrease in per unit returns.</p>
Marginal Cost	<p>Cost of one more unit of output.</p>

# Economics Review

Concept	Definition
Monopoly	<p>Entity is the only supplier of a particular good.</p> <ul style="list-style-type: none"> <li>• Lack of competition • produce less and charge more</li> <li>• Barriers may include government regulation, networks, patents, etc.</li> <li>• Revenue is the midpoint of the demand curve</li> </ul>
Moral Hazard	<p>The unobservable actions and risks that humans may take once a contract is signed since they don't bear consequences. It is a special case of information asymmetry that affects the cost of transaction.</p>
Oligopoly	<p>Market is dominated by a small number of sellers.</p> <ul style="list-style-type: none"> <li>• Dominant strategy is always better</li> <li>• Sequential games - commitments help</li> </ul>
Perfect Competition	<ul style="list-style-type: none"> <li>• Firms take price • <math>MR = P</math></li> <li>• Maximum profit = <math>MR = MC</math></li> <li>• <math>P &lt; AVC</math> • shut down</li> </ul>
Price Discrimination	<p>Situation in which identical goods are sold at different prices from the same provider.</p> <ul style="list-style-type: none"> <li>• 1st degree • Different price for different willingness to pay</li> <li>• 2nd degree • Different price for different quantities</li> <li>• 3rd degree • Different price for different segments (attributes)</li> </ul>
Risk Averse	<p>Individuals who prefer certainty over the uncertain for the same expected value (EV).</p>
Risk Neutral	<p>Individuals who are indifferent on risk taking if the EV is the same.</p>
Risk Seeking	<p>Individuals who prefer risk even if the EV for a certain event and the risk is the same.</p>

# The Cases

# Case 1: Gift Wrapping Paper (I of III)

BCG

## Problem Statement Narrative

Your client is a gift wrapping paper manufacturer in the US. They are considering a proposal to outsource their manufacturing to mainland China. You have been called in to assist in the go/no-go decision making process. They would like to know your thoughts and recommendation.

*STEP 1: Ask the candidate to begin by establishing cost buckets.*

*STEP 2: After cost buckets are established, ask how they may differ in China (A: Lower labor costs...)*

*STEP 3: Let the candidate steer the interview from here...*

## Guidance for the Interviewer provided upon request

Cost comparison provided on candidate handout slide. Do not provide until candidate outlines potential differences and asks for specifics between options.

### **Fixed costs include:**

- *Plant & machinery* (see exhibit for costs)
- *Employees* (see exhibit for costs)

### **Variable costs include:**

- *Raw paper material* \$20 per ream (same for both)
- *Ink* \$100 per ream US  
\$50 per ream in China
- *Ink is special wrapping paper ink and an unavoidable cost*

*Shipping cost from China to US is \$150 per ream*

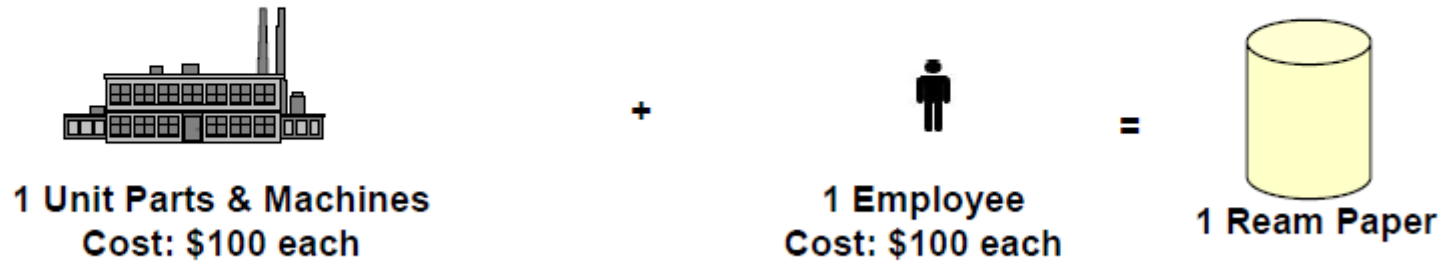
# Case 1: Gift Wrapping Paper (II of III)

BCG

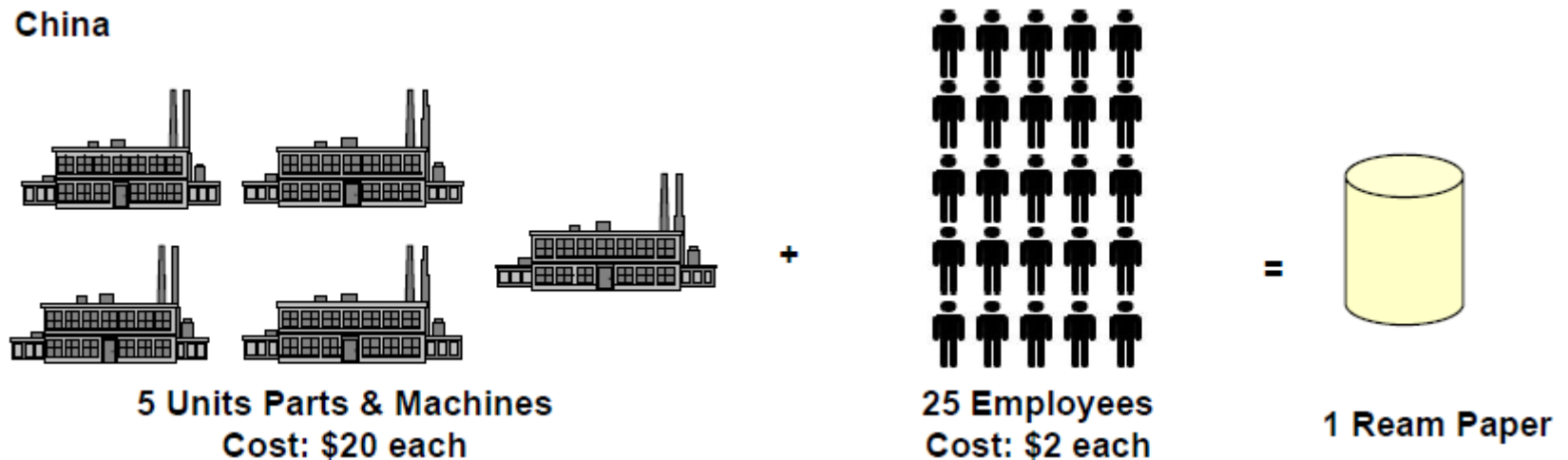
## Exhibit 1

### Gift Wrapping Paper Production Comparability Between Markets

#### United States



#### China



# Case 1: Gift Wrapping Paper (III of III)

## BCG

Establish base <b>US</b> costs	<p>\$100 Parts &amp; machines</p> <p>\$100 Labor</p> <p>\$20 Paper</p> <p>\$100 Ink</p> <p>Expensive US based labor</p> <p>Commodity – difficult to lower</p> <p>Specialized product</p> <p><b>TOTAL COST : \$320</b></p>
Generate comparable <b>China</b> costs	<p>\$ 100 Parts &amp; machines (5*20) More equipment may increase repair cost</p> <p>\$50 Labor (25*2) Lower per employee, but hiring/firing costs may increase</p> <p>\$20 Paper No change</p> <p>\$50 Ink Closer to supplier, but still expensive</p> <p>\$150 Shipping</p> <p><b>TOTAL COST : \$370</b></p>
Compare two fully loaded costs for options	<ul style="list-style-type: none"> <li>Shipping is the deal-breaker for China</li> <li>Lower shipping costs would increase attractiveness <ul style="list-style-type: none"> <li>What might some alternatives be? Bulk shipments? Sheets rather than rolls?</li> </ul> </li> <li>More variables to manage in China, not very labor intensive product in the US</li> </ul>
Generate Recommendation	<ul style="list-style-type: none"> <li>Does not look viable at this time</li> <li>Track ink, paper, employee costs in China to address long-term potential for move</li> <li>Non-examined issues: US shutdown costs</li> </ul>



# Case 2: Butcher Shop (I of III)

n/a

## Problem Statement

A fast food chain recently bough a bovine meat processing outlet to supply it with fresh hamburgers and other meats. The shop process is:

Cows Enter → Meat is Processed → Meat is Delivered.

The manager of the butcher shop has brought you in to help decide whether the cows should walk or run into the meat processing room.

## Guidance for interviewer and information provided upon request

*Only provide the following information once asked for it.*

- SEE NEXT PAGE

# Case 2: Butcher Shop (II of III)

n/a

## Information provided upon request

*Only provide the following information once asked for it.*

### Shop Capacity:

- Only fresh hamburger meat is processed in the shop.
- One cow can make 20 hamburgers
- Shop is open for 10 hours a day, 5 days a week
  - Walking: 10 cows can be processed per hour given current labor
- Running: 25 cows can be processed per hour

### Costs (All costs are fixed monthly costs):

*(only provide this information verbally – this case tests their organizational skills in getting lots of data verbally)*

*Gray lines are calculations they should do on their own.*

	WALK	RUN
Overhead	\$5,000	\$10,000
Labor	\$1,000	\$2,500
Total Costs	\$6,000	\$12,500
Burgers / week	10,000	25,000
Cost per Burger	\$0.60	\$0.50

### Fast Food Chain:

- 10 outlets, and the meat-processing factory serves all 10
- The outlets serve a vicinity of ~ 300K people
- Three competitors in each vicinity (market share of 25% each). This leaves us with ~75K customers. Of those 75K, 60% are outside the target demographic which us with 30K desired customers. Given healthy food trends, only a third of those desired customers will come to the fast food chain on a regular basis (~10K).
- Of those 10K, each will frequent the establishment ~2x per week, but they'll only buy a burger ½ the time.
- (**Demand = 10K burgers per week**).

# Case 2: Butcher Shop (III of III)

n/a

## Recommendation

- Even though its cheaper to produce more burgers, there is no demand to support it. Have the cows **walk** rather than run. This meets demand and ensures fresh hamburgers.

*Follow up question (if there is time):*

Let's say that the manager is really determined to have the cows run. Can you provide ways that they can make it economical to have the cows run into the factory?

Sample Responses (these are not the only solutions):

- Try to build relationships with the other fast food chains and sell the excess burger meat to them.
- Create a process to freeze the hamburger meat so that it can be sold in grocery stores, etc.
- Understand the strategic plan for the fast food parent company – if there is a plan to expand the business into new vicinities, then we may need to provide more burgers

# Case 3: Travel Agency (I of II)

n/a

## Problem Statement

A travel agency generates revenue by making a 10% commission on all of its travel bookings. Their current profit before taxes is \$1M, while the industry average ranges from \$2M to \$3.5M. You have been brought in to help them understand why they are making less than the industry average.

## Guidance for interviewer and information provided upon request

*Only provide the following information once asked for it.*

Revenue per year: \$10M

Revenue per year (competitors): about the same

### **Products:**

- Agency only handles travel ticket bookings for their customers

### **Customers:**

- Business traveler segment (60% of rev)
- Leisure traveler segment (40% of rev)

### **Volume of transactions:**

- Business: 300K transactions
- Leisure: 700K transactions

**Costs:** cost per transaction is \$9, regardless of the customer

# Case 3: Travel Agency (II of II)

n/a

Calculate the profitability of each segment per transaction....

SEGMENT	SHARE	VOLUME	TOTAL REV	REV/ TRANS	COST / TRANS	PROFIT / TRANS	GAIN
Business	60%	300K	\$6M	\$20.00	\$9.00	\$11.00	\$3.3M
Leisure	40%	700K	\$4M	\$5.71	\$9.00	(\$3.29)	(\$2.3M)
			<b>\$10M</b>				<b>\$1M</b>

## Key Findings & Recommendations

- The leisure travelers are draining profitability. Either the cost per transaction is too high or the revenue/transaction is too low.

*Ask the candidate for suggestions on how to increase their profitability...ex:*

- Benchmark the cost structure of other travel segments and understand where there are differences
- Negotiate with the airlines on the possibility of charging a premium for leisure tickets or capture a larger commission through cost charged to the customer.
- Look into the possibility of reducing cost per transaction for leisure travelers
- Offer the leisure travelers other products to increase rev per transaction such as hotel bookings and travel packages
- Become a niche player and focus only on business travelers

# Case 4: Cable Company (I of II)

n/a

## Problem Statement

A cable TV company from Canada, World View, has recently entered the US market in the Northeast to expand its market share. World View saw this move as an opportunity to capture a large part of the US market (4M consumers) in a market with very little competition. However, the last couple of years, much to the surprise of management, World View has been unable to make a profit. You have been hired to figure out why and advise them on their next move.

## Guidance for interviewer and information provided upon request

*Only provide the following information once asked for it.*

### Costs:

- World View did not incur additional costs per customer based on the potential number of subscribers. They have instituted the same system that was in place. Costs associated with cable, wire, debt, maintenance, etc. are all proportionally the same.

### Subscribers:

- Only 2.1M of the potential 4M have signed up.
- Revenue/subscriber is \$40/month – this is the same as in Canada (steer the candidate away from focusing on the exact revenue figure as it is not relevant for the case)

### Competition:

- No, competition is not an issue, those that we have not acquired as customers simply do not use cable.

### Substitutes:

- Local stations. Canadian consumers do not rely much on local stations and cable is a major source of viewing.
- In the US Northeast, the average consumer watches more local TV as compared to Canadian consumers (local TV is delivered over antennas and does not require cable).

# Case 4: Cable Company (II of II)

n/a

## Key Findings

- There is a great deal of competition in the area, not from other cable companies, but local TV stations
- The consumer in the Northeast US is quite different from the consumer in Canada with respect to the TV viewing habits
- Consumers are not willing to pay \$40 for a service that they already get for free

## Recommendations

To increase profits, World View could:

- Try to offer a smaller and less expensive package for those that would be interested in a couple of cable channels
- Scale back its operations to a specific region within the Northeast US where there are fewer local stations (i.e. more rural areas)
- Educate the consumer on the extra benefits of cable television
- If none of these strategies work, move out of the market.

*This is not a complete list and there could be more solutions.*

# Case 5: Tissue Paper (I of II)

A.T. Kearney

## Problem Statement

Your client is a manufacturer of tissue paper. This includes facial tissue, napkins, and toilet paper. The client has a consumer business and a commercial business.

The CEO of the firm is facing pressure to improve the firm's profitability. To improve profitability, the CEO is considering increasing the average price on commercial products by 10% and wants to know whether he should do it.

## Guidance for interviewer and information provided upon request

*Only provide additional information after being specifically asked by the candidate.*

- An assessment of historical price vs. quantity data showed that the price elasticity of demand for product is -2.
- Piloting the price change is not possible given the tight time-frame.

### Revenue

- Product price: \$100/ton
- Product sales volume: 1,000 tons (annually)

### Costs

- Fixed Costs: \$20K
- Variable Costs: \$70/ton

### Competition

- Current market share: 40%
- 3 players control 90% of market.



# Case 5: Tissue Paper (II of II)

A.T. Kearney

## Base Profit Scenario

**Revenue:**  $\$100/\text{ton} * 1,000 \text{ tons} =$  **\$100K**

**Costs:**

Fixed Costs = \$20K

Var. Costs =  $\$70/\text{ton} * 1,000 \text{ tons} =$  \$70K

Total Costs: \$90K

**Profit:** **\$10K**

## 10% Price Increase Profit Scenario

**Revenue:**  $\$110/\text{ton} * 800 \text{ tons} =$  **\$88K**

**Costs:**

Fixed Costs = \$20K

Var. Costs =  $\$70/\text{ton} * 800 \text{ tons} =$  \$56K

Total Costs: \$76K

**Profit:** **\$12K**

## Recommendation, risks & next steps...

Given the historical information, I would recommend increasing the price by 10%, as it will result in a 20% increase in profits.

There are some risks involved, as it is possible that the historical data isn't as accurate. We also want to be careful because over time with a higher price, competitors may start stealing share. This may be a long-term concern and could be mitigated through contracts with customers, but something that we would want to be aware of up front.

# Case 6: Sheep Auction (I of VI)

Bain & Co.

## Problem Statement

It is early 2006. Your client is looking at investing a significant amount of money to create an online auction company that facilitates sheep sales from producers to large customers.

They will only do this if they can make roughly \$10M annual profit 5 years from now (or sooner), and they have enlisted your help in determining their go/no-go decision.

## Guidance for interviewer and information provided upon request

*Only provide each piece of information after being asked for it specifically by the candidate.*

Exhibits:

1. Overall market size (in lbs of sheep)
2. Sheep prices (in \$/lb)
3. Farmers (producers) who use computers
4. Sheep sold at auction vs. contract

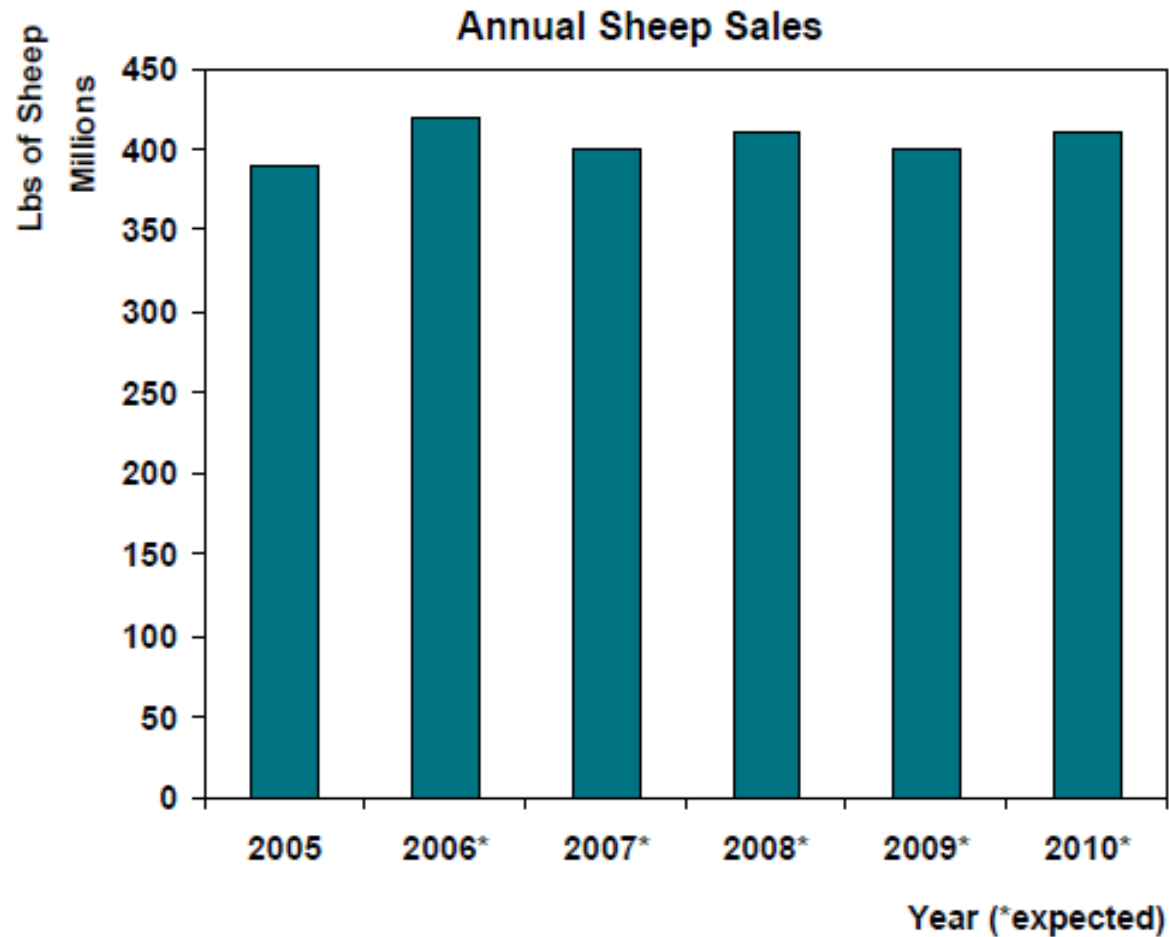
Additional detail:

- All large processors (buyers) use computers
- Sales via auction and contract will not migrate – there is no steal share between channels

# Case 6: Sheep Auction (II of VI)

Bain & Co.

## Exhibit 1



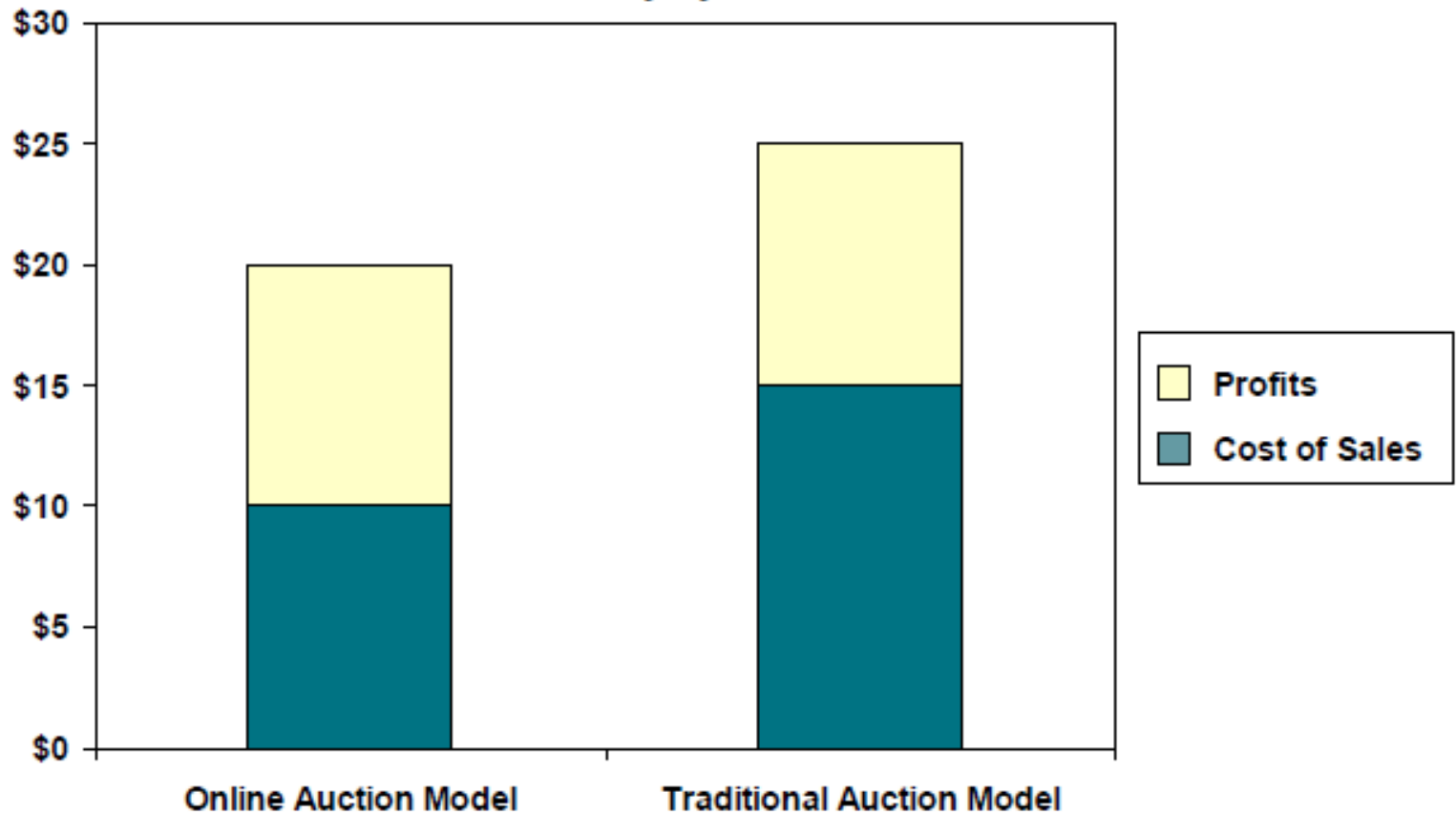
# Case 6: Sheep Auction (III of VI)

Bain & Co.

## Exhibit 2

Sales Price/100lbs sheep

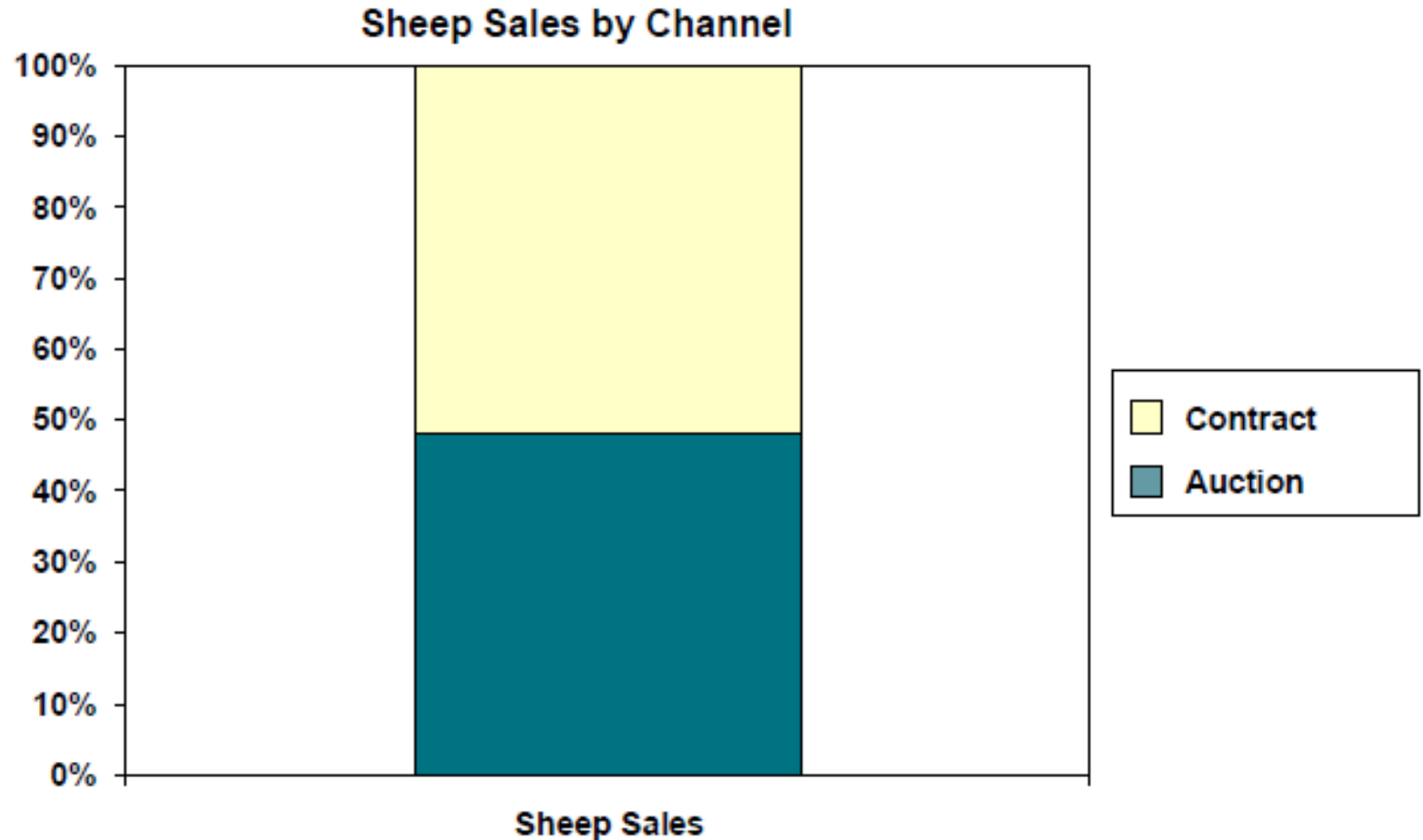
Auction Profitability by Channel



# Case 6: Sheep Auction (IV of VI)

Bain & Co.

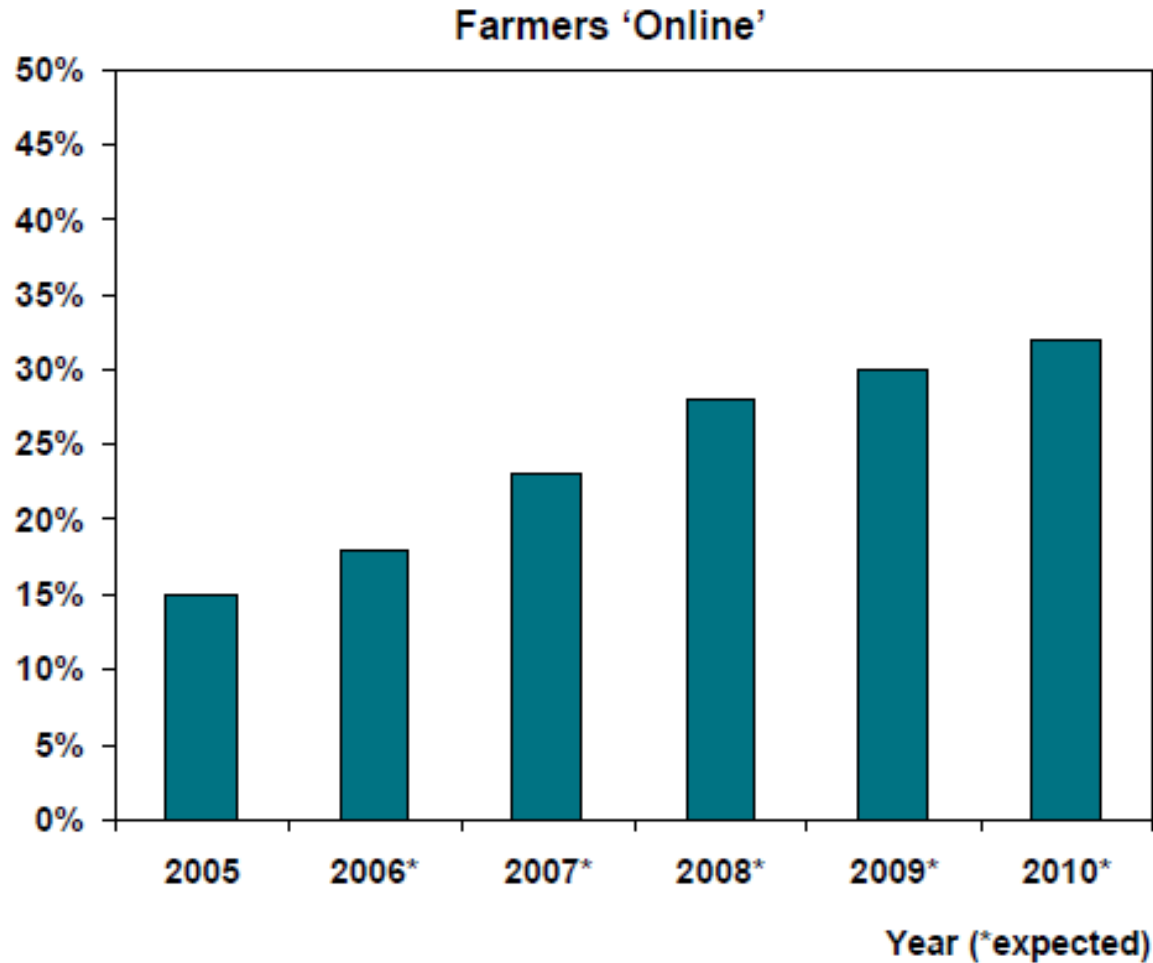
Exhibit 3



# Case 6: Sheep Auction (V of VI)

Bain & Co.

## Exhibit 4



# Case 6: Sheep Auction (VI of VI)

Bain & Co.

Expected calculation  
(approximate)

*\*\*Use 2010 numbers to show 5-year 'maturity' and steady-state for profitability. This model assumes a 100% penetration. Candidate should recognize that penetration is irrelevant given overall profitability\*\**

400M	x	50%	x	33%	x	\$10	=	<b>\$6.66M Profit</b>
lbs sheep		auctioned		online farmers		Profit per 100lbs sold		<i>Less than \$10M</i>

## Recommendation

Based on the 2010 figures, I would not recommend that the client move forward with the investment as it would not provide the required \$10M annual profit return 5 years from now.

*Additional questions for the candidate, time permitting:*

- *If they're really determined to make this investment work, what would you do to reach the \$10M profit level from here?*
- *If this product were already launched, how would you choose to market it?*

## Sample answers...

- Train farmers and sheep producers on computer use
- Provide central computer locations near farm sites to facilitate farmer interactions
- Expand the auction tool to other animals
- Trade magazine advertisements
- Door to door sales & training reps
- Commission farmers as representatives
- Relationships with sheep processors
- Value proposition: cost savings in moving herd to auction site, instead producers could pick up herd at the farm

# Case 7: Insurance Provider (I of III)

BCG

## Problem Statement

Your client is a car insurance company. Their claims processing department is under pressure to reduce costs. You have been hired to help them.

*If the candidate asks what is driving the cost reduction pressure, add...*

Apparently the CEO believes her competitors' process cost is lower. Not necessarily the competitor's overall payout, but the actual processing itself is cheaper.

## Guidance for interviewer and information provided upon request

*Only provide each piece of information after being asked for it specifically by the candidate.*

Additional detail:

- See detail on the client and competitor processes on the next page to address questions in this area.
- Let the candidate draw assumptions whenever possible to develop the time spent on each part of the process
- Customers purchase insurance on price, not claims processing convenience



# Case 7: Insurance Provider (II of III)

BCG

## Insurance Claim Process

### Phase A (same for both companies)

Call center receives a call from customer.

Agent assigns an inspector and informs customer of process (different processes depending on client/competitor)

### Phase B CLIENT

Inspector receives appointment time from agent and visits the damaged car.

Inspector prepares a report and estimates a reasonable payout.

### Phase B COMPETITOR

Agent instructs customer to have car inspected by three mechanics and fax in quotes.

Agents review quotes based on proprietary system and decide reward amount – not necessarily lowest amount.

## Guidance for Interviewer

*Do not provide the information at left unless specifically asked*

*Candidate should want to calculate how efficient each operation is:*

- *ie. How many claims can an inspector process each day?*

*Things they should consider:*

- *Travel time*
- *Inspection time*
- *Time spent to review quotes*
- *Report writing time*
- *Total time worked each day*

# Case 7: Insurance Provider (III of III)

BCG

## Insight/ recommendation

- Candidate should find that our process requires more time commitment from inspectors, and changing the process may reduce labour and travel costs in the short term.
- However – there may be risks associated with this!

## ...addressing risks...

- Implementing the new structure already used by competitors may cause the claim payouts to increase unexpectedly
- Potential for fraud must be addressed prior to full system wide rollout
- Some customers may prefer the ease of a scheduled visit rather than having to undergo footwork on their own (especially if a serious access and difficult to move car)

## ...and suggesting best next steps.

- Survey selection of client base (and potential client base) anonymously to determine acceptance level of proposed model.
- Institute a pilot program in a select area to determine effect on payout and client morale. If positive in both regards, rollout system-wide.

# Case 8: Luxury Car Maker (I of II)

BCG

## Problem Statement Narrative

A German luxury car maker wants to grow business and is looking into selling cars in Bangladesh. The GDP growth in Bangladesh is 5% per year. Currently, the only luxury car sold in Bangladesh is Mercedes-Benz and they have been in the market for the past 10 years.

The CEO wants to find out if the company enters the market, can they break even in three years?

## Interviewer guidance & key questions

*Information to be provided upon request:*

- Mercedes imported and sold 10,000 cars in this market over the past 10 years, and has their own dealership. Each Mercedes retails for \$100,000.
- There are 1,000 new buyers in the car market each year
- Existing owners replace their car every 10 years (the interviewee should calculate how many new cars are sold to existing owners – 1000 per year, and therefore the total market size per year is 2000 new cars)

Market share: We expect 30%. But don't give this to them right away – ask them how they would come up with this number (*Ideas on next page.*)

Price: We will sell at the same price as Mercedes – but ask the candidate to determine best selling price before giving this away.

*Our cost structure is on the next page.*

# Case 8: Luxury Car Maker (II of II)

## BCG

Ask candidate how to estimate market share

Possible answers:

- Understand customer needs through survey and estimate how well we could meet those needs and therefore how much market share we could gain
- Find benchmark (it turned out that the client already entered Vietnam and other markets similar to Bangladesh and on average gained 30% market share in these markets)

Break-even analysis

<b>Cost Structure:</b> Initial Investment:	\$7M
Variable Costs (per car)	Manufacturing \$20,000
	Transportation 120% of manufac. cost (should be \$24K)
	Customs/tax 95% of manufac. + trans costs (\$41,800)
	SG&A 12% of all the above costs combined (\$10,296)

The variable cost per car rounds up to \$96K/car. Therefore the profit on each car is \$4K. With 30% market share, the client's annual profit will be \$2.4M and will break even in 3 years

A solid interview will evaluate potential risks of entering this market

- Assumptions might be inaccurate
- Bangladesh is not stable politically and economically, therefore our client will bear more risk
- There could be other new entrants
- Mercedes-Benz could react to our entry by:
  - Reducing price (the best answer might also mention that with the low income level in the country, customers who can afford luxury cars might not be price sensitive) *Ask the candidate what price Mercedes will reduce their cars to. Answer: \$96K or less*
  - Improving their services if that's a differentiating factor of our product
  - Blocking some local resources

# Case 9: Appliance Insurance (I of II)

BCG

## Problem Statement

Your client is an insurance company that sells home appliance insurance. They have hired you to help efficiently increase product sales, what would you do?

*If the candidate asks for specifics add...*

The client covers all appliances in the home for \$400/year. Therefore any problems with the washer, dryer, air conditioning, fridge, range, etc. all get complete repair or replacement.

## Guidance for interviewer and information provided upon request

*Only provide each piece of information after being asked for it specifically by the candidate.*

*The key to this case is to realize there are two main sales channels – steer the candidate in this direction if they don't get there initially.*

Client sells to all households in the US via two channels:

- Direct Mail Channel:
  - Target 60M non-moving households each year
  - 50M mailers sent
  - \$0.50 per mailer to send
  - 0.5% sales conversion ration
- Sales Team Channel
  - Target 40M moving households each year
  - 80% coverage of target market
  - 5% sales conversion ratio of those covered
  - 1000 members on sales team
  - \$100K annual salary per sales team member
  - Coverage is highly concentrated in specific regions – very little coverage in the Northeast.

# Case 9: Appliance Insurance (II of II)

BCG

Candidate should want to calculate acquisition cost per customer for Direct Mail...

	<u>Direct Mail</u>
Target Market	60M
Mailers sent	50M
Cost per mailer	\$0.50
Total mail cost	\$25M
Conversion ratio	0.50%
New customers	250K
Cost per customer	\$100

...and then for the Sales Team

	<u>Sales Team</u>
Target Market	40M
Coverage (%)	80%
Coverage (homes)	32M
Conversion ratio	5%
New customers	1.6M
Team Size	1K
individual Salary	\$100K
Total Team cost	\$100M
Cost per customer	~\$63

Candidate should drive to a set of conclusions and recommendations

- Sales team coverage is less costly, therefore firm should concentrate on building capability in this area.
  - Specifically: build capability in the Northeast.
- Appears mailers are sent indiscriminately. By sending targeted mailers to high potential candidates the company could see higher conversion ratios.

Additional conversations...

- How might our sales channels affect the insurance industry's problems with 'adverse selection' (how those who most need insurance tend to purchase more than those who do not)?
  - Sample solution: Door-to-door sales may allow for specific selection of areas and homes rather than indiscriminate mailing.

# Case 10: Charcuterie Processor (I of IV)

AT Kearney

## Problem Statement Narrative

Your client is a consumer goods company. We are consulting to the food division.

They sell processed pork products like sausages. The product is a retail branded product available in retailers such as Loblaws.

The client's profitability has been declining. They would like to know why this has been happening and what your recommendation for correcting the situation is.

## Interviewer guidance & key questions

*Information to be provided upon request:*

### **Value Chain** – Exhibit 1

- The market is mature and stable

### **Market share:**

- Client 30%, major competitor: 30%, new entrants (primarily forward integrating packers and growers): 40%

### **Competitors:**

- Packers processing hogs – only 8% of parts handled by packers are applicable to the sausage market
- New entrants are approaching retail with very low prices

### **Costs:**

- 50% material (but it's rising) and 50% other (stable)

Client revenues are down with stable prices. We can not currently compete on price.

# Case 10: Charcuterie Processor (II of IV)

AT Kearney

## Exhibit 1

### Client Value Chain



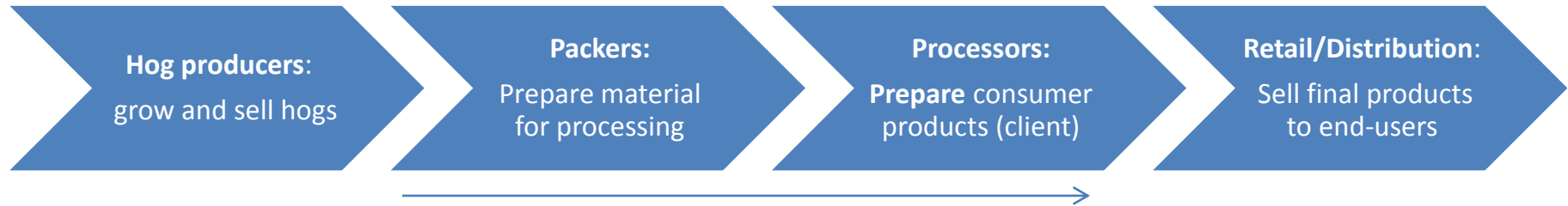


# Case 10: Charcuterie Processor (III of IV)

AT Kearney

## Exhibit 1 (for Interviewer only)

### Client Value Chains (what the candidate should read from this)



**New competitors are also suppliers: raising prices to client and lower prices to retail**

**SEE MORE ON NEXT PAGE...**

# Case 10: Charcuterie Processor (IV of IV)

AT Kearney

## Areas the candidate may chose to focus their solutions

### Backward Integrating

- Client may choose to backward integrate to Packing and/or Producing to beat the packers at their own game.
- SOLUTION: This does not make strategic sense, as sausage material is only ~8% of the packing business

### Partnerships

- The client may choose to approach packers who have not yet forward-integrated into processing and establish exclusive purchasing deals
- SOLUTION: Two major packers have not yet forward integrated, and would likely be interested in a deal

### Acquisition

By consolidating the sausage manufacturing business, the client would have increased buyer power over suppliers and would be better positioned to combat rising material prices.

SOLUTION: If the packers do not lower material prices, they will still steal all price-conscious customers

### Branding

Position the client product as a premium brand. A long history of production and 'secret spices' may convince customers that low-prices may not be something you are looking for in a sausage.

SOLUTION: This would effectively segment the market by premium vs. value – addressing profitability via higher margin products

# Case 11: Multi-Purpose Tool (I of II)

BCG

## Problem Statement

Your client is a diversified hardware manufacturer who produces a multi-purpose hand tool. For several decades, your client was the only company to make the tool. Over the past two years, the company has seen a decline in revenue.

You have been brought in to determine what is driving the decline, and what you can recommend as a solution.

## Guidance for interviewer and information provided upon request

*Only provide additional information after being specifically asked by the candidate.*

- Price: \$50, constant over time – no recent increases
- Current volume: 100M units / year
- Channel: Hardware retailer – can not break contracts
- Price elasticity of demand: -2 (20% reduction in price will raise demand 10% and vice-versa)
- Competition: several new competitors in past 2 years
  - Selling similar product for \$30
  - Channel: discount retailers (Wal-Mart, Target, etc.)

# Case 11: Multi-Purpose Tool (II of II)

BCG

Candidate should look at revenue drivers to understand decline...

Increased competition? *Yes!*

Substitute products? *Yes!*

Decline in market demand? *No, demand is higher than ever with do-it-yourself work (our market) increasing*

Marketing budget reduction? *No, it's stable*

Decline in distribution channels? *No, we have one very stable contract.*

...then drill down to increased competition

Competitors competing on price (\$30 vs. \$50)

Competitors in a different channel.

We can not change our channel due to being locked into a contract

Candidate should look at revenue drivers to understand decline...

Price elasticity of demand is -2.

Customers are not very price sensitive.

Increasing price by 20% to \$60 will reduce demand by 10% (to 90M units), etc.

*Follow up question: Why not increase price by 40% to further increase revenues?*

*Answer: Demand may be non-linear, and unpredictable at larger price changes.*

...then drill down to increased competition

In the short term, while contracts are tied in with our current distributor, I recommend increasing price by 20% which will increase revenues from \$5B to \$5.4B.

Longer term, we should investigate entering a broader array of distribution channels to ensure maximum product reach.

Furthermore, the client should explore marketing a premium-value proposition to compete against the lower priced competitors. Doing this may help them retain their margins.

# Case 12: HVAC Service Provider (I of II)

BCG

## Problem Statement

Your client is an energy firm that has a lot of extra cash and wants to know if they should buy up the 50 HVAC (heating, ventilation, and cooling) service firms in the Atlanta area and consolidate them into one larger firm.

The client would like to know if this is a viable investment that they should consider.

## Guidance for interviewer and information provided upon request

*Only provide additional information after being specifically asked by the candidate.*

- Atlanta market consists of 50 firms
  - Average annual revenue: \$10M
  - Revenue growth: 3%
  - Acquisition cost: Perpetuity cost of profits
  - Cost of capital: 13%
- Cost structure (% of revenues)
  - Labor: 50% (*Technicians are 100% utilized*)
  - Equipment: 25%
  - Administrative: 20%
  - Profit: remaining 5%
- Savings areas (for each firm purchased):
  - Labor dispatching efficiency: 5% decrease in labor
  - Equipment: 5% decrease through bargaining power
  - Admin: 1% net decrease after IT and advertising investments
- Client's finance department requires a 3-year break-even
- Assume all costs savings occur immediately
- Assume revenues will remain stable for each target

# Case 12: HVAC Service Provider (II of II)

BCG

Candidate should calculate implications of changing cost structure...

<u>Cost Center</u>	<u>Cost (% rev)</u>	<u>Cost (\$)</u>	<u>Savings (% cost)</u>	<u>Savings (\$)</u>	<u>New Cost (\$)</u>
Labor	50%	\$5M	5%	\$250K	\$4.75M
Equipment	25%	\$2.5M	5%	\$125K	\$2.375M
Admin	20%	\$2M	1%	\$20K	1.98M
Profits	5%	\$500K			<b>\$895K PROFIT</b>

...then conduct a break-even analysis

<u>Current profit</u>	<u>Discount Rate</u>	<u>Cost of Firm</u>	<u>Expected Profit</u>	<u>Undiscounted Break-even</u>
\$500K	10%	\$5M	\$895K	5.58 years
	(CoC - growth)			(stating "over 5 years" is fine)
				<b>TOO LONG = NO GO</b>



A solid interview will address other potential risks

- The energy firm has no particular experience in the HVAC industry
- Cultural issues (small operations purchased by large company)
- National entrants overpowering effort

And suggests improvements for breakeven

- Based on the information we have today, we do not recommend that our client invest in consolidating HVAC companies as it would require a 5 year payback period which does not reach their goal of breaking even in 3 yrs.
- Potential ways to improve break-even:
  - Reduce purchase price
  - Seek further cost improvements (IT systems, etc.)
  - Improve revenues through advertising efficiency, brand name, referrals, etc.

# Case 13: Upscale Restaurant (I of V)

## McKinsey

### Problem Statement

Our client is a upscale restaurant in TianJin, China, serving government officials and high-level business customers. Its monthly revenue is 1.2M Yuan. The CEO recently hired McKinsey to figure out why revenues are lower than expected, and to help them increase profits.

### Information provided upon request

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

Customers for high-end dining are generally price insensitive.

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

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

*Offer the candidate Exhibit 1 when they ask about revenues.*

# Case 13: Upscale Restaurant (II of V)

McKinsey

## Exhibit 1

### Individual Rooms (20 total)

#### Week Day

#### Weekend

#### Lunch

Occupancy: 80%  
Price per person:  
150  
Party size per table:  
4

Occupancy: 30%  
Price per person:  
100  
Party size per table:  
4

#### Dinner

Occupancy: 100%  
Price per person:  
300  
Party size per table:  
6

Occupancy: 50%  
Price per person:  
200  
Party size per table:  
6

### Main Room (20 tables)

#### Week Day

#### Weekend

#### Lunch

Occupancy: 20%  
Price per person:  
100  
Party size per table:  
4

Occupancy: 30%  
Price per person:  
100  
Party size per table:  
4

#### Dinner

Occupancy: 30%  
Price per person:  
200  
Party size per table:  
4

Occupancy: 30%  
Price per person:  
200  
Party size per table:  
4

**NOTE:** During weekday dinners, there is always a line for individual rooms.

As a result, the restaurant has to turn away half its potential customers due to capacity constraints



# Case 13: Upscale Restaurant (III of V)

McKinsey

## Expected Initial Insight

Revenues are low because currently our client's offering is not meeting customer demand.

Why? Government officials and business customers prefer individual rooms to big rooms because of their requirement for privacy.

## Follow-up Questions

What are potential solutions for this situation?

Candidate should identify two main options:

- Raising price.
- Turning big room tables into individual rooms.

Tell candidate you would like to explore those options separately.

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

## Solution #1

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

	Previous	Now
<b>Customers</b>	$4 \times 20 \times 80\% = 64$	$64 \times (1 - 10\%) = \sim 58$
<b>Price</b>	150	$150 \times (1 + 33\%) = 200$
<b>Revenue</b>	$64 \times 150 = 9600$	$58 \times 200 = 11600$
<b>Profit</b>	$9600 \times 50\% = 4800$	$11600 \times 50\% = 5800$
<b>Incremental Profit</b>		$5800 - 4800 = 1000$

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

	Previous	Now
<b>Customer</b>	$6 \times 20 = 120$	120
<b>Price</b>	300	$300 \times (1 + 33\%) = 400$
<b>Revenue</b>	$120 \times 300 = 36K$	$120 \times 400 = 48K$
<b>Profit</b>	$36K \times 50\% = 18K$	$48K \times 50\% = 24K$
<b>Incremental Profit</b>		$24K - 18K = 6K$

Incremental Profit Per Weekday:  $1K + 6K = 7K$

# Case 13: Upscale Restaurant (IV of V)

McKinsey

## Follow-up Question #2

The second option is converting half of big room tables into 5 individual rooms. It will take 2 weeks for the restaurant to finish the decoration, during which time the restaurant has to be completely shut down. The decoration will cost 100K Yuan. What is the total cost of this project? How much incremental profit will it add per weekday?

## Solution #2

### Cost

- Capital investment: 100K
- Opportunity Cost: ~300K (2 weeks of profits, based on given revenues of 1.2M Yuan/month – no need for candidate to do detailed calculations)

Total cost = 400K Yuan

### Incremental profit per weekday:

- The candidate should realize that all current main room demand can be served even with just 10 tables, so there is no change to profits. There is also no change in individual lunch profits, because capacity is not at 100%. Adding 5 individual rooms will allow the restaurant to capture 30 new dinner customers at \$300 each, for revenue of \$9,000 and profit of \$4,500.

After this, ask the candidate which choice they would recommend

# Case 13: Upscale Restaurant (V of V)

## McKinsey

### Insight/ recommendation

- Raising price offers greater incremental profit (7K vs. 4.5K) without any cost/opportunity cost, so it is preferred to renovating the restaurant.
- However – there may be risks associated with this!

### Risks

- Price sensitivity assumptions are incorrect (could be that more customers are lost than anticipated)
- Backlash from government officials on the new higher prices could lead to unfavorable political treatment, i.e. licensing (remember, the restaurant is in China)

# Case 14: Frozen Dough (I of II)

A.T. Kearney

## Problem Statement

Your client is a consumer packaged goods company. More specifically, they produce frozen dough for use in making bread, pizza crusts, cookies, bagels, etc. This is a family-owned company with \$2B in annual sales and two primary distribution channels.

You have been hired to assess a problem the company is experiencing with spoilage. The client is experiencing a significantly higher spoilage rate than that of competitors.

Competitors' spoilage rates average ~2.5%, whereas the client's was 10% last year. This year they have succeeded in reducing the spoilage rate to 7.5% by implementing a strict "first in, first out" inventory management system at their warehouses and by instituting a program that carefully tracks the number of days left in the shelf life of the dough. Once it gets close to its expiration date, the inventory is donated to a charity for a tax break.

Despite all of their efforts, they are still significantly higher than competitors. What can be done to further reduce the spoilage rate?

## Guidance for interviewer and information provided upon request

*Only provide additional information after being specifically asked by the candidate.*

- Distribution channels (customers):
  - Wholesale restaurant suppliers
  - Supermarket chain bakeries
- Dough is not branded – no customer differentiation
- Shelf-life is 180 days, with the customer requiring 60 days
- Very similar recipes across industry (high recipe switching costs)
- Spoilage occurring at client distribution centers, not customer locations.

*Candidate should investigate along the value chain for weaknesses / benchmark differences. Guide them towards this if they aren't going there on their own.*

# Case 14: Frozen Dough (II of II)

A.T. Kearney

	Demand Forecasting	Purchasing / Materials Sourcing	Manufacturing	Sales & Distribution	Customers
<b>Indications</b> <i>(only provide upon request)</i>	Rather old forecasting tool tends to generate overly cautious production numbers, but does not account for all spoilage costs	Materials come from similar vendors as all other manufacturers  Materials do not spoil, spoilage only occurs after the product has been manufactured	Old production equipment  Foreman told us in interview that he tends to hedge against forecasting by overproducing – it is a pain to retool the machines all the time	3 Distribution Centers (DCs): West, Midwest, & East  US Sales only  Will sell enough dough for any use – regardless of sales volume  Some products have very low customer-turn	Same customers as competitors
<b>Potential recommended actions</b>	Improve forecasting tool to better reflect demand		Long term: invest in updated machinery with expedited retooling times	Customer-level SKU rationalization, eliminating low-volume SKUs	

**Overall Recommendation:** Overproduction and low volume SKUs are leading to spoilage. Improved forecasting and equipment while rationalizing SKUs will dramatically improve the situation.

# Case 15: Software Product (I of IV)

Bain

## Problem Statement

Your client is a software maker that has one product.

The CEO would like to know whether the company should offer multiple products instead of just one.

## Guidance for interviewer and information provided upon request

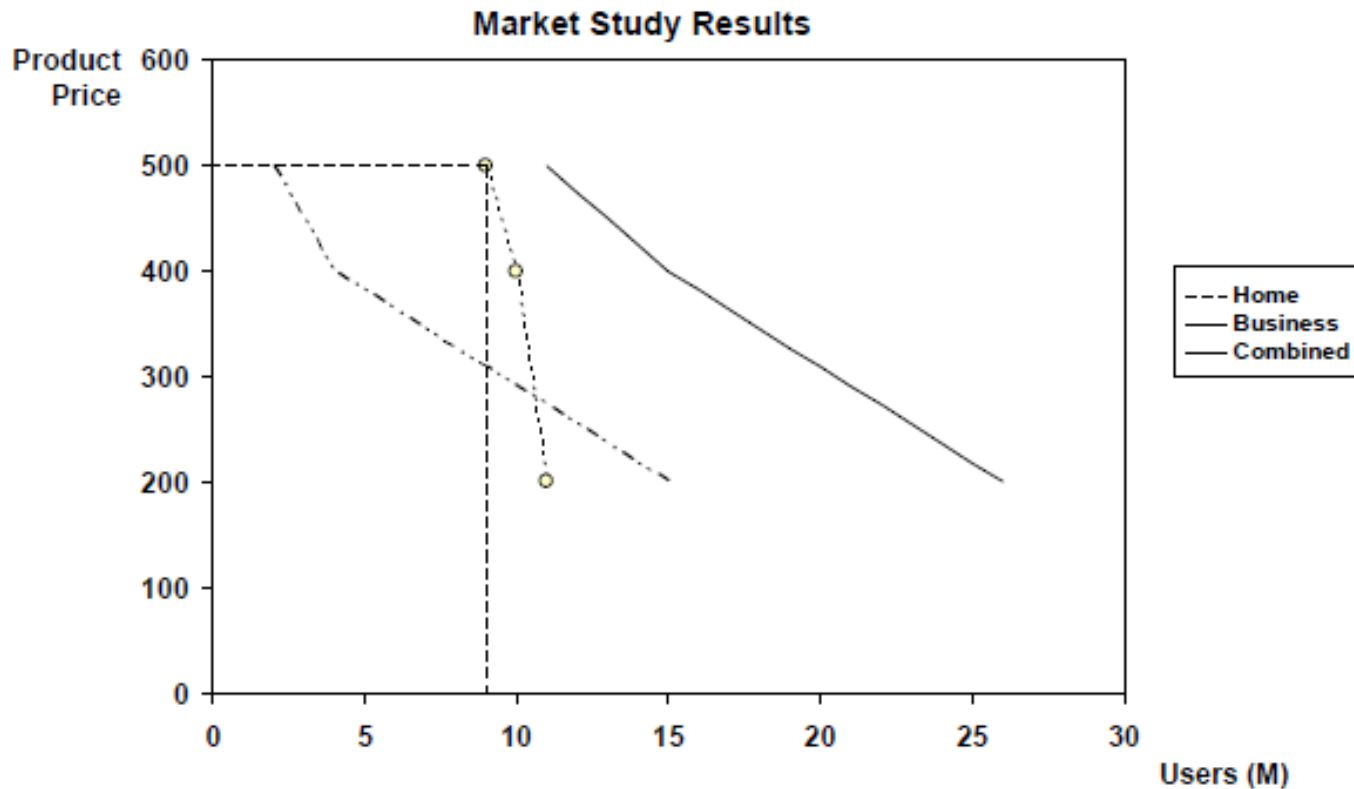
*Only provide additional information after being specifically asked by the candidate.*

- Product: Document authoring software (similar to Microsoft Word, Open Office, etc.)
- Possible product segmentation considered: business vs. home products
- Market: Company recently completed a study (see exhibit)
- We currently only offer the product to the business market (see the business curve on the exhibit)

# Case 15: Software Product (II of IV)

Bain

## Exhibit 1



Price	Business	Home	Combined
200	11 M	15 M	26 M
400	10 M	5 M	15 M
500	9 M	2 M	11 M

# Case 15: Software Product (III of IV)

Bain

Use this slide as an 'interviewer's guide' after providing the graph to the candidate.

## Additional questions for candidate

- Push candidate to determine the best price to sell the product at (assuming both segments pay the same price).
- Can we do better by segmenting?
- Push candidate to consider ways that the company could successfully segment and some of the complications involved (*some ideas on next page*)

## Solutions guide

- Current best price is \$400, generating \$6B in revenue.

<u>Price</u>	<u>Business</u>	<u>Home</u>	<u>Combined</u>
200	$200 * 11M = \$2.2B$	$\$200 * 15M = \$3B$	\$5.2B
400	\$4B	\$2B	\$6B
500	\$4.5B	\$1B	\$5.5B

- But if segmentation is possible we could make \$7.5B (at \$500 to business and \$200 to home).
- Initial recommendation should be to offer multiple products



# Case 15: Software Product (IV of IV)

Bain

## Product Differentiation

- Little to no ability to create different products for different markets could lead to price-led cross-segment product cannibalization
- Creating switching barriers would allow company to differentiate between product lines without concern for cannibalization

## Licensing

Related to the product/market differentiation issue; the firm could gain incremental revenue by either:

- Establishing separate product sales/licensing costs for business/home users (example: \$200 for 1 – 3 licenses, and \$550 for additional, etc.)
- Approaching other vendors for bundling deals to attach with other products

## Complimentary Products

Rather than separating current product into two separate products:

- Client could offer a series of complimentary products to their core product. This would add incremental revenue and segment their customers based on how many additional features they wanted (i.e. adding interrelated programs at a price)

## Complication: Incremental Costs

Push the candidate to discuss elements needed to create two versions of the product, including:

- Programming
- Testing
- Packaging
- Sales/Marketing
- Distribution
- The interview can go in this direction by asking the candidate to outline a viable cost structure per segment

# Case 16: Nextel Cup – Car Racing (I of V)

Accenture

## Problem Statement

Your client is the owner of UPS #88, a racecar on the NASCAR tour. It races in the Nextel Cup, a points-based championship where the season winner has accumulated the most points over the course of the racing season. There are 36 races in total, running from February to November. Dale Jarrett, a well-known celebrity driver, races for the team. Dale helped win the Nextel cup three years ago, and so far this year is 8<sup>th</sup> in a field of 43 drivers.

A close friend who is the VP of marketing at Home Depot recently contacted the client. She inquired about sponsoring a second racing team with the client. She recognizes that NASCAR is the fastest growing segment amongst males ages 18-45. She also has talked to a successful driver from a regional drag racing circuit to try out as the driver of the team.

You have been brought in to help evaluate the potential of this opportunity for the client.

## Guidance for interviewer and information provided upon request

*This is a profitability case and is a good way of testing a candidate on a familiar issue but in an unfamiliar industry.*

### Exhibits:

1. Revenue Sources for UPS #88 (give only when asked)
2. Cost Sources for UPS #88 (give only when asked)

Revenues: Amount not exactly known (candidate does not need this to crack the case)

Costs: Total \$20M

Profit: Not exactly known, but currently profitable

### Marginal Costs:

*The candidate should move from the profitability framework to understanding the marginal costs of adding an additional team to the mix.*

- The costs affected by a new team are Salaries, Equipment and Travel. Specifically:
  - Race-facing costs will double
  - Equipment costs will double
  - Travel costs will double
- The two other cost components are associated with the engine shop and will not change.

# Case 16: Nextel Cup – Car Racing (II of V)

Accenture

## Exhibit 1

REVENUE SOURCES:		
UPS #88	% OF REVENUES	NOTES:
Sponsorships	60%	UPS dominates, other sponsors include Outback Steakhouse and 3M
Nextel Cup race winnings	25%	Can win up to \$1M per race – but racers who finish at the back of the pack in a race take home very little cash
Selling Engines	10%	Strong R&D shop. Engines are sold to professional drivers domestically.
Merchandising	5%	License out production to third-party. T-shirts and caps are a small revenue source.

# Case 16: Nextel Cup – Car Racing (III of V)

Accenture

## Exhibit 2

### COST SOURCES:

#### UPS #88

#### % OF COSTS

#### NOTES:

**Salary**

40%

'Race-facing' costs make up 50% (mechanics, pit crew, etc.) and 'Non-race-facing' costs make up the remaining 50% (HR, accounting, etc.)

**Equipment**

25%

Race cares, engines, parts (sheet metal, etc.)

**Travel**

5%

Getting to and from races

**Engine Shop**

10%

Leasing of land in rural North Carolina, technicians' salaries

**R&D**

20%

Engine shop technology improvements

# Case 16: Nextel Cup – Car Racing (IV of V)

Accenture

## Sponsorship fee calculations

*We need the sponsor to at least cover the marginal cost of adding a new driver, so we would need to charge Home Depot \$10M in sponsorship fees to break even*

$\$4\text{M (new race-facing costs)} + \$5\text{M (new equipment)} + \$1\text{M (new travel)} = \$10\text{M}$

## Charging a premium?

*The interviewer should ask the candidate to evaluate the possibility of charging a premium to Home Depot for the sponsorship. Note that there is no right/wrong answer here, rather the interviewer should evaluate the response based on the candidate's rationale.*

Option 1: Yes we should charge a premium – Home Depot seems to have already made some commitment to the deal by conducting initial negotiations with a potential driver. Therefore the client has less bargaining power. NASCAR's demographic is also aligned with Home Depot's. Premium can be justified by providing Home Depot with an acceptable return on investment analysis.

Option 2. No, we should not charge a premium – Home Depot has several other options to sponsor, including 1.) another race team, 2.) another sport (e.g. baseball), 3.) another racing circuit (e.g. Formula One).

# Case 16: Nextel Cup – Car Racing (V of V)

Accenture

## Recommendation/Risks

Candidate should provide a clear go/no-go decision based on his findings – there is no single right or wrong answer. Generally, if the candidate believes they can charge a premium, they should go ahead.

### *Risks:*

- *Adding a new driver who has only had drag racing experience – may not contribute to merchandising revenue due to his relatively unknown status, or contribute much in the way of race winnings.*
- *Other potential points include the tension between adding a new team and the allocation of resources (e.g. high quality mechanics from Dale's team may work on the Home Depot car, thus diluting the quality of performance of Dale).*

# Case 17: Pharmaceutical Distribution (I of III)

A.T. Kearney

## Problem Statement

Your client is a large pharmaceutical distributor in a market primarily consisting of three main players. The three firms have a combined market share of 96%. The client has been growing via acquisitions, and it operates in four business segments which are all operated independently:

Drug distribution: The core business representing 85% of sales. Our client buys drugs from pharmaceutical firms and distributes them to hospitals, etc. They typically buy and sell both brand name, and generic drugs. This area historically has low margins.

Manufacturing and distribution of medical products: Includes instruments, ER kits, supplies, etc.

Pharmacy services: Essentially the “other” category comprised mostly of acquisition targets with no other logical home. Services include temporary staffing, owning, and operating of retail pharmacies.

Drug vending machines: Supplies machines to hospitals that distribute high frequency drugs to aid in nurse productivity.

-----

The client has a long history of profits, but for the past four years quarters their profits, stock performance, and employee morale have all been down.

The CEO has called you in to provide an assessment of how to improve profits. How would you approach this meeting? What areas would you look at to improve profits?

### **Interviewer Note:**

*This is a structuring and thought case – a solid performance would establish how the divisional structure’s silos can be eradicated for cost savings. Allow candidate to walk through profitability framework, but guide the discussion towards reducing costs among the business units. Provide Exhibit 1 if candidate asks how the business is currently structured.*

*Ask candidate (if not already doing so) to outline what they would imagine the primary corporate-level cost buckets to be).*

# Case 17: Pharmaceutical Distribution (II of III)

A.T. Kearney

	Admin / Overhead	Purchasing	Manufacturing	Sales	Distribution
<b>Interviewer guidance</b> <i>(only provide upon request – but do not read verbatim.)</i>	Separately run between divisions, but not very scalable.	Scale appears to exist in maintenance, repair and operations purchasing .	Only one division (medical products) uses manufacturing and it is not a core competence.  <i>Outsourcing may be possible.</i>	Run as separate organizations btwn divisions, selling to the same clients.  <i>Large benefit in combining.</i>	Run as separate facilities across country for each division, all running at ~50% capacity
<b>General recommendation</b>	This client exhibits a textbook case for “de-silo-ing” and creating a better organizational structure between their divisions. While we don’t have numbers at this point, but hypothesis is that the business could run much more cost-efficiently by operating under a consolidated cross-matrix organizational structure. This would enable it to run more cost-effectively, but also provides potential to increase revenue through cross-selling.				

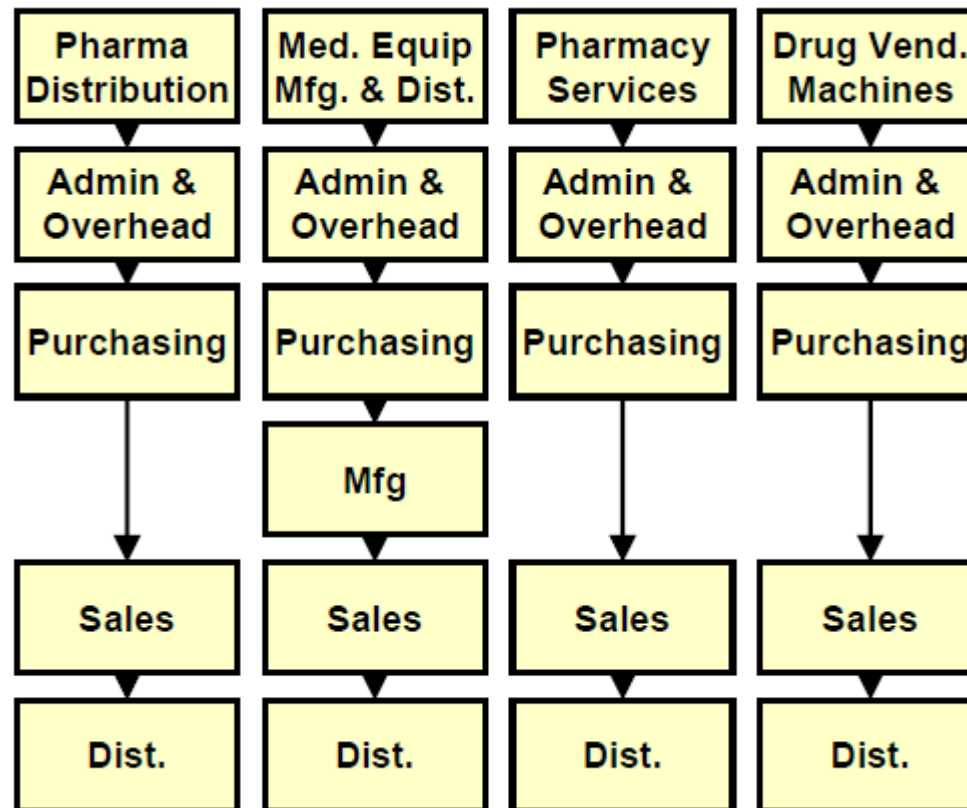


# Case 17: Pharmaceutical Distribution (III of III)

A.T. Kearney

## Exhibit 1 (optional)

### Current Organizational Structure



# Case 18: Book Retailer (I of II)

Booz Allen

## Problem Statement

Your client is a book publisher who deals in fiction. Sales for the company are as follows: *(read the following chart to the candidate - watch for notes organization as it is a good way for them to show how structured they are in their thinking)*

<u>Category</u>	<u>Profit / Unit</u>	<u>Volume per book</u>
Small Sellers	-\$3 to \$2	< 500K
Breakouts	\$10	500K - 1M
Best Sellers	\$5	> 1M

The client wants to understand what it can do to improve profitability.

## Guidance for interviewer and information provided upon request

*Only provide each piece of information after being asked for it specifically by the candidate.*

### Revenues:

- Book prices are \$15 regardless of category or size

### Costs:

- No difference in fixed costs across the categories
- Material costs are the same for all books
- Small sellers are primarily distributed via independent bookstores, requiring higher per-unit distribution costs
- There are huge economies of scale in printing (meaning lower costs for breakouts and best sellers)
- But best-selling authors require higher royalties than smaller authors (so breakouts have highest profit)

### Other:

- 80% of store space is dedicated to small sellers
- Breakouts are previously small sellers that become popular, but we cannot determine which books will become breakouts
- Author is primary driver to determine a 'best seller'

# Case 18: Book Retailer (II of II)

Booz Allen

Candidate may propose action in...

## Product Mix in Stores

It appears 80% of store shelf space is geared towards sales of products with an expected profit of only \$ -0.50. Perhaps reallocating this mix to be more favorable to best sellers and break-out books would increase profits.

## Demand Forecasting

Forecasting which books may become breakouts would allow for massive headway on competition and larger profits.

Potential to build a model with inputs:

- Author
- Fads
- Pre-orders
- Online sales
- Media mentions
- Subject matter
- Etc...

## Back-end Logistics

Tying forecasting with book orders could reduce multiple small order costs for small sellers that become breakouts.

Moving to a tiered model (distributing small sellers online or to fewer establishments) could help reduce costs.

## Recommendation, risks, next steps...

Improve profitability by adjusting product mix (focus on more profitable products), demand forecasting (build a model) and back-end logistics (lower costs).

**Risks:** Product mix – you need to sell small sellers in order to find/grow the breakouts and bestsellers. Demand forecasting – predicting the breakouts wrong could be very costly; Logistics: very little downside!

# Case 19: Molds R Us (I of VI)

Bain

## Problem Statement

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

## Information provided upon request

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

Two Exhibits (*provide only when asked*):

1. Types of moldings and key info about each
2. Moldings used in Russian market

# Case 19: Molds R Us (II of VI)

Bain

## Exhibit 1

### Types of Moldings

Molding Options	None	PVC Plastic	Rubber	Wood	Plaster
Price/10 Metres	0	1 Ruble	1.5 Rubles	5 Rubles	15 Rubles
Installation Requirements	None	Contractor	DIY	Contractor	Contractor
Replacement	None	Every 5 Years	Every 7 Years	Every 10 Years	Every 25 Years

### Other Important Information

A contractor can lay down 1000 feet of molding per hour

A contractor makes, on average, \$50 Rubles per hour

DIY-Do it yourself or self installation

The average house has 4000 Meters of walls

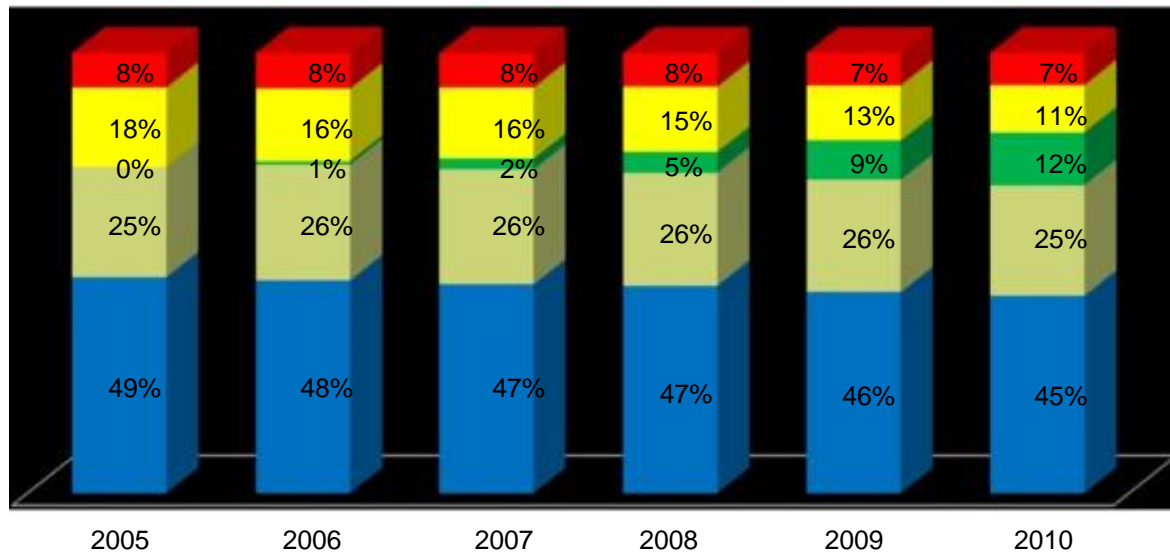
# Case 19: Molds R Us (III of VI)

Bain

## Exhibit 2

### Moldings Used in the Russian Market

■ No Moldings ■ PVC Plastic Moldings ■ Rubber Moldings ■ Wood Moldings ■ Plaster Moldings



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

# Case 19: Molds R Us (IV of VI)

Bain

## Case Progression (Guidance for Interviewer)

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

# Case 19: Molds R Us (V of VI)

Bain

## Case Progression (Guidance for Interviewer)

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

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



# Case 19: Molds R Us (VI of VI)

Bain

## Recommendation

The PE firm should not purchase Molds R Us.

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

## Next Steps

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

# Case 20: Juice Producer (I of II)

n/a

## Problem Statement

A major producer of juice is in the business of processing and packaging fruit juice for retail outlets. Traditionally, the producer has packaged 18-oz carton containers. Recently, in response to demand from the market, the producer purchased a machine that packages the juice in plastic gallons (36 oz).

Over the next couple of years, sales continued to grow on an average of 20% per year. Yet, as sales continued to increase, profits steadily decreased. The owner can not understand why and you have been hired to help him determine the reason.

## Guidance for interviewer and information provided upon request

*Only provide the following information once asked for it.*

*We know that sales have been increasing, so it has to be a problem with costs – candidate should not explore revenue very deeply.*

Revenue:

- 18oz containers are sold for \$2.00 per container
- 36oz containers are sold for \$3.50 – the producer figured he would provide an incentive to buy by selling them for less than double the price.
- BUT – with the new equipment, the producer ended up raising prices across the board by \$0.50:
  - 18oz - \$2.50
  - 36oz - \$4.00

Volume:

- As customers see the gallons, the more they like them and buy them. Plastic gallons now equal 60% of sales.

- Costs – *see next page*

# Case 20: Juice Producer (II of II)

n/a

## Information provided upon request (con't...)

- Cost of packaging:
  - Plastic is more expensive than paper which was traditionally used for the 18oz. Also they had to hire more experienced labor to operate the new machine because it was more complicated than the carton machine. They figured that the higher demand for gallons would help them cover their costs through higher volume.
- Overhead costs – all costs for the factory are added together and divided by the number of units produced.
  - *\*This should raise alarm bells, clearing it is an issue of cost allocation. The price of the plastic gallons should be higher due to the higher costs.*

Notes for the interviewer: It costs more to package the gallons, yet the price is not higher on a per-oz basis. In fact, its lower. The company needs to re-evaluate their cost allocations.

## Recommendation

- The additional costs associated with the plastic gallons were average out over all units, including the cartons which resulted in a misallocation of costs and inappropriate pricing.
- The plastic gallon products have been priced at a lower rate than they should have been. As a result, the more gallons the juice producers sell, the more profit the lose.
- Recommendation: The firm should conduct a thorough analysis of activity based costing to determine the overhead costs and direct costs associated with the product line. They should then use this data to price the products accordingly.

# Case 21: Airline Broadband (I of V)

n/a

## Problem Statement

Our client is the **first** start-up with the technology and ability to deliver broadband internet to commercial airlines. How would you help them think about their offering?

## Guidance for interviewer and information provided upon request

### **Broadband for the airlines:**

- There is general interest in the broadband internet from the airline industry. The start-up would have to invest relatively little up front and would keep most of the revenues. They would charge the customers on a per-flight pricing model

## Guidance for interviewer and information provided upon request

*Only provide the following information once asked for it.*

### **Size of the market:**

- *Ask the candidate to estimate the market size and handover the EXHIBIT 1. Inform them that there are 3K planes.*

### **Pricing:**

- *In order to finish the market size, the candidate should ask for the price per flight. Hand out EXHIBIT 2 and ask the candidate to set the price.*

### **Cost of Installment:**

- The company has discovered that if they can generate \$250,000 per plane in annual revenue, they will be profitable installing the technology on that plane .

# Case 21: Airline Broadband (II of V)

n/a

## Exhibit 1

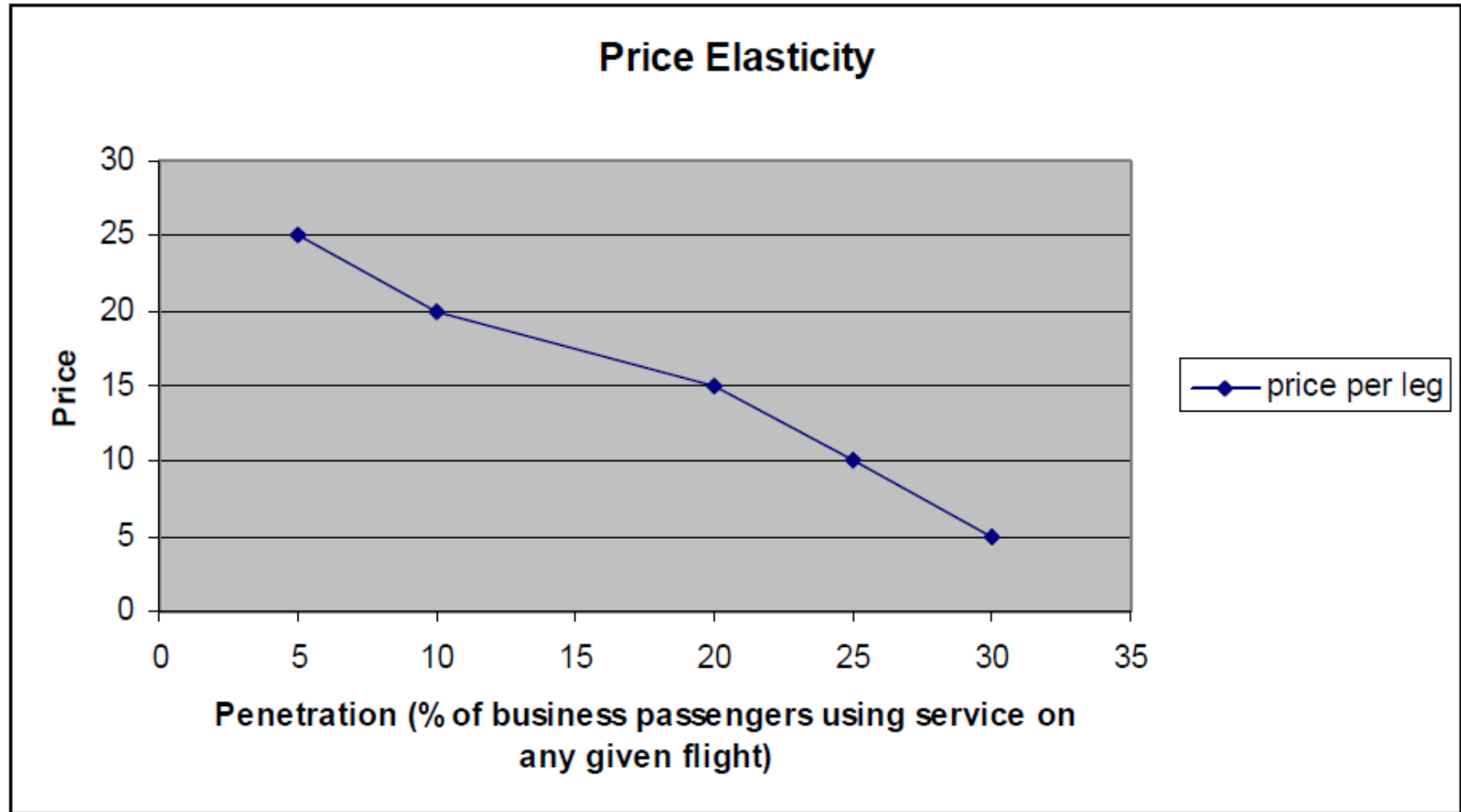
### Flight Information

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

# Case 21: Airline Broadband (III of V)

n/a

Exhibit 2



# Case 21: Airline Broadband (IV of V)

n/a

## Exhibit 1: Calculations

	FIRST	COACH
<b>Seats / plane</b>	20	180
<b>X load factor</b>	0.75	0.75
<b>=</b>	15	135
<b>x bus. travelers</b>	100%	30%
<b>Business travelers/ plane</b>	15	40.5
<b>Total business travelers</b>		55
<b>Total laptop users/plane (x90%)</b>		50

## Exhibit 2: Calculations

Assume 100 passengers (for ease) at the various price/penetration combinations.

30 users at \$5 = \$150/flight

25 users at \$10 = \$250/flight

20 users at \$15 = \$300/flight

10 users at \$20 = \$200/ flight

5 users at \$25 = \$125/flight

Set price at \$15.

# Case 21: Airline Broadband (V of V)

n/a

## Breakeven Calculation

*250K / 2K legs per plane = \$125 per leg*

*\$125 / \$15 about 8 users / leg*

*50 laptop users / leg, and at \$15, there's a penetration rate of 20%, so we estimate ~10 users / leg.*

**Yes, they should break even.**

## Other factors

*Probe the candidate for breadth and understanding of the new market entry. Ask him/her about the following aspects of this project.*

**Competition:** *The interviewer should probe deeper into the competition especially with right to Intellectual Property. For this case the company has the patent on the high-speed technology. What about low-speed? Is this actually a competitor? What do customers prefer?*

**Risks:** *Ask the candidate which risks are associated with the business model. Use your judgment when considering their answers.*



# Case 22: Automobile Manufacturer (I of II)

Booz Allen

## Problem Statement Narrative

Your client is a leading auto manufacturer in the US. There are three primary players in this market. Historically the market leader had 30% share, our client and the other player both had 20% market share.

Over the past 2 years, your client's share has been falling and they want to know why and what it would take to bring the market share back to 20%

## Interviewer guidance & key questions

*This is an 'understanding the market' case, not a profitability case. If prompted, refer to 'getting an understanding for the industry.' The candidate should not want to drive the profit equation.*

- Elasticity of demand: -5
- Consumer preferences are the same and have not shifted
- There are no warranty, capacity or supply chain issues
- Competitors price with huge summer sale – we do not
  - No major product portfolio changes
- Client market share has fallen from 20% to 18% to 15%

# Case 22: Automobile Manufacturer (II of II)

Booz Allen

## Competitors

- Similarly elastic demand
- Have a summer sale
- No extraordinary innovation
- Unknown production
- Unknown customer satisfaction

## Client

- Very elastic demand
- No summer sale
- No extraordinary innovation
- Solid production
- Solid existing customer satisfaction

## Customers

- Price sensitive
- Not complaining about the service or quality
- Still purchasing cars
- Preferences have not changed

## Math to determine price change

Need to regain 20% market share

- This is a gain of ~35% (15% share increasing to 20%)
- With an elasticity of demand of -5, increase share 35% will require a price drop of 7%
- Is a straight price drop the best way to regain customers??

## Recommended solutions

- **In order to prevent competitors following a price reduction to regain share, there are several “locked” methods the client could pursue:**
  - Discounting high-margin after-market products and add-on features
  - Increase loyalty or trade-in program incentives
  - Increase financing incentives (i.e. 90 days same as cash)

**Candidate should discuss benefits and risks of each – they do not need to decide on just one solution.**

# Case 23: Business School Journal (I of II)

AT Kearney

## Problem Statement Narrative

Your client is a European academic institution that wants to increase the brand profile of their business school. One strategy that they have identified is creating a business journal. The university has done its own research but has also asked you to do a pro-bono assessment of this strategy. They want to know if the strategy will increase their brand image and whether it will be profitable.

## Interviewer guidance & key questions

### *Information to be provided upon request:*

- University has a traditional image, business school is very new.
- Other strategies that they are doing include: conferences, symposiums, sponsorship of students from corporations
- Professors are very good, but business school is not well known for any one thing (like how Wharton is known for Finance or Kellogg is known for marketing)
- Alumni are well respected but the school is young so the alumni network is much smaller than others

### **Competition:**

- Harvard Business School is the largest journal publisher with 75% market share (HBS has 75K subscriptions); remainder is split between 6 others

### **Revenue:**

- HBS charges \$10/issue or \$120 per year (12 issues).
- Lowest of the others charges \$60/year for 4 issues (*steer candidate toward using these figures for calculations*)
- Other revenue: Advertisements, currently at \$2K/page, average of 10 pages of ads per issue
- As subscriptions increase, you can charge more for ads

### **Costs:**

- Writer - \$500 per article, 10 articles per issue.
- Printer – (2 options) Outsourced - \$15 per journal, internal – upfront of \$1M for printing machine.
- Distribution: \$0.50 per journal.
- Managing Editor: \$80K per year

# Case 23: Business School Journal (II of II)

AT Kearney

Candidate should calculate implications of changing cost structure...	Investment	<u>FC</u> $\$5K * 4 = \$20K +$ $\$80K = \$100K$	<u>VC</u> $\$15.5 * 4 = \$62 /$ customer $\$0.5 * 4 = \$2 /$ customer	<u>Rev</u> $\$60/\text{customer} +$ $\$20K * 4 = \$80K$ $\$60/\text{customer},$ $\$80K$	<u>Cont. Margin</u> $(\$2)/\text{customer}$ $(\$20K/\text{year})$ $\$58/\text{customer}$
	<b>Outsource</b>	N/A			
	<b>In-house</b>	\$1M	\$100K		
Then determine if the two options make sense	<p><b>Outsource:</b> At a marginal loss of \$2/customer, the university would have to rely on advertising revenue. The current \$80K assumes advertising revenues of a successful journal. This would not be enough to cover Fixed Costs, much less the loss on each customer.</p> <p><b>In-house:</b> At a marginal contribution of \$58 per customer, the university would be able to cover fixed costs with a readership of approximately 345 (<math>V = \\$100K - 80K / \\$58</math>). However, recouping the additional \$1M will take 5 years if the university can reach a circulation of 4,000 per year (longer if they can't hit that target).</p>				
A solid interview will address factors other than profitability	<ul style="list-style-type: none"> <li>• Drivers for readership of business journal (small alumni base will keep expected numbers low)</li> <li>• Alignment with strategy – will a journal promote an ivy-league / traditional brand image?</li> <li>• Risks associated with implementing a journal – (high failure rate for new publications)</li> </ul>				
Sample Recommendation	<p>Client should not pursue a business school journal. Producing a journal would require a large initial upfront investment with a 5 year minimum payback period. Additionally, the journal does not serve the correct audience to advance the university's desired brand image and could actually risk it as there is a high failure rate for new publications. The university's resources could be better directed to other strategies such as.... X, Y, Z....</p>				

# Case 24: Sandwich Bags (I of VII)

BCG

## Problem Statement Narrative

Your client is a very small consumer packaging company. One of their product lines, for which they have one dedicated machine, is plastic bags for food storage. They have 3 sizes (4" – sandwich bags; 8" – quart bag; 12" – gallon bag). The bags are all the same width (the sizes refer to the length of the bag).

The client is facing more demand than they think they have capacity to produce. They have called us in to figure out two key questions:

1. How can they best utilize their current bag capacity?
2. Should they invest in a new bag machine?

## Guidance for interviewer and information provided upon request

Only provide the following information once asked for it.

Candidate should be interested in issues such as:

- Capacity of the machine
- Demand for each product
- Revenue / costs for each product
- Production time for each product

Provide candidate with capacity (Exhibit 1) and demand / profitability (Exhibit 2) slides if they ask

After candidate completes calculations, prompt with "So, based on this information, what would you recommend the company produces on its rollers and why?"

- Answer: 4" and 8" bags first, with 12" bags as overload (because 4" and 8" have highest profitability/hr)

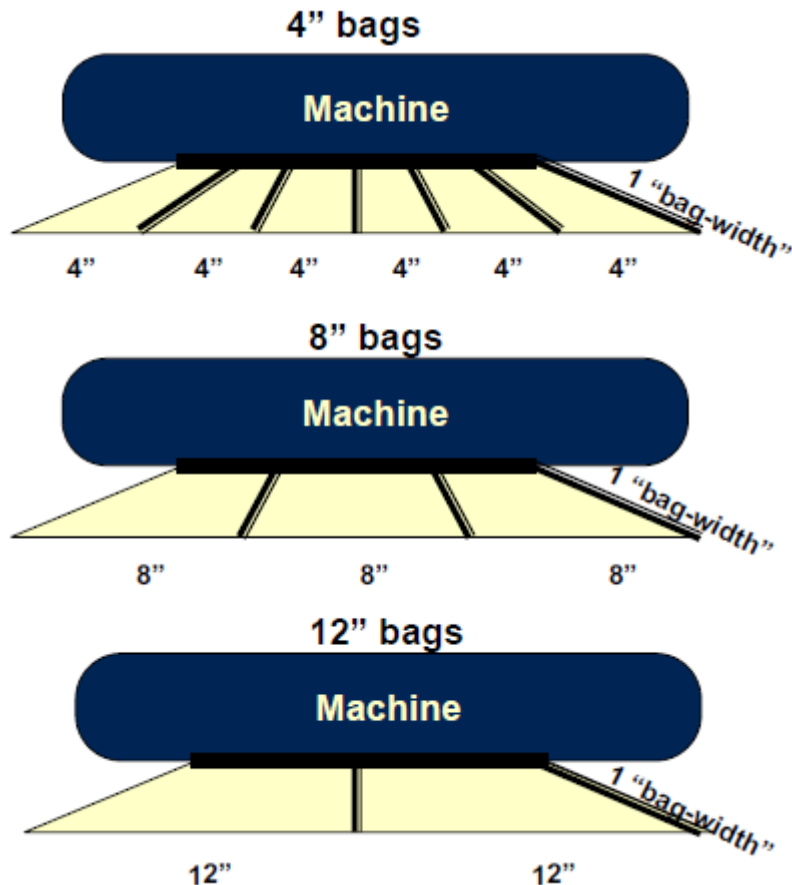
PART II: So the client has some extra demand that they have not met, should they invest in another roller? What information would you like to know?

- If asked:
  - Cost: \$750K
  - Payback: 5 years
  - Demand growing at population growth
  - Mature market, no dramatic changes
  - Throughput growing at 2% due to efficiency

# Case 24: Sandwich Bags (II of VII)

BCG

## Exhibit 1



### Key Capacity Data

500 "bag-widths" produced per hour

Runs 20 hours / day

5 days / week

50 weeks per year

Total of 5000 hours of production per year

# Case 24: Sandwich Bags (III of VII)

BCG

## Exhibit 2

### Profitability and Demand by Product Type

	# bags / bag-width	Profit / bag (\$)	Annual Demand (# of bags)
4"	6	.02	9M
8"	3	.03	3M
12"	2	.04	3M

# Case 24: Sandwich Bags (IV of VII)

BCG

## Completed Profitability Calculations...

	# bags / bag-width	produced per hour	Profit / bag (\$)	Demand (# bags)	Total Profit (\$)	Hours of capacity
4"	6	3000	.02	9M	180k	3k
8"	3	1500	.03	3M	90k	2k
12"	2	1000	.04	3M	120k	3k

**Not a hand-out for the candidate. They should calculate this on their own.**



# Case 24: Sandwich Bags (V of VII)

BCG

## Guidance for the Interviewer

Ask: What would you have to believe to say a new machine is a good idea? (suggestions)

- Demand would increase faster than 2%
- A new product could be introduced
- Capacity could be rented out
- Prices will increase

### A NEW PRODUCT:

- *Let's say that the client's R&D team has just come out with a new bag. It's a 2-in-1 bag, one side holds your sandwich and the other side holds your chips or lettuce to keep things from getting soggy. This bag is 6". Assume that if we started to produce this bag, tomorrow it would be accepted and there would be no lag time for people to catch onto using it.*
- *What annual profit per bag would we need to generate in order to make a new roller a good purchase?*

*(Extra points for mentioning cannibalization)*

## Getting the answer...

- \$120K profit per year from 12" bags
- \$600K profits over 5 years
- Need \$150K over 5 years for payback
  - \$30K per year
- Few examples of how to achieve this
  - \$0.03 per bag at 1M bags
  - \$0.015 per bag at 2M bags
  - \$0.01 per bag at 3M bags

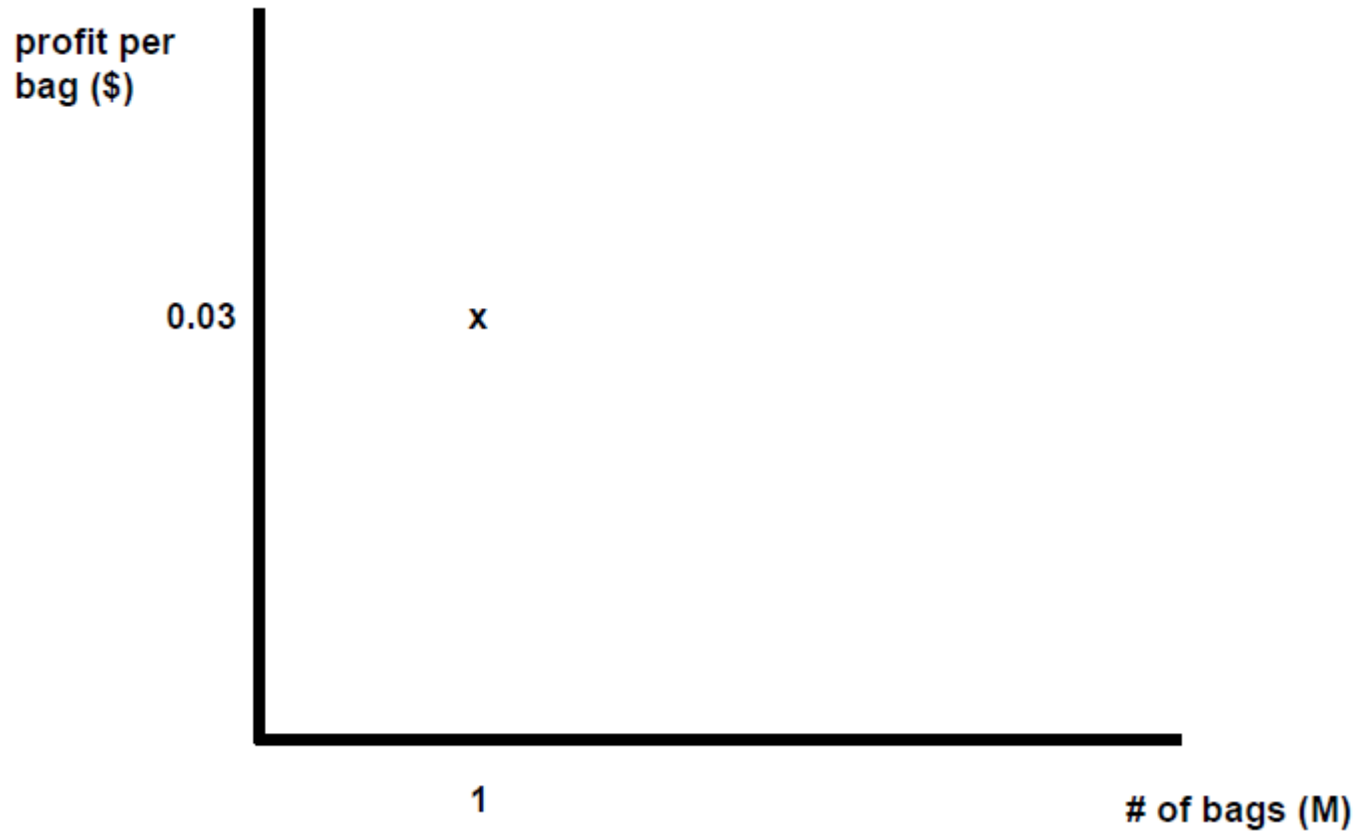
*Question: So if we could get \$0.03 per bag and produce 1M bags, we would be happy. Using this graph (hand them next page), please draw me the curve that represents all of the price/quantity combinations where we would be willing to make the investment in the roller.*

*Does this curve have any end points for our client?*

# Case 24: Sandwich Bags (VI of VII)

BCG

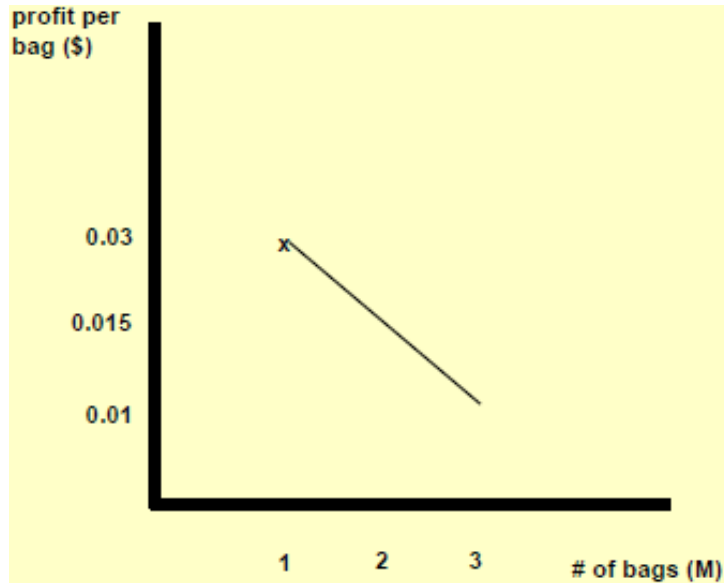
Exhibit 4



# Case 24: Sandwich Bags (VII of VII)

BCG

## Getting the answer...



Endpoints:

- Lower limit depends on demand sensitivity. Getting \$1 profit per bag is probably out as production quantities wouldn't be worth it.
- Upper limit depends on capacity: 4M bags per year

## Recommendation

This is a long case and the candidate does not need to get to the “New Product” section. Be sure to cut the interview off at 25 minutes and have them give a recommendation based on how far they’ve gone.

Ensure that they include risks and next steps.

# Case 25: School Buses (I of II)

A.T. Kearney

## Problem Statement

Your client is a school bus manufacturing company that has just been purchased by a leading truck manufacturing company.

The CEO of the truck company has asked the president of the newly acquired school bus company to improve his organization's profits. The president of the school bus company has asked us to help determine what areas will provide the best results.

## Guidance for interviewer and information provided upon request

*Only provide additional information after being specifically asked by the candidate.*

- Company is open to any and all ideas
- Bus market is growing with population
- Customers: Schools, counties, local governments
- 3 players (including client) with 33% share each
  - One competitor struggling financially, one unknown
- Prices have been historically high given concentrated market, not likely to change
- One plant in "renaissance zone" with low taxes
- All production equipment fully depreciated
- Comparatively low labor costs
- Material costs are high but comparable with others

### *Tips for the interviewer*

- *This is not a numbers case – pay attention to how candidate frames problems and tackles solutions*
- *Take liberty with story, allowing candidate to drive direction and pace; fill in details as you see appropriate*

# Case 25: School Buses (II of II)

A.T. Kearney

## Improving internal operations

### Offshore / Near-shore

High domestic raw material costs raise the question: can we do better elsewhere?

Sourcing parts globally may reduce raw material costs and increase profitability

### Compete on price

This is a dangerous ploy. Leveraging low cost labor and low tax production may lead to increased short term sales (and potentially high profits).

However if a competitor is able to follow, customers may see all benefit and there is no going back if it is a mistake

### Seek new markets

Our low cost of production position may lend to a favorable position in a complementary industry.

Luxury, and other custom bus production requires high labor element, where we have an advantage.

Further, high margins make for attractive target.

## Exploring synergies with new parent company

### Sourcing

If trucks and buses purchase parts from similar original equipment manufacturers (OEMs), then consolidating purchasing operations may add buyer power and eliminate purchase duplication

### Modularity

Buses and trucks are built on similar platforms. Scale may exist and R&D for any new products as well as stocking duplicative components, when eliminated would reduce inventory and handling costs.

### Act as supplier

If the bus plant is not operating at full capacity, it may take advantage of existing labor to more economically supply parts to truck company.

### Co-leverage sales & distribution

Selling buses to those who purchase trucks and vice-versa adds to the potential client list of both companies. This potentially allows for steal-share growth in a stagnant industry.

### Bundling

How many other bus manufacturers can offer bundled goods to governments and schools requiring trucks as well? By bundling pricing, the group can become a central supplier for transportation equipment.

# Case 26: Retail Discounting (I of II)

A.T. Kearney

## Problem Statement

Your client is a retailer in New York state. They have 120 stores across the state and they're constantly competing with other retailers for customers. They are NOT a low-cost retailer in the state, but on certain days they give out heavy discounts on their products to attract customers. They create brochures for weekly deep discounts and deliver them to their customers by inserting them in newspapers in the morning.

The client's competitors are also doing the same and the problem is that this scheme is not generating enough return on investment for our client as compared to competitors. How would you analyze the situation to see where the problem could be and how would you compare the execution strategy of offering these discounts from our client to that of their competitors?

## Guidance for interviewer and information provided upon request

*Only provide each piece of information after being asked for it specifically by the candidate.*

- Campaigns are run on the same day as competitors.
- Stores are as accessible (if not more so) than
- Store product-mix is similar to competitors
- Our discounts are similar to those of our competitors (in price and product)
- We are using the same newspapers as our competitors

*Warning: The answer to this case hinges on the candidate identifying a very specific problem that is not immediately apparent. If they are not getting it after a few tries, try to hint at it.*

# Case 26: Retail Discounting (II of II)

A.T. Kearney

## Attracting Customers

- **Day of the week?** Saturdays (same as competition) so that customers have time to come into the store.
- **Which newspapers?** We are using the same paper as our competitors – so that shouldn't be an issue
- **Layout of brochures?** Very similar to competition – shouldn't be an issue.
- **Accessibility of stores?** Equally (if not more) accessible as competitors.

## Servicing Customers once in the Store

- **Service levels on sales days** – we increase staff to insure that we have reps readily available.
- **Inventory** – we haven't run into an inventory issue on sales days, we make sure that its well stocked.
- **Back-end logistics** – we do run into issues where the in-store computer does not reflect the discounted prices in the fliers. This has caused some confusion with the customers

## Recommendation

Based on the information we have today, it seems as though we are doing a good job at attracting customers into the store, however, customers are not purchasing the products from our store which is resulting in a lower ROI than our competitors. This seems to be stemming from the fact that our in-store computers are not providing customers with the advertised price, leading to confusion and frustration. My recommendation is that we explore ways to better align our advertisements with our in store operations.

## Follow up questions for candidate *(if time allows)*

- How do we best figure out which items to put on sale and which to feature in the newspaper inserts?
- How do we sell non-discounted products to people entering the store solely for discounted items?
- How can we better manage our inventory around these sale periods without overstocking or stocking out?

# Case 27: La Seine Soft Drinks(I of II)

n/a

## Problem Statement

***WARNING:** This is a very vague case and should not be used early on in case prep. It will be difficult to give and to receive.*

A French soft drink company, Le Seine, is looking to diversify its holdings by investing in a new fast food chain in the US. You are hired to determine whether they should pursue this path and, if so, how they should go about the execution.

## Guidance for interviewer and information provided upon request

*Only provide the following information once asked for it.*

**Why is the company thinking of investing in fast food and not something else?** The fast food industry has been experiencing sustainable growth for the last few years and they believe that this will continue to grow.

**Why the US market?** The US is more attractive economically and Le Seine has been present in the country through its soft drinks for a few years now.

**Does the company know much about the fast food industry and its consumers?** Not very much – they're not sure where to enter. But fast-food consumers will typically know of their soft-drinks.

Competition: *(ask the candidate to brainstorm areas of fast food)*

- Traditional burger outfits is dominated by three primary players (McDonalds, Burger King, and Wendy's).
- Other areas include:
  - Pizza
  - Mexican
  - Chicken
  - Cold cut sandwiches
  - Prepared meals



# Case 27: La Seine Soft Drinks(II of II)

n/a

## Information provided upon request (cont...)

*Have the candidate walk through at a high level the pros and cons for the various segments.*

*Notes to help shape the conversation:*

- If we look at the company itself, it is more inclined to be in the prepared meals segment, given that it is French and has a European appeal. If we look at the trends, the population is getting older and more families have two working parents. Also, there seems to be a move towards eating more healthy foods. If we consider the competition, the segment seems to be at the growing stages, with only one or two known players. The barriers to entry are certainly not as high as some of the other segments.*
- To distinguish itself from the competition, it can make food with a French theme, priced competitively. The company can also set up shop in major grocery stores, as more people are purchasing prepared foods as part of their grocery shopping.*
- It would be a fair assumption to say that Le Seine can capitalize on its distribution and marketing experience in the US.*

## Key Findings & Recommendation:

- There seems to be potential in the prepared food segment (players like Boston Market)
- Le Seine seems to be a good candidate to enter and take advantage of the present opportunity

Recommendation:

- Based on this assessment, Le Seine should enter on a large scale. To offer competitive pricing they must have economies of scale (franchising maybe?)
- Consider acquiring an existing chain versus starting a brand new one
- Location is very important – know your customers in every region and focus on convenience.

# Case 28: Electronics Retailer (I of III)

BCG

## Problem Statement Narrative

Your client, Circuit Co. is a national consumer electronics retailer similar to Best Buy. For the past 5 years, Circuit Co. has grown its revenues and earnings primarily through new store openings. However, Circuit Co. knows that this type of growth can not be maintained forever. For the past year, the company has focused on several initiatives aimed at improving their same-store sales and earnings. One of these initiatives has fallen by the wayside and you have been hired to analyze the situation.

Specifically, in the 3<sup>rd</sup> quarter of 2012, Circuit Co. ran a pilot program in the digital camera departments of its Southwest Region stores. The CEO wants to know:

1. Was the program a success?
2. What improvements can be made to the program?
3. Should Circuit Co. roll the program out to the rest of the country?

## Interviewer guidance & key questions

*ADDITIONAL INFORMATION ON FOLLOWING PAGE*

*Details about the pilot program (read verbatim):*

Traditionally, all of Circuit Co.'s ground level employees were "generalists" in the sense that everyone of the them did all of the jobs that needed to be done: stocking shelves, answering customer questions, running the cash register, etc. The pilot program involved setting up a group of "specialists" in the digital camera area who were solely responsible for answering customer questions and selling digital cameras. The remaining employees remained "generalists". Generalists maintained their previous wages. Specialists were paid a small draw plus commissions based on digital camera revenues.

Trial success criteria:

- Incremental revenues exceeded incremental costs
- Program did not create significant problems for the general store operations

# Case 28: Electronics Retailer (II of III)

BCG

## Pilot Program Financials

*NOTE: Only provide each item when asked.  
Company is still growing by adding stores.*

	3Q 2011	3Q 2012
Digital Camera Rev (\$M)	500	900
Total Store Rev (\$M)	7.75	12
# of Stores	200	300
Digital Camera COGS (\$M)	250	675

## Additional information

- SKU portfolio did not change
- Pilot had no effect on other operations
- Q3 runs from July to September
- Generalist wage changes were insignificant

# Case 28: Electronics Retailer (III of III)

BCG

## Analysis of the financial performance...

- Digital camera revenues increased by about 80%
- Stores increase by 50, therefore camera revenue per store increased about 30%
- However, COGS increased about 170% (or 120% after normalizing for store openings)
- This means digital camera profits actually declined during the pilot program, even though revenues increased dramatically

## ...leads to client's answer

- It appears Specialists were focusing on selling lower margin cameras in order to earn revenue and drive commissions
  - Why? These cameras were on sale, and were therefore easier for the salespeople to sell
- In terms of revenues, the program was a success, however, the client suffered in terms of profits
- **Recommendation:** re-run the program after determining a profit-driven commission plan. Based on results, determine rollout possibility for system.

# Case 29: Trucking (I of II)

## Diamond Cluster

### Problem Statement

Your client is a trucking company. The company has grown through acquiring other trucking companies which are currently managed as separate businesses.

The CEO, who is new and an outsider to the company, has asked you to help prioritize some short term investments, as well as advise on where the company should go in the long term.

In terms of the short term investments, the CEO is particularly interested in Route Optimization software that has been developed by one of the regional divisions and has significantly improved profitability within that division. So, first the CEO wants to know what the impact to the firms profitability will be.

### Guidance for interviewer and information provided upon request

*Only provide the following information once asked for it.*

If prompted, have the candidate focus on costs – state demand is very stable, and expensive to increase. Ask candidate to outline the major cost buckets:

- Fuel
- Drivers (labor)
- Warehousing
- Trucks / equipment

Provide the following information when asked:

<b>Current pick-ups or drop-offs per hour</b>	2
<b>Pick-ups or drop-offs per hour with software</b>	2.5
<b>Hourly rate</b>	\$100
<b>Annual system wide pickups</b>	4M
<b>Tax rate</b>	40%
<b>Depreciation</b>	None
<b>Labor</b>	1/3 of total costs
<b>Labor breakdown</b>	(50% pickups, 50% deliveries)

# Case 29: Trucking (II of II)

## Diamond Cluster

### Calculations for cost reduction:

$$2 \text{ pickups/hr} \times 8\text{M pickups \& drop-offs/yr} \times \$100/\text{hr} = \$400\text{M}$$

$$2.5 \text{ pickups/hr} \times 8\text{M pickups \& drop-offs/yr} \times \$100/\text{hr} = \$320\text{M}$$

---

Pretax Benefit \$80M

- Taxes @ 40% \$32M

---

Final Benefit \$48M

This is the cost savings excluding a system wide rollout and system maintenance costs. Since the system already exists in one market, these cost savings can easily be modeled for the whole system.

### Guidance for interviewer and information provided upon request

Watch the candidate frame out what the CEO should think about...the structure and thought process is more important than the results.

What are the benefits?

- Overhead consolidation
- Access to markets
- Centralized / non-duplicative warehousing
- Efficiencies in long-haul transfers

What are the costs?

- Startup integration costs
- Severance/ shut-down costs for duplicates
- Advertising for increased capability

# Case 30: Hong Kong Port (I of VII)

McKinsey & Co

## Problem Statement

Your client is Hong Kong port. The management is concerned about their revenues going down and asks for your advice.

*When asked to further elaborate on the business, add...*

Let's assume that the only source of revenue for the client is container processing services related to the shipment of containers. A manufacturer that wants to ship a container hires a shipping company. The shipping company tells him what ship the container should be loaded on. The manufacturer brings a container to the port and pays the port for taking care of everything (paper work, possible storage, loading on ship, etc.) to be done to load the container on the ship named by the manufacturer.

## Guidance for interviewer and information provided upon request

*Only provide the following information once asked for it.*

- CANDIDATE HANDOUTS ON FOLLOWING PAGES

### **Revenue:**

- Revenue have been decreasing at 3% per year for 4 years
- Current sales of \$200M per year
- Client has 50% market-share

**Industry:** growing at 7% per year

**Competitors :** (both modernized in last 5 years): two mainland China ports, Zhanjiang and Shenzhen. No difference in shipping costs from HK or competitors

### **Customers:**

- Customers: Guangdong (mainland China-based) manufacturers (typical route is China to USA)
- Customers are VERY cost sensitive

### **Handouts:**

- Container Processing Costs
- Port Cost structure
- Profit Margins
- Customer Transportation costs & Map

# Case 30: Hong Kong Port (II of VII)

McKinsey & Co

## Exhibit 1

### Processing Cost

Port	Container Processing Cost
Hong Kong	\$320
Zhanjiang	\$300
Shenzhen	\$310

**Cost differences are accepted due to the differing quality of the ports.**



# Case 30: Hong Kong Port (III of VII)

McKinsey & Co

## Exhibit 2

### Port Margins

	Hong Kong	Zhanjiang	Shenzhen
Gross margin	20%	17%	22%
Operating margin	10%	10%	10%

# Case 30: Hong Kong Port (IV of VII)

McKinsey & Co

## Exhibit 3

### Port Cost Structures

	Hong Kong	Zhanjiang	Shenzhen
Fixed cost	60%	70%	65%
Direct labor cost	20%	15%	15%
Materials / fuel / variable	10%	8%	8%
SG&A	10%	7%	12%

# Case 30: Hong Kong Port (V of VII)

McKinsey & Co

## Exhibit 4

Map of Area



# Case 30: Hong Kong Port (VI of VII)

McKinsey & Co

If the candidate does not drive to manufacturer transportation costs in 15 min, provide hints...

- What drives the customer decision in choosing which port to ship from?
- What costs does a manufacturer incur while shipping a container from his plant to his end customers?
- How does the manufacturer get the container to port?
- How about manufacturer transportation costs?

## Guidance for interviewer and information provided upon request

*Only provide the following information once asked for it.*

	HONG KONG	ZHANJIANG	SHENZHEN
Total Cost	\$300	\$210	\$180

- Hourly labor cost is the same for all trips
- There is an administrative border between HK and mainland China – trucks have to undergo custom clearances (and endure long waits)
  - 50% time waiting, 50% in customs
- Long lines in evenings, but no lines during day & night
- Customs communications are highly under-developed
- Need two drivers: mainland drivers are not allowed in HK; also salaries are much higher in HK.
- HK government has a stake in the company and receives significant tax benefits

# Case 30: Hong Kong Port (VII of VII)

McKinsey & Co

## Expected Recommendations

- Convince HK government to invest in building out the customs station at the border to increase throughput
- Invest in updating customers information and communication systems
- Lobby HK government to abolish regulation that prohibits Chinese commercial drivers to drive in Hong Kong
- These will all reduce manufacturer transportation costs

## Creative Recommendations

*Only provide the following information once asked for it.*

- Orchestrate a single customs clearance (at HK border or at port) rather than a customs border at each
- Establish a separate trucking company to absorb border cost
  - This is a short-term solution
- Incentivize manufacturers to ship during the day or late at night to avoid evening rush