ROSS CASEBOOK 2019

Consulting Club
@ ROSS

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Note from the Board

Dear CC@R Member,

If you are reading this, then you are interested in pursuing a consulting career upon graduating from business school. In order to increase your familiarity with the consulting interview format, the Consulting Club at Ross has established a robust wrap-around training program focusing on the different parts of the recruiting and interviewing process. This book focuses on the 'case-interview' portion of the consulting interview and is to be used in conjunction with other case-oriented club training materials.

The elements tested in a case interview are core to firms' hiring decisions. These cases, or mini-business problems, are a glimpse into a consultant's (and often the interviewer's) life and are frequently drawn from real client experiences. Given practice and experience, cases become a natural way of thinking about how you would structure approaches and solutions to nearly any type of problem. Along the way, we hope you will find that you enjoy solving problems in this manner, and that you would find this type of work gratifying.

In order to facilitate your preparation, your fellow club members have recorded their real-life case interview experiences and their customized frameworks and solution elements. These cases act as a strong reference point for what to expect during a consulting interview but are in no way all-encompassing. Each case comes down to a conversation between the interviewer and the candidate, so it is very possible that two candidates could have two very different conversations about the same business problem. In fact, we encourage this.

Finally, you may have noticed that you are reading this compilation in landscape format. This is intentional. Consultants think in terms of PowerPoint slides much more often than essay-style documents. You will find this format dovetails well with how you write your notes in cases, and how you will convey information as a consultant.

Remember that regardless of how you perform on individual cases or in recruiting writ large, you are smart, capable, and you'd be an asset to any firm, consulting or otherwise. Good luck and remember your fellow club members are always here to help.

Sincerely,
2019-2020 Board
Consulting Club @ Ross

Consulting Club @ Ross Board Members

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Administering Cases

Great case experiences are not determined solely by strong candidates cranking out detailed issue and financial-based analyses. The interviewer-interviewee interaction and the candidate's ability to convey information can very easily change the style of a case. Given the interviewer's position of power in the discussion, there are several things to keep in mind prior to, during, and after a case interview.

Preparing for Interview

- Read the case over 2-3 times, familiarizing yourself with the relevant numbers and details
- Understand what candidate wants to improve
- Determine your 'character' e.g. rushed partner or disinterested client rep
- Prepare for how you will address irrelevant questions or requests for data you do not have, i.e. will you make up fake data and let candidate go fishing, or let them know it is irrelevant?

During Interview

- Track time (about 25 minutes is average)- balance finishing case and letting candidate struggle
- Candidates can often think of very different approaches to the same case. Before discounting questions as wrong, ask the candidate for their thinking... If it makes sense, go with it
- Consider what a consultant would be looking for in the candidate
- Presentation: can I put this person in front of a client?
- Aptitude: Can this person do the work?
- Interest: Does this person like what they are doing?

After Interview

- Provide feedback
  - This is possibly the most critical step of the case interview process
- Honestly let the candidate know strengths, but more importantly areas for improvement
- Without honest feedback and constructive criticism, it is very difficult to improve

Case Structure

How to Case

Understand the Question (~1-2 minutes)	Develop Framework (~1-2 minutes)	Analyze (~20 minutes)	Form Recommendation (~1-2 minutes)
• LISTEN • Summarize the problem statement to make sure you understand the situation and objectives • Ask 1-2 clarifying questions around the topic and/or metrics to be used for the analysis • The questions posed should necessitate a short response	• Ask for a moment to plan your structure • Develop 3-4 areas to analyze along with a few tailored sub-topics • Structure the framework in a logical fashion – it should open with the most important topic and provide the interviewer with a roadmap of where you plan to take the case • Engage the interviewer by turning the framework towards them	• Refer to the framework as you move through each of the main areas • Use one sheet of paper per topic – think of the case as a PowerPoint deck • Relate each piece of analysis to the main objective/problem statement • Walk through calculations /analysis • Drive first and second-level insights whenever possible!	• State your recommendation as a direct response to the problem/objective – it should not come as a surprise to the interviewer • Incorporate key metrics/findings as a part of your recommendation • Include risks and next steps

Key Formulas Review

Topic	Formula
NPV or Valuing Money Over Time	$Value\ to\ Perpetuity = \frac{Value\ of\ Asset}{Discount\ Rate}$ $NPV = \sum_{t=0}^{n} \frac{Annual\ Cash\ Flow}{(1+r)^t}$
Rule of 72	$Time\ for\ Invested\ Principle = \frac{72}{r}$ $r = Rate\ of\ Return$
Little's Law	$Inventory = Throughput \times Flow\ Time$
Inventory	$Inventory\ Turns = \frac{COGS}{Average\ Inventory}$ $Days\ of\ Inventory = Inventory\ Turns * 365$
Profitability	$\pi = Q(P - VC) - FC$
Breakeven	$Breakeven = Investment\ Price - Cost$
Margin	$Gross\ Margin = \frac{Revenue - Cost}{Revenue}$ $Net\ Margin = \frac{Net\ Income}{Sales\ Revenue}$
Markup	$Markup = \frac{Price - Cost}{Cost}$

Key Formulas Review

Topic	Formula
Return on Assets (ROA)	$ROA = \frac{Net\ Income}{Total\ Assets}$
Return on Equity (ROE)	$ROE = \frac{Net\ Income}{Total\ Shareholders'Equity}$
DuPont Analysis	$ROE = \frac{Net\ Profit}{Sales} \times \frac{Sales}{Assets} \times \frac{Assets}{Equity}$ *ROE = Operating Efficiency * Asset Utilization * Leverage*
Working Capital	$ROI = \frac{\pi}{K}$ *K = Capital Invested (Assets, Working Capital, etc.)* *Working Capital = Assets - Liability*
Income Statement	*Sales – COGS* *= Gross Profit* *- SG&A* *= EBITDA* *- Depreciation/Amortization* *= Operating Profit* *- Interest Expense* *= EBIT* *- Tax Expense* *= Net Income*

INDUSTRY OVERVIEW

Airlines

Key Ideas	Revenue Streams	Cost Drivers
▪ Consolidation in industry ▪ Low cost carriers and fare competition on competitive routes ▪ Online booking and check-in ▪ Expansion of domestic and international routes ▪ Capacity optimization (Load Factor)	▪ Ticket sales to economy and business passengers ▪ Charges for baggage and on-board services (up-selling) ▪ Cargo transportation ▪ Credit cards	▪ Fuel ▪ Labor ▪ Marketing ▪ Terminal fees and hangar rentals ▪ Insurance/legal fees

Customer Segments	▪ Leisure travelers – (generally price sensitive) ▪ Business travelers – (very important to airlines due to margins and services purchased) ▪ Freight/Cargo Transportation
Channels	▪ Internet - online travel sites, airline websites ▪ Airline sales team: call centers, online, or kiosk ▪ Travel management companies (TMCs) serving corporate clients, travel agents
Risk	▪ Government regulation and dramatic risk of equipment failure (e.g. Boeing 737 MAX) ▪ Labor unrest, strikes and work slowdowns ▪ An intensely competitive market with many foreign airlines partly government subsidized
Key Economic Drivers	▪ World Price of Crude Oil ▪ Trips by US residents ▪ Optimization of capacity ▪ Per capita disposable income

Automotive/Manufacturing

Key Ideas	Revenue Streams	Cost Drivers
▪ Automakers, Original Equipment Manufacturers (OEMs), Replacement Parts Production, Rubber Fabrication ▪ Highly capital and labor intensive ▪ Extensive competition due to foreign automakers ▪ Unions ▪ Commitment to Electric Vehicles	▪ New car sales ▪ Auto part sales ▪ Services offered with vehicle purchase ▪ Financing ▪ Extended warranties ▪ Leasing	▪ Labor ▪ Materials ▪ Advertising ▪ Financing costs ▪ Recall costs ▪ Research & Development

Customer Segments	▪ Cars, vans, pickup trucks and SUVs ▪ Personal car buyers ▪ Rental car companies	▪ Commercial purchasers ▪ Government purchasers
Channels	▪ Automobile dealers ▪ Secondary automobile market ▪ Automotive parts/services outlets	
Risk	▪ Globalization of the industry enables more ease of foreign competition ▪ New entrants in the electric vehicle or mobility as a service sectors ▪ Changes in consumer trends and tastes	
Key Economic Drivers	▪ GPD growth ▪ Income growth/disposable income ▪ Price of crude	▪ Steel prices ▪ Consumer confidence index ▪ Yield on Treasury note

Commercial Banking

Key Ideas

- Consolidation/acquisitions
- Increased mobile banking
- Channel innovation in digital and physical channels
- Customer attrition rate
- Offshoring of call centers, back office functions
- Digitization of processes
- Cross-selling

Revenue Streams

- Loan interest
- Loan types
  - Real estate
  - Auto
  - Personal
  - Education
- Service Fees
- Spread between interest rate charged and Fed rates
- Credit cards

Cost Drivers

- Wages
- Bad debt expense
- Interest rates on deposits
- Branch and compliance costs
- Overhead costs - paper fee; error rate costs for manual processing

Customer Segments

- Wealth: deposit balances, income
- By lifestyle: buying behavior
- Size: small businesses and consumers
- Age: under 35 adapt to technology better

Channels

- Savings and loan
- Credit union
- Traditional checking
- Online banking
- Microfinance

Risk

- Change in savings behavior
- Loan default, interest rates and federal funds rates
- New entrants from non-banks and FinTech companies (i.e. Robinhood, SoFi, etc)

Key Economic Drivers

- Consumer confidence
- Household debt
- Employment statistics
- Urbanization
- Home and car buys
- Disposable income
- Interest rate
- Government Regulation

Health Care

Key Ideas	Revenue Streams	Cost Drivers
▪ Affordable Care Act ▪ Highly fragmented care networks ▪ Employers pushing health care costs onto employees ▪ Aging Baby Boomer population driving increased revenues	▪ Hospital care ▪ Physician and clinical services ▪ Prescription drugs ▪ Nursing ▪ Dental services ▪ Research, Equipment, Investment	▪ Dependent on segment ▪ Significant costs related to new technology implementation ▪ Often inefficient organizational structures

Customer Segments	▪ Patients/consumers ▪ All generations and segments of the population require different products/services
Channels	▪ Hospitals ▪ Doctors offices ▪ Nursing homes ▪ Outpatient surgery centers ▪ Pharmacies ▪ Medical equipment
Risk	▪ New legislation and shifting regulations ▪ Funding availability
Key Economic Drivers	▪ Regulation for health & medical insurance ▪ Federal funding for Medicare and Medicaid ▪ Aging population ▪ Advances in medical care and technology

IT / Infrastructure

Key Ideas

- Cloud based platforms vs on-premise infrastructure
- User centric IT solutions – IT depts want to enhance usage and productivity
- Open platforms / integrating and partnering with other providers

Revenue Streams

- Hardware sales
- Maintenance contracts
- Implementation consulting services
- SaaS

Cost Drivers

- Labor
  - R&D/Engineering of products
  - Sales/Marketing teams - huge front-end expense
- Hardware manufacturing
- Cybersecurity

Customer Segments

- Enterprise (SME / Large)
- Consumer
- Third party resellers (SHI, CDW)

Channels

- Direct
- Partnership
- Reseller

Risk

- Startups and new entrants
- Bring your own device initiatives
- Tariffs

Key Economic Drivers

- Cyber security
- Demand for enterprises to go digital
- Mobility
- Data & Analytics

Non-profits

Key Ideas

Intended Impact

- Define success criteria
- Think big picture (e.g., society, people you are working for/with
- Consider tradeoffs
  - Depth vs. breadth of reach
  - Quality vs. quantity of program initiative
- Intended impact should align with strategic goals

Theory of Change

- Define specific actions steps to achieve the intended impact
- Define timelines, initiative priorities and ownership responsibilities

Implementation Feasibility

- Revenue Impact (Self sustaining model, grants)
- HR costs: creating new roles, hiring new staff, train existing and new staff, modify existing organization structure
- New infrastructure cost – IT systems, office space
- Indirect costs
  - Impact on culture of organization
  - Impact on scale on quality of outcomes

Performance Measures and Reporting Impact

- Measure performance vs. peers
- Set milestones for financial and operational goals
- Monitor and modify plan accordingly
- Consider performance during and after implementation of initiatives

Case topics

- Growth through existing platforms
- Growth through new partnerships
- Growth driven by policy changes
- Thought sharing to strengthen the industry
- Growth using technology

Oil & Gas

Key Ideas	Revenue Streams	Cost Drivers
▪ Upstream, midstream, downstream ▪ PV-10 ▪ Cost per gallon ▪ OPEC ▪ GDP growth ▪ Renewable energy ▪ Fracking	▪ Crude oil ▪ Gasoline ▪ Natural Gas ▪ Refining products such as lubricants ▪ Gas stations: gasoline, food market, car wash	▪ Exploration: seismic studies, drilling rigs and labor ▪ Production: refining ▪ Pipelines ▪ Gas station: oil, labor, insurance, licenses

Customer Segments	▪ Petroleum refiners ▪ Electricity generators	▪ Domestic and commercial users ▪ Other industries
Channels	▪ Retail ▪ Wholesale	▪ Commercial
Risk	▪ Access to reserves ▪ Energy policies ▪ OPEC decisions	▪ Political pressures ▪ Substitutes/renewable energy ▪ Offshore drilling
Key Economic Drivers	▪ Government regulation ▪ International oil production and demand	

Pharmaceutical

Key Ideas

- Affordable Care Act
- Aging population
- Patents and generics
- Research & Development
- Insurance
- FDA
- Market penetration
- Contract v. in-house salesforce

Revenue Streams

- Insurance payments
- The federal government provides certain grants to subsidize R&D
- Due to significant R&D lead times revenue is highly volatile
- Seasonality is high on certain products (vaccines and cold medicine) and low on other products (pain medicines)

Cost Drivers

- Research & Development
- Manufacturing cost (the largest share of the industry's costs)
- Marketing costs
- Wages
- Liability insurance and legal fees
- Litigation

Customer Segments

- Medical patients
- Prescribing doctors
- Government insurance programs
- Health insurance companies

Channels

- Over-the-counter
- Prescription drugs: Hospitals, pharmacies
- Mail order pharmacy: Express Scripts, Walgreens

Risk

- Generic manufacturers pose a major competitive threat following patent expiration
- Tariff barriers are no longer a relevant form of protection
- Unfavorable government healthcare regulations and CMS rates

Key Economic Drivers

- Median age of population
- Research and development expenditure
- Insurance and regulatory landscape
- Patent protection

Private Equity & Hedge Funds

Key Ideas	Revenue Streams	Cost Drivers
▪ Components of the revenue charge ▪ Invested capital ▪ Transaction and advisory fees ▪ Carried interest ▪ Divestures	▪ Wages and profit-sharing ▪ Administrative costs(regulatory filings, record keeping, accounting and travel)(sub-bullets) ▪ Outsourcing of capital intensive IT functions for algorithmic trading	▪ Value creation: sell under-performing assets, optimize price, diversify customer base, operations efficiency ▪ Exit: strategic or IPO ▪ Synergies ▪ Stability of cash flows(IRR, NPV) ▪ Targeted returns ~ 40%+ ▪ Un-invested capital vs. invested

Investors	▪ Pension funds (largest share) ▪ Private investors (e.g. High net-worth individuals) ▪ Banks, sovereign funds and life insurance companies
Averages in industry	▪ Large firms focus on deals ~ \$1.0B; middle market firms cover deals between \$15.0M- \$1.0B ▪ Average holding period before sale has increased from 3 years to 6 years in the past 15 years ▪ Borrowing can typically range from 65.0% to 85.0% of the purchase price of the firm
Risk	▪ New regulation -> compliance costs, Rising competition -> decreasing industry fees ▪ Competition also exists with sovereign wealth funds and corporate buyers ▪ Changes in tax structure
Key Economic Drivers	▪ Investor uncertainty/Pension demand ▪ Access to credit/interest rates ▪ Regulations ▪ Exit opportunities ▪ GDP/Investment returns

Retail

Key Ideas	Revenue Streams	Cost Drivers
▪ Same store sales ▪ Sales per square foot ▪ Inventory turn-over ▪ Seasonality/recessions ▪ Trends	▪ Women's apparel sale ▪ Drugs & cosmetics ▪ Furniture & household appliances ▪ Children apparel ▪ Men's apparel ▪ Toys ▪ Footwear ▪ Misc. items	▪ Cost of Goods Sold ▪ Transportation ▪ Wages ▪ Rent and utilities ▪ Marketing

Customer Segments	▪ The industry is consumer-oriented and, due to the spectrum of products, its markets are generally segmented into different income, demographics and age
Channels	▪ Department Stores/Big box retailers ▪ Discount retailers ▪ E-commerce ▪ Demographic retailers ▪ Shopping malls ▪ Subscription boxes and services
Risk	▪ Changes in disposable income ▪ Demand and supply issues ▪ Overstock ▪ Easy entry invites competition ▪ Tariffs and trade disruptions
Key Economic Drivers	▪ Consumer Confidence index ▪ Per capita disposable income ▪ International Export/Import ▪ Gross Domestic product/inflation ▪ Households > 100,000 income(luxury goods) ▪ Commodity prices(e.g. : gold price for jewelry)

Telecommunications

Key Ideas	Revenue Streams	Cost Drivers
▪ Deregulation led to spur of new companies ▪ Bottlenecks: High capital, scarce operating skills and management experience ▪ Shift from telephones to internet based services for mobile ▪ Bundling of services	▪ Voice calls ▪ Additional lines/family plans ▪ Text and image communication ▪ Data subscriptions ▪ Accessories ▪ Additional add-ins (e.g. spam blocking)	▪ Infrastructure and line maintenance (5G investments) ▪ Labor ▪ Marketing and advertising

Customer Segments	▪ Residential and Small Business (Price sensitive) ▪ Large multinationals (Price insensitive)
Channels	▪ Retail stores - carriers and mass retailers ▪ Online
Risk	▪ Rapid development of technology ▪ High exit barriers ▪ Systems not reusable across industries ▪ New low-cost entrants driving prices down ▪ Cord cutting
Key Economic Drivers	▪ Investment in rising technology services ▪ Number of subscriptions to additional services ▪ Number of broadband and mobile internet connections

Utilities

Key Ideas	Revenue Streams	Cost Drivers
▪ Increase in energy consumption ▪ High investment costs and regulations ▪ Industry structure disintegrating into smaller supplier segments ▪ Seasonality ▪ Gov. incentives for sustainable initiatives ▪ Bundling services w/renewable	▪ Transmitted electricity: base load and intermittent electricity ▪ Base load (95% of industry) ▪ Coal, natural gas, nuclear, other ▪ Intermittent: renewable energy	▪ Purchased power accounts (nearly half of total costs) ▪ Infrastructure ▪ Wages ▪ Marketing ▪ Maintenance contracts

Customer Segments	▪ Commercial and Industrial ▪ Residential
Channels	▪ Transmission lines/pipelines ▪ Upstream electricity generators
Risk	▪ Clean energy threatens the future of traditional power generation methods ▪ Seasonal demand leads to uncertain estimates ▪ Energy efficient appliances decrease consumption
Key Economic Drivers	▪ Economies of scale ▪ Industrial production index ▪ Climate/seasonality

Case 1: American Bank ATM Dilemma

Financial Services | Profitability Improvement

Case 1: American Bank ATM Dilemma

Financial Services | Profitability Improvement

Case Prompt

Our client, American Bank, is a national retail bank operating in the US. ATMs have traditionally been a profitable channel, but the bank has started seeing declining operating profits from its ATMs. The CEO has hired your firm to help her analyze the reasons for this decline and solutions to improve usage.

How would you approach this problem?

Interviewer Guidance

This is an interviewee led case. Throughout the case, let the interviewee ask for specific data points before presenting exhibits.
You should gauge the interviewee's potential for going granular into the problem.

Concepts Tested	Graph reading, Setting up calculations, Brainstorming

Case 1: American Bank ATM Dilemma

Financial Services | Profitability Improvement

Clarifying Information

- Profits have been declining over the last 5 years
- ATMs contribute to 12% of the bank's revenues.
- ATMs operated in the US only
- 12000 ATMs – no change in number of ATMs or operating structure in the last 5 years (2013 – 2018)
- The bank operates the ATMs itself or through vendors - three operating structures:
  - Bank owned and operated
  - Bank owned and vendor operated
  - Vendor owned and operated (Bank gets commission on transactions)
- Up to 5 competitors observed in vicinity of any ATM
- Any person (Own bank customers and other bank customers) can use any American Bank ATM

Possible Framework

Problem: Declining profitability of ATMs

- Revenues falling –
  - Average transaction (txn) price falling
    - Overall txn prices decreased
    - Transaction mix towards cheaper txns
  - Fewer customers using ATMs
    - Decrease in overall volume of customers
    - Higher revenue customers (Own customers) not using
    - Customers moving to competition / substitutes such as online banking
  - No newer sources of revenue from ATMs introduced apart from core transaction revenues
- Costs increasing –
  - Avg variable cost of operating increased:
    - Avg cost of operating ATMs increased
    - Shift towards expensive operated ATMs
  - Fixed costs increased:
    - Cost of purchasing new ATMs increased

Case 1: American Bank ATM Dilemma

Financial Services | Profitability Improvement

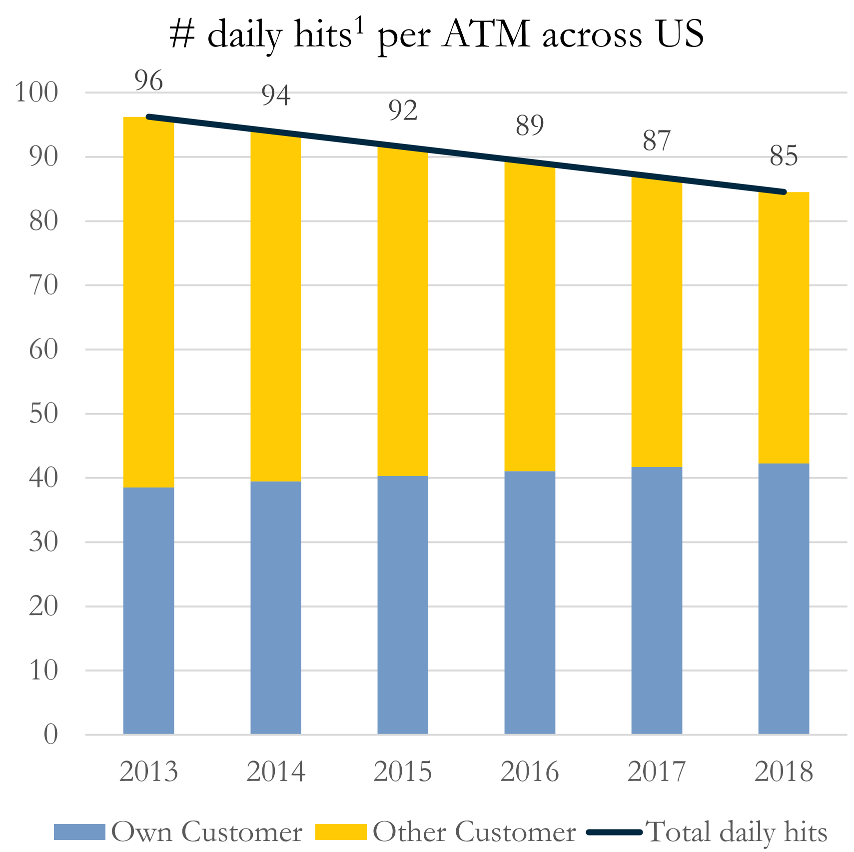
Interviewer Guidance for case flow

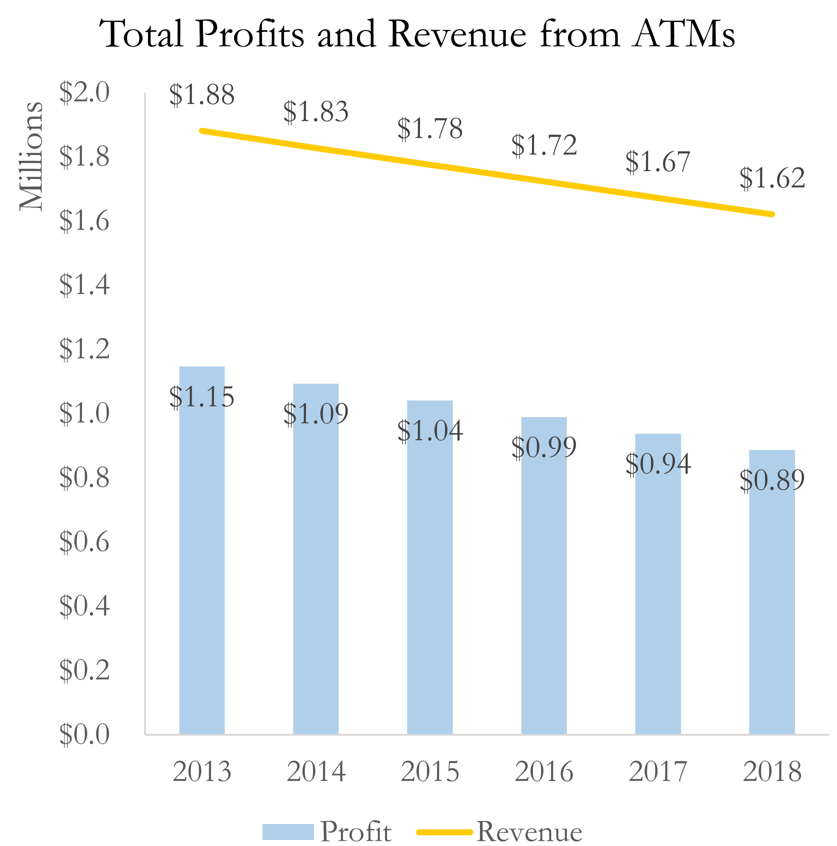
Drive Insight/Calculations →	Candidate Data Request →	Exhibit
Framework →	Profitability numbers →	1
Ex.1: Revenue problem →	Revenue breakdown →	2 and 3
Ex. 2 and 3: Northeast and West-Pacific facing problems. Both vendor-operated heavy →	Reasons and breakdown for fall in hits for vendor operated ATMs →	4 and 5
Ex. 4 and 5: Calculate extra possible hits in vendor ATMs →	Revenue earned per hit →	6
Ex. 6: Calculate extra revenue		
Ex 6: Brainstorm with candidate for other areas of improvement → drive insight for $0.5 extra in "other" customers and financial transactions each →	Improve ratio of "other" and fin. transactions by benchmarking →	6A
Ex: 6A: Calculate additional revenue potential by taking best-case competitor scenarios		
Give interviewer led question on breakeven (optional)		
Ask for final recommendation		

Case 1: American Bank ATM Dilemma

Financial Services | Profitability Improvement

Exhibit 1 – American Bank ATM usage, profits and revenues in last 5 years





Note: Own customers are customers of American Bank, while Other customers are <u>not</u> customers of American Bank

1. hits = number of unique times an ATM was used (the word hits is used interchangeably with the word transactions)

Case 1: American Bank ATM Dilemma

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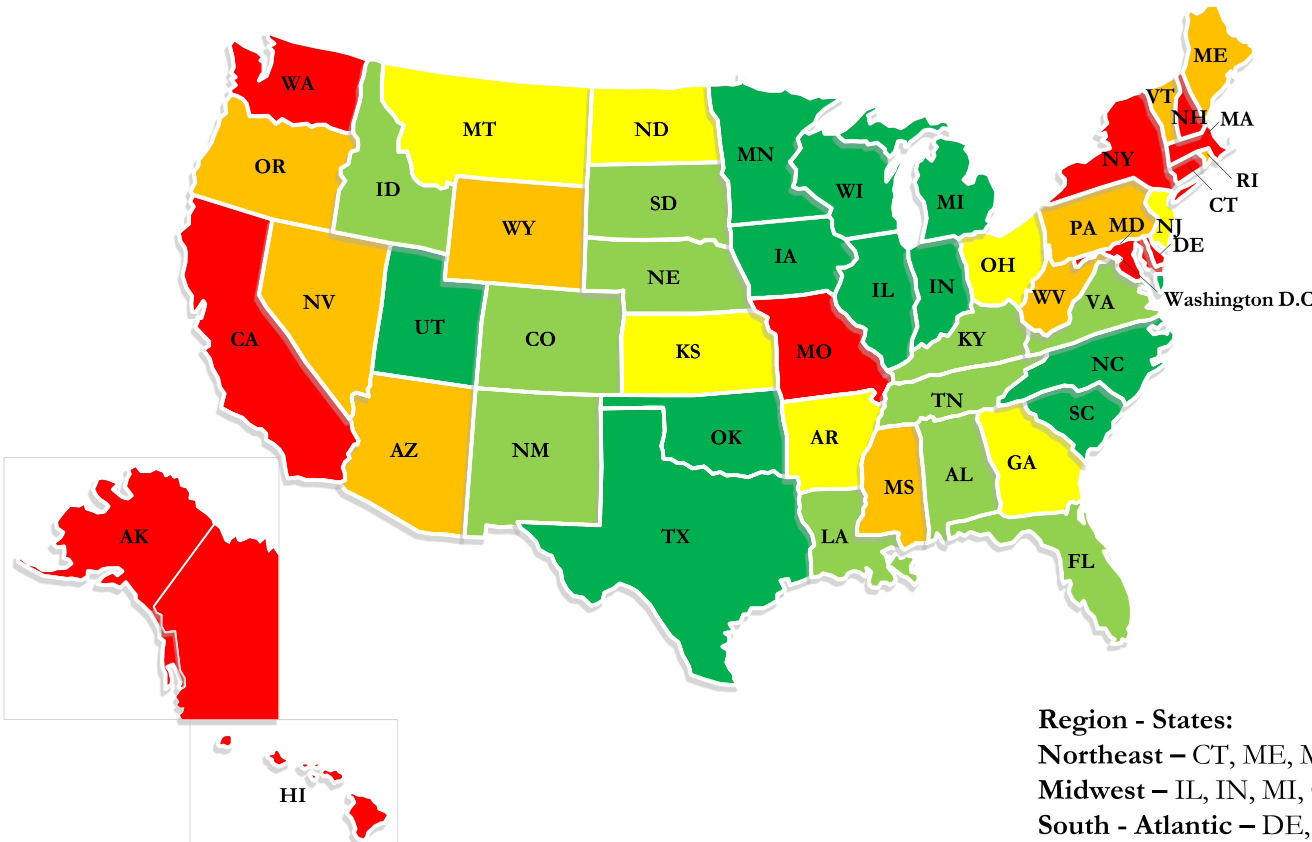
Exhibit 2 – American Bank ATM fall in hits across US (2018)



Legend

Fall in average daily hits[1] per ATM (2013-2018)

- 30 hits
- 20 hits
- 10 hits
- 0 hits (Constant)
- <0 hits (Increase in hits)

Region - States:

Northeast – CT, ME, MA, NH, RI, VT, NJ, NY, PA

Midwest – IL, IN, MI, OH, WI, IA, KS, MN, MO, NE, ND, SD

South - Atlantic – DE, FL, GA, MD, NC, SC, VA, DC, WV

South – Central – AL, KY, MS, TN, AR, LA, OK, TX

West - Mountain – AZ, CO, ID, MT, NV, NM, UT, WY

West - Pacific – AK, CA, HI, OR, WA

1. hits = number of unique times an ATM was used

Case 1: American Bank ATM Dilemma

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Exhibit 3 – Operating costs for American Bank ATMs (2018)

Region	Operating Structure		
	BO-BO	BO-VO	VO-VO
	# ATMs		
Northeast	250	750	1000
Midwest	1000	800	200
South - Atlantic	1500	250	250
South - Central	1500	350	150
West - Mountain	1200	500	300
West - Pacific	0	500	1500
	Daily Operating Cost to bank per ATM ($)		
Operating Cost	$100	$60	$0

Operating Structure:
BO-BO = Bank Owned, Bank Operated
BO-VO = Bank Owned, Vendor Operated
VO-VO = Vendor Owned, Vendor Operated

Owner pays rent, utilities
Operator pays for maintenance, cash mgmt.

Region - States:
Northeast – CT, ME, MA, NH, RI, VT, NJ, NY, PA
Midwest – IL, IN, MI, OH, WI, IA, KS, MN, MO, NE, ND, SD
South - Atlantic – DE, FL, GA, MD, NC, SC, VA, DC, WV
South – Central – AL, KY, MS, TN, AR, LA, OK, TX
West - Mountain – AZ, CO, ID, MT, NV, NM, UT, WY
West - Pacific – AK, CA, HI, OR, WA

Case 1: American Bank ATM Dilemma

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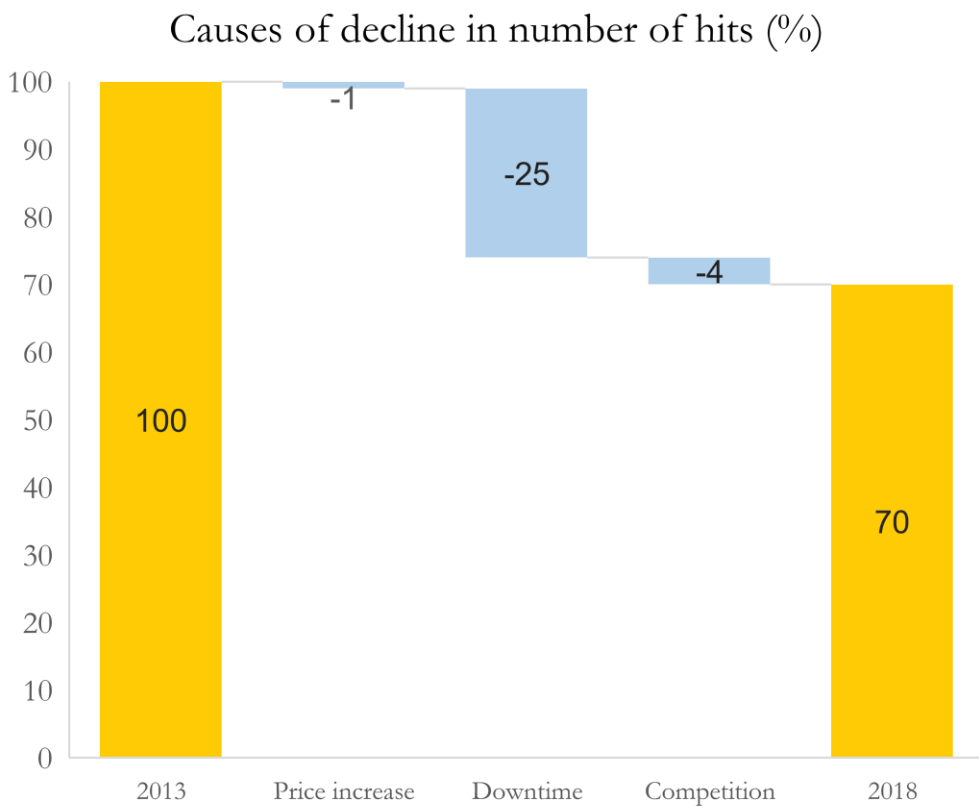
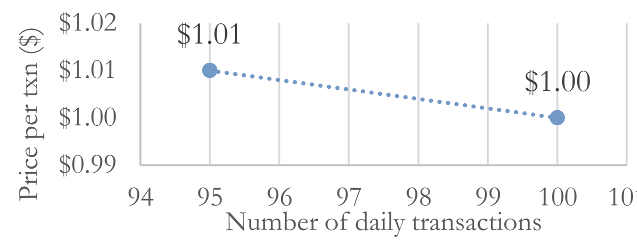
Exhibit 4 – Reasons for reduction in hits in vendor operated[1] ATMs

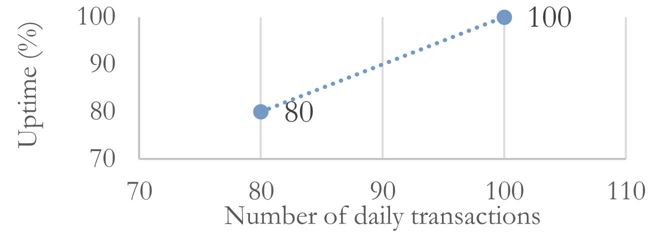


1. Vendor operated ATMs are ATMs where operations are outsourced to a vendor
2. American Bank cannot reduce transaction prices further from current levels
3. Uptime is the % of time the ATM is functional; Downtime = 100% - Uptime

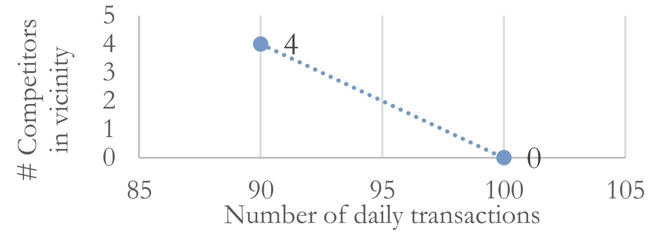
Price correlation[2]



Uptime[3] correlation



Competition correlation



Case 1: American Bank ATM Dilemma

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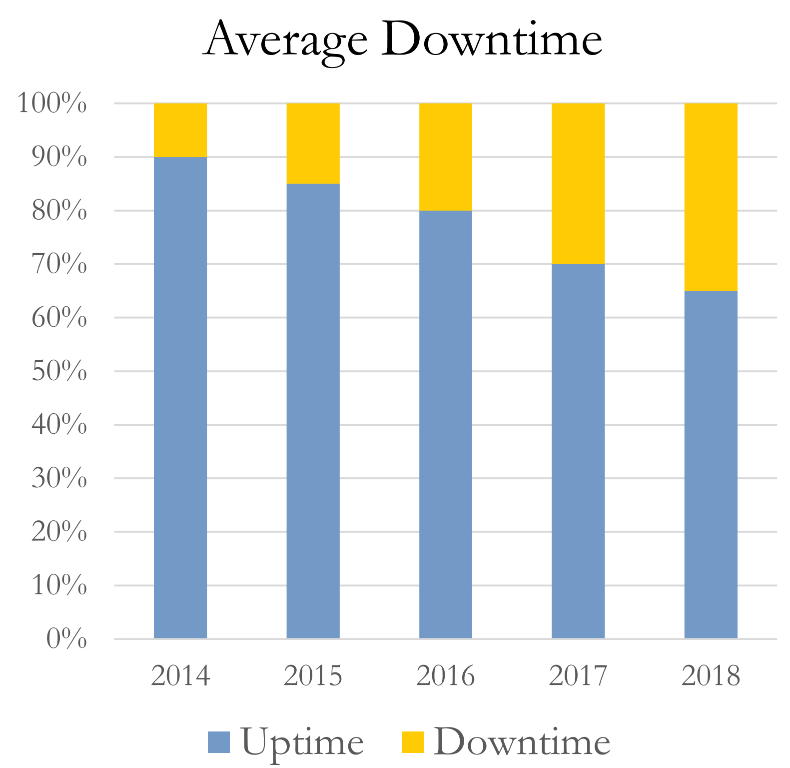
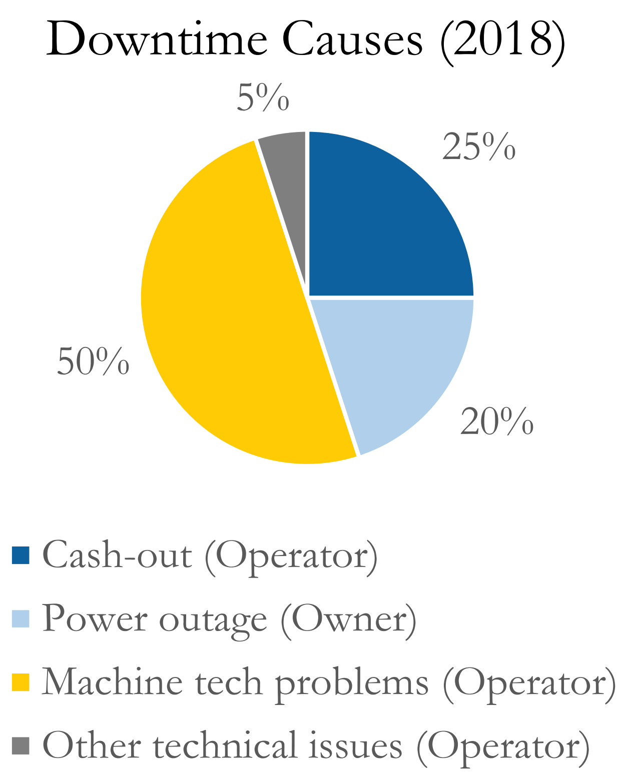
Exhibit 5 – Downtime pattern and causes in vendor operated[1] ATMs





1. Vendor operated ATMs are ATMs where operations are outsourced to a vendor (a vendor is the operator)

Note: Cash-out = Amount of time the ATM is out of cash to dispense ; Power outage = Amount of time the ATM does not have electricity to run

Note: (Operator) = Operator responsibility ; (Owner) = Owner responsibility

Case 1: American Bank ATM Dilemma

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Exhibit 6 – Revenues from ATMs (2018)

Customer Type	Operating Structure					
	BO-BO		BO-VO		VO-VO	
	Fin.	Non-fin.	Fin.	Non-fin.	Fin.	Non-fin.
	Revenue for American Bank from each hit[2]					
American Bank (Own) customer[1]	$2.0	$1.5	$1.5	$1.0	$1.0	$0.5
Other customer	$2.5	$2.0	$2.0	$1.5	$1.5	$1.0
Own : Other Ratio	1 : 1					
Region	# Average Daily Hits (Own + Other)					
Northeast	12	10	12	8	8	12
Midwest	127	173	97	73	48	62
South - Atlantic	43	57	22	48	56	34
South - Central	35	55	35	20	15	40
West - Mountain	32	48	21	16	19	11
West - Pacific	0	0	18	2	6	14

Operating Structure:
BO-BO = Bank Owned, Bank Operated | BO-VO = Bank Owned, Vendor Operated | VO-VO = Vendor Owned, Vendor Operated
Transaction type: Fin. = Financial transactions | Non-fin. = Non financial transactions

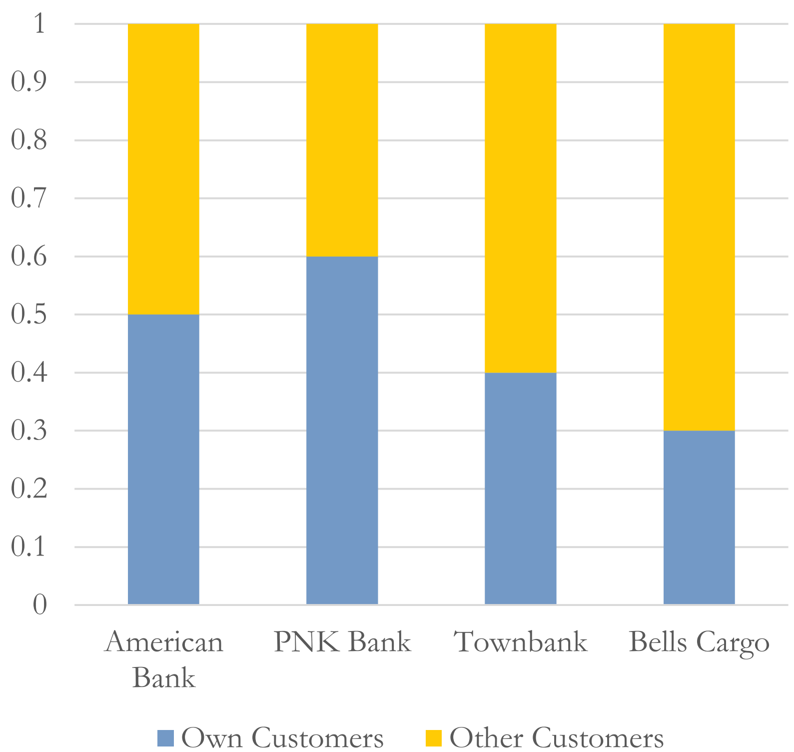
1. While American Bank does not charge its own customers, revenue is calculated as estimated savings because customer is not using the branch
2. For vendor-operated ATMs, revenue for American Bank is calculated after deducting vendor commissions on transactions

Case 1: American Bank ATM Dilemma

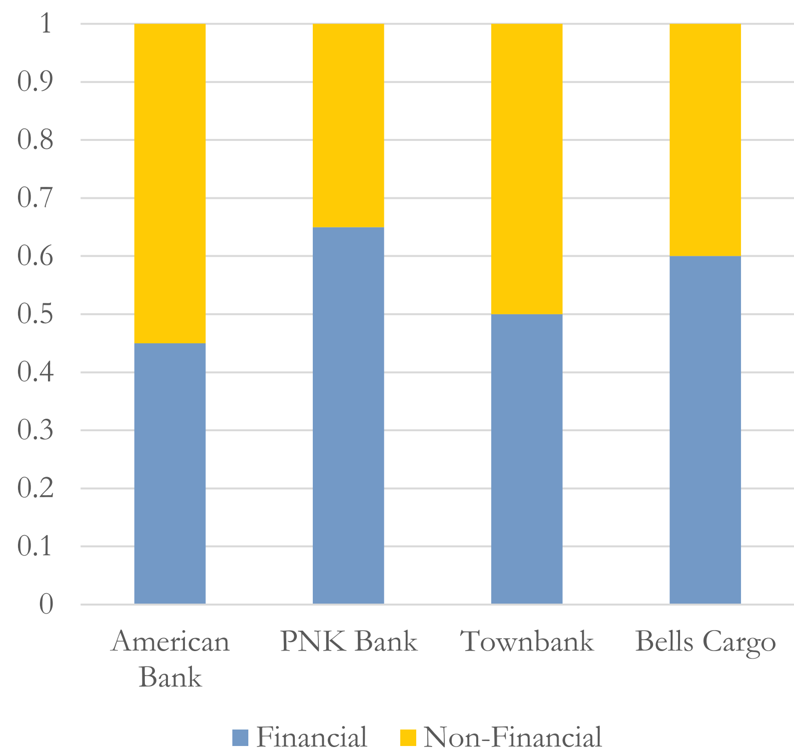
Financial Services | Profitability Improvement

Exhibit 6A – Metrics comparison with competition (2018)

Proportion of Own : Other customers



Proportion of Fin : Non-Fin transactions



Case 1: American Bank ATM Dilemma

Financial Services | Profitability Improvement

Exhibit 1 Insights

1. Hits (txns) falling – main problem for exploration
2. Other customers smaller portion of transactions
3. Costs are constant across all 5 years

Exhibit 2 Insights

1. Maximum decline in average daily ATM hits in 2 regions - Northeast and West-Pacific

Exhibit 3 Insights

1. Northeast and West-pacific have high vendor operated ATMs =>
2. Problem with Vendor Operated ATMs (BO-VO and VO-VO)

Exhibit 4 Insights

1. Downtime major reason
2. Price increase is not helpful due to high demand elasticity
3. Competitors not affecting transactions

Exhibit 5 Insights

1. Downtime increased by 25% in last 5 years
2. Operator contributing to 80% of downtime issues
3. Vendor management and contracts to be explored

Exhibit 6/6A Insights

1. Ex.6 - $0.5 more revenue from other customers
2. Ex.6 - $0.5 more revenue from financial txns
3. Ex.6A – competition better at both metrics

Case 1: American Bank ATM Dilemma

Financial Services | Profitability Improvement

Ideas for profitability improvement and revenue potential (1)

1. Manage vendors in **Northeast and West-Pacific regions** to eliminate downtime:
   - Vendor management will increase uptime by 80% (% operator responsibility) * 25% (uptime increase) = 20%
   - 20% increase in uptime -> Increase in 20 transactions (hits) per ATM in both regions for –VO ATMs
   - 20 additional daily hits to be allocated proportionally to financial and non-financial transactions:

Region	Given info - Operating Structure (# hits)				Calculation - Allocation of 20 new hits			
	BO-VO		VO-VO		BO-VO		VO-VO	
	Fin.	Non-Fin.	Fin.	Non-Fin.	Fin.	Non-Fin.	Fin.	Non-Fin.
Northeast	12	8	8	12	12	8	8	12
West - Pacific	18	2	6	14	18	2	6	14
Avg Rev. / hit	$1.75	$1.25	$1.25	$0.75	$1.75	$1.25	$1.25	$0.75

   - Calculating additional revenue from new hits –
     - Northeast (BO-VO) increase = [12 (Fin)*$1.75 + 8 (Non-Fin)*$1.25] * 750 ATMs = $23,250
     - Northeast (VO-VO) increase = [8 (Fin)*$1.25 + 12 (Non-Fin)*$0.75] * 1000 ATMs = $19,000
     - West-Pacific (BO-VO) increase = [18 (Fin)*$1.75 + 2 (Non-Fin)*$1.25] * 500 ATMs = $17,000
     - West-Pacific (VO-VO) increase = [6 (Fin)*$1.25 + 14 (Non-Fin)*$0.75] * 1500 ATMs = $27,000
   - Total increase in revenue (and therefore profits) = $23,250 + $19,000 + $17,000 + $27,000 = **$86,250**

Case 1: American Bank ATM Dilemma

Financial Services | Profitability Improvement

Ideas for profitability improvement and revenue potential (2)

2. Increase proportion of other customers using ATMs to Bells Cargo levels and proportion of financial transactions to PNK bank levels

Bank	Refer Exhibit	% Fin txns	% Other Customers
American Bank	6A	45%	50%
Best-in-class competitor	6A	65%	70%
Improvement potential	-	20%	20%
Extra revenue per txn	6	$0.5	$0.5

>

Extra Fin. txns

20% * 80% of all hits
$0.5 extra rev
20%*80%*$0.5 = $0.08

20% * 20% of all hits
$0.5 + $0.5 = $1 extra rev
20%*20%*$1 = $0.04

No-change in customer type

Extra Other customers

80% * 80% of all hits
$0 extra rev
80%*80%*$0 = $0

20% * 80% of all hits
$0.5 extra rev
20%*80%*$0.5 = $0.08

No-change in txn type

- Additional average revenue per hit from new financial and "other" customer transactions =>

  = $0.04 + $0.08 + $0.00 + $0.08 = **$0.2**

(Easier method: 20%*$0.5 + 20%*$0.5 = $0.2)

- Total Additional revenue potential = $0.2 * (85 hits {Exhibit 1} * 12000 ATMs {Exhibit 4}) = **$204,000**

Total revenue increase = (1) + (2) = $86,250 + $204,000 = **$290,250**

Since there are no cost implications, total profit increase potential from both ideas = **$290,250**

Case 1: American Bank ATM Dilemma

Financial Services | Profitability Improvement

Interviewer question: What is the average break-even number of daily hits?

Calculation:

- **Interviewer to ask interviewee to assume both financial : non-financial transactions and own : other customer ratios as 1:1 for simplicity in calculations**
- Interviewee must identify that this only applies to bank-owned ATMs, since operating costs to American bank for vendor-owned ATMs is $0.
- **BO-BO Breakeven** = $100 (cost) / [0.5*0.5*($1.5+$2+$2+$2.5)] (avg. rev. per hit) = **50 hits**
- **BO-VO Breakeven** = $60 (cost) / [0.5*0.5*($1.0+$1.5+$1.5+$2.0)] (avg. rev. per hit) = **40 hits**

Follow-on question -> What can we do with loss making ATMs? (after all tries of improving hits):

- Add other transaction types to ATM (functionalities such as check deposit, cash deposit, etc.)
- Allocate intangible revenues to ATMs in prime locations (marketing of bank, etc.)
- Negotiate operating costs with vendor (if vendor operated)
- Relocate ATM to better spot
- Shut down ATM / Sell off ATM to vendor

Case 1: American Bank ATM Dilemma

Financial Services | Profitability Improvement

Recommendations

Two recommendations to increase revenue (and profits):

1. Improve vendor management practices and look into vendor contract structures in Northeast and West-Pacific regions
   - Impact of **$86,250**
2. Increase proportion of financial and other customer transactions to best-in-class competitor levels
   - Impact of **$204,000**

Total revenue (and profit) potential = **$290,250**

Risks

Risks include:

1. Costs to manage vendors and change transaction types (marketing, etc.) can be very high
2. More ATM usage might lead to branch employees going out of work resulting in the need for firing of employees
3. Investment in ATMs may reduce attention on channels such as online banking which are growing more rapidly

Next Steps

American Bank should:

1. Start looking into vendor contract structures in Northeast and West-Pacific regions
2. Identify loss-making ATMs and take appropriate action
3. Study customer usage patterns to improve transaction mix

Case 2: Harrison Energy EV Goals

Power & Utilities | Market Entry

Case 2: Harrison Energy EV Goals

Power & Utilities | Market Entry

Case Prompt

Our client, Harrison Energy, is one of the largest power & utilities companies in the US. You are in the year 2018, and the CEO sees electric vehicles as an attractive market and wants to enter the space. She needs help understanding how and when to enter the market, and the associated ROI. She has hired your firm to help formulate a strategy.

Interviewer Guidance

This is an interviewee led case. Brainstorm with interviewee to answer the following questions:

1. What factors will you consider to formulate a market entry strategy? (framework)
2. When should we enter the market? (Hand Exhibit 1).
3. Which parts of the value chain should we enter and how? (Hand Exhibit 2). Brainstorm to lead interviewee to ask for Exhibit 3.
4. What other considerations should the client have to prioritize market entry?

Concepts Tested	Problem structuring, Brainstorming, Graph reading

Case 2: Harrison Energy EV Goals

Power & Utilities | Market Entry

Clarifying Information

- Goal/objective is to be present in a new market and add more sources of revenue and eventually profits.
- Scope limited to the US market only
- Client is not currently involved in the EV market
- Client wants to know when to enter the market
- Harrison Energy does not know where in the EV value chain it wants to play
- Harrison Energy wants to break-even on any investment in 5 years

Possible Framework

Problem: Enter electric vehicle market

- Market –
  - Market size across EV components
  - Growth rate
  - Maturity of EV market (Is tech still developing?)
  - Competitors and market share
  - Regulations / policies in EV space
- Financials –
  - Potential revenue (market size, share)
  - Potential costs (set up, operations)
- Proposition –
  - Value chain components of EV
  - Synergies with current business
  - Customer segments – individual vehicle owners / business owners
  - Supplier concentration (how difficult is it to provide product/services?)
- Entry strategy (for different value chain elements) –
  - Merge/Acquire smaller players
  - Build from scratch (in-house/outsourced)

Case 2: Harrison Energy EV Goals

Power & Utilities | Market Entry

Brainstorm when to enter the EV Market

The EV market will be best to enter when:

A. Internal Readiness

  i. Harrison Energy has developed capabilities in the segments it wants to enter

  ii. Harrison Energy has been able to raise the capital needed to enter the market (internal cash or external debt or equity)

B. External Readiness

  i. The costs of owning EV vehicles is lower than that of regular (ICE[1]) vehicles

  ii. There is adequate infrastructure such as charging stations, maintenance services for electric vehicle models

  iii. Large companies such as Harrison Energy would prefer to enter in the growth phase vs. introduction phase (in the market maturity curve)

Once the interviewee arrives at these points, say that <u>external readiness</u> is the bottleneck and **hand Exhibit 1** to calculate the right time to enter the market.

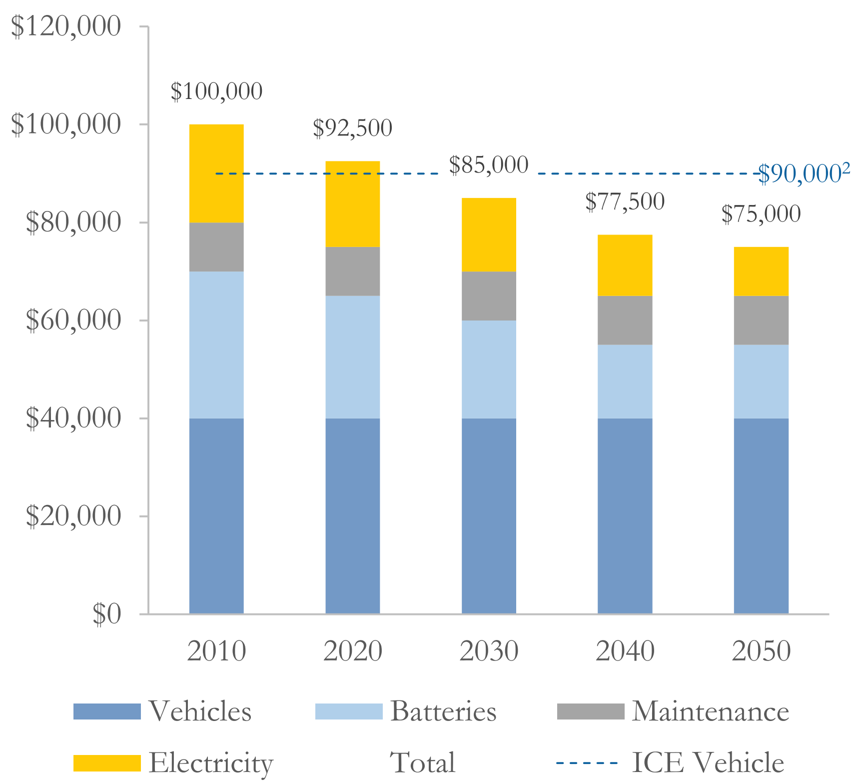
1. ICE vehicle = Internal Combustion Engine vehicle (most commonly found type of vehicle today)

Case 2: Harrison Energy EV Goals

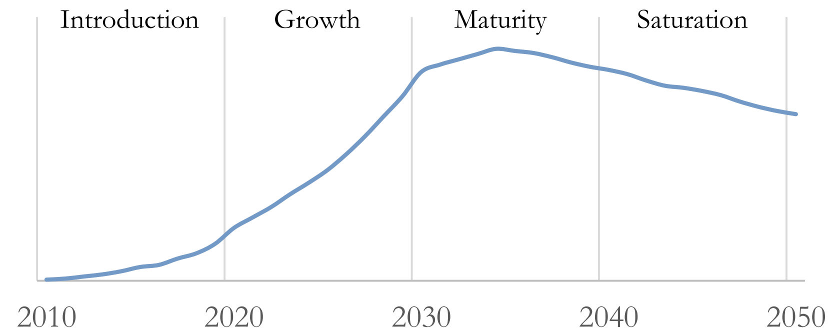
Power & Utilities | Market Entry

Exhibit 1 – Market maturity and Total Cost of Ownership

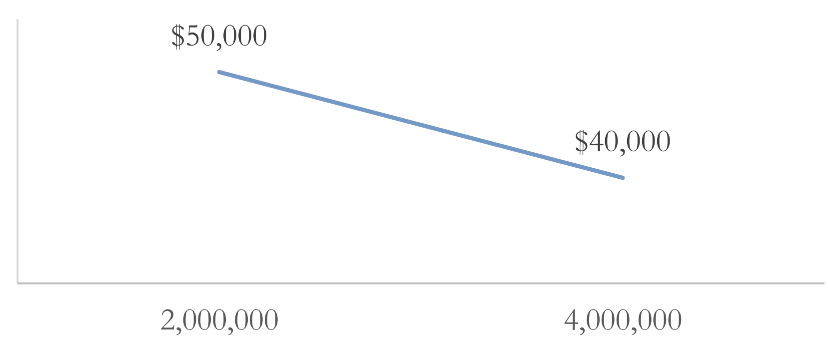
Total Cost of Ownership (TCO[1]) of EV vehicle for 10 years



EV Market Maturity Curve



Price ($ TCO) to demand (#) correlation



1. Total Cost of Ownership (TCO) includes all costs of owning, running and maintaining a vehicle (includes vehicle cost, fuel/electricity cost, maintenance)
2. ICE vehicle = Internal Combustion Engine vehicle (most commonly found type of vehicle today)

Case 2: Harrison Energy EV Goals

Power & Utilities | Market Entry

Calculations / Working for when to enter EV Market

Time of entry:

Exhibit 1: TCO of ICE vehicle - $90,000. TCO of EV in 2020 is $92,500 and in 2030 is $85,000.

The demand will spike when total cost of owning an EV is less than the total cost of owning an ICE vehicle.

Doing a quick linear regression, TCO of EV = $90,000 in 2023, and goes further down after that.

Calculation:

2020 + ($92,500 - $90,000)/($92,500 - $85,000) * (2030 - 2020)

⇒ 2020 + ($2,500 / $7,500) * 10

⇒ 2020 + 10/3

⇒ 2023

This is when demand will spike and is the best time for entry. 2023 is 5 years from current date (2018).

Comparing with maturity curve, we see that 2023 lies in the growth phase and is the best time to enter the market.

The TCO – demand correlation curve also supports a high price elasticity, implying that it is best to enter when the price is lower and the demand is high.

Case 2: Harrison Energy EV Goals

Power & Utilities | Market Entry

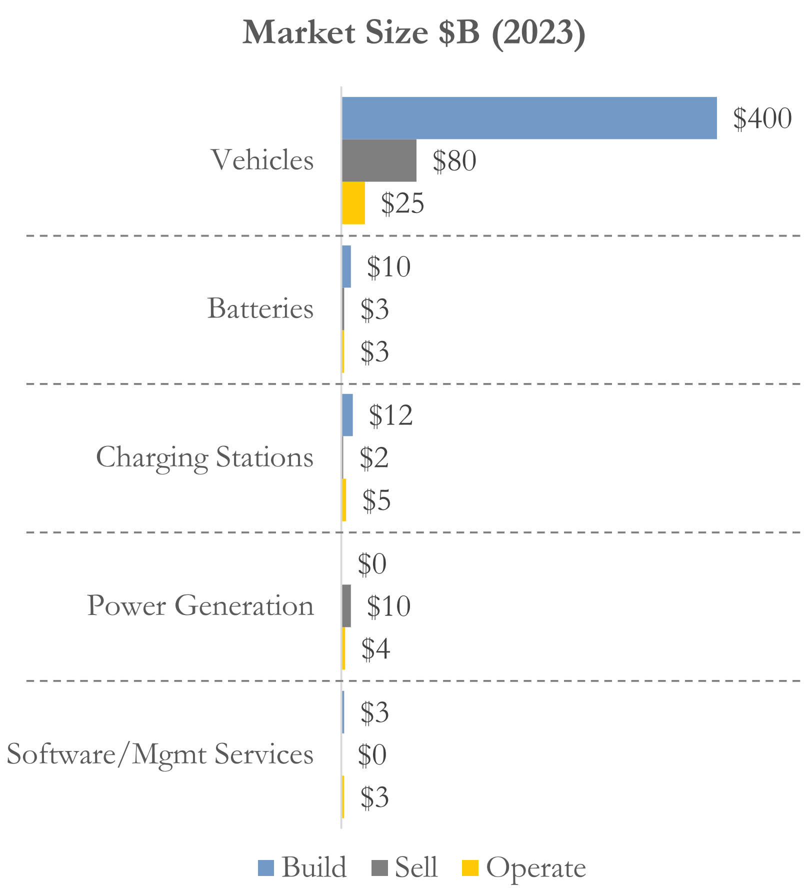
Interviewer Guidance for segment / proposition selection

- Brainstorm with interviewee on next steps -> drive interviewee to think about which segment of the market should Harrison Energy enter. Hand Exhibit 2.
- After calculations on Exhibit 2, ask interviewee about other options for non-feasible value chain elements. Once interviewee arrives at the conclusion that Harrison Energy could acquire other players, hand Exhibit 3.

Case 2: Harrison Energy EV Goals

Power & Utilities | Market Entry

Exhibit 2 – Harrison Energy Capability Analysis



Harrison Energy Capability Analysis

Capability Level	Time to build inhouse	Cost to build
○	15 years	$30B
◔	10 years	$5B
◔	10 years	$1B
◔	10 years	$600M
◕	2 years	$50M
◕	4 years	$100M
◕	2 years	$500M
●	Capable	$0
◑	3 years	$300M
○	N/A	N/A
●	Capable	$0
●	Capable	$0
◑	1 year	$300M
●	Capable	$0
◕	1 year	$200M

Note: Assume that in the best-case scenario, Harrison Energy can capture 10% market share and make 10% EBITDA margins on each value chain item. Harrison Energy wants a 5 year payback period on any investment. Assume stagnant market from entry to 5-year period for calculations.

Case 2: Harrison Energy EV Goals

Power & Utilities | Market Entry

Exhibit 3 – Options for acquisition

Component	Value Chain	Brand Alignment	Option #1 (cheaper)		Option #2 (faster)	
			Cost ($)	Time (years)	Cost ($)	Time (years)
Vehicles	Build	●	$20B	10	$40B	5
	Sell		$6B	8	$8B	6
	Operate		$1.1B	7	$1.2B	5
Batteries	Build	●	$400M	8	$550M	5
	Sell		$100M	3	$150M	1
	Operate		$50M	7	$150M	2
Charging Stations	Build	●	$400M	4	$800M	1
	Sell					
	Operate		$200M	4	$400M	2
Power Generation	Build	●				
	Sell					
	Operate					
Software / Mgmt. Services	Build	●	$100M	3	$200M	2
	Sell					
	Operate		$100M	3	$200M	2

● Low | ● Medium | ● High

Note: Assume that in the best-case scenario, Harrison Energy can capture 10% market share and make 10% EBITDA margins on each value chain item. Harrison Energy wants a 5 year payback period on any investment. Assume stagnant market from entry to 5-year period for calculations.

Case 2: Harrison Energy EV Goals

Power & Utilities | Market Entry

Calculations / Working for where and how to enter the EV Market

1. First, calculate the expected annual profits from each value chain element (Mkt size * 10% * 10%)
2. Calculate maximum cost budget considering 5 year payback period (Expected profits * 5)
3. Next, filter value chain elements where we can build capabilities in less than 5 years (time of market entry)
4. Finally, decide mode of entry [own vs acquire (Option 1 vs 2)] that satisfies all criteria.
5. Recognize that vehicles have poor brand alignment and are not a good entry option. Also, it could be a good idea to enter Batteries – Build even though it slightly exceeds the cost budget, to provide a holistic Batteries service

Component	Value Chain Element	Market size 2023 ($)	Exp. Profit 2023 ($)	Budget [Profit*5] ($)	Best cost with <=5 year	Time (years)	Mode of entry	Brand Alignment	Enter?	
Vehicles	Build	$400B	$4B	$20B	$40B	5	Acquire (Op#2)	Low	No	
	Sell	$80B	$800M	$4B	-	-	-	Low	No	
	Operate	$25B	$250M	$1.3B	$1.2B	5	Acquire (Op#2)	Low	No	
Batteries	Build	$10B	$100M	$500M	$550M	5	Acquire (Op#2)	Medium	Yes	Holistic service
	Sell	$3B	$30M	$150M	$50M	3	Build	Medium	Yes	
	Operate	$3B	$30M	$150M	$100M	4	Build	Medium	Yes	
Charging Stations	Build	$12B	$120M	$600M	$400M	4	Acquire (Op#1)	High	Yes	
	Sell	$2B	$20M	$100M		Already Capable		High	Yes	
	Operate	$5B	$50M	$250M		Already Capable		High	Yes	
Power Generation	Build	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Sell	$10B	$100M	$500M		Already Capable		High	Yes	
	Operate	$4B	$40M	$200M		Already Capable		High	Yes	
Software / Mgmt. Services	Build	$3B	$30M	$150M	$100M	3	Acquire (Op#1)	Medium	Yes	
	Sell	$0.0B	$0M	$0M		Already capable		Medium	Yes	
	Operate	$3B	$30M	$150M	$100M	3	Acquire (Op#1)	Medium	Yes	
Total (for Yes's)		**$55B**	**$550M**	**$2750M**	**$1300M**					

Case 2: Harrison Energy EV Goals

Power & Utilities | Market Entry

Brainstorm other considerations/prioritizations to enter the EV market

1. **Target customer segments** – go after business/industrial customers who are working towards electrifying their fleets (for sustainability) first (e.g.: UPS, PepsiCo, etc.)
2. **Geographies to enter** – Power & utility companies typically operate as monopolies in few states. Entering their own states first makes most sense.
3. **Regulations** – Tax incentives, rebates by government to encourage switch to electric vehicles (govt. promoting sustainability)
4. **Competition** – Cost/Product advantage of Harrison Energy over specialized players in each value chain element
   - Established customer base (easier marketing / lower marketing costs)
   - Leverage existing manufacturing and distribution network to scale easily (easier scaling)
   - Better supplier relations (higher bargaining power)
   - Better customer usage understanding (more targeted propositions)
   - Better government relations (can work with government authorities to leverage incentives in EV market)

Case 2: Harrison Energy EV Goals

Power & Utilities | Market Entry

Recommendations

Recommendation:

Harrison Energy should enter the EV market **after 5 years** in **all value chains except vehicles** because of poor ROI and brand alignment.

Expected annual profit w/o capability building costs = $550M (in 2023 dollars)

Harrison has existing capabilities in 5 value chain elements, can build in 2 and acquire competitors in 6 (3 op#1 and 3 op#2) with <5 year payback period

Risks

Risks include:

1. Outsourcing may not add the right amount of capabilities needed (little scope for further innovation)
2. Suppliers / acquisition targets may have high bargaining power which may result in longer timelines and costs than expected
3. Overlooking vehicles, which is the largest value chain element

Next Steps

Harrison Energy should:

1. Start negotiations with suppliers / acquisition targets
2. Identify customer segments to pilot existing capabilities
3. Create new organization structure / hire consultants to execute EV project

Case 3: Bailey Brothers Bancorp

Financial Services | Profitability Improvement

Case 3: Bailey Brothers Bancorp

Financial Services | Profitability Improvement

Case Prompt

Our client, Bailey Brothers, is a retail bank with several branches in Ann Arbor, Michigan. Their main competitor is Potter & Co., a regional bank that also operates in and around the Ann Arbor area. The CEO of Bailey Brothers, George Bailey, would like us to recommend ways to improve overall profitability in the face of an increasingly modernized industry.

Information provided upon request:

- Bailey Brothers and Potter both offer checking, savings, and retirement accounts, as well as mortgages and auto loans, CDs, and investment accounts.
- Bailey Brothers and Potter both have well developed mobile apps and online capabilities.
- Bailey Brothers has eight equally sized branches, has been in Washtenaw County for several decades, and is not considering expanding its footprint at this time.
- George would like to bring his profit margin to that of Potter's within two years.

Concepts Tested	Graph reading, Setting up calculations, Brainstorming

Case 3: Bailey Brothers Bancorp

Financial Services | Profitability Improvement

Interviewer Guidance

Exhibits: Candidate may ask for data specifically, but feel free to dump all the exhibits on them at once without context to allow the candidate to work through it on their own.

Exhibit 1: Given that the target is to match profit margin, the candidate should recognize that the exact number is given by the graph. A strong candidate will also note that the two firms were similar until recent years.

Exhibit 2: Candidate should identify that A) Online access is increasing, and B) In-person, branch interaction is not displayed here but can be implied to be dropping as online interaction rises. 2018 data indicates that 85% of customers to interact with BB primarily through online means, so it can be inferred that only 15% primarily use a physical branch.

Exhibit 3: Each line-item for Potter is exactly 8X that of Bailey Brothers, with the exception of branch expenses. Since branch interaction is falling, the cost-saving solution would be to reduce the number of branches in the Bailey Brothers footprint. A reduction in branches from 8 (annual cost of $12M) to 4 (annual cost of $6M) will bring Bailey in line with Potter in relative expenses and therefore profit (which a good candidate will notice), however if the candidate begins to calculate the new margin, let them.

Case 3: Bailey Brothers Bancorp

Financial Services | Profitability Improvement

Framework

A solid framework would include both revenue (new product offerings, pricing, account size, etc.) and cost (salaries, marketing, client acquisition expense) buckets. Bonus points if the candidate recognizes that a bank likely won't have variable costs in the same way a CPG or industrial company will. After sufficient brainstorming of profitability factors, guide the candidate toward costs as this will be the focus of the case.

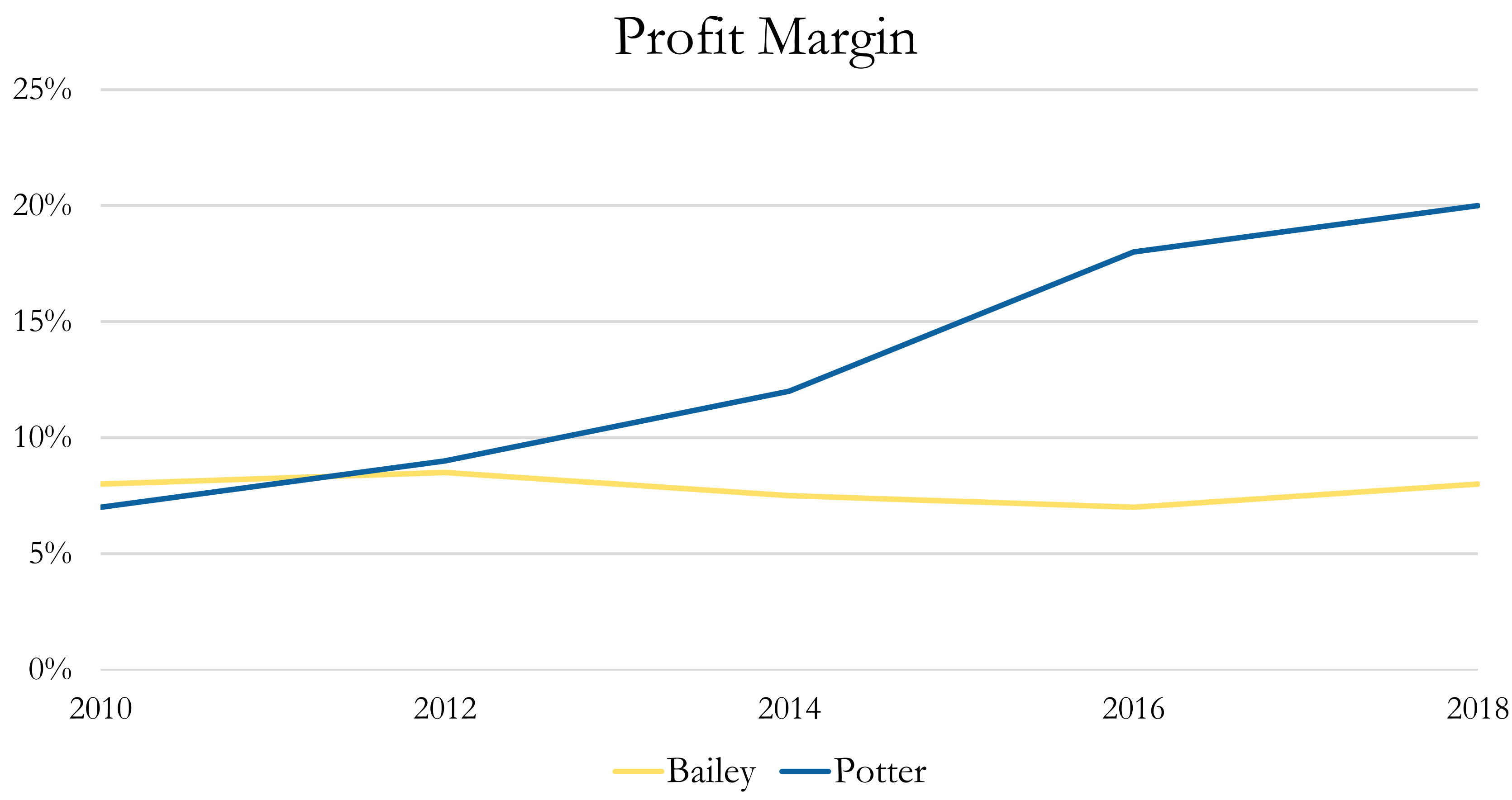
Recalculated Income Statement

Revenue	$50
Salaries and Wages	$20
Branch Expenses	**$6**
Marketing	$8
Website/App	$6
Total Operating Expenses	$46
Profit Margin	***20%***
EBITDA	**$10**

Case 3: Bailey Brothers Bancorp

Financial Services | Profitability Improvement

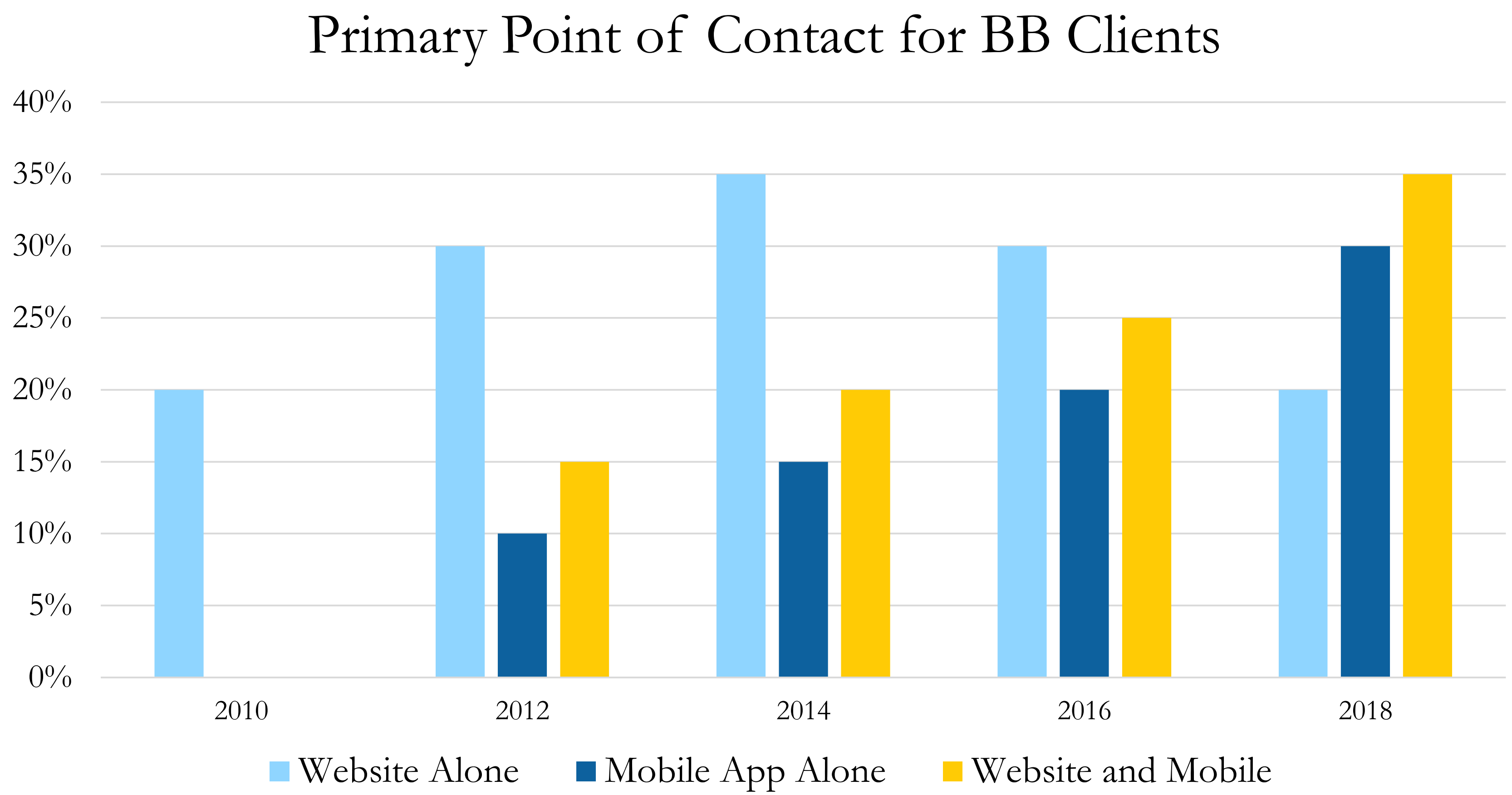
Exhibit 1



Case 3: Bailey Brothers Bancorp

Financial Services | Profitability Improvement

Exhibit 2



Case 3: Bailey Brothers Bancorp

Financial Services | Profitability Improvement

Exhibit 3

Income Statements, FY18 (MM)		
	Potter & Co	Bailey Brothers
Revenue	$400	$50
Salaries and Wages	$160	$20
Branch Expenses	$48	$12
Marketing	$64	$8
Website/App	$48	$6
Total Operating Expenses	$320	$46
EBITDA	$80	$4

Case 3: Bailey Brothers Bancorp

Financial Services | Profitability Improvement

Recommendations

Recommendation:

Bailey Brothers should close 4 of its 8 branches. The brick and mortar presence is no longer necessary and the cost savings will boost margins from 8% to 20%.

Risks

Risks include:

1. Loss of remaining clientele that doesn't use online resources
2. Possibility of longer term leases on branch properties that can't be exited immediately
3. PR/morale erosion from layoffs of employees working at branches

Next Steps

Bailey Brothers Bancorp should:

1. Further analysis into which branches to close to minimize customer impact
2. Exploration of leasing contracts and/or selling property assets
3. Campaign to educate remaining 15% of offline customers in online capabilities
4. Retraining (or buying out/shifting location of) branch employees

Case 4: Orange Bank Co

Financial Services | M&A

Case 4: Orange Bank Co

Financial Services | M&A

Case Prompt

Our client, an Amsterdam based retail bank, has seen exceptional growth in the last 5 years. They are involved in commercial banking, investment banking and wealth management. Currently, they are looking to acquire another bank in Europe. The CEO of Bank Co has hired our firm to help identify an ideal acquisition target.

Interviewer Guidance

This is a typical McKinsey style case. After the prompt, let the interviewee ask clarifying questions and then begin testing the interviewee's capability of creating a structure to solve the problem. After that, move onto the other questions as listed below. This case is about comparing various acquisition targets from a financial and non-financial synergies standpoint.

Concepts Tested	Graph reading, Setting up calculations, Brainstorming

Case 4: Orange Bank Co

Financial Services | M&A

Clarifying Information

- There is no metric for the client to measure success
- The rationale of the acquisition is to expand outside Amsterdam
- They are open to acquiring organizations with same/different financial products
- Size of Bank:
  - Customers: 600K
  - Assets Under Management: $10B

Possible Framework

1. **Market Attractiveness**
   - Market size
   - Market growth
   - Consumer trends
2. **Financial Attractiveness**
   - Revenue
   - Cost – FC and VC
3. **Synergies**
   - Product
   - Consumer
   - Other Costs
4. **Risks**
   - Brand Erosion
   - Culture
   - Regulatory

Case 4: Orange Bank Co

Financial Services | M&A

Exhibit Insights & Brainstorming

Initial Insights: The candidate should start with at least some of these:

- We are looking at the variety of sizes – from smaller than us to bigger than us
- There is a visible trend that smaller the firm, higher the number of average products sold/ customer
- Average profitability/ customer doesn't follow a particular trend so there are some differences in the way these firms operate

Please drive the candidate to at least 2 of the above insights then ask deep dive questions regarding each of these questions:

Question 1: What do you think are the advantages and disadvantages of acquiring these firms based on size? **Expected answers:**

- Acquiring a smaller firm will be easier to manage vs. larger
- Difference in financial capital required
- Market perception would vary
- Larger firm would enable faster market entry
- Any other logical reason is also acceptable

Case 4: Orange Bank Co

Financial Services | M&A

Exhibit Insights & Brainstorming

Question 2: Why do you think the average products sold differ? **Expected answers:**

- Better customization at smaller size
- Larger company might have higher number of products covering large customer segments
- Better customer service/ salesforce
- Better products
- Any other logical reason is also acceptable

Question 3: Why does the profitability differ? **Expected answers:**

- Higher price per product
- Better costs (ask the candidate to split costs)
- Better talent productivity
- Better financial management
- Better overhead management
- Any other logical reason is also acceptable

Case 4: Orange Bank Co

Financial Services | M&A

Questions	Calculation
Question 4: Ask the customer based on the data they have – if you have to choose one bank to acquire – which one are you inclined towards? Any answer is acceptable with a sound logic. **Question 5:** If the # of customers for Bank Co is 600K and the average profitability is $160. What would be our increased profitability if we acquire Bank A vs. Bank B vs. Bank C? Assume there are no synergies.	**Bank Co profitability: $600K * $160 = $96M** Bank A profitability: $600K * $100 = $60M Bank B profitability: $800K * $90 = $72M Bank C profitability: $300K * $75 = $22.5M **Increase in profitability** Bank Co. + Bank A: ($96M + $60M)/(600K + 600K) = ~$130/ customer Bank Co. + Bank B: ($96M + $72M)/(600K + 800K) = ~$120/ customer Bank Co. + Bank C: ($96M + $22.5M)/(600K + 300K) = ~$130$/ customer **Thus Bank A or Bank C gives us the same profitability**

Case 4: Orange Bank Co

Financial Services | M&A

Questions

Question 6: Now that Bank A and Bank C are giving us the same profitability – what other factors will you look at to decide between them?

Risks

Regulations will need to verified in the new geography to understand its impact on the bank operations

Integration of culture will need to be worked on

Brand perception will need to be considered if the target bank's current reputation is not good

Answer: Synergies & Risks

Synergies

Financial synergies

- Increase in revenue: ease of capturing customers, different products might present cross-sell/up-sell opportunities, price increase possible in case of monopoly, etc.
- Reduction in cost: consolidation of branches, better management of finances, consolidation of labor, less overheads

Non-financial synergies

- Specialization sharing: If there are differences in specialization, these could be leveraged such as customer service, product innovation etc.
- Process optimization: Larger processes present an optimization opportunity
- Brand presence: Bank Co will become a multi-national bank leading to increase in stock price

Any other logical reason is acceptable

Case 4: Orange Bank Co

Financial Services | M&A

Exhibit 1: Number of Customers - 600			
Acquisition Target	Total # of customers	Average products sold/ customer	Average profitability/ customer
Bank A	600K	4.3	$100
Bank B	800K	3.4	$90
Bank C	300K	6.1	$75

*All targets are located in Luxembourg

Case 5: ShopOn

Retail | Profitability Improvement

Case 5: ShopOn

Retail | Profitability Improvement

Case Prompt

Our client, a US based e-commerce company, ShopOn, has seen a rise in customer returns over the last few quarters. Even though its revenue and market share have been increasing every quarter, the CEO is concerned that customer returns will start impacting the margins soon. The CEO of ShopOn wants your help to identify the reasons behind the high rate of returns and create a mitigation strategy.

Interviewer Guidance

This is a typical McKinsey style case. After the prompt, let interviewee ask clarifying questions and then begin with testing the interviewee's ability to build a framework for an industry with high growth and disruption. After that, move onto exhibits, followed by a brainstorm question. The case has a lot of exhibits and the interviewee will have to identify reasons for rising customer returns and recommendations from those.

Concepts Tested	Graph reading, Setting up calculations, Brainstorming

Case 5: ShopOn

Retail | Profitability Improvement

Clarifying Information

- Customer returns refer to products returned by customers post-delivery and not order cancellations before delivery.
- The return period for any ShopOn product is 30 days from the day of delivery.
- Even though new competitors keep entering the market, there has been no new competitor in the last few quarters that could bring about any significant change to ShopOn. ShopOn is ranked #3 in the e-commerce space
- ShopOn holds 50% of the product inventory in its warehouses and 50% is a marketplace for sellers.
- The mitigation strategy should focus on both short-term (next 1-3 quarters) and long-term action items (next 2-3 years)
- No investment guidance has been provided.

Case & Exhibit Guidance

1. After the interviewee prepares and explains the framework, the interviewer will prompt the interviewee to move forward with Exhibits, which cover the most important reason for increase in return % i.e. change in product mix.
2. After the interviewee has answered the math question, the interviewer will lead the interviewee to brainstorming.
3. Finally, the interviewer will prompt for a recommendation.

Case 5: ShopOn

Retail | Profitability Improvement

Possible Framework

1. **Change in product mix**
2. **Product issues**
   - Apparels - Size/fit/color
   - Electronics – Damaged/malfunctioning/perceived defect
   - Household – Damaged/color/size
   - Food – expired/seal broken
3. **Pricing issues**
   - Better price available elsewhere
   - Better price available on ShopOn now
4. **Delivery issues**
   - Product arrived late
   - Wrong product delivered
   - Shipping box damaged

Possible Framework

5. **Others**
   - Inaccurate website description
   - No longer needed
   - Bought by mistake
   - Desirable product was out of stock then and now it is back in stock
   - Fraudulent behavior by customers i.e. used the product and returned within the return policy

Case 5: ShopOn

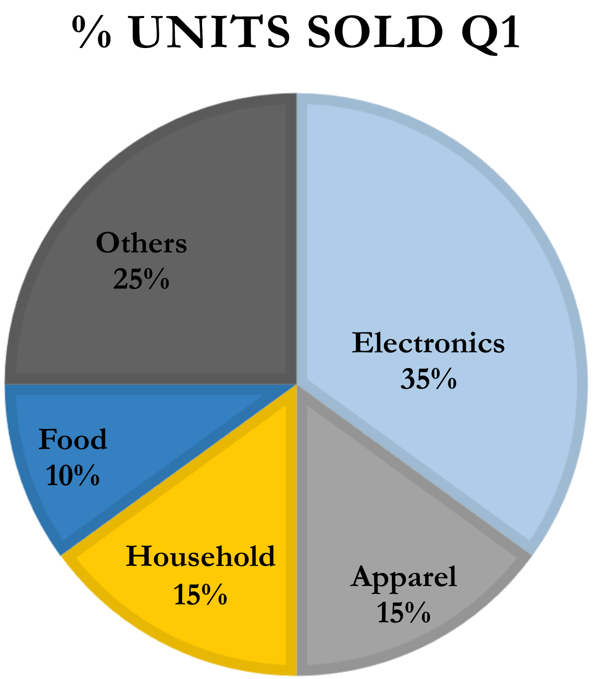
Retail | Profitability Improvement

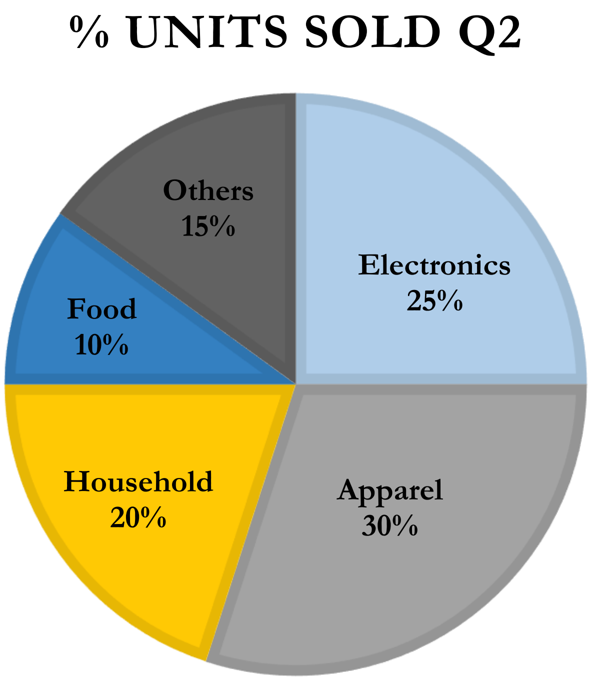
Question 1

Looking at the below exhibits, what was the customer returns % of ShopOn in the last 2 quarters and what led to the change?

Exhibits

Product Category	Returns %
Electronics	2%
Apparel	5%
Household	4%
Food	2%
Others	3%





Case 5: ShopOn

Retail | Profitability Improvement

Solution

Qtr. 1	% Units Sold	Returns %	Total Returns		Qtr. 2	% Units Sold	Returns %	Total Returns
Electronics	35%	2%	0.70%		Electronics	25%	2%	0.50%
Apparel	15%	5%	.75%		Apparel	30%	5%	1.50%
Household	15%	4%	0.60%		Household	20%	4%	0.80%
Food	10%	2%	0.2%		Food	10%	2%	0.20%
Other	25%	3%	0.75%		Other	15%	3%	0.45%
Total			3%		Total			3.45%

The reason for change in the return % is the change in product mix. More units of Apparel and Household are being sold that have a return % higher than that of the company average.

Case 5: ShopOn

Retail | Profitability Improvement

Brainstorming Question

Question: Now that we know that the apparel business is leading to the increased returns %, on analyzing further we found that a large number of products had quality issues and hence were being returned by the customer. What are the various costs that are involved with a return in the apparel business and how can we reduce those?

Solution

Ways to reduce costs:

- Customer to re-package before returning the order
- Customer to be provided with sellers address to ship returns directly
- Customer to be charged if the original product is not returned within 30 days
- Supplier contracts to be changed so that they bear COGS in case of returns
- Improve warehouse processes to ensure customers are always sent the correct order

Return without replacement:

- Shipping & Inventory holding cost
- Re-packaging if product is not damaged
- Shipping cost to seller if product is damaged
- COGS

Return with replacement product:

- Shipping cost
- Inventory holding cost
- Product cost if original product not returned
- Shipping cost to seller if product is damaged
- COGS

Case 5: ShopOn

Retail | Profitability Improvement

Recommendations

Recommendation:

1. Reduce the returns % of apparels business by delisting products with poor rating
2. Reduce the returns % of apparels business by onboarding verified sellers and blacklisting sellers with poor reviews
3. Reduce the return costs by asking the customer to check the product at the time of delivery

Risks

Risks include:

1. ShopOn can lose market share to a competitor, especially in the apparel business
2. ShopOn might become unpopular among sellers
3. Customers might not be available/comfortable to open the product at the time of delivery

Next Steps

ShopOn should:

1. Cost benefit analysis of penalizing customers & suppliers
2. Competition's seller agreements to be reviewed, so as to not be the unpopular choice with sellers
3. Specifications on the website to be modified in case of recurring issues
4. Feedback and Blacklisting process for sellers with recurring issues
5. Automated system to alert both ShopOn and sellers if product rating is below a threshold

Case 6: Ferris Wheel

Entertainment | New Investment Analysis

Case 6: Ferris Wheel

Industry: Entertainment | New Investment Analysis

Case Prompt

A friend of mine is super rich and is always looking into interesting investment opportunities. To raise funds for renovation, Ferris Wheel management in Chicago is considering inviting bids from High Net Worth Individuals (HNIs) to let them run the Wheel for a whole year, 7 years later.

As a fan of Chicago and the Wheel, my friend wants to bid on this opportunity and wants to know how to go thinking about this.

Interviewer Guidance

- Level: Easy, Round 1 Case
- Interviewee led case
- No charts/graphs

Concepts Tested	Brainstorming, Setting up calculations, Math

Case 6: Ferris Wheel

Industry: Entertainment | New Investment Analysis

Clarifying Information

- Desired ROI : 10%
- If the bid is won, the friend would be CEO of the company and run the operations
- The friend also has some interesting investments in the food and beverage space
- No funding limitations

Interviewer Guidance

- After framework development, let the candidate drive the case but course correct if necessary:
  1. Brainstorm and calculate revenues
  2. Brainstorm costs
  3. Calculate margin, discount for NPV and maximum Bid amount
  4. Recommendation to friend

Good Framework

- Good framework could include:
  - Revenue analysis
    - Ticket sales
    - Other revenues
  - Cost analysis
    - Salaries
    - Marketing
    - Rent, Energy and Maintenance
    - Insurance
  - Other aspects
    - Capabilities to operate
    - Risks of not knowing 7-year future
    - Synergies from F&B businesses
    - Funding for bid amount
    - Opportunity cost

Case 6: Ferris Wheel

Industry: Entertainment | New Investment Analysis

Brainstorm and calculate revenues

1. Ask candidate to brainstorm how we'd calculate ticket revenues
   - Should settle on Price of tickets, capacity of the wheel, # of days ride operates, # of hours a day
2. Ask candidate how they would think about pricing the tickets?
   - Good factors to consider would be peak pricing on holidays and weekends
   - Seasonal variation due to being in Chicago – less footfall in winter, heavy crowds in summer
   - Push the candidate for more pricing ideas (combined packages, multi-ride pass, corporate rates)
3. Finally ask the candidates what are some other/alternate revenues that could be earning?
   - Good answers would include Food & Beverage, photo memories, private cabins, memorabilia, advertising partnerships, synergy benefits etc.

Interviewer Guidance

1. This section to entirely facilitate brainstorming for the candidates
2. Creativity in pricing and alternate revenue streams is encouraged (can also be drawn from candidates personal experiences)
3. Can push candidates with the "What else?"

Case 6: Ferris Wheel

Industry: Entertainment | New Investment Analysis

Ticket Sale Revenue Calculation

1. Provide the candidate these numbers to run the calculations:
   - Runs 52 weeks, 11 hours/day, capacity: 200 people/hour, $15 tickets (weekend 30% premium)
   - Utilization: Spring/Summer/Fall weekdays (80%) and weekends (100%) | Winter weekdays (50%) and weekends (75%)
   - Other revenues + synergy benefits : $4.5M
2. Good candidate will lay out the math in a 2 by 2 matrix (Summer & Winter, Weekend & Weekday)
3. If a candidate does 2 buckets of calculation quickly – you can give them revenues from other 2 buckets

	Assume 26 weeks each (it's Chicago after all)	
	Spring/Summer/Fall	**Winter**
Weekday	- # of days = 26 weeks*5 = 130 days - # of hours working = 130 days*11 = 1430 hours - Utilization (80%) = 1144 hours - Total People = 1144 hours *200 = 228,800 - Sales = 228,800*$15/ticket = $3.432M	- # of days = 26 weeks*5 = 130 days - # of hours working = 130 days*11 = 1430 hours - Utilization (50%) = 715 hours - Total People = 715 hours *200 = 143,000 - Sales = 143,000*$15/ticket = $2.145M
Weekend	- # of days = 26 weeks*2 = 52 - # of hours working = 52 days*11 = 572 hours - Utilization (100%) = 572 hours - Total People = 572 hours *200 = 114,400 - Sales = 114,400*$20/ticket = $2.288M	- # of days = 26 weeks*2 = 52 - # of hours working = 52 days*11 = 572 hours - Utilization (75%) = 429 hours - Total People = 429 hours *200 = 85,800 - Sales = 85,800*$20/ticket = $1.716M
Total from ticket sales: $9.521M + Other $4.5M = Total Revenues is $14M		

Case 6: Ferris Wheel

Industry: Entertainment | New Investment Analysis

Brainstorm costs and calculate margin + bid amount

1. Let the candidate suggest that now let's look at the costs of running the Ferris Wheel
2. Ask candidate to brainstorm some of the those costs:
   - Good answers include: Salaries/Labor, Marketing, Rent, Energy, Maintenance, Insurance, etc.
   - Provide the candidates total costs needed for a year : $3M
3. Good candidates would proceed to calculating margin / net income (if not, guide them to this):
   - Revenues – Costs = $14M - $3M = $11M Net Income
4. Good candidates would consider time value of money, since this margin would be earned 7 years later
   - Rule of 72 discounting: 72/rate of return (10%) = ~7 years to double money or NPV is half
   - Therefore, net income in today's value = $11M/2 = $5.5M
   - If candidates are unaware to consider discounting or how to discount – do prompt and guide
5. Good candidates will proceed to calculate maximum bid amount for today:
   - Max bid amount for 10% ROI = $5.5M/110% = $5M
6. Ask candidate to make a recommendation

Case 6: Ferris Wheel

Industry: Entertainment | New Investment Analysis

Recommendation

- Make a bid for a maximum amount of $5M to ensure an ROI of 10% would be achieved for NPV of $5.5M
- Any lower bid would increase ROI to >10%

Risks

Risks include:

1. These projections may not stay constant for over 7 years and we should consider possible changes in market trends / competition
2. With no prior experience in managing such a venture previously, there may be hiccups and your friend should consider hiring a CEO to run this
3. Are opportunity costs of other investments >10%?

Next Steps

Your friend should:

1. Ensure appropriate liquid funds are available to bid
2. Plan a bidding strategy to help succeed in the auction by wining it with a less than <$5M bid
3. Think of other synergy benefitting investments could be made over next few years

Case 7: 6PAQ P.E. Firm

Entertainment | Private Equity & Profitability Improvement

Case 7: 6PAQ P.E. Firm

Entertainment | Private Equity & Profitability Improvement

Case Prompt

Your client, 6PAQ, is a small-market P.E. firm that specializes in suburban business development.

One of its analysts identified two movie theaters in a small suburban area that separately or together might prove to be a good investment. Should your client, 6PAQ, purchase these movie theaters?

Interviewer Guidance

This is an interviewer-led case, but the interviewer should gauge the candidate's ability to drive. The interviewer should assess the interviewee's potential for structuring math, making calculations easier, and bringing up relevant industry trends (e.g. Netflix, MoviePass, etc.).

Concepts Tested	Market Sizing, Setting Up Calculations, Brainstorming

Case 7: 6PAQ P.E. Firm

Entertainment | Private Equity & Profitability Improvement

Clarifying Information

- Theater Specific Info:
  - The movie theaters are somewhat dilapidated
  - Competition: None, they are the only two in the suburb and surrounding suburbs
  - Revenue Streams:
    - Tickets (tix)-movies leased through distributors
    - Concessions (cns)-purchased from distributors
- P.E. Company 6PAQ Info:
  - Portfolio: Suburban recreational facilities and entertainment (swimming pools, shopping malls, bowling alleys, laser tag facilities, etc.)
  - Objectives:
    - 6PAQ has a standard of 100% ROI for all investments
    - Sell in five years
    - Evaluate modernization project
- Industry-wide Trends from 2010-18[1]:
  - Ticket sales have declined by 1.18%
  - Average Ticket Price Increased by 15.46%

Possible Framework

Problem: Improve Profitability and Investment Valuation

- Financials
  - Rev (can include ways to improve here)
    - Tickets (P * Q)
    - Concessions (P * Q)
  - Cost
    - FC- movie leases, labor, rent, taxes, electricity (HVAC), cleaning materials, insurance, maintenance
    - VC- concession costs
- Revenue Improvement Opportunities (and list of them)
- Marketing/Customer Analysis
    - Price Sensitivity Analysis
    - SKU Analysis (Concessions and Tix)
    - Gap analysis
    - Advertising/Discount Spends
- Entrance & Exit
  - Purchase Price & Exit Price
  - Valuation Methods- Multiple, NPV, Comparables
  - Buyers
- Other
  - Synergies
    - Bundle opportunities w/ portfolio companies (cross-sell)
    - Cost (back-office, increased buying power, etc)

A good candidate will consider possibility for localized monopoly, exit opportunities, synergies with existing portfolio, and innovative ways to improve revenue and decrease costs

[1] https://www.the-numbers.com/market/ and individual analysis

Case 7: 6PAQ P.E. Firm

Entertainment | Private Equity & Profitability Improvement

Interviewer Guidance (pt. 1)

Revenue: The candidate should drive towards understanding revenues first. If not, guide them there. Show Exhibit 1 and explain, "We do not know revenues for Theaters A and B for certain but 6PAQ obtained this exhibit. What does it tell you?"

Key insights:

1) Revenue has been consistent for both Theaters and they have similar net profits
2) Theater A has much higher revenue
3) Theater A's costs are much higher as a percentage of revenue, indicating its cost structure could be improved

Once the candidate nails these insights, indicate, "6PAQ plans to send the same analyst to each theater for a month to estimate the number of yearly visitors and revenue. Neither theater offers demographic discounts (e.g. senior discounts) and the analyst cannot sit at the front of the theaters and count customers or be in multiple places at once. What instructions would you give to the analyst and how would you calculate it?"

Important Note: All numbers necessary for calculations should be provided and candidates can round to the tens of thousands $x.xx million *(see Calculations – Revenue and Profitability by Theater pg. 88)*

- After having candidate calculate revenues, ask them to brainstorm ways to improve them *(see Ansoff Matrix in Brainstorming Guidance, pg. 89)*
- Next, tell them that you believe there are significant synergies and that total costs for theaters as a function of revenue are: Theater A) 50% Theater B) 20%
- Ask candidate what could be driving the difference in cost and afterwards, to calculate profitability. *(see Brainstorming Guidance, pg. 7, Revenue Calculations pg. 90)*

Case 7: 6PAQ P.E. Firm

Entertainment | Private Equity & Profitability Improvement

Interviewer Guidance (pt. 2)

Modernization project: Tell the candidate that the analyst identified an investment for both theaters he believes will significantly lift Net Income. Specifically, it will install arcades in both theaters, nicer seats, a new mobile app for ticket purchasing, and an HVAC system for Theater A which will drive down heating and AC costs. It will cost $4m upfront. After completion one year after development begins, both theaters will generate an additional 50% revenue (in part due to monopoly pricing and improved theater quality), and Theater A's costs will decrease to what Theater B's are (due to increased buying power and lower HVAC costs) as a percentage. The theaters will continue to operate as they originally did during the year until completion. Discount rates and opportunity costs should be ignored. Should the firm undergo this project, consistent with their firm investment criteria?

Note: This is an ROI calculation (see Calculations – ROI modernization project pg. 91)

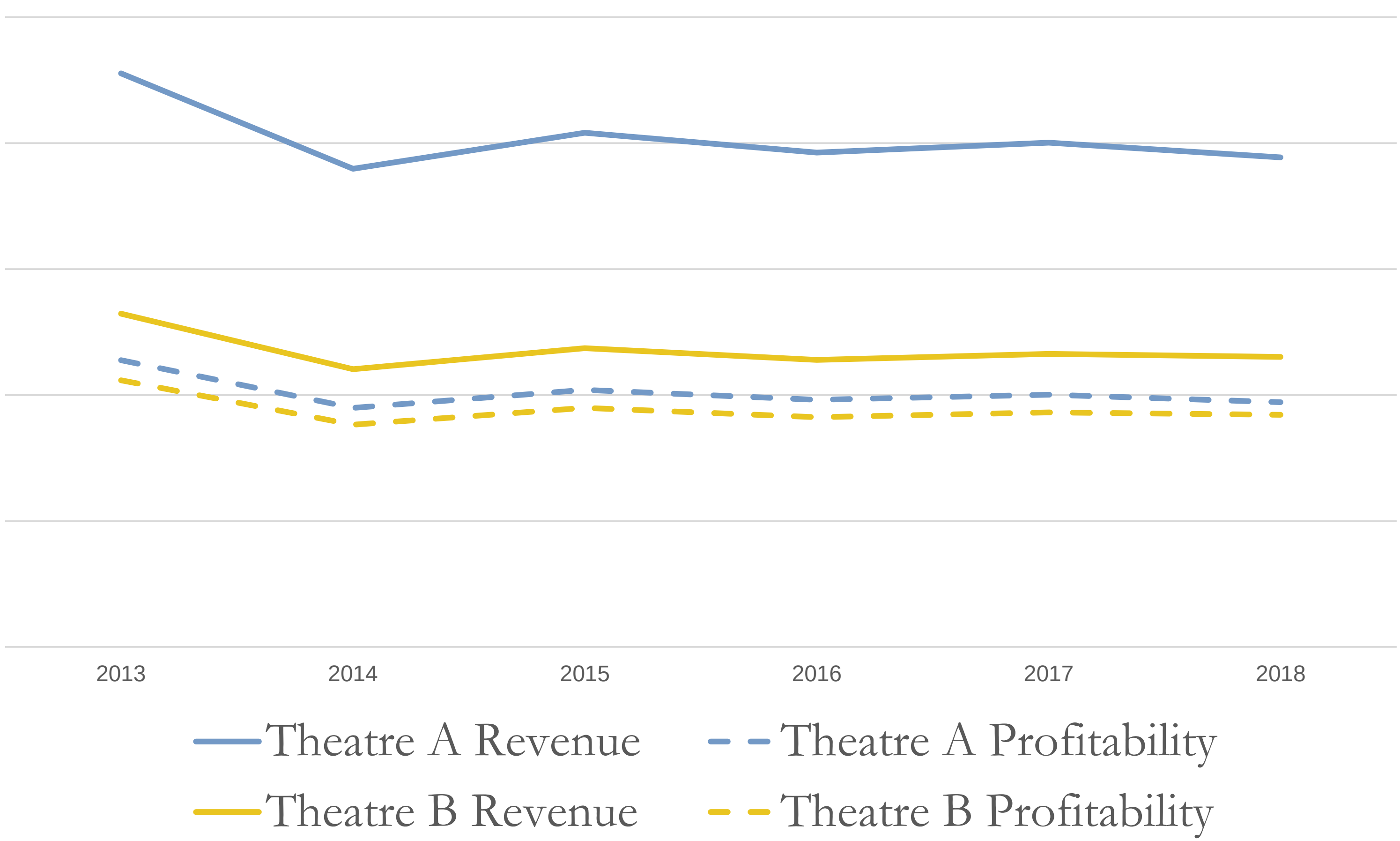
A **good candidate** will realize that during the first year, nothing will change about either theater while improvements are made, so they should consider the investment only for its Net Profit in Years 2-5. A good candidate would also realize that as revenues have doubled, costs have gone down, and the increase in multiple means that they will certainly be able to sell for a 100% ROI.

Ask the candidate to calculate whether the overall investment would clear the firm's 100% ROI hurdle, if the purchase price multiple was 5x Net Income and the exit price multiple is 6x. *(see Calculations – Overall Investment, pg. 10)*. Lastly, ask for a recommendation *(see Recommendation, pg. 93)*

Case 7: 6PAQ P.E. Firm

Entertainment | Private Equity & Profitability Improvement

Exhibit 1 – Revenue and Profitability by Theater



Case 7: 6PAQ P.E. Firm

Entertainment | Private Equity & Profitability Improvement

Brainstorming Guidance

Revenue Improvement

	Existing Products	New Products
Existing Customers	• Alter SKUs • Implement special/discounts (senior, students, etc) • Increase prices (w/ new local monopoly) • Show more movies • Additional trailers	• Open alternative space (e.g. arcade) • Charge for parking if lot owned • New food or alcohol • Start movie pass • Offer premium seating
New Customers	• Increase ad spend • Offer theme nights or diversify customer-targeted movies (e.g. cult classics reruns) • Open additional theater • Cross-sell to customers of other portfolio companies	• Offer other types of entertainment (e.g. local plays)

Cost Drivers

- Electricity/HVAC
- Movie leases
- Rent/real estate
- SKU choices
- Unionized labor
- Taxes if on larger property
- Poor relationships with distributors

Case 7: 6PAQ P.E. Firm

Entertainment | Private Equity & Profitability Improvement

Calculations – Revenue and Profitability by Theater

Tickets:

*# of Screens * # of Seats/Screen * Avg Fill Capacity * # of movies played per screen/month =Total Monthly Visitors*

Theater A) 10 screens * 80 seats per screen * 75% average fill capacity * 20 movies played per screen per month = 12,000 Total Monthly Visitors

Theater B) 10 screens * 80 seats per screen * 50% average fill capacity * 20 movies played per screen per month = 8,000 Total Monthly Visitors

*Total Monthly Visitors * Percentage of Movies Matinee (or Premium) * Price of Matinee (or Premium) ticket * 12 months/year = Total Monthly Matinee Revenue (or Premium)*

Theater A) 12,000 Total Monthly Visitors * 90% Premium * $10 Premium Price * 12 months/year = $1.296m (round to $1.29m)

12,000 Total Monthly Visitors * 10% Premium * $5 Matinee Price * 12 months/year = $.072m (round to ($.07m)

Total Theater A Ticket Revenue = $1.36m

Theater B) 8,000 Total Monthly Visitors * 80% Premium * $10 Premium Price * 12 months/year = $.768m (round to $.77m)

8,000 Total Monthly Visitors * 20% Premium * $5 Matinee Price * 12 months/year = $.096m (round to ($.1m)

Total Theater B Ticket Revenue = $870k (round to $870k)

Concessions:

*Total Monthly Visitors * Average Spend Per Customer * Percentage of Customers who buy concessions * 12 months/year = Total Yearly Concession Revenue*

Theater A) 12k Monthly Visitors * $6 Avg Cust. Spend * 75% of Cust. Purchase Concessions * 12 Months/year = $648k (round to $650k)

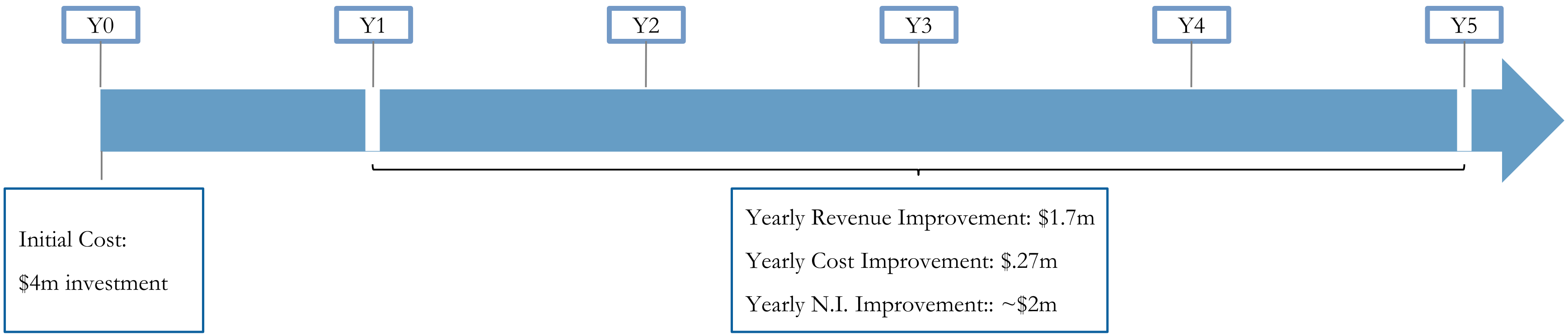
Theater B) 8k Monthly Visitors * $7 Avg Cust. Spend * 75% of Cust. Purchase Concessions * 12 Months/year = $504k (round to $500k)

	Total Revenues:	**Total Costs:**	**Total Profitability:**
Theater A)	1.36m+.65m=$2.01m	50% * 2.01m=~$1m	2.01m-1m=$1.01m (round to $1m)
Theater B)	.87m+.5m=$1.37m	20% * 1.37m=$.27m	1.37m-.27m=$1.1m
			For both theaters: $2.1M

Case 7: 6PAQ P.E. Firm

Entertainment | Private Equity & Profitability Improvement

Calculations – ROI Sub-Investment



ROI Calculations: Formula: Net Profit/Invested Capital

Modernization Project:	Incremental Profit	= (Total New Profit – Total current Profit) * Years
	Incremental Profit	= ((150% Current Revenue – New Costs) – (Current Revenue – Current Costs)) * 4 Years
	Incremental Profit	= ($5.07m – 20% * ($5.07m)) – ($3.38m – $1. 27m)) * 4 years
		= ($4.06m – $2.11m) * 4 years
		~ $2m * 4 years = $8m
ROI:	$8m-$4m / $4m = 100%	

Case 7: 6PAQ P.E. Firm

Entertainment | Private Equity & Profitability Improvement

Calculations – Overall Investment

New Revenues

Current Revenues * (1+Revenue Increase Percentage) = New Revenues

Current Revenues: $2.01m + $1.37m = $3.38m

New Revenues: $3.38m * 150% = $ 5.07m

New Total Costs

New Revenues * New Total Cost Percentage = New Total Costs (exc.

Current Costs: $1m + $.27m = $1.27m

New Costs: $5.07m * 20% = $1.01m

New Net Income

New Revenues – New Total Costs = New N.I.

Total: $5.07m-$1.01m=$4.06m

Overall Investment:

Valuation	*=N.I.*N.I multiple*
Purchase Price	=$2.1m * 5 = $10.5m
Exit Price	$4.06m * 6 = ~ $24.4m
ROI	$24.4m-$10.5/$10.5m = 132%

Case 7: 6PAQ P.E. Firm

Entertainment | Private Equity & Profitability Improvement

Recommendations

Recommendation:

6PAQ P.E. Firm should invest in both theaters and undergo the modernization project

With its new improvements and monopoly powers, it could make over 100% ROI on both the initial and modernization project

On the modernization project, 6PAQ could make a 100% ROI while on the overall theater investment, 6PAQ could make a 132% ROI

Risks

Risks include:

1. Substitutes and Threats
   - New local entrants
   - Netflix and streaming services
2. Accuracy of assumptions
   - NI multiple increase
   - Improved NI from investment
   - No opportunity cost or discount rate
   - 100% ROI on modernization project leaves little room for error
3. Theater owners’ unstated intent to sell

Next Steps

6PAQ should:

1. Conduct analysis:
   - Use its existing relationships in the industry to conduct intelligence gathering
   - Purchase market research reports to identify time horizon of threats trends
   - Further analyze and triangulate assumptions
2. Approach theater owners to gauge interest and initiate discussions

Case 8: Hamm's University

Higher Ed / Non-Profit | Profitability Improvement

Case 8: Hamm's University

Higher Ed / Non-Profit | Profitability Improvement

Case Prompt

Our client, Hamm's University, is a mid-size not for profit private university in the Midwest of the United States, well-known for its liquid gold colored sports uniforms. Over the last few years, Hamm's University has received less state and federal aid, leading to a negative net margin. However, other Universities near us have overcome this issue and haven't seen margin erosion. The Board of Regents has engaged our firm to help the University strengthen its position.

Information provided upon request:

- Hamm's University is located near a city with a population size of ~450,000 in a state with a population of ~7M. A majority of students are from the same state or surrounding states
- There are 2 other private universities and a large state school within an hour of Hamm's
- Hamm's University has sports teams in the Division II league
- There are several graduate schools, with programs for Medicine, Law, Dentistry, Business, Psychology and Engineering
- Psychology & Econ departments are highly ranked in faculty prowess & research
- The Board wants to increase net income by 25M/year within 2 years (was -5M last year)

Concepts Tested	Financial Statement Analysis, Setting up calculations, Brainstorming

Case 8: Hamm's University

Higher Ed / Non-Profit | Profitability Improvement

Case Guidance

Case Guidance:

Through exhibits 1 & 2, the interviewee should note that both private schools 1 and 2 are relatively similar to our school, but private school 2 has a revenue structure that we can more easily replicate.

Reason to not replicate private school 1: Endowment and gift campaigns are difficult to replicate, especially given our lower starting endowment and less active alumni donor base. Starting a campaign to make our alumni more active can be difficult to do and wouldn't necessarily have a high success factor.

Reason to replicate private school 2: University grants for research are generally a function of how successful that school is at research and how many faculty research staff and grant writing staff they employ. Given the already prestigious nature of Hamm's University psychology department, Hamm's university should look to increase grant revenue by hiring more staff.

Case 8: Hamm's University

Higher Ed / Non-Profit | Profitability Improvement

Framework

A solid framework would include detail on the financials of the University and an examination of the other universities in our area. Points to consider are included below.

Revenue

- Undergrad tuition (including R&B),
  by students and tuition
  rates
- Federal & State Aid
- Grants & Contracts
- Endowment Income
- Athletics
- Gifts (for immediate use)

Costs

- Instruction
- Research
- Operations (+ depr)
- Scholarships
- Administration
- Materials + Supplies

Industry

- Public
- Private
- Financial Statement Analysis
- Student body composition
- Learn from how they improved

Exhibit 1

YOY Statement of Activities (2017 & 2018) and KPIs

All $ in MM	2018	2017
Total Revenue	$545	$580
• Net Tuition (incl. Scholarships + Room and Board)	404	350
• Federal and State Aid	65	100
• Grants and Contracts	30	80
• Endowment Income	11	15
• Athletics	21	20
• Alumni Gifts	14	15
Total Cost	$550	$530
• Instruction	222	200
• Research	20.5	20
• Operations	97.5	100
• Administration	112	110
• Materials + Supplies	98	100
Net Margin	$ -5	$ 50
Selected KPIs		
• Undergraduate attendance	13,800	13,500
• Graduate attendance	2,150	2,200
• Faculty Researchers	50	50
• Grants Awarded	85	84
• Endowment Balance	$195M	$200M
• Active Alumni Donors	20,000	20,000

Exhibit 2

Schools Comparison (2018 Data)			
All $ in MM	Public 1	Private 1	Private 2
Total Revenue	1,765	580	571
• Net Tuition (incl. Scholarships + Room and Board)	1,100	380	320
• Federal and State Aid	200	60	55
• Grants and Contracts	180	30	150
• Endowment Income	90	60	20
• Athletics	110	15	15
• Alumni Gifts	85	35	11
Total Cost	1,685	555	536
• Instruction	640	211	204
• Research	65	22	35
• Operations	311	102	92
• Administration	357	118	105
• Materials + Supplies	312	103	99
Net Margin	80	25	35
Selected KPIs			
• Undergraduate attendance	24,500	16,000	11,000
• Graduate attendance	8,000	0	2,000
• Faculty Researchers	110	50	85
• Grants Awarded	195	85	145
• Endowment Balance	$3B	$1.1B	$300M
• Active Alumni Donors	100,000	35,000	18,000

Case 8: Hamm's University

Higher Ed / Non-Profit | Profitability Improvement

Additional Math Problem

Addt'l Problem / Math:

The interviewee should note that research revenue is roughly $1M per grant awarded and grants are awarded at a roughly 1.6 grants / researcher rate. Each researcher at Hamm's costs roughly $400,000, and there is also an additional 50,000 in administration costs / researcher. Tell them to assume these are fixed numbers.

"Assuming these numbers hold true and grants are awarded on average 1 year after application, how many faculty researchers do we need to hire to achieve our goal?"

25M NI Goal = (Researchers to Hire) * 1.6 * 1M – (Researcher to Hire) * 450K

25M NI Goal = Researchers to Hire * 1.15M average Margin

25 / 1.15 = ~22 more faculty researchers to achieve 25M NI Goal

Case 8: Hamm's University

Higher Ed / Non-Profit | Profitability Improvement

Recommendations

Recommendation:

Hamm's University should hire at least 22 more researchers to increase it's NI to make up for State and Federal Aid shortfalls

Risks

Risks include:

1. New researcher's won't be as successful as historical
2. Total grant market isn't big enough to support receiving this much money
3. Potential dilution of brand image from hiring more researchers

Next Steps

Hamm's University should:

1. Potentially hire more than 22 researchers, explore space constraints at University
2. Market research on how big total Psychology grant market is and if we can increase share in that market
3. Begin setting up hiring team to start identifying which candidates to interview

Case 9: Allsafe

Insurance | M&A

Case 9: Allsafe

Insurance | M&A

Case Prompt

Our client, Allsafe, a large insurance company, provides home, auto, renter's and life insurance. Recently, Allsafe acquired a technology firm specializing in data analytics software. As part of the acquisition, Allsafe also acquired a smaller subsidiary, MarketMaven**,** a marketing analytics software-as-a-service firm. Our firm has been engaged a few years post-acquisition and Allsafe would like to know how to proceed with MarketMaven – AllSafe already has an acquisition offer of $1.1B for MarketMaven and the choice is between taking the deal (i.e. divesting MarketMaven) or integrating it with AllSafe.

Information provided upon request:

- Allsafe is a large insurance conglomerate that employs an outside marketing agency for all marketing services
- MarketMaven is small firm, but has experienced growth over the last 5 years.

Concepts Tested	Valuation, Financial Analysis

Case 9: Allsafe

Insurance | M&A

Interviewer Guidance

In this case, the candidate will explore whether Allsafe should integrate or divest MarketMaven. Due to the fact that there are no synergies between Allsafe and MarketMaven, the candidate should decide that Allsafe should sell the firm. This case requires the candidate to then ask for the information necessary to value MarketMaven.

Only when the candidate asks for MarketMaven's financials should the following information be provided. The candidate will need to build out an income statement based off the following financials in order to determine the cash flows to value MarketMaven.

- 2018 Revenues: $200M
- Cost of Revenue: 25% of Revenue
- SG&A: 40% of Gross Profit
- Depreciation + Amortization: $5M

The candidate needs to value the firm. Have them build out an income statement to EBIT as adding in Tax and Interest make the numbers a little messy. This may not be fundamentally correct in terms of finding the FCF for the NPV, so if you want to finesse the numbers further feel free to do so.

Case 9: Allsafe

Insurance | M&A

Possible Framework

Problem: Integrate or Divest MarketMaven

- **Integrate**
  - Firm Synergies: MarketMaven + AllSafe
  - AllSafe capabilities -- have they been able to successfully integrate a firm in the past
  - Marketing Analytics Market
    - # of key players
    - # of customers
    - MarketMaven's position in current market
- **Divest**
  - MarketMaven's current financials
  - Potential buyers
  - Comparable firm transactions in the past
- **Risks**
  - Integration Risks
  - Divestiture Risks

Calculated Income Statement

Revenue	$200M
Cost of Revenue	200*25% = $45M
Gross Profit	$155M
Operating Expenses	155*40%=$60M
EBITDA	$95M
D+A	$5M
EBIT	**$90M**

Case 9: Allsafe

Insurance | M&A

Interviewer Guidance

After the candidate finds the EBIT of the MarketMaven, use that amount as the free cash flow to value the firm and brainstorm potential firm strategies. The candidate should be directed to value the firm in perpetuity with the following parameters.

- **Growth Rate:** 5% (growth will slow due to increased market competition)
- **Discount Rate:** 15%

NPV = FCF/r-g=90/(15%-5%)=$900M

The ideal insight into the NPV calculation should be that since the buy offer for MarketMaven ($1.1B) has a $200M premium over the NPV, it should be sold off.

Brainstorming: What could AllSafe use MarketMavens platform for? Examples could be:

- Track advertising and media insights in-house
- Bring all advertising efforts in-house
- Use it for Market Intelligence and PR purposes to track what is being said about AllSafe in the media

Case 9: Allsafe

Insurance | M&A

Recommendations

Recommendation:

Allsafe should divest MarketMaven for a $200M premium.

- $900M NPV, $1.1B deal size
- Use the cash from the sale to reinvest in programming or platforms within their firm
- Cost of integration and to keep on MarketMaven not worth it to AllSafe

Risks

Risks include:

1. Potential undervaluation of MarketMaven's intellectual property
2. Negative impact on Allsafe company morale if divestiture news leaks

Next Steps

AllSafe should:

1. Assemble internal team to begin the divestiture process
2. Engage a bank to begin the process of divesting MarketMaven
3. Build MarketMavens sell story

Case 10: Mega Pharma

Retail | M&A

Case 10: Mega Pharma

Retail | M&A

Case Prompt

Our client Mallgreens is a large pharma retail company. It wants to acquire a smaller pharmacy retailer, BrightAid. The operational footprint of the two companies looks like this:

Company	States	Stores	Employees
Mallgreens	50	5000	2000
BrightAid	13 (Coasts)	2000	1000

Mallgreens wants us to assess this acquisition, and understand potential risks.

Information provided upon request:

- Mallgreens provides pharmacy, clinical, photography and convenience store services
- BrightAid provides pharmacy and clinical services
- The two companies have very different distribution models

Concepts Tested	Brainstorming, Consolidation, Acquisition Strategy

Case 10: Mega Pharma

Retail | M&A

Framework

1. **Synergies**
   - Revenue Synergies
     - Selling Power
     - Newer Locations for Photography and Convenience
   - Cost Synergies
     - Buying Power with manufacturers
     - Retail footprint consolidation
     - Corporate functions & Executive team

2. **Acquisition & Integration Costs**
   - People:
     - Lock-in Bonuses for Retained Employees
     - Severance Packages for Fired Employees
   - Operational
     - IT
     - Marketing / Branding
   - Long-term: Capital Gains Tax

3. **Risks**
   - FTC: Market share too high?
   - Customer, Vendor & Competitor response

Case 10: Mega Pharma

Retail | M&A

Brainstorming Questions

Interviewer Guidance: A good setup before getting into actual questions would be to brainstorm the mechanics of an acquisition. Important factors to brainstorm are:

1. The companies have different distribution models. On a high level, how can switching to either of them for the combined entity help reduce costs.
2. If the core product (pharmaceutical retail and clinical services) is the same for both companies, and the market is saturated, do cross/up-selling opportunities exist for the combined entity? If the revenue cannot be augmented, is the acquisition worth it?
3. Types of purchase: stock purchase vs. asset purchase. Pros and cons of both in the current deal.

These are open questions and can run depending on the quality of the framework and brainstorming in the interview.

Case 10: Mega Pharma

Retail | M&A

Question 1

The store footprint of both companies in selected states looks like this:

State	Mallgreens	BrightAid
CA	400	250
WA	280	65
NY	350	200
MI	280	0
IN	220	0
TX	350	180

In which states will you consolidate stores, and why?

Case 10: Mega Pharma

Retail | M&A

Question 1: Interviewer Guidance

Brainstorm about cost reduction from a retail location consolidation perspective. What factors will drive this consolidation?

Answer to question (next slide): Stores should be consolidated in California, New York and Texas. This is because both companies have a large retail footprint in both the states and therefore this is the scope for consolidation.

Case 10: Mega Pharma

Retail | M&A

Question 2

The client has created a summary of stores in California based on the (i) Distance from the nearest Mallgreens / BrightAid store, and (ii) Profit / Loss status. It is as follows:

Distance	Profit-making Stores	Loss-making Stores
< 0.5 mile	200	100
0.5 – 2 miles	80	60
> 2 miles	70	40

Which of these stores do you recommend that our client close? What do you recommend for the rest of the stores?

Case 10: Mega Pharma

Retail | M&A

Question 2: Interviewer Guidance

In retail, a key success factor is retail presence ('footprint'). Sometimes, to achieve a footprint on scale, some loss-making locations also have to be retained.

To answer this question (next slide):

- All loss making stores which are <0.5 miles from another store should be closed.
- For all loss making stores which are 0.5 – 2 miles from another store:
    - Customers should be surveyed – is brand stickiness enough to make them travel 2 miles if the current store closes
    - Can these stores be turned profitable with short to mid-term transformation measures
- For all loss making stores >2 miles, the company should invest in long term profitability transformation measures

Case 10: Mega Pharma

Retail | M&A

Question 3

1. What are key questions that the market regulator can raise?
2. How will you ensure that the deal and the combined entity adhere to legal requirements?

Case 10: Mega Pharma

Retail | M&A

Question 3: Interviewer Guidance

An important factor in understanding regulatory market share concerns in an acquisition is to understand the type of purchase:

- **Stock purchase:** the target company's stock (complete or partial) is bought from its current shareholders. All vendor, customer and employee contracts typically continue, and all assets and liabilities transfer to the acquiring entity.

A stock purchase would typically be more complicated. In this case, the acquiring company will have to commit to divesting/selling parts of the combined business after the deal to bring it below the market regulator (FTC)'s defined levels. In this case, Mallgreens can decide to sell its photography and convenience store business after the acquisition.

- **Asset purchase:** only selected assets (retail locations, manufacturing/warehousing facilities etc.) are purchased. Contracts and liabilities do not transfer.

In an asset purchase, the acquiring company can choose to buy only selected assets from the target. In this case, Mallgreens can buy only selected BrightAid stores and remain within FTC's threshold.

Case 10: Mega Pharma

Retail | M&A

Recommendations

Recommendation:

Mallgreens should acquire BrightAid and:

- Close 100 loss-making stores within 0.5 miles of other Malgreens stores
- Survey customers of 60 loss making stores within 0.5 - 2 miles of other Malgreens stores
- Invest in long-term profitability of 40 loss-making stores more than 2 miles of other Malgreens stores

Risks

Risks include:

1. Potential concerns from Market Regulators on market share of combined entity
2. Competitor and Supplier response

Next Steps

Mega Pharma should:

1. Start integration planning – systems, procurement, distribution being the focus areas
2. Define communication plan for customers and employees

Case 11: Mike Apparel

Consumer Goods | Market Entry

Case 11: Mike Apparel

Consumer Goods | Market Entry

Case Prompt

Our client, Mike Apparel, is a large apparel and sporting goods company. The client is interested in entering the women's golf apparel market and is looking for guidance on whether this is a good idea.

Information provided upon request:

- Mike makes both produces and retails the goods in its own stores
- The objective is to invest extra cash (amount undefined) in a profitable project
- Scope of the launch is the United States

Concepts Tested	Brainstorming, Structure, Basic Quant & Financials

Case 11: Mike Apparel

Consumer Goods | Market Entry

Framework

1. **Market Size**
   - Population of the United States
   - Ratio of women
   - Percentage of golf players
   - Achievable market share
   - Customer $ purchases/year
2. **Costs**
   - R&D
   - Fixed Costs
   - Variable Costs
   - Marketing & Advertising
3. **Risks**
   - Cannibalization of existing products/shelf space

A strong framework will hinge on two factors: Market Size or Revenue Potential, and the costs of the launch and ongoing operations.

Basic cost numbers available are as follows:

- **R&D (one-time):** $255M
- **Fixed Costs (yearly):** $5M

Case 11: Mike Apparel

Consumer Goods | Market Entry

Questions

1. What does the market size and revenue potential look like?
2. When can breakeven be achieved?

Data Available

- **Buying Frequency, Selling Price**

Item	Buying Frequency	Selling Price
Shirt	2 / year	$60
Hat	1 / year	$80

- **Variable Cost to produce**

Item	Variable Cost
Shirt	$15
Hat	$20

Case 11: Mike Apparel

Consumer Goods | Market Entry

Interviewer Guidance and Solution: Question 1

Market Sizing (nudge the interviewee towards the following numbers)

- Population of US 300M
- Women (50%) – 150M
- ~80% people in age ranges that play golf: 80% * 150M = 120M
- Golf is an affluent sport, only rich can play. Rich = 10%. 10% * 120M = 12M
- Percentage of people who actually play Golf 25% (a fourth of affluent people is a reasonable assumption) = 3M
- Market Penetration (20%) = 600K

Case 11: Mike Apparel

Consumer Goods | Market Entry

Interviewer Guidance and Solution: Question 2

Profit potential depends on two factors – numbers of items bought and profit on each item. We already know we have 600,000 potential customers.

Therefore, profit per customer per year:

- Shirt: 2 * ($60 - $15) = $90
- Hat: $80 - $20 = $60
- **Total: $150**

Total Revenue Potential = $150 * 600K = $90M

(-) Fixed Cost = $90M - $5M = $85M

Breakeven = $255M / $85M = 3 years

Case 11: Mike Apparel

Consumer Goods | Market Entry

Interviewer Guidance: Recommendation

Recommendation: Enter Market – 3 year breakeven

- $85M annual profit, quick breakeven
- Tap new customer base – women, may have been untapped by industry before
- Women-focused product promotes diversity in sporting, also good for branding/PR

Risks

- Bad launch may affect other products
- Some cannibalizing of standard products (e.g. non-golf specific shirts and hats)

Next Steps

- Setup manufacturing
- Sign brand ambassador: a professional woman golfer
- Research which products to replace on shelves

Case 11: Mike Apparel

Consumer Goods | Market Entry

Recommendations

Recommendation:

Enter Market – 3 year breakeven

- $85M annual profit, quick breakeven
- Tap new customer base – women, may have been untapped by industry before
- Women-focused product promotes diversity in sporting, also good for branding/PR

Risks

Risks include:

1. Bad launch may affect other products
2. Some cannibalizing of standard products (e.g. non-golf specific shirts and hats)

Next Steps

Mike Apparel should:

1. Setup a manufacturing facility
2. Sign brand ambassador: a professional woman golfer
3. Research which products to replace on shelves

Case 12: PharmaDeliver

Pharma | Growth Strategy

Case 12: PharmaDeliver

Pharma | Growth Strategy

Case Prompt

Your client, PharmaDeliver, is a large pharmacy that provides both prescription and over the counter medications to patients. With many new entrants in the healthcare industry, the company is evaluating ways to both improve the customer experience and invest in the future. In one initiative related to this, PharmaDeliver is exploring the use of drone delivery for its' customers. The company has hired us to evaluate the potential use of drone delivery.

Information provided upon request:

- They distribute a wide variety drugs directly to customers through both retail and home delivery channels. 80% of non-controlled prescription substances are delivered via home delivery
- The company only operates in the US
- The company wants to increase their deliveries by at least 15% and have total profits of at least $7B per year by using drones.
- The company wants this increase in the first year

Concepts Tested	Brainstorming, Structuring, Quant

Case 12: PharmaDeliver

Pharma | Growth Strategy

Framework

A good framework will include an analysis of the pharmacy market (including competitive trends, future technological advances, etc.), a breakout of how they will both increase deliveries and hit $7B in total profit internally, and a consideration of mode of entry for using drones (merger, acquisition, partnership). Candidates should also note regulatory risk for moving into this space, since it is not a mature industry.

Case 12: PharmaDeliver

Pharma | Growth Strategy

Question & Exhibit 1

Calculate how many increased deliveries are possible for both M-F and the weekend, respectively.

ParmaDeliver Annual Medication Volume	
Total Medications Sold*	2.6B
Prescription Controlled Substances per year*	350M

Current Deliveries Weekly Volume Caps	M-F	Sat	Sun
Controlled Substances	100%	0%	0%
UPS	90%	10%	0%

Drone Projected Weekly Volume Caps		
M-F Daily Cap	Sat	Sun
8M	5M	6M

*Total medications include the prescription controlled substances

*Prescription controlled substances are not included in the home delivery %

Case 12: PharmaDeliver

Pharma | Growth Strategy

Answer 1

Assume 50 weeks per year. Candidate should ask for the home delivery % (80% of NON prescription controlled substances)

1. Calculate the number of home deliveries per year: (Total Medications – Prescription Controlled Substances)* % Home Delivery of Non-Prescription Controlled Substance Medications = (2600 – 350)*.8 = 1.8B
2. Calculate the weekly number of deliveries assuming 50 weeks per year. 1.8B/50 = 36M
3. Calculate the number of deliveries for each of the days of the week.
   - M-F Deliveries % * total =90% * 36M = 32.4M; Deliveries / # days = 32.4M/5 = 6.48M
   - Sat Deliveries % * total = 10% * 36M = 3.6M
4. Find the difference for both M-F and the weekend between current and new. For M-F, multiply it by 5 and then by 50 to find the increased annual deliveries. M-F: 8M-6.48M = 1.52M * 5 * 50 = 380M; S/S = 10-3.6 = 6.4 * 50 = 320M. Finally, take 320M+380M = 700M and confirm that this is 15% higher than the number of deliveries currently (1.8B * 1.15 = 2.07B). Great answers will also acknowledge that the demand increases may not match this increased capacity.

Case 12: PharmaDeliver

Pharma | Growth Strategy

Question & Answer 2

Question: Please brainstorm possible ways to expand into using drone delivery.

Answer: A good answer will include an analysis of exploring new clients, partnerships, or acquisitions to go into this business. Commentary on the benefits of each can lead to a great answer. A great answer will also acknowledge options other than drone delivery to possibly explore (i.e. autonomous vehicles, uber, etc.)

Case 12: PharmaDeliver

Pharma | Growth Strategy

Question 3

PharmaDeliver has identified a potential partner, DroneCo, for future shipments. As part of the agreement, DroneCo will take 10% of the profit for each shipment in exchange for its' services. Please calculate the annual projected profit by utilizing DroneCo to deliver all packages. Calculate the expected NPV of this using the projected profit.

Tip for interviewer: This profit is inclusive of all potential costs/revenues that the candidate likely covered in the framework.

Case 12: PharmaDeliver

Pharma | Growth Strategy

Exhibit for Question 3

Future avg profit per delivery*		
M-F Daily	Sat	Sun
$4.44	$3.33	$3.33

Weekly shipment demand with increased capacity		
M-F Dailly	Sat	Sun
7M	3M	2M

*This does not include the 10% DroneCo will take from each shipment

Case 12: PharmaDeliver

Pharma | Growth Strategy

Answer 3

Calculate the profit for the new deliveries.

Start by finding the projected profit for each by taking off the 10% commission for each of the breakouts.

Then multiply the profit by each of the daily and weekly projected demands to get: M-F*5*profit = 7M*5*4 =140M, S: 3M*3 = 9M, Sun: 2M*3 = 6M;

Total profit per week = 155M,

Total per year = 155*50 = $7.75B.

Then, using a discount rate of .2, we assume perpetuity and use the formula to find: $7.75B/.2 = $38.75B.

Case 12: PharmaDeliver

Pharma | Growth Strategy

Question & Exhibit 4

We are also exploring the acquisition of a similar company, Fly Away, for $9B. Using the new profit information, please calculate the NPV of this acquisition.

These numbers are inclusive of all post-merger synergies.

Estimated future avg profit per delivery with acquisition*		
M-F Daily	Sat	Sun
5	4	4

Case 12: PharmaDeliver

Pharma | Growth Strategy

Answer 4

In a similar calculation, find the profit per year projected with the acquisition.

Using this, we find M-F*5*profit = 7M*5*5 =175M, S: 3M*4 = 12M, Sun: 2M*4 = 8M;

Total profit per week = $195M,

Total per year = $195M*50 = $9.75B.

Then, using a discount rate of .2, we assume perpetuity and use the formula to find: $9.75B/.2 = $48.75B.

Then, subtracting off the acquisition cost we find $39.75B.

Case 12: PharmaDeliver

Pharma | Growth Strategy

Final Recommendation

For the final recommendation, the candidate should acknowledge that the acquisition gives us a higher NPV, but that there are some downsides to acquiring a drone company. Drone delivery is still a relatively new business, and acquiring this company could be a risky investment if regulation does not pass in Fly Away's favor.

Case 13: Single Cup of Coffee

Consumer Products | Market Sizing

Case 13: Single Cup of Coffee

Consumer Products | Market Sizing

Case Prompt

Our client is a PE firm who is considering making an investment in a coffee equipment company that services office buildings. The company makes machines that use single cups (same thing as K-Cups) and sells the pods needed to make coffee. What is the market opportunity for this investment?

Interviewer Guidance

This is an interviewee led case. This case is about market sizing so the interviewee should lay out a clear framework on how to size the market and be creative and detailed with their assumptions. This case will be a market sizing exercise on the amount of coffee drinkers in the market and the amount of machines needed to service coffee consumption.

Concepts Tested	Math, Market sizing, Brainstorming

Case 13: Single Cup of Coffee

Consumer Products | Market Sizing

Clarifying Information

- The company looks to service all office buildings nationally (U.S. only)
    - The target market are white collar professionals
- The PE shop has experience working in the beverage service market
- Price of each single pod is $0.75 a pod
- Price of a coffee machine is $100
- The company currently offers a machine that can only make coffee. There is a variety of coffee flavors

Possible Framework

Problem: Estimate market size for coffee pods and machines

- How often each machine is needed
    - Estimate number of office workers
    - Avg number of workers in each office
    - How many machines per office

      or

    - Estimate number of coffee drank in a day
    - Busiest periods in the day and how much coffee is being consumed in that period
    - How long it takes each cup to brew

- Number of coffee pods used each year
    - Estimate number of office workers
    - How many office workers drink coffee
    - How often each person drink coffee

Case 13: Single Cup of Coffee

Consumer Products | Market Sizing

Question #1

What is the market opportunity for office coffee drinkers and single pod usage?

Information to give if requested: Each coffee drinker drinks 1.5 cups of coffee a day; 350 working days in a year

Recommended Answer

320m people in the U.S.	320m
Life span of 80 with an equal distribution between ages	320m/80 = 4m
Avg work life is 21 - 70	(70-21)*4m = 196m people in the workforce
Eliminate teachers, blue collar workers, gov't employees etc. to get to an estimate of 40% office workers	196m * .40 = 54.8m office workers Round to 55m
Estimate 60% of office workers drink coffee	55m*.60 = 33m coffee drinkers
33m coffee drinkers* 1.5 cups a day	33m*1.5 = 49.5m; Round to 50m cups of coffee per day
50m coffee per day* 350 days in a year	50m*350= 1.75b cups of coffee a year
1.75b cups * $0.75 a cup	1.75b*$0.75 = $1.3b

Interviewee does not have to use the above approach, as long as they use sound assumptions and get to a similar number

Case 13: Single Cup of Coffee

Consumer Products | Market Sizing

Question #2

Based on the amount of coffee drinkers, how many coffee machines can be sold in the market to accommodate the office workers with minimal wait time?

Candidate should first brainstorm ideas and layout their structure. After brainstorm session, show Exhibit 1

Recommended Answer

Key Questions: When will the coffee machine be most active/how many people will be using it? **Exhibit 1**

- How much does the machine take to brew a cup of coffee? **1.5 mins**

Since the morning time frame is the busiest it should be used as a benchmark for the # of machines needed	
50m cups in a day * 65% of cups	50m * 65% = 32.5m cups between 8am – 10am
60 mins in an hour/1.5 minutes to brew 1 cup	60mins/1.5cups per hour = 40 cups in an hour
40 cups * 2 hour span	40*2 = 80 cups between 8am – 10am
32.5m cups in time span/ 80 cups in time span provides how many machines are needed	32.5m/80= 406,250 machines = ~400,000 machines
400k machines *$100 a machine	400k * $100 = $40m

Case 13: Single Cup of Coffee

Consumer Products | Market Sizing

Exhibit 1

Busiest time in the office kitchen

Time of day		% of coffee cups
Morning	8am – 10am	65%
Afternoon	1pm – 3pm	25%
Evening	5pm – 7pm	10%

Case 13: Single Cup of Coffee

Consumer Products | Market Sizing

Question #3

Other than selling the coffee pods and machines, what are some other ways the target company can generate revenues?

Recommended Answer

Possible answers:

- Began to offer more than coffee with their machine (latte, hot chocolate, tea)
- Allow other companies to make pods for their machine and receive a royalty fee
- Expand to home services and to non-corporate employees
- Provide servicing for the machines

Case 13: Single Cup of Coffee

Consumer Products | Market Sizing

Recommendations	Risks	Next Steps
Market is attractive with combined revenue potential of $1.34bn ($1.3b cups, $0.04bn machines), therefore worth investing. Also revenue upside by servicing machines or outsourcing pods.	Market potential is driven by assumptions, which can be wrong (ex. We assumed the 1.5 cups people drink in a day will come from office coffee machine and not home or local coffee shop), we don't have a clear view of the competitive landscape in the market as well as the cost to produce and ship coffee machines and cups. Additionally, competitors could sell cups for client's machines if cup shape and size aren't patented.	Examine competitors in the market, market trends (shift to teas/energy drinks/any other substitutes), and triangulate market sizing data.

Case 14: Cheesy Situation

Food and Beverage | Growth Strategy

Case 14: Cheesy Situation

Food & Beverage | Profitability

Case Prompt

Our client is a cheese producer based in Vermont. Currently, they produce two types of cheese: Cheddar and Gouda. While revenues have grown, their profits have been decreasing. They have asked us to help them understand why and what they can do to increase profits.

Interviewer Guidance

This is an interviewee led case. The case is about profitability and the candidate should lay out a clear framework to analyze revenues and costs for different products to calculate annual profits. The candidate should then brainstorm recommendations for increasing profits.

Additional info:
-The market is stable, with no major changes in competition in recent years
-They sell some cheese to wholesalers and a very small amount direct to consumer

Concepts Tested	Math, Profitability, Brainstorming

Case 14: Cheesy Situation

Food & Beverage | Profitability

Framework

Return to Profitability

- **Market**
  - **Trends**
    - -Customer preferences changing (organic, etc)
    - -Move toward artisanal producs
  - **Competitors**
    - -New entrants
    - -New competition from abroad
    - -Channels
- **Costs**
  - **Variable**
    - -Milk
    - -labor
    - -utilities
    - -storage
  - **Fixed**
    - -PPE
    - -SGA
    - -Marketing
- **Revenue**
  - **Price**
    - -Price to wholesalers
    - -price to consumers
    - -elasticity of demand
  - **Quantity**
    - -Number of pounds sold through each changel
    - -Product Mix

Case 14: Cheesy Situation

Food & Beverage | Profitability

Exhibit 1

	Cheddar	Gouda	Cost
Milk	.75 gallons	1 gallon	3.75/gallon
Labor	1.5 hours/100 lbs	2.5 hours/100 lbs	$16/hour
Energy	.8 kwh	.5 kwh	$.10/kwh
Time to age	1 year	6 months	
	Q4 2018	Q4 2019	Price
Lbs Cheddar Sold	6000	6500	$8.99/lb
Lbs Gouda Sold	6000	5500	$7.99/lb

Note: Each lb of cheese takes up one square foot while aging. Rent for the 50,000 sq. ft. warehouse is $20,000/month

Case 14: Cheesy Situation

Food & Beverage | Profitability

Exhibit 1: Answers

	Cheddar (per pound)	Gouda (per pound)
Milk	$3	$4
Labor	$.24	$.40
Energy	$.08	$.05
Time to age	$4.8	$2.4
Total cost	$8.12	$6.85
Profit	$.87	$1.14

	Q4 2018	Q4 2019	CHANGE
Profit	$12060	$11925	$(135)

Case 14: Cheesy Situation

Food & Beverage | Profitability

Brainstorming Question

What can our client do to increase sales of Gouda cheese?

Answers should be structured and MECE. Example answer:

Product: Sell a version of the cheese only aged for 3 months, saving $1.2/lb.

Place: Sell to high end restaurants to increase brand awareness

Promotion: Run an ad at local grocery store, partner with influencers

Price: Examine price elasticity to understand effect on changes in price

Case 14: Cheesy Situation

Food & Beverage | Profitability

Recommendations	Risks	Next Steps
• Client should plan to increase sales of gouda through increased brand awareness and better product positioning	• Risks could include decreased sales of cheddar, poor customer reception, poor ROI on advertising	• Next steps could include hiring an ad agency, running promotions, changing the aging time for the cheese, etc.

Darden 2020-2021 Casebook

Not for External Distribution

CONSULTING CLUB
AT DARDEN

TABLE OF CONTENTS

Second Year Recruiting Overview

THOUGHTS ON FALL RECRUITING

- **Expect Competition** – very high intern conversion rates this summer; limited spots available and only in specific offices (for certain firms); but other firms only recruit for full-time positions

- **Know your Value Proposition** – create your personal brand to be adaptable (think practice areas, boutiques, etc.) so you can pivot as a variety of opportunities arise for which you may be a strong fit given your interests and experiences

- **Stay flexible** – expect excellent opportunities (through job postings or OGR) coming in the winter/spring as companies decide to wait until they have a clearer financial picture before hiring

OVERVIEW OF FALL ON-GROUNDS RECRUITING (CONTINUED)

Full-Time MBA Recruiting Fall 2020									
Fall 2020	Interview Dates	Day:	Student Resume Deadline	Day:	Employer Invite List Due	Day:	Student Bid Deadline	Day:	Schedule Available to Employer
Week 1	Oct 5 - 6	MO	21-Sep	TH	24-Sep	TU	29-Sep	TH	1-Oct
EXAMS	Oct 7-11								
Week 2	Oct. 12 - 15	MO	28-Sep	TH	1-Oct	MO	5-Oct	TH	8-Oct
Week 3	Oct. 19 - 22	WE	30-Sep	TU	6-Oct	MO	12 Oct.	TH	15-Oct
Week 4	Oct. 26 - 29	TU	6-Oct	TH	15-Oct	TU	20-Oct	TH	22-Oct
Week 5	Nov. 2 - 6	WE	14 Oct.	TU	20-Oct	TU	27-Oct	TH	29-Oct
Week 6	Nov. 9 - 13	WE	21-Oct	TH	29-Oct	TU	3-Nov	TH	5-Nov
Week 7	Nov. 16 - 19	WE	21-Oct	TH	29-Oct	TU	3-Nov	TH	5-Nov

WHO'S INTERVIEWING?

On-Ground Interviews	Key Considerations (check DCL for latest information)
Accenture	• Office hours 9/10; SY Career Fair 9/10; interviews on 10/5
Alix Partners	• Well known in the restructuring/turnaround space • SY company briefing 9/21; office hours 9/24
Bain	• Application deadline 9/15; virtual first round interviews managed by offices
BCG	• Application deadline 9/1; virtual first round interviews managed by offices
DHL Consulting	• DCL job posting
Everest Group	• SY Virtual Connect 9/9; job posting on DCL • Known for IT-enabled business breakthroughs in strategy, execution, and digital transformation
EY (SC&O and TT)	• SY Virtual Connect 9/1; Tech Transformation and Supply Chain are typical roles available; Interviews 10/1

Note: All events subject to change so check DCL often!

WHO'S HIRING? (CONTINUED)

On-Ground Interviews	Key Considerations (check DCL for latest information)
Fidelity Business Consulting	• SY Office Hours 9/14; Interviews 10/20
Innosight	• SY Office Hours 9/28; Interviews 10/20; Boston-based innovation consulting boutique
L.E.K. Consulting	• SY webinar on Aug 26th; Current posting in DCL
McKinsey	• No events prior to 10/5 interviews
Oliver Wyman	• Hires into functional areas; current posting for Life Sciences/Healthcare and Energy practice
Samsung Global Strategy	• ~ 4 yr. rotational program based in Korea and then regional HQs; strategic project-based work • SY Virtual Connect 9/22; interviews likely in Oct.
Siemens Advanta Consulting	• FY and SY Company Briefing 9/29
ZS Associates	• FY and SY Company Briefing 9/24; Office Hours on 9/24; interviews 10/20 • Research-oriented marketing/research/analysis service offerings across multiple industries

Note: All events subject to change so check DCL often!

WHICH FIRMS HAVE ROLES OPEN TO INTERNATIONAL STUDENTS THIS YEAR?

Company Name	International Hiring?
AlixPartners	Yes
Bain	Yes
BCG	Yes
DHL Consulting	Yes
Ernst & Young	Yes
Everest Group	Yes
Fidelity Business Consulting	Yes
LEK Consulting	Yes
McKinsey & Company	Yes
Samsung Global Strategy Group	Yes
Siemens Advanta Consulting	Yes

Company Name	International Hiring?
Accenture	No
Innosight	No
Oliver Wyman	No
ZS Associates	No

Note: Subject to change so check DCL

Industry Overview

Please note that these are commonly tested industries; This list is not exhaustive of all the industries tested

Industry Overview – Consumer / Retail

Key Industry Trends

- **Digital Marketing:** CPG (Consumer Packaged Goods) companies are pivoting to digital marketing solutions like Facebook and YouTube more than ever for smarter and more targeted advertising.
- **Big Data:** Consumer companies & retailers are ramping up the use of consumer shopping behavior data now more than ever to create curated/ personalized shopping experiences and targeted advertisements
- **Retail Omnichannel:** Large brick & Mortar retailers are pivoting to an "order online, pick-up in store" mix while also building out their online fulfillment capabilities to cater to the consumer. and keep up with Amazon). Store foot-prints are also getting smaller to reduce inventory
- **Private Label & Amazon Effect:** Private label consumer products are eroding market share of large name brand products. This is partially driven by "the Amazon effect" of quick and cheap replacement fulfillments. -Brand loyalty is getting harder and harder to win.
- **Direct to Consumer vs. In-store Experience:** Brand names are slowly shifting resources to sell directly to consumers as some retailers struggle. Retailers with large brick & mortar footprints are focusing on in-store experiences to attract customers

Important Terminology

- **SKU:** Stock Keeping Unit – Refers to a unique item sold in a store
- **In-stock:** Percent of items that are on the shelves and available for sale vs. what the total display can hold
- **CRM:** Customer Relationship Management: Strategy & tools designed to boost profitability and strengthen customer loyalty by using data – also the name for software that facilitates this
- **Loss Leader:** Merchandise sold at a loss to attract new customers or stimulate other profitable sales
- **Mark-up:** Percentage added to the cost of product to get selling price

Important Calculations

1. Inventory Turnover:

= (Sales / Inventory)

2. Gross Margin:

$$= \frac{\text{(Revenues – COGS)}}{\text{Revenues}}$$

3. Contribution Margin (CM):

= (Sales – Variable Costs)

$$\text{CM Rate} = \frac{\text{(CM)}}{\text{(Sales)}}$$

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Energy

Key Industry Trends

- **Clean Renewable Energy:** Wind, solar, and biomass power are increasingly replacing the use of fossil fuels in developed and developing countries with some projections indicating 80% of the worlds energy needs being met by renewable energy by 2050
- **Technology:** Advancements in drilling techniques like “fracking” and horizontal drilling have significantly boosted the output of US oil companies and substantially reduced the cost and risks associated with drilling for oil
- **Shale:** Newly found abundance of shale basins in the USA has helped to boost US oil production output and has almost eliminated US dependence on foreign oil
- **Natural Gas:** Given its cheap and abundant supply, natural gas has become the primary source of energy in the US, replacing crude oil and coal
- **(Important) Petroleum Products:** Gasoline, jet fuel, natural gas, fertilizer, plastics, detergent, propane, diesel, lubricant

Important Terminology

- **Upstream (E&P):** Exploration and Production – Process involving the finding, drilling, and producing of crude oil and natural gas or liquified natural gas (LNG)
- **Midstream:** Focuses on the processing, storage, marketing, and transportation of oil and natural gas. (Most pipe-line companies fall in this category)
- **Downstream:** Includes oil refineries, petrochemical plants, petroleum products distributors, retail outlets and natural gas distribution companies
- **OPEC:** Organization of Petroleum Exporting Countries – Cartel of 14 nations that coordinate petroleum policies. –Often influences output and thus oil prices

Important Calculations

1. Return on Investment (ROI)

$$= \frac{\text{(Profits – Cost of Investment)}}{\text{Cost of Investment}}$$

2. Breakeven Point

$$= \frac{\text{(Fixed Costs)}}{\text{Contribution Margin (CM)}}$$

Important Considerations:

- **Transportation / Distribution costs**
- **Storage Costs**
- **Production Costs: Labor + Materials**
- **Plant Development Costs**
- **Depreciation & Taxes**
- **Overhead**

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Transportation

Key Industry Trends

- **Airline Capacity Additions:** Airline ticket prices have been steadily on the decline driven by companies adding more routes to cities across the globe –led by low-cost carriers such as JetBlue, Southwest
- **Fuel Efficiency:** Airline companies have been investing heavily in upgrading their fleet to more fuel efficient aircrafts to reduce their biggest cost driver
- **EV (Electric Vehicles):** Auto manufacturers are all racing to create battery powered vehicles
- **Autonomous Vehicles:** Autonomous vehicles are expected to hit the road as early as 2019 and will cause major disruption to auto manufacturers, bus systems, taxis, insurance companies
- **Shortage of Truckers:** Transportation companies have been struggling to keep up with the booming demand for cargo shipments due to a massive shortage of truck drivers –thus causing significant increases in labor costs

Important Terminology

- **Load Factor:** Measures the capacity utilization of transportation services and is equal to the average actual utilization divided by the maximum capacity
- **PRASM: Passenger Revenue per Average Seat Mile –**Or RASM (revenue) is the revenue generated per available set miles in which ASM = number of seats available x number of miles flown.
- **Logistics:** The detailed coordination of complex operations involving many people, facilities, or supplies.
- **FOB: Free On Board** –Represents the point at which the sale of a freight cargo is considered complete. “FOB shipping” means ownership is transferred once the product is shipped of, “FOB shipping point” means ownership is transferred once the product is delivered
- **LTL & FTL:** LTL (Less than Load) – Small freight that doesn’t fill a truck which is generally more expensive to ship, (FTL) Full Truck Load) – Large shipments that fill a trailer and are thus cheaper to ship

Important Calculations

1. Potential Savings by Switching Equipment

= {New Profit – Old Profit} or

{ [(New Capacity x Price) – (New efficiency x cost)] – [(Old Capacity x Price) – (Old efficiency x cost)]}

Important Considerations:

- **Gasoline / Fuel Prices**
- **Carrying Capacity**
- **Range / Distance**
- **Destination Routes**
- **Maintenance Costs**
- **Depreciation**

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Manufacturing / Agriculture

Key Industry Trends

- **D2C: Direct to Consumer:** More manufacturers are leveraging their own sales platform to market, sell, and ship their products to the customer rather than use third party distributers or retailers to boost profitability
- **Data Driven Analytics:** Manufacturers are using predictive analytics and algorithms to improve product design, optimize production cycles, and improve demand forecasting
- **Trade-war & Tariffs:** In response to the US tariff on steel and more, Canada, the European Union, and China have all implemented retaliatory tariffs of close to 25% on agricultural and automobile goods produced in the US.
- **Sustainable Food Systems:** Vertical farming has been a growing trend in urban locations to minimize environmental foot-prints and bring produce to major cities

Important Terminology

- **(JIT) Just-in Time Inventory:** "Pull demand" inventory system in which assembly materials and support items are delivered as needed to minimize raw material inventory
- **Commodity:** An interchangeable non-differentiated product or material that is sold freely. (Most agricultural products are commodities)
- **Bottleneck:** The resource in a manufacturing process that is working at max capacity and thus limits the output of the entire production
- **Bushel:** A unit of dry measure (1 cubic foot) for grain, fruit, etc., equivalent to 8 gallons of liquid
- **Out-source:** Process of contracting an outside party to complete a production or service task for a business. –Typically done to save cost or due to a lack of expertise

Important Calculations

1. Potential Savings with New Equipment

= (New Equip. Expenses – Old Equip. Expenses)

[(Old Time x Old Labor) + (Raw Material Cost x Old Quantity) + Old Depreciation)]

- [(New Time x New Labor) + (Raw Material Cost x New Quantity) + New Depreciation)

Important Considerations:

- **Raw Material Costs**
- **Labor & Wages**
- **Capacity Constraints / Bottlenecks**
- **Commodity or Not?**
- **Overhead Costs**
- **Supplier & Buyer Relationships**
- **Depreciation**

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Financial Services

Key Industry Trends

- **AI, Block-Chain & Crypto Currencies:** Digital distributed ledgers offer a cheaper and more efficient way for firms to verify and facilitate transactions. Crypto currencies have proven themselves to be an alternative set of asset investments that rival equities, precious metals, and debt holdings
- **Digital-Only Banks & Payments:** The prevalence of more digital transactions have eroded the need for cash for most daily use, which has in turn lead to the proliferation of online banks that offer higher savings account interest rates and comparable services
- **Financial De-regulation:** Congress passed legislation easing some of the restrictions from Dodd- Frank that exempts smaller banks from certain capital requirements which frees up room for more loans
- **More Transparency in PE Funds:** With greater pressure to produce results that outperform their benchmarks, more PE investors have been demanding greater transparency within their funds and firms have been using transparency to attract investors

Important Terminology

- **AUM:** Assets Under Management: Market value of all the financial assets that a firm manages on behalf of all of their clients and themselves. –Includes capital raised by investors and leaders of a firm
- **Private Equity:** Composed of investors and funds that invest directly into private companies or convert public companies to private companies to improve the target company's operations and financials with the goal of extracting a financial return from the company and reselling it another firm or the public at a profit
- **M&A:** Mergers & Acquisition: Mergers are when two companies comes together to make a new entity (Dow Chemical & Dupont) = DowDuPont, while an acquisition is where the smaller company is consumed by the larger company (Amazon + Wholefoods) = Amazon

Important Calculations

1. NPV (Net Present Value)

$$= (CF) \times \frac{1}{(1+i)^n}$$

Where n = # of periods

2. Pay Back Period

$$= \frac{\text{(Fixed Costs)}}{\text{Contribution Margin (CM)}}$$

Important Considerations:

- **Current Portfolio**
- **Exit Strategy & Time Horizon**
- **Acquisition Price**
- **Employee & Customer Relationships**
- **Market Trends**
- **Tax & Regulatory Implications**
- **Client Risk Profile**

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Information Technology

Key Industry Trends

- **Artificial Intelligence (AI)/ Machine Learning:** Artificial intelligence is the ability for a computer program to think and learn. The emergence of AI has enabled the rise of self-driving cars, smart homes, advanced search algorithms, and smart digital assistants
- **Cloud Computing:** Is the practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer. More companies are moving to this platform for security, convenience, and cost savings
- **Internet of Things (IOT):** Smart devices that are all connected and communicate with each other via the internet are rising in demand due to value of strategic data that they provide
- **Blockchain:** a digital ledger in which transactions made and recorded chronologically and publicly. – Important for security and transfer verification purposes. Ex. include Bitcoin, and other cryptocurrencies
- **GDPR:** General Data Protection Regulation: Data protection regulation protecting privacy for all individuals in the European Union.

Important Terminology

- **IP (Intellectual Property):** A category of property that includes intangible creations protected by trademarks and copyrights (e.g. software, code, algorithms, etc.)
- **Unicorn:** a start-up company valued at more than a billion dollars, typically in the software or technology sector
- **Freemium:** A pricing model used by many digital services, a "freemium" model is one where the majority of users are able to engage with a product or service entirely for free (perhaps in exchange for data collection or being served advertisements)
- **SaaS:** "Software as a service" - a software distribution model in which a third-party provider hosts applications and makes them available to customers over the Internet –Like Salesforce or Workday

Important Calculations

1. Addressable Market size:

Top-Down: Total Population >>> Number of users >>> Market share >>> # of Units per User x Price per Unit

Bottom-Up: Current Customer Population >>> Potential Customer Base (Estimated using consensus data or industry info) >>> Future user base x units per user x price

2. Customer Acquisition Cost:

$$\frac{\text{Marketing Expenses}}{\text{Newly Acquired Customers (Yearly)}}$$

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Media & Entertainment

Key Industry Trends

- **Cord Cutting / Over the Top Streaming:** The rise of Hulu, Netflix, YouTube, & Amazon Prime video has left many to abandon traditional cable and opt for online streaming services to get the content they want
- **Content is King:** Media giants have been spending heavily to curate high quality content to hook subscribers to their service and maintain and grow their subscriber base
- **Ad-model Shift:** Cable advertisement has been trending downward while digital online advertisements have been trending up. As online viewers opt for ad-blockers, AI and big data are helping marketing agencies personalize advertisements and increase user engagement
- **Augmented Realty (AR)/ Virtual Reality (VR):** While still in their early stages, AR and VR capabilities have been gaining traction in the industry as a way to enhance storytelling and improve sporting coverage
- **Music Streaming:** The rise of Spotify, Apple Music, & YouTube Music has almost eliminated the physical disc music market as most artist now prioritize online platforms to release albums and new songs
- **Gaming & E-Sports:** The video gaming industry has been one of the fastest growing segments in entertainment led by mobile gaming and game streaming experiences via Twitch and E-sports. Many video game creators are focused on a "games as a service model" as they monetize video games overtime by selling in-game customizable perks

Important Terminology

- **Digital vs. Linear:** Linear is traditional broadcast or cable television. Digital is online (streaming, etc.)
- **Ratings:** A measure of viewers of a particular program or time segment in television. Nielsen is the largest provider of ratings data in the US, but has been slow to provide digital ratings
- **Box-Office:** The total revenue generated by movies shown at theaters

Important Calculations

1. Profitability

(Revenues – Costs)

(Price x Quantity) – (Quantity x Var. Cost) – (Fixed Costs)

Important Considerations:

- Revenue Factors
  - Advertising Rev.
  - Ticket sales (Price x Quantity)
  - Merchandising
  - Tours / licensing / Endorsements
- Cost Factors
  - Artist fees
  - Commission
  - Promotion advertising
  - Venues
  - Content creation costs

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Healthcare & Life Sciences

Key Industry Trends

- **Wearable Medical Devices:** Activity trackers help patients stay more active and healthier on their own while also monitoring health metrics reducing the need to visit doctors frequently
- **Smart Technology & Data:** Data on a patient's background and conditions allow more personalization options, targeted treatments, and faster recommendations at hospitals
- **Gene Therapy:** The transplantation of normal genes into cells in place of missing or defective ones in order to correct genetic disorders. –Growing trend using CRISPR to treat previously uncurable diseases
- **Price Transparency:** As drug companies receive criticism on the rising cost of their drugs, more states are considering independent efforts to improve transparency in drug pricing and cost controls
- **Government:** With the repeal of the Affordable Care Act (ACA), legislation has stagnated on fixing the rising cost of healthcare and Medicaid in the US, thus leaving a continued rise in insurance premiums
- **Bundled payment, episode-of-care payment, etc.:** Generally describes paying for the whole treatment at once, rather than by individual tests or visits – an attempt to incentivize improved outcomes

Important Terminology

- **Orphan Drug:** A pharmaceutical drug that remains commercially undeveloped due limited potential for profitability as a result of a small curable population size
- **FDA:** "Food & Drug Administration" Federal organization tasked with protecting and promoting the safety of food and pharmaceuticals in the US. FDA approval is needed for almost all drugs sold in the US
- **Generic Drugs:** A prescription drug that has the same active-ingredient formula as a brand-name drug but sold at a cheaper cost. –Typically occurs when name branded drugs lose patents
- **Biotech vs. Pharmaceutical:** Biotech firms use live organisms like bacteria and enzymes to manufacture their medicines while pharmaceutical companies primarily use chemicals synthesis
- **Auto-immune Diseases:** A disease in which the body's immune system attacks healthy cells

Important Calculations

1. Market sizing:

Top-Down: Total Population >>> Number with Illness >>> Number Diagnosed >>> Market share of Drug >>>> (Dosage per Time Frame) x Price per Dosage = Market Size per Time Frame

Important Considerations:

- Regulations
  - FDA Approvals
  - Patent Rights
  - Foreign Government Laws
- Competition / Cannibalization
- Drug Effectiveness
  - Cure vs. Treatment
  - Time to Market
  - Side Effects
- Manufacturing Capabilities
- Pricing, Costs (Fixed / Var.), Dosage

*Please note that not all trends, terminologies, and calculations are listed above

Industry Overview – Telecommunications

Key Industry Trends

- **5G Network Service:** Next generation of mobile internet connectivity with faster speeds, more reliable connections, and 100x more bandwidth capacity than 4G.
  - Network operates mainly on the cloud
  - Allows for "network slicing:" Creates separate wireless networks on the cloud for users to have their own personalized network
  - Roll-out may be 2020 in North America due to high infrastructure costs associated with development
- **Network Consolidation:** The third and fourth largest cell phone carriers T-Mobile and Sprint are in the process of merging, a move that will consolidate the telecom market to 3 major players
- **Content Integration:** High profile acquisition like AT&T of Time Warner and Verizon of Yahoo illustrate a push to either get into the content creation game or to build out their advertising network

Important Terminology

- **Carrier:** A company that is authorized by regulatory agencies to operate a telecommunications service system: AT&T, Verizon, T-Mobile
- **OEM:** Original Equipment Manufacturer – A company whose goods are used as components in the product of another company that sells the finished goods to users
- **LAN:** Local Area Network: Locally owned and administered data network that runs primarily through cables –ex. Ethernet connection
- **Fiber Optic:** Transmission connectivity via glass strands which are 100x more faster than traditional copper wires for more efficient cell phone and internet connections

Important Calculations

1. Return on Investment (ROI):

$$\frac{\text{Future Profits} - \text{Cost of Investment}}{\text{Cost of Investment}}$$

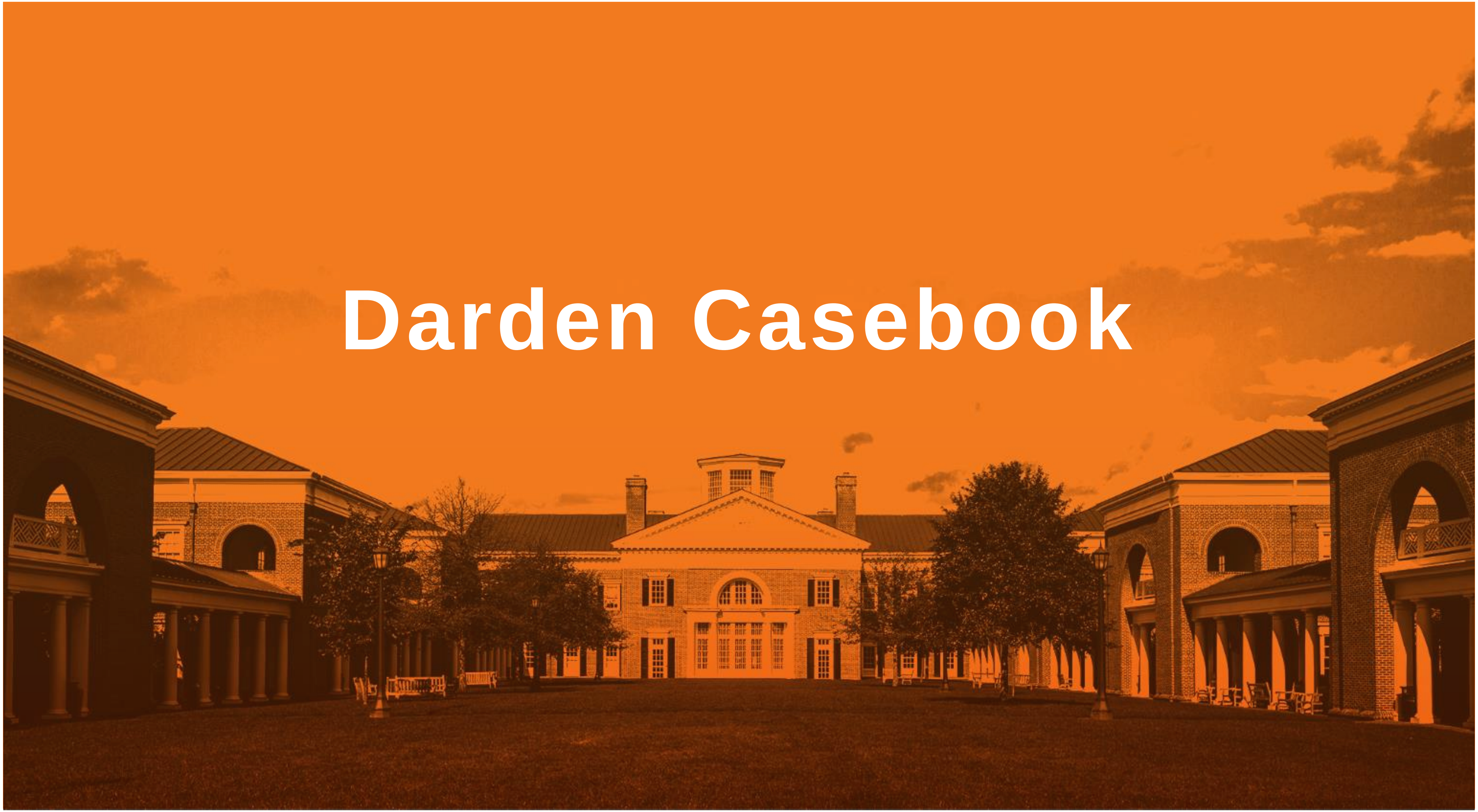
2. Customer Acquisition Cost:

$$\frac{\text{Marketing Expenses}}{\text{Newly Acquired Customers (Yearly)}}$$

Important Considerations:

- Regional Competition
- Competitors
  - New Entrants
  - Barriers to Entry
  - Substitutability
- Contract lengths & stipulations
- Infrastructure

*Please note that not all trends, terminologies, and calculations are listed above


Darden Casebook

CASEBOOK INDEX

Alpha Aviation

McKinsey | Round 2 | Aviation

CASE NAME

McKinsey | Round 2 | Aviation

Prompt:
Your client is a large US-based commercial airline that has lost profitability and market share. The company is under pressure to regain its foothold in the industry and grow its balance sheet. Can you brainstorm some areas you would like to investigate on behalf of the airline?

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. What is the timeline for the project? ASAP – financial investments for the airline typically warrant a payback period of 3 years.

2. How is the rest of the airline industry performing? Our client's profitability is declining slightly faster than the industry – but is in line with other airlines within its class of service.

3. Any specific goals? Take operating margin positive.

BEHAVIORAL INTERVIEW QUESTION:

1. Why McKinsey?

2. What's your proudest achievement?

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Revenue Opportunities

- Ticket Fares
- Upselling Opportunities
- Cargo Fees
- Airline partnerships
- Credit Card sponsors

Cost Management

- Upfront Investment
  - Airport Investment
  - Equipment
  - Initial Training
  - Marketing & Advertising
- Variable Costs
  - Fuel Costs
  - SG&A
  - Maintenance

Other Considerations

- Creation of a new domestic hub
- Seasonal Risk
- Competitive Response
- Fuel Efficiency + Prices

How to Move Forward:

The interviewer should identify key revenue and cost considerations for route planning and highlight other potential strategic considerations.

To move forward, the interviewee should call out the existing financial forecasts or market research provided.

Question 1

The airline has evaluated your options and decided to re-examine and add additional routes. The flight dispatch office has presented three routes and would like your guidance on which to choose.

Exhibit or Question Guidance:

Show candidate Exhibits 1 and 2 and ask for key strategic takeaways or pros/cons. Interviewer guidance below.

	Route 1 *SEA - MINN*	**Route 2** *FAY - DALL*	**Route 3** *NYC - DC*
PRO			
Potential for Growth		PRO	
Risk of Disruption	PRO		
Competition for Route		PRO	
Time to Establish Operations	PRO	PRO	
CON			
Potential for Growth	CON		
Risk of Disruption		CON	
Competition for Route	CON		CON
Time to Establish Operations			CON

Key: there is no automatic choice – each route has major tradeoffs. You can urge the interviewer to pick a route and rationalize their choice, OR ask about any additional data they would want/need to make the best decision. At that point, provide Exhibits 3 and 4.

EXHIBIT 1

Route Map

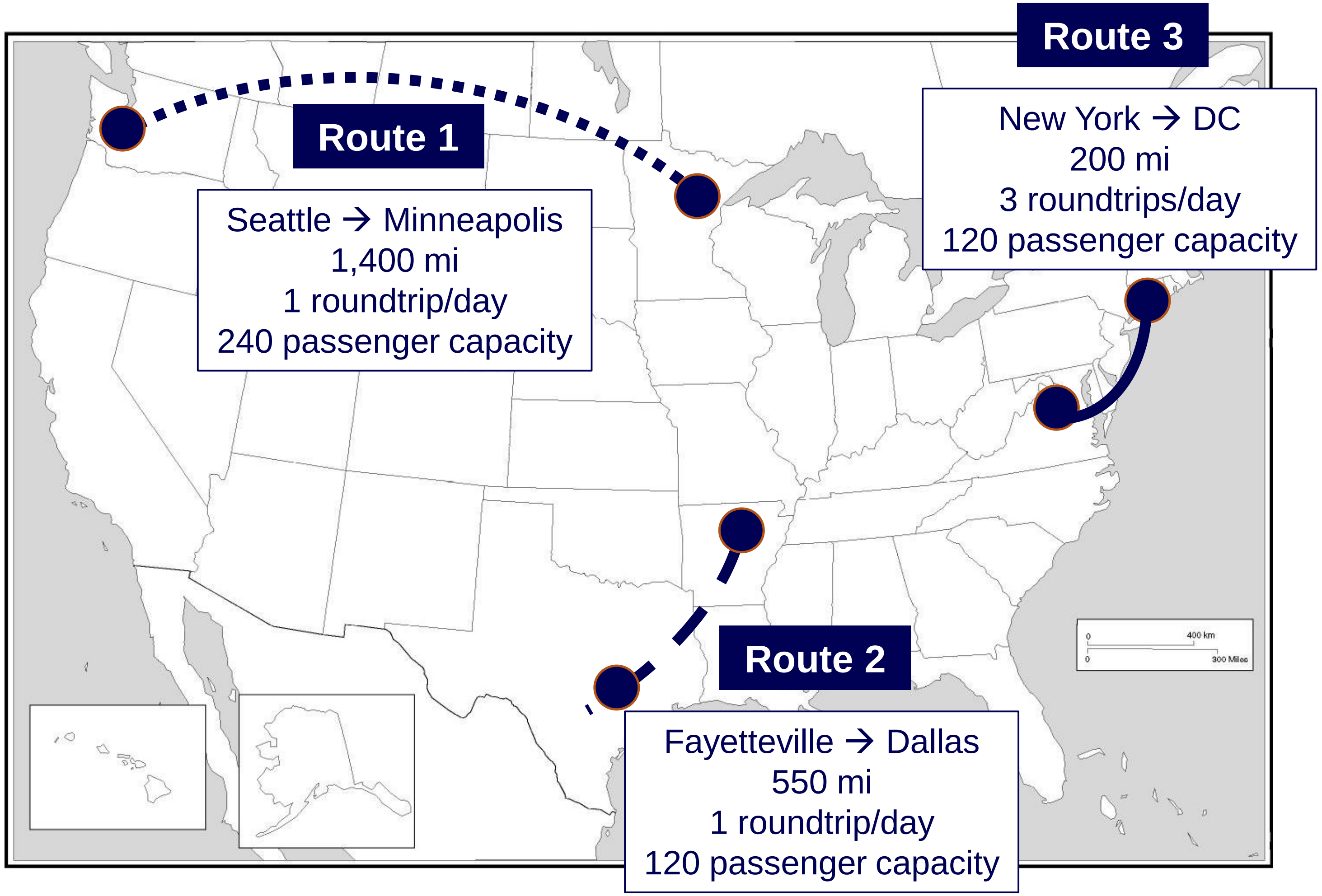


EXHIBIT 2

Route Research

	Route 1 Seattle ←→ Minneapolis	**Route 2** Fayetteville ←→ Dallas	**Route 3** NYC ←→ DC
Potential for Growth*	Low	High	Medium
Risk of Flight Disruption**	Low	High	Medium
Competition for Route***	High	Low	High
Time to Establish Operations	3 months	2 months	12 months

* Projected 5-year increase in passenger volume
** Historical data on flight cancellations due to weather and operations
*** Current competitors flying the same route

Question 2

Keeping in mind your strategic analysis, the airline has provided financial projections and for each route. What are your initial reactions to their data? And can you quantify each route's profitability?

Exhibit or Question Guidance:

Show candidate Exhibits 3 and 4 and guide them toward creating a financial forecast. Interviewer guidance below.

Exhibit 3 – If time allows, have the interviewer brainstorm potential upfront costs.

Exhibit 4 – Best practice is to combine revenue and cost to get CM/ASM for each route. Interviewee can either weight the CM based on the projected fill rate OR reference the passenger capacity in Exhibit 1 to get average passengers per route.

Note: ASM stands for Available Seat Miles; standard aviation practice to denote financial metrics.

Forecast calculations on next page.

EXHIBIT 5 – CALCULATIONS FOR INTERVIEWER

What is the CM potential of each route?

		Route 1 SEA - MINN	Route 2 FAY - DALL	Route 3 NYC - DC
	# of Seats per Plane	240	120	120
x	*Average % Filled*	90%	60%	80%
	Average # of Passengers	216	72	96
x	*Average Flight Distance (mi)*	1,400	550	200
A	*Available Seat Miles (ASM)*	302,400	39,600	19,200
	Revenue/ASM	$ 0.12	$ 0.22	$ 0.18
-	*Cost/ASM*	$ 0.11	$ 0.09	$ 0.12
B	*CM/ASM*	$ 0.01	$ 0.13	$ 0.06
	ASM	302,400	39,600	19,200
x	*CM/ASM*	$ 0.01	$ 0.13	$ 0.06
A x B	*CM/flight*	$ 3,024	$ 5,148	$ 1,152
x	*Flights per day*	2	2	6
x	*Flying days per year*	300	300	300
C	*Annual CM/route*	$ 1,814,400	$ 3,088,800	$ 2,073,600

What is the payback period?

		Route 1 SEA - MINN	Route 2 FAY - DALL	Route 3 NYC - DC
	Terminal Construction	$ 100,000	$ 2,500,000	$ 5,000,000
+	*Equipment Purchase*	$ 1,000,000	$ 3,000,000	$ 1,000,000
+	*Additional Staff Required*	10.00	100.00	50.00
*	*Training per Staff Member*	$ 100,000	$ 1,000,000	$ 500,000
D	*Total Upfront Cost*	$ 1,200,000	$ 6,500,000	$ 6,500,000
	Total Upfront Cost	$ 1,200,000	$ 6,500,000	$ 6,500,000
/	*Annual CM/route*	$ 1,814,400	$ 3,088,800	$ 2,073,600
D / C	*Payback (Years)*	0.7	2.1	3.1
	Payback (Months)	8	25	38

Key: weigh the shorter payback period with the riskiness of the investment (passenger availability, competition, start-up time, operational considerations)

EXHIBIT 3

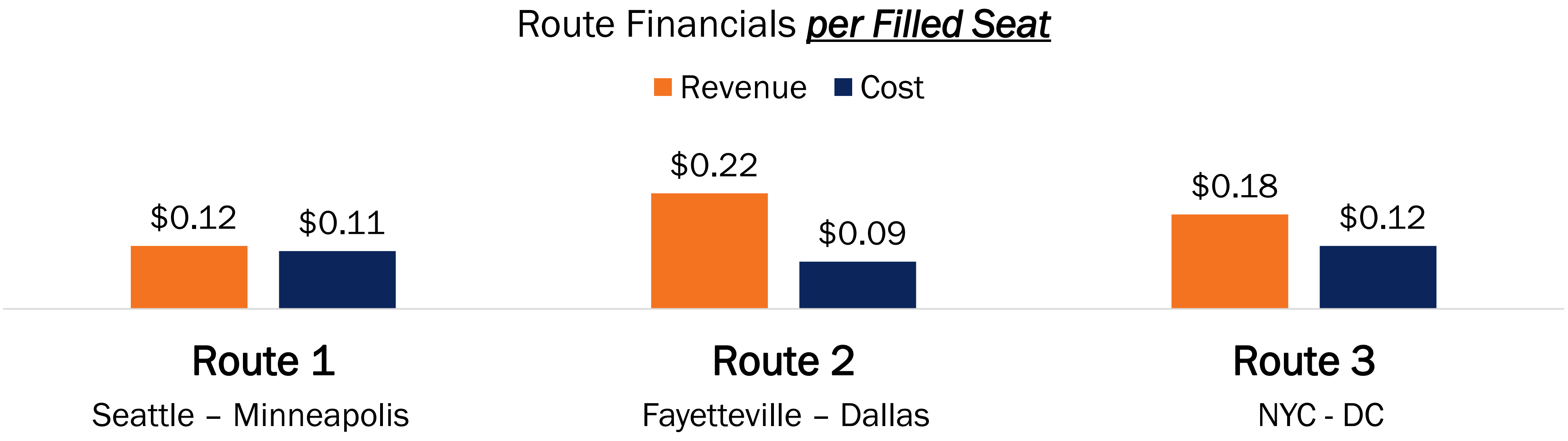
Upfront Costs

	Route 1 Seattle ←→ Minneapolis	Route 2 Fayetteville ←→ Dallas	Route 3 NYC ←→ DC
Terminal Construction	100k	2.5M	5M
Equipment Purchase	1M	3M	1M
Additional Staff Required*	10	100	50

* 10k/person will be required for training

EXHIBIT 4

Route Financials (Per ASM)



Route's Average % Seat Fill Rate	90%	60%	80%

BRAINSTORMING

Your client has identified that attracting business travelers will be key to long-term growth and profitability. Please brainstorm some ideas on how your client can increase business travelers in the next 3 years.

Brainstorming Guidance:

Note: This is just one possible set of categories and answers. Many more are possible, and interviewers should assess both the volume and relevance of answers.

In-flight amenities

- Upgraded WiFi
- Extra legroom and business class cabins (lower price sensitivity)
- Priority boarding for business travelers

External partnerships

- Preferred status with Concur and other corporate booking sites
- Alliance networks with smaller, regional airlines (continuous service)

Flight structure

- Early morning and late afternoon time slots to accommodate business schedule
- No penalty rebook or cancellation

Misc.

- Revenue-based loyalty program
- Perks for Elite Status

Best candidates display:

Ability to integrate disparate data on route mapping with brainstorming ideas – i.e. how can the client best design the selected route to appeal to business travelers in that destination. If time allows, the interviewer should ask the candidate why an airline would grow its base of business travelers.

CONCLUSION

To conclude, the interviewee should provide the following:

Recommendation:

- No clear “right answer” – the case is meant to test a candidate’s ability to deal with ambiguity. A good answer will consider both the quantitative and qualitative advantages of the three routes, and how each aligns with the client’s long-term goals. The information in the case is purposely spread out and difficult to interpret, so candidates should maintain composure and organization when providing their final recommendation.

Risks:

- Competitive activity at destination airport – possibility of a price war
- Pending local legislation at destination city – could prevent or hinder monopolistic activity or make airline travel prohibitively expensive for carriers and passengers
- Decrease in passenger interest in destination cities

Next Steps:

- Regulatory and operational planning schedule to implement route.

INTERVIEWER FEEDBACK FORM

Case Name ______________________ **Interviewer** ______________________

Case Book __________________ **Case Type** ____________ **Difficulty** ____________

Case Execution:

- ❑ Clarifying Questions + Framework
  - ❑ Good Questions
  - ❑ Structured
  - ❑ MECE
  - ❑ Creativity

1 2 3 4 5

Feedback:

- ❑ Exhibits + Quantitative Ability
  - ❑ Accuracy
  - ❑ Speed
  - ❑ Insights Presented
  - ❑ Errors / Guidance Needed

1 2 3 4 5

Feedback:

- ❑ Brainstorm + Conclusion
  - ❑ Creative & Structured
  - ❑ Good Business Judgment
  - ❑ Recommendation Strength

1 2 3 4 5

Feedback:

- ❑ Presence & Non-Verbal
  - ❑ Confidence
  - ❑ Poise / Posture
  - ❑ Clear & Concise
  - ❑ Body Language
  - ❑ Coachability

1 2 3 4 5

Feedback:

Total: _____ / 20

The Big Shot

Bain | Round 1 | Media/Entertainment

THE BIG SHOT

Bain | Round 1 | Media/Entertainment

Prompt:
Our client, Lights Camera Action Entertainment (LCA), is a major movie production house. After a disappointing summer filled with numerous box office flops, the CEO of LCA has approached us to decide which movie the company should release next.

Clarifying Information: ***Note: Provide this only if corresponding questions are asked.***

1. **What is LCA's business model?** LCA is a production house in the US but release movies across major global markets. They have a distribution network of single and multi-screen theatres and get a share of the ticket sales.
2. **What movies do they produce?** They've been in the business for the past decade and have a good mix of movies across different genres.
3. **What happened over summer?** The COVID-19 pandemic has wreaked havoc on the movie industry.
4. **What is the financial situation of the company?** Even though the company did not have a major hit over summer, the company has ample cash reserves from investors. The board has indicated, however, that they expect a hit soon, or else the CEO will be looking for a new job.
5. **Do they have any financial target?** The board is concerned about ROI after the recent flops and has classified a hit as a movie that has an ROI > 50%.

BEHAVIORAL INTERVIEW QUESTION:

1. Describe the best leader with whom you've worked.

2. Tell me about a time when you worked on a project with an undefined goal or scope.

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Financial

Revenues
- Number of theaters at release
- Price of tickets
- Fill rate at theater
- Merchandise licensing
- Sequel potential

Costs
- Actors
- Sets
- Special effects
- Advertising
- Editing
- Sound
- Production Design

Non-Financial

Internal
- Sequel of prior hit
- Saturation of series
- Expertise in a genre
- Exclusive deals with actors
- Adaption from popular novels/books

External
- Macroeconomic trends
- Actor popularity
- Genre reach
- Trending theme for the season/pop culture
- Clashes with other movie release dates
- Competition from Netflix and other streaming media

How to Move Forward:

The candidate should recognize that this is a profitability case. Good candidates will also realize that there are other factors that determine the success of movies.

A good understanding of the breakdown of tickets sales at a theatre level is key to moving forward – the interviewer should push candidates to get granular while calculating revenue (theaters * seats * fill rate * ticket sales).

Once you get to this point, hand the student Exhibit 1 and 2.

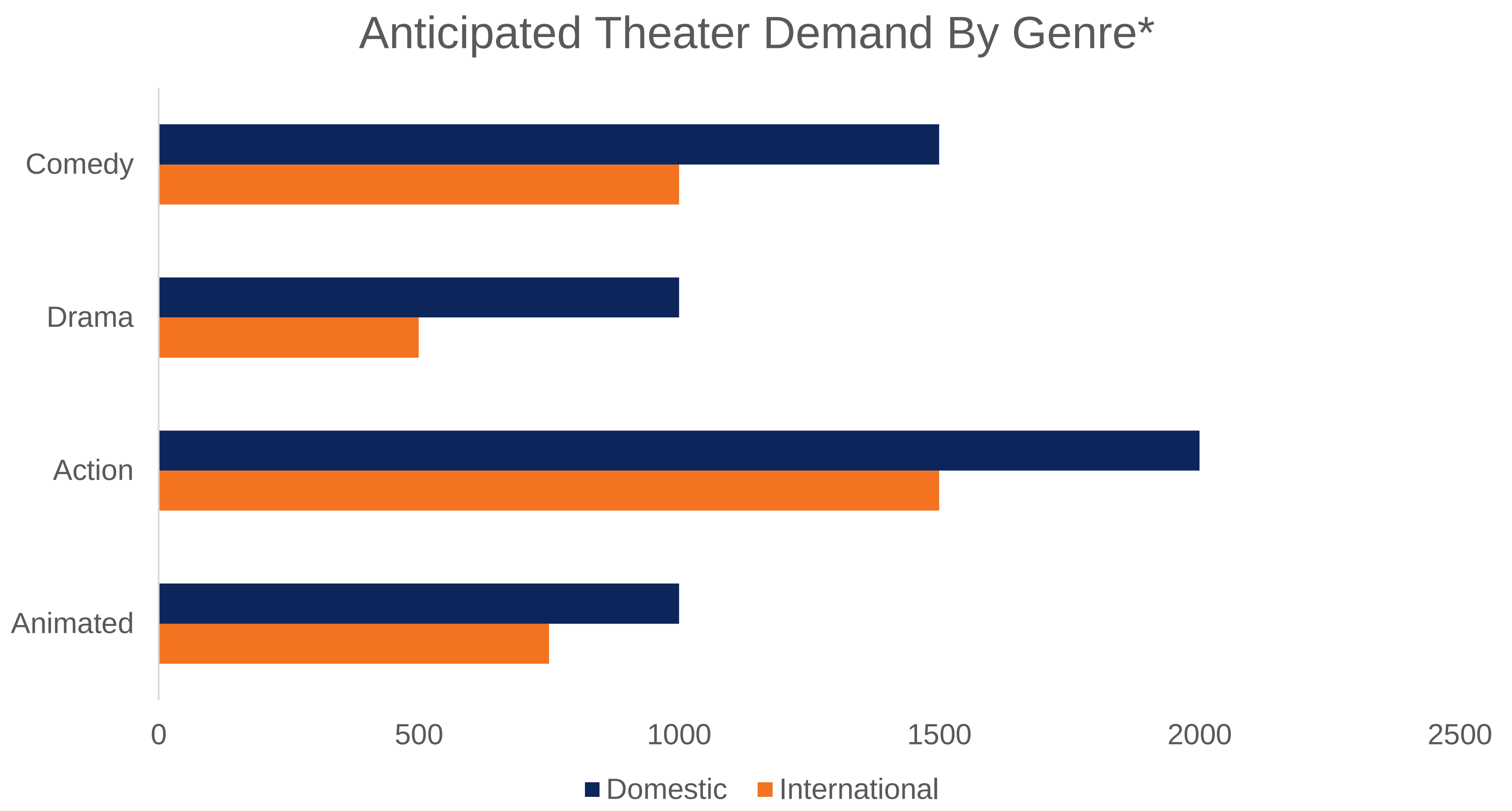
EXHIBIT 1

LCA movie options

Movie Name	Genre	Total Production Costs (Millions $)	Forecasted Theatre Attendance (%)
Project Huntington	Comedy	50	80
Life at Ivy	Drama	100	60
Case Wars	Action	75	75
Paws at Pav	Animation	90	80

EXHIBIT 2

Global Movie Industry Statistics



*Average theater run of 30 days

Question 1

- Which of the genres is the most profitable option for the production house?

Exhibit or Question Guidance:

Hand the student Exhibits 1 and 2. The candidate should realize that they cannot do a profitability analysis without number of seats in a theatre and price of a ticket. **Provide Exhibit 3,** when the candidate asks for the above information.

Provide only when asked – Assume 30 days of revenue.

LCA revenue from each theatre type:

Theatre type	LCA revenues/ticket	No. of shows/day	No. of seats/show	Monthly earnings
Single screen	$1	5	400	$1 * 5 * 400 * 30 = $60,000
Multi-screen	$1.5	10	200	$1.5 * 10 * 200 * 30 = $90,000

EXHIBIT 3

Global Theatres Statistics

Theatre type	LCA revenues/ticket	No. of shows/day	No. of seats/show
International	$1	5	400
Domestic	$1.5	10	200

Exhibit/Question Solution Guidance:

Total Monthly earnings

Genres	Single Screen	Multi-Screen	Total
Comedy	80%*1,000*60,000 = 48,000,000	80%*1,500*90,000 = 108,000,000	48M + 108M = 156M
Drama	60%*500*60,000 = 18,000,000	60%*1000*90,000 = 54,000,000	18M + 54M = 72M
Action	75%*1,500*60,000 = 67,500,000	75%*2,000*90,000 = 135,000,000	67.5M + 135M = 202.5M
Animation	80%*750*60,000 = 36,000,000	80%*1,000*90,000 = 72,000,000	36M + 72M = 108M

Exhibit or Question Guidance:

Profit for one month:

Genre	Revenue ($)	Costs ($)	Profit ($)
Comedy	156,000,000	50,000,000	106,000,000
Drama	72,000,000	100,000,000	-28,000,000
Action	202,500,000	75,000,000	127,500,000
Animation	108,000,000	90,000,000	18,000,000

ROI for each genre:

Genre	ROI (Millions $)
Comedy	106/50 = 2.12
Drama	-28/100 = -0.28
Action	127.5/75 = 1.7
Animation	18/90 = 0.2

Exhibit Analysis:

Good candidates should not calculate the profitability for all the 4 movies. From the Exhibit 1, it is clear that “Life at Ivy” will be the least successful and can be disregarded.

From Exhibit 2, a **great** candidate should disregard “Paws at Pav” as it is screened at fewer theatres.

After calculations:

2 movies stand out – however, even though the comedy movie makes less profits, it has a greater ROI which is what LCA needs.

BRAINSTORMING

Other than the profitability analysis, what are the other strategic decisions that LCA should consider for the success of their next movie?

Brainstorming Guidance:

Note: This is just one possible set of categories and answers. Many more are possible, and interviewers should assess both the volume and relevance of answers.

Release Timing:

- Strategic release dates to coincide with holidays/popular events, such as romcom during Valentine's weekend, Holiday films over Christmas
- Avoiding clashes with other popular movies or large sporting events during the release

Monetization:

- Merchandise sales from these movie category, e.g.: water tumblers, limited edition gadgets, t-shirts etc.
- Potential for movie sequels based on popularity
- Releasing the movie on other platforms such as Netflix, Hulu, and obtaining television streaming rights.
- Impact of initial reviews on the theatre fill rates for subsequent weeks.

Content/Marketing:

- Using the marketing budget to drive awareness and buzz for the movie using appropriate channels
- Casting the right actors, production and direction, sound crew
- Theme/story of the movie to align with ongoing social and pop culture, macro-economic trends

CONCLUSION

To conclude, the interviewee should provide the following:

Recommendation:

- Recommend “Project Huntington”
- Analysis to support the recommendation – walk through the math, and recognize the lower cost to produce and higher ROI

Risks:

Any concerns with the plan, example:

- The impact of the critics and popular reviews on the theatre fill rates for subsequent periods.
- Audience preferences might change, and theatres might change their genre preferences

Next Steps:

- Investing in releasing the movie from the category selected, choosing an appropriate release date and launching an ad campaign.
- Analyzing the scope of the future revenues from sequels or partners for sale of merchandise.

INTERVIEWER FEEDBACK FORM

Case Name ____________________________ **Interviewer** ______________________________

Case Book ______________________ **Case Type** _____________ **Difficulty** _____________

Case Execution:

- ❑ Clarifying Questions + Framework
  - ❑ Good Questions
  - ❑ Structured
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  - ❑ Creativity

1 2 3 4 5

Feedback:

- ❑ Exhibits + Quantitative Ability
  - ❑ Accuracy
  - ❑ Speed
  - ❑ Insights Presented
  - ❑ Errors / Guidance Needed

1 2 3 4 5

Feedback:

- ❑ Brainstorm + Conclusion
  - ❑ Creative & Structured
  - ❑ Good Business Judgment
  - ❑ Recommendation Strength

1 2 3 4 5

Feedback:

- ❑ Presence & Non-Verbal
  - ❑ Confidence
  - ❑ Poise / Posture
  - ❑ Clear & Concise
  - ❑ Body Language
  - ❑ Coachability

1 2 3 4 5

Feedback:

Total: ______ / 20

Food Frenzy*

IDEO/frog | N/A | Food Accessibility & Design

*Note – this case is designed for IDEO / Mural style interviews. It is different from a classic case.

DESIGN FOR FOOD

IDEO | Round 2 | Food Accessibility & Design

Prompt:

Mercado Reforma is a large B2B grocery supplier in Latin America that wants to expand into the B2C space. You are the project leader, ideate ways to investigate the opportunity and bring the concept to life. Walk me through how you would approach the project.

Suggested interview length: ~45 minutes due to the amount of brainstorming and Q&A

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. Reforma has no history or experience in the B2C space but has extensive distribution networks and expects refining their operations and scaling will not be insurmountable challenges.

2. Reforma currently operates in Mexico, Chile, and Colombia. While the company operates across the entirety of these countries, the majority of their distribution capabilities are concentrated in Mexico City, Santiago, and Bogota.

3. Their goal is to enter the market in an innovative way. Reforma believes there is whitespace in the food services industry for an unmet customer need, but is currently unsure what that looks like in practice.

4. A primary focus of the engagement should be to ensure the proposed market entry strategy embodies the voice of the customer, addressing customer needs and frustrations.

BEHAVIORAL INTERVIEW QUESTION:

1. Tell me about a time you have received a tough piece of feedback. How did you respond?

2. What do you hope to gain from your internship this summer?

Framework Guidance:

Candidates should propose a project plan – if they begin to structure a traditional framework, prompt them to structure a project plan. If they still struggle, prompt them to explain why they are structuring the project in such a manner. This should be all verbal and very collaborative – writing during this phase is not required as this could be verbally delivered if they want.

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Research

Customer engagement strategy – address how the voice of the customer would be captured. Candidate should be able to expound on a strategy for each of the following as well as note their different uses:

- Ethnographic interviewing
- Focus group execution
- Ethnographic observation
- Stakeholder interviews

Synthesis & Design Products

Putting the pieces together – candidate should be able to address how each of the research inputs is used to distill insights, create design artifacts, and describe the use cases of each artifact

- Synthesis process and collaboration practices for processing research outputs
- Artifact examples: CX journey map, service design blueprint, personas

Co-Creation

Insights & ideation with clients/users – candidates should be able to build workshop ideas for presenting to clients/users and facilitating an ideation session.

- Empathy building exercises
- Creative presentation of research
- Rapid synthesis ideas for reactions or insights from research
- Small group solutioning/brain storming

Prototyping & Scaling

Iterate, refine, and scale – candidates should be able to outline a scrappy and rough strategy for testing solutions they discover through research and co-creation

- Low budget, easy ideas
- Service design simulation
- Wire frame testing
- A/B testing
- Pilot market testing

Sample Questions for Framework Drilldown:

- Tell me more about your research plan – how do you plan to source users/customers?
- What kind of questions will you ask them?
- How do you envision using your design artifacts?
- Describe how you would lead a synthesis process with a team? How would you make sure it is collaborative?

How to Move Forward

1. Press the candidate extensively on their framework using the sample questions.
2. Prompt the candidate to begin a brainstorm of insights they might uncover from their research and synthesis products
3. Stress test candidates and continue to ask for additional hypotheses.

EXHIBIT 1

Customer Persona: *Millennials on the Move*

Millennial urban customers. This segment typically works in professional services (CDMX residents pictured here).

Millennial customers in Latin American megacities are moving into positions of leadership within the economy and are increasingly pressed for time due the demands of their professional, personal, and social lives. These customers crave an efficient option that will satisfy their needs within the structure of their current commuting and professional routine during the work week.

NEEDS

- Accessible food options when on the go out in the city
- Food options that better cater to their dietary preferences
- Ability to pick-up up cooked food or bundled ingredients when pressed for time
- Options that allow for a quick and efficient shopping or pick-up experience

FRUSTRATIONS

- Feeling pressed for time and unable to attend to little chores like grocery shopping, laundry, or cleaning their apartments
- Feeling unable to find the specialty food items they like in convenient places
- Lack of diversity of food options around their office

EXHIBIT 1 GUIDE

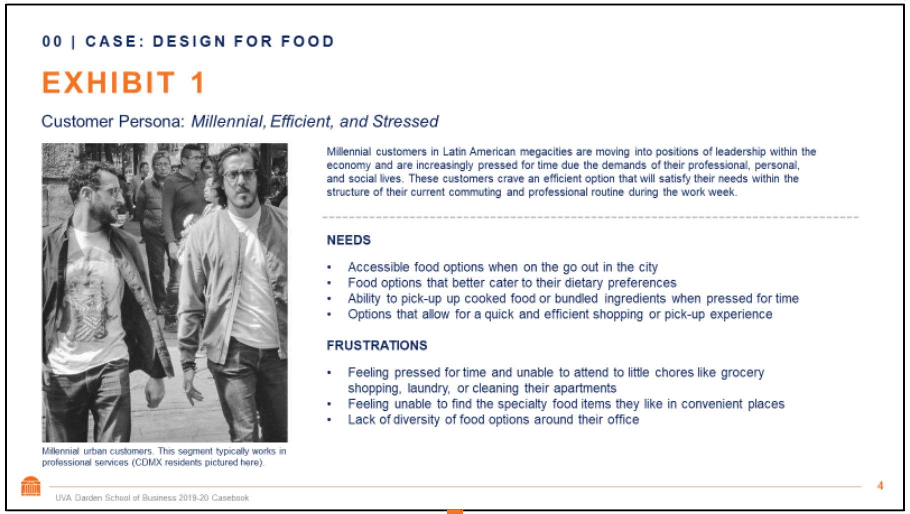

00 | CASE: DESIGN FOR FOOD

EXHIBIT 1

Customer Persona: *Millennial, Efficient, and Stressed*

Millennial customers in Latin American megacities are moving into positions of leadership within the economy and are increasingly pressed for time due the demands of their professional, personal, and social lives. These customers crave an efficient option that will satisfy their needs within the structure of their current commuting and professional routine during the work week.

NEEDS

- Accessible food options when on the go out in the city
- Food options that better cater to their dietary preferences
- Ability to pick-up up cooked food or bundled ingredients when pressed for time
- Options that allow for a quick and efficient shopping or pick-up experience

FRUSTRATIONS

- Feeling pressed for time and unable to attend to little chores like grocery shopping, laundry, or cleaning their apartments
- Feeling unable to find the specialty food items they like in convenient places
- Lack of diversity of food options around their office

Millennial urban customers. This segment typically works in professional services (CDMX residents pictured here).

UVA Darden School of Business 2019-20 Casebook 4

Question 1

After pushing the candidate to explain their project execution plan provide the following exhibit and share the following:

"Your research team conducted extensive field research in Santiago and Mexico City distilled insights to identify millennial, young professionals as an underserved market in the food space. Given this – what ideas do you have for serving this market?"

Exhibit Guidance

- This is meant to kick-off a brainstorm with the candidate.
- Prompt the candidate to provide solutions to the millennial consumers' needs and frustrations
- Ask the Candidate to continue providing additional solutions 1-3 times after they stop providing solutions
- When candidates run out of solution ideas ask them how they might find new ideas for solutions, down select their ideas, or test the validity of their ideas.

How to Move Forward

1. Select one – or two if the candidate is doing very well – ideas and ask how the idea would be prototyped and what the research plan would be.
2. Or ask them to select the idea they think is the best and structure the question around that idea.
3. See below for a sample question for moving forward:
   - "Given idea [XYZ provided by candidate], how would you test such an idea in a scrappy, cost effective way? How would you ensure the product or service meets the needs of our target customers?"

Question 2 (The location of these question slides in your case is completely up to you)

- “Given idea [XYZ provided by candidate], how would you test such an idea in a scrappy, cost effective way? How would you ensure the product or service meets the needs of our target customers?”
- Provide Exhibit 2 to candidates only if they struggle to generate ideas.

Exhibit or Question Guidance:

Candidates should recognize this as a request for a prototyping strategy and identify that to successfully conduct a usability test of a prototype the following are required:

- Sample users
- Interactive prototype with test-friendly features
- A facilitator
- Observers

The best candidates will note on their own that outputs from the prototyping exercise with customers will be used to improve the idea. Excellent candidates will also note that feedback from usability testing could cause the team to throw out the idea.

Decision point following the test can be thought of as – ***Adapt, Adopt, or Abandon?***

Tools & Tactics

- Wireframe mock ups and interaction simulations for app or digital based solutions
- Paper prototypes for low fidelity digital product simulation, cardboard prototypes for physical product prototypes, A/B testing for either of these ideas
- Facilitators acting to simulate service interactions
- Other examples: Sketches, hand made constructions, virtual models, role play, videos

Example answer

Idea: small, express, organic markets positioned in/around metro stations in Mexico City

Prototype: Build a simulated cardboard storefront and have a sampling of food products you believe the target customers would enjoy. Position 2 facilitators to provide service while a team of 2-3 observers note how selected customers interact with the service from afar and record video of the interactions. Collect feedback on the service, food selection, and positioning of the store. Test idea with volunteers during off-peak hours. (See next page for a similar test situation from IDEO for a bakery)

EXHIBIT 2

Prototyping examples

Cardboard prototype for a Dyson vacuum cleaner.

Paper interaction testing for apps.

Cardboard boxes designed to create a fake "store" with facilitators acting as employees to simulate and test a new service design.

2nd iteration IDEO service design prototype for a new bakery/restaurant concept.

Question 3

- Given your idea and the target customer for such an idea, please size the market for the opportunity in Reforma's major urban markets. Once you size the opportunity, what do you think about these numbers?

Exhibit or Question Guidance:

Candidates should either ask you for information to be able to size the market or ask to make assumptions and create their own numbers based off some logic, either is fine as long as they work with you to confirm assumptions.

City	Total Population	Millennial Population	Anticipated Penetration Rate	Millennial Pop. % x Penetration	Pop. x (Penetration x Millennial Pop. %)
Bogota	7,500,000	30%	50%	15.0%	1,125,000 (round to 1.1M)
Mexico City	8,500,000	27%	20%	5.4%	459,000 (round to 0.5M)
Santiago	5,500,000	30%	65%	19.5%	1,072,500 (round to 1M)

Once candidates arrive at the millennial population number and penetration number, they should ask for some kind of estimated spend, provide the following

City	Rounded Pop.	Monthly Spend	Monthly Revenue
Bogota	1.1 M	$50	$55 M
Mexico City	0.5 M	$300	$150 M
Santiago	1 M	$220	$220 M

CONCLUSION

To conclude, the interviewee should provide the following:

Recommendation:

- Reforma should continue prototyping and testing their new product/service for B2C grocery services and work to test the ideas as much as possible in the Santiago market given the large size of the opportunity.

Risks:

- Penetration rate is purely and estimate and the calculations are particularly sensitive to this percentage
- Santiago’s population is the smallest as compared to Mexico City and Bogota
- Distribution costs could be higher in Santiago given its positioning in the Andes Mountains

Next Steps:

- Prototype the service in all three cities to identify nuanced differences between consumers
- Investigate how consumer needs vary across the cities
- Deploy research team to Santiago, Mexico City, and Bogota to conduct further prototyping

00 | CASE: FOOD FRENZY

Case Name ____________________________ **Interviewer** ______________________________

Case Book ______________________ **Case Type** _____________ **Difficulty** _____________

Case Execution:

- ❑ Clarifying Questions + Framework
  - ❑ Good Questions
  - ❑ Structured
  - ❑ MECE
  - ❑ Creativity

1 2 3 4 5

Feedback:

- ❑ Exhibits + Quantitative Ability
  - ❑ Accuracy
  - ❑ Speed
  - ❑ Insights Presented
  - ❑ Errors / Guidance Needed

1 2 3 4 5

Feedback:

- ❑ Brainstorm + Conclusion
  - ❑ Creative & Structured
  - ❑ Good Business Judgment
  - ❑ Recommendation Strength

1 2 3 4 5

Feedback:

- ❑ Presence & Non-Verbal
  - ❑ Confidence
  - ❑ Poise / Posture
  - ❑ Clear & Concise
  - ❑ Body Language
  - ❑ Coachability

1 2 3 4 5

Feedback:

Total: ______ / 20

A Hairy Ordeal

Bain | Round 1 | Consumer

A HAIRY ORDEAL

Bain | Round 1 | Retail

Prompt:

Your friend Megan Black calls you to ask for your advice. Megan had been working in the beauty industry as an independent hair stylist for 2 years when the owner of Salon Deluxe approached her and asked her to buy the salon. It has always been her dream to own a hair salon, but she isn't sure if she should do it, or focus on her current business, Megan Black Balayage (MBB). She wants your help to figure out what she should do.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. **What is balayage?** Balayage is a technique that "paints" the hair to achieve a more natural looking hair dye experience.

2. What Is Salon Deluxe's business model? The salon is a high-end hair salon that specializes in balayage. The business has two segments, services and products. Appointments are booked centrally, through the salon's booking portal, and clients see 1 of 4 contractor employee stylists.

***2.* What does a balayage appointment consist of?** A balayage appointment has 3 parts: hair & product prep (10 mins), hair painting (90 minutes), drying & styling (50 minutes)

***3.* Does Megan have specific metrics or goals related to this project?** Her goal is primarily to evaluate which business has the greatest NPV.

BEHAVIORAL INTERVIEW QUESTION:

1. What is the greatest asset that you will bring to our firm?
2. Why consulting?

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

NPV Meg Black Balayage

- Profit
- # of clients
- Average price/service
- Product Sales

- Product Costs
- Rent
- Labor

- Discount rate

NPV Salon Deluxe

- Profit
- Selling Price/Service
- # of chairs
- Avg. Revenue/stylist
- Product Sales

- Rent
- Inventory

- Interest
- Discount rate

Other Considerations (Internal)

- Buy vs build new salon
- Initiatives to improve NPV
  - Grow clientele through physical expansion/marketing
  - Increased efficiencies, /lower costs
- Megan's risk profile
- Managerial experience
- Culture fit with new team and clients

Other Considerations (External)

- Local competition
- Customer preferences
- Local talent pool

How to Move Forward:

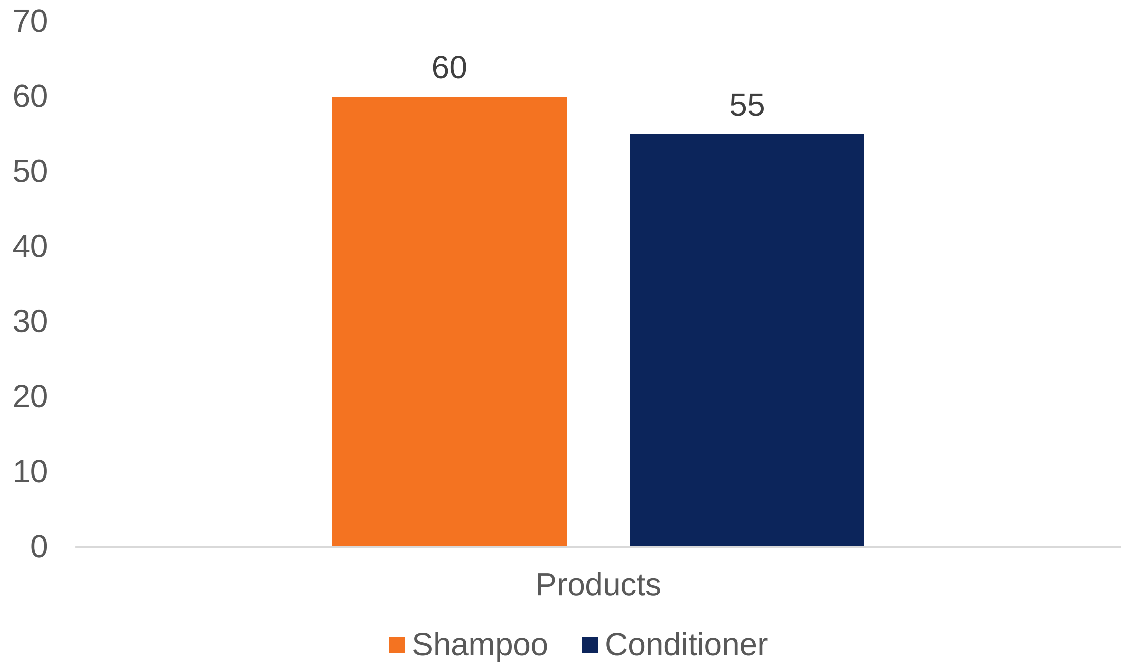
To move forward, the interviewee should talk about wanting to understand the client's current business. If the candidate asks about the new Salon (Salon Deluxe) tell them that the client is still collecting data on Salon Deluxe, and we can review the information later.

EXHIBIT 1: MEGAN BLACK BALAYAGE P&L

Services Revenue

# of clients	200
Visit frequency	Quarterly
Average spend per visit	$150
Services Margin	60%
Rent	$500 monthly

Product Prices



*Product margins all 50%

Question 1 (The location of these question slides in your case is completely up to you)

- What is MBB's (Megan Black Balayage's) NPV?

Exhibit or Question Guidance:

Exhibit 1 provides revenue and margin details for the services and product segments of the existing business. The candidate should perform the calculations to find out the client's bottom line. Provide missing information when prompted by candidates:

<u>Services:</u>

200 clients X 4 visits per year (quarterly) = 800 X $150 per visit = 120,000 X 60% margins = $72,000

<u>Products:</u>

The candidate does not have enough information to solve the question. Great candidates will recognize this and ask how many units of the products are sold, or the percentage penetration on average. When prompted, provide the following figures:

Shampoo: 25%, Conditioner: 20%, Hurdle rate: 5%

<u>Calculations:</u>

Shampoo: 800 visits (200 X 4) X 25% = 200 bottles X $60/bottle = $12,000 X 50% margin = $6,000

Conditioner: 800 visits X 20% = 160 bottles X $55/bottle = $8,800 X 50% margin = $4,400

Total product profit = $10,400

Sum total: $72,000 + $10,400 - $6,000 (rent) = 76,400

NPV: $76,400/.05 = $1,52,800 OR $1.52MM

So what?: Candidates should recognize that the current net income serves only as a benchmark against the value of the potential acquisition. Proceed to exh. 2

Question 2

- What is the NPV of owning Salon Deluxe?

Exhibit or Question Guidance:

When the candidate asks for information about the salon, provide **BOTH Exhibits 2 and 3** and ask them to tell you what they think. Many candidates will be drawn to the second exhibit, exceptional candidates will note that the floor plan shows unused space within the salon that could be used to increase revenues. Other observations may include the difference in profit from product sales, or the difference in rent between the 2 businesses (8X). Note: If candidate asks what happens to Megan's current customers, tell them she will need to give up her clients to focus on operating the Salon Deluxe

NPV Calculation: Service Profit + Product Profit/Discount Rate
Services:
(Salon Capacity x Occupancy Rate x Rev. per appt x Profit Margin) – Rent
- To determine salon capacity and occupancy rate, candidate will need to perform calculations from the information given. For salon capacity:
8 hours per day / 2.5 hours per appt = 3.2 appt/day (on average) x 250 days = 800 appt per year x 4 stylists = 3200 appt capacity
- For occupancy rate: 6,000 appt > 2,800 appts OR 100% capacity
- Rev. per appt x profit margin – ($150 x 35% margin)
- Services total – (3200 x $150 x 35% - 48,000 (4,000 x 12 months)) = $120,000

Products
$10,000

NPV Calculation
$120k + $10k / 10% = $1.3M

The candidate should note that the current NPV of the business is lower than that of the original business. The candidate should also note that there may be opportunities to improve the NPV of the business. If the candidate does not, prompt them to think about what they might do next. Excellent candidates will note that requested appointments are nearly 2x the current capacity, which would nearly double NPV by repurposing storage rooms.

EXHIBIT 2: SELECTED SALON INFORMATION

Salon Hours
10 AM – 7 PM*, 5 days per week

Average appt. duration
2.5 hours

Average spend per appt
$150

Stylist Profit Share
65% of service revenue

Total requested appts
6,000

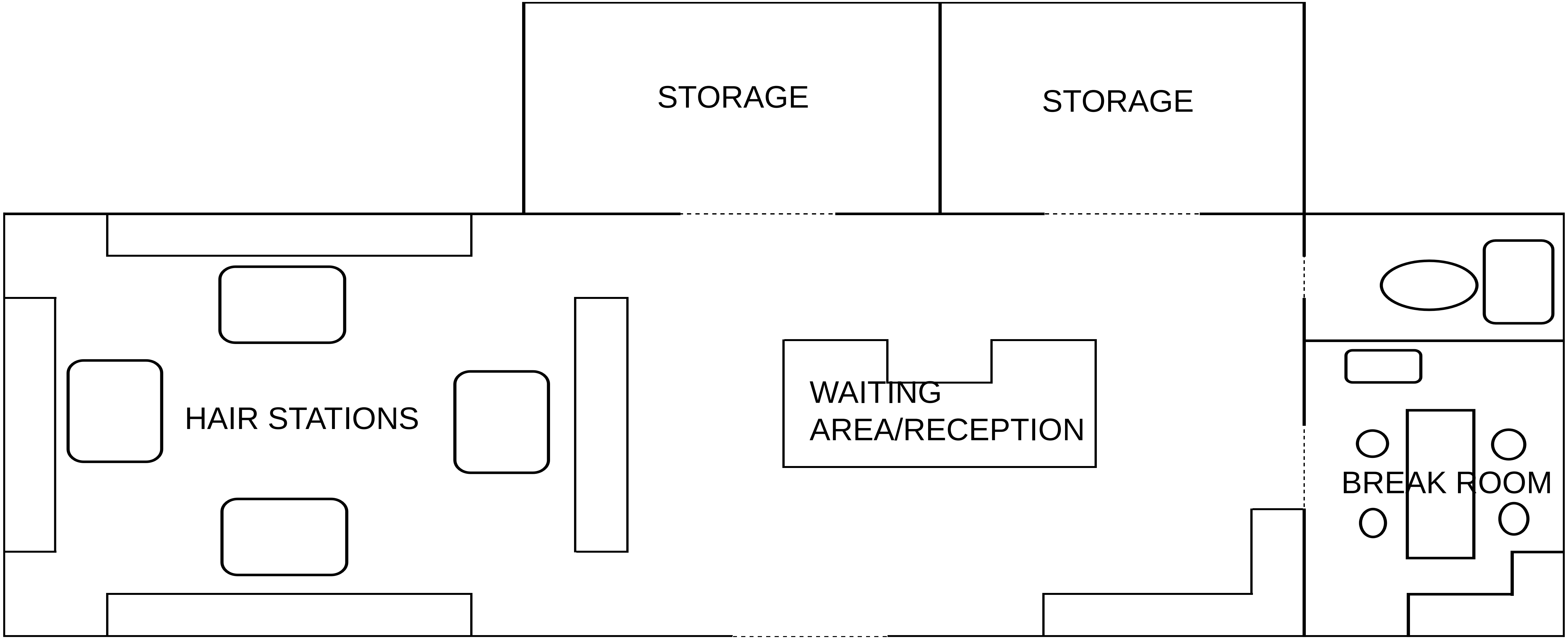
Rent
$4k/month

Net Profit from Product Sales
$10k/year

Salon Discount Rate
10%

*Stylists take daily 1 hour break

EXHIBIT 3: SALON DELUXE FLOOR PLAN



BRAINSTORMING

Insert brainstorming question here. What are some levers we could pull to make Salon Deluxe a more attractive business? Which of these ideas might have the largest impact?

Brainstorming Guidance:

Note: This is just one possible set of categories and answers. Many more are possible, and interviewers should assess both the volume and relevance of answers.

Increase Service Revenue

- Increase salon capacity
- Loyalty program (more frequent visits)
- Raise prices (more spend per visit)
- Build or buy 2nd salon

Decrease Service Costs

- Cut low margin services
- New product vendor (lower COGS)
- Renegotiate rent prices
- Evaluate profit share labor costs

Increase Product Profitability

- Discounts (more sales)
- Add complementary products/bundle (hairspray, styling creams)
- Smaller bottle sizes (lower costs)
- New vendors (lower costs)
- Website SEO investments

Financing

- Pay down debt
- Refinance at lower rate

Best candidates display:

The best candidates will examine the levers with the largest potential impact. This would include increasing revenues and decreasing costs for the service portion of the business. Good candidates should look at renegotiating rent prices, increasing salon capacity to fit more customers, and great candidates will mention looking at borrowing rates, to see if the salon can lower its interest expense.

Question 3 (optional)

- What are some levers we could pull to make Salon Deluxe a more attractive business?

Exhibit or Question Guidance:

Engage in a conversation about which levers the client could pull to make it more profitable. Here are a few ideas, and potential responses:

- Decreasing costs, Rent, Margin, etc. Response: We're locked into a long-term contract, we will not be able to consider it at this time
- Increasing Service revenues, Price. Response: This is a competitive marketplace, and we believe will be difficult in the market.
- Increasing Service revenues, quantity: Response: Salon Deluxe is currently turning away clients, and does not feel it makes sense to increase marketing, offer discounts for more frequent appts, offer loyalty programs, etc.

The candidate should realize that the salon is currently offering services at its full capacity, and cannot accommodate more customers. If the candidate does not inquire about unused space in the salon, guide them to mention it. When the candidate mentions utilizing the excess space, tell them the following:

- Our client believes she can transform the unused space to create a drying and styling station. This will allow stylists to perform the prep and painting portions of the appointment, before sending their customers to the drying station to wait. After their hair dries, the clients are styled by an assistant, before finishing the appointment. She projects this change will allow each stylist to increase capacity by 37.5%. She estimates it will cost $100k to renovate the space and hire an assistant for styling.

- **Question 4: What is the new projected NPV of the business?**

- $168k (service revenue) x 1.375 = $231k + $10k (product profit) - $10k (interest) - $48k (rent) = $183k / 10% = $1.83M - $100k = $1.73M
- BONUS: $1.73M - $1.52M = $210k (Maximum price that she should pay for the salon)

INTERVIEWER FEEDBACK FORM

Case Name ____________________________ **Interviewer** ______________________________

Case Book ______________________ **Case Type** _____________ **Difficulty** _____________

Case Execution:

- ❑ Clarifying Questions + Framework — 1 2 3 4 5
  - ❑ Good Questions
  - ❑ Structured
  - ❑ MECE
  - ❑ Creativity

Feedback:

- ❑ Exhibits + Quantitative Ability — 1 2 3 4 5
  - ❑ Accuracy
  - ❑ Speed
  - ❑ Insights Presented
  - ❑ Errors / Guidance Needed

Feedback:

- ❑ Brainstorm + Conclusion — 1 2 3 4 5
  - ❑ Creative & Structured
  - ❑ Good Business Judgment
  - ❑ Recommendation Strength

Feedback:

- ❑ Presence & Non-Verbal — 1 2 3 4 5
  - ❑ Confidence
  - ❑ Poise / Posture
  - ❑ Clear & Concise
  - ❑ Body Language
  - ❑ Coachability

Feedback:

Total: ______ / 20

Lizard Insurance

Bain | Round 2 | Acquisition

LIZARD INSURANCE

Bain | Round 2 | Acquisition

Prompt:

Our client, Lizard Insurance, is a US. based auto insurance provider that recently acquired a rival auto-insurance company MediumSure. As a part of the acquisition, Lizard Insurance also acquired a subsidiary of MediumSure named TechSize, that provides software for many insurance companies. Lizard Insurance wants to know what they should do with TechSize, and they've brought us in to help.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. **Does Lizard Insurance have any experience in the software space?** No – they would need to develop capability.
2. **What is TechSize?** The techsize software makes it easier to comply with government regulations when a customer moves from state to state
3. **Does Lizard Insurance have plans for TechSize?** No – they bought MediumSure for other reasons and don't have plans for TechSize.
4. **How does Lizard Insurance make money?** They sell auto-insurance direct to consumer and collect monthly premiums.
5. **How does TechSize make money?** They sell B2B services helping insurance providers comply with government regulations.

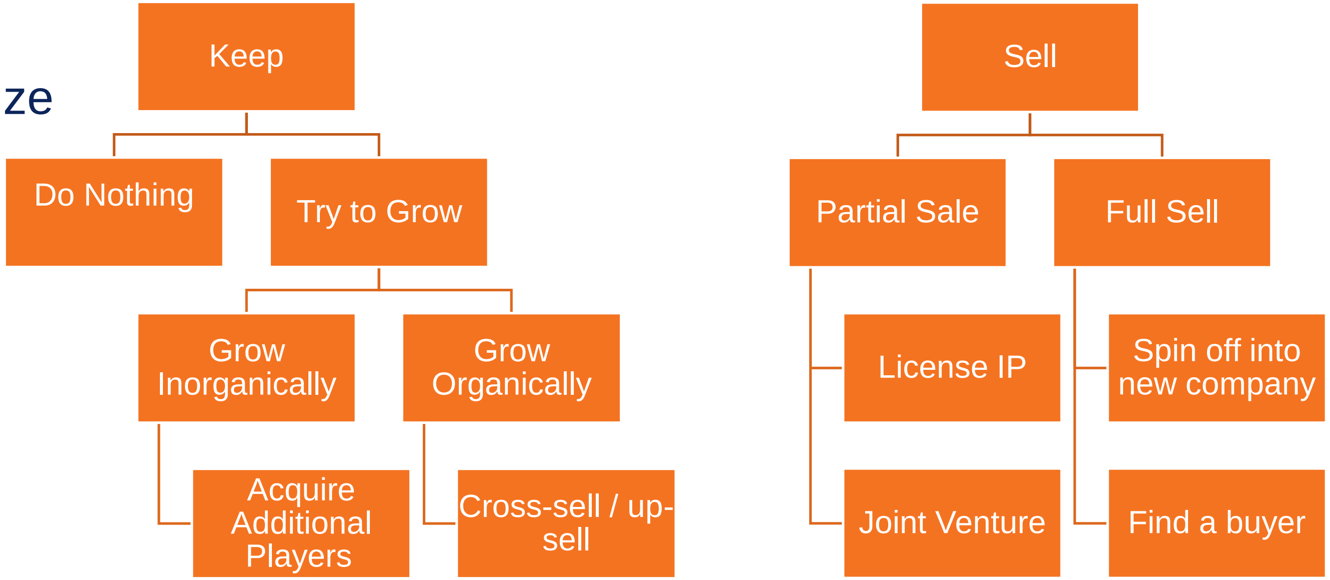
BEHAVIORAL INTERVIEW QUESTION:

1. What is the greatest asset that you will bring to our firm?
2. Where do you see yourself in 5 years?

Framework Guidance: There are other ways to approach this framework but a strong candidate will realize that there is a binary choice with this asset – to hold it or to sell it.

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

- Keep – and invest or hold
- Sell – either spinning off part or all of TechSize



How to Move Forward:

- If the candidate has a more traditional profitability framework, lead them to the initial question of Keep or Sell. Then ask the candidate to analyze the keep option.

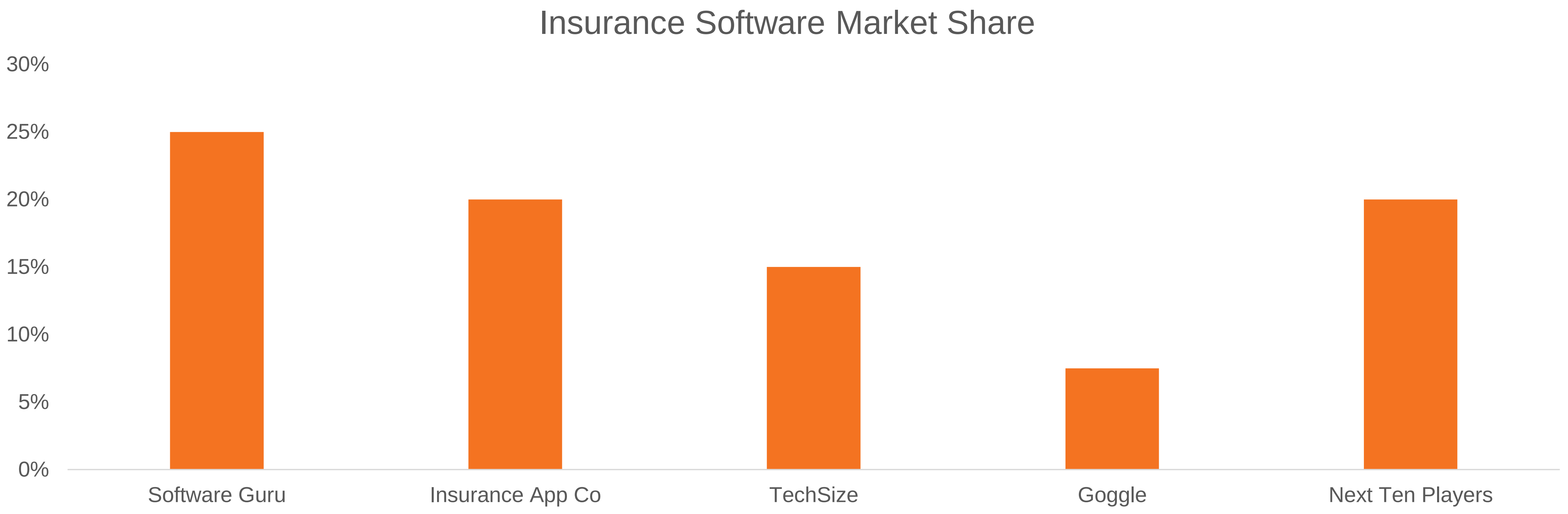
Discussing the keep option:

- Present the following information if/when asked:
  - TechSize requires substantial investments and upgrades in the next 2 years to maintain market position
  - Given the vastly different nature of the subsidiary's product, there are no cross-selling or up-selling opportunities between TechSize (a B2B business) and Lizard Insurance Co. (a B2C business).
  - Switching our services over to utilize TechSize would be costly, and would not reduce processing costs by any significant amount (no real cost synergies introduced with TechSize).
  - There is no appetite for additional acquisitions by Lizard Insurance of companies in TechSize's industry.
  - There was a recent acquisition by a competitor for a company in the same industry as TechSize
  - **If the candidate asks for market information – give them exhibits 1 and 2**
  - From the exhibits, the candidate should realize that the market is not attractive, as it is stagnant and fragmented.

How to Move Forward:

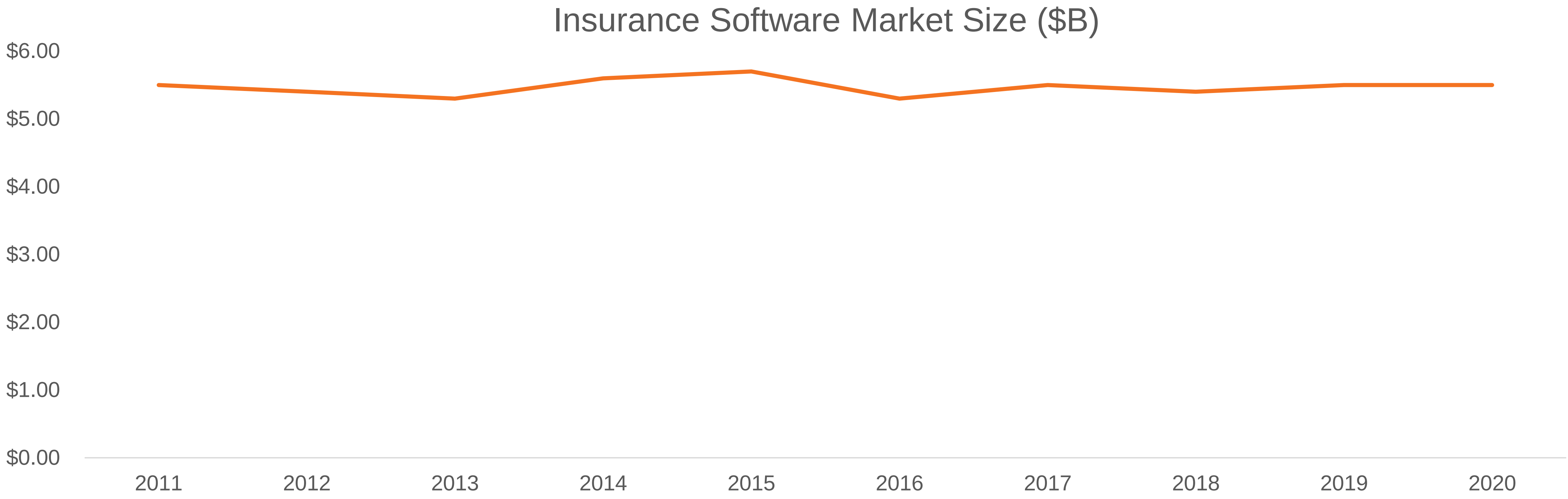
At this point, the candidate should realize that the Keep option is unpalatable and decide to move into sale. .

EXHIBIT 1: INSURANCE SOFTWARE MARKET SHARE



Services Revenue

EXHIBIT 2: INSURANCE SOFTWARE MARKET SIZE



Discussing the sale option:

- Ask the candidate to brainstorm some ways they might be able to determine a sale value for TechSize, options should include:
  - DCF
  - Industry Multiples
  - Comparable transactions
- Lead them to ask for company values. Once they do, present them with **Exhibit 3**.

How to Move Forward:

At this point, the candidate should realize that the Keep option is fairly unpalatable and decide to move into sale. .

EXHIBIT 3: INFORMATION ON 2020 ACQUISITIONS

Company Name	Description	2020 EBITDA	Selling Price
Fill-Your-Forms	A personalized service for high net worth individuals where a lawyer can be contracted to fill out forms on demand.	$25 Million	$125 Million
Tech Toy Company	Children’s toy company specializing in developing educational toys for use in schools	$1.5 Billion	$20 Billion
Insurance App Co.	Insurance software that automates elements of the insurance application process	$300 Million	$1.5 Billion

Guidance on Exhibit 3:

- The candidate should realize that they can use the information in exhibit 3 to find EBITDA multiples.
- A great candidate will also recognize that Tech Toys Co is not a comparable company and exclude that from any analysis.
- Using the remaining information, the candidate should deduce that they can sell TechSize for 5 x EBITDA.
- A great candidate will realize that they can find TechSize's revenue using Exhibits 1 and 2. By taking 15% market share * the total market of $5.5B in 2020, they can get a revenue of $825M.
- The candidate will need to ask for an operating margin (or EBITDA as a % of revenue) – **tell them 25%**
- EBITDA = $825 * 25% = $206M
- Sale value @ 5x EBITDA = $206 * 5 = $1.03B

How to Move Forward:

- Ask the candidate to provide their recommendation

CONCLUSION

"The client's CEO is heading up the elevator, what do you recommend?"

Recommendation:

- Candidate should recommend selling off TechSize due to limited market potential and lack of synergies
- Analysis shows the company could be worth $1B based on comparable multiples and 2020 EBITDA

Risks include:

- Lack of buyers
- Small sample size of multiples

Next Steps:

- Due diligence on buyers

Met with Problems

BCG | Round 1 | Non-profit

MET WITH PROBLEMS

Round 1 | Human Capital | Non-profit

Prompt:

Your client is Amy Sherald, the Chief People Officer at the Metropolitan Museum of Art ("The Met"). Located in New York City, the Met is one of the world's largest art museum with 250 gallery rooms and a collection of more than 2 million works of art. This mega-museum welcomes over 6 million visitors annually. Your client's department reported unusually high human resources (HR) costs last year and has come under scrutiny by the Executive team and Board of Directors. Amy has hired your team to help her address this problem.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. What is the current structure of The Met's staff? There are four main staff departments at the Met: 1) artistic, 2) security, 3) administrative and 4) executive. The artistic staff are salaried and responsible for the art collection. They decide what works of art to show each season. The security staff are hired on a part-time, hourly basis and are responsible for protecting the art 24/7. The administrative staff are salaried and work behind the scenes to ensure the museum operations run smoothly. The executive staff are the museums' top leaders and includes C-suite staff.
2. How does The Met hire staff? Your client uses a mix of online postings, direct referrals and occasionally hires an executive search firm. Amy describes the process as sourcing, interviewing, onboarding, retaining then turnover.
3. Does the client have a specific goal? Not really. For now, the client wants to know where to focus and how to plan for cost reductions in the short term.
4. How does The Met make money? The Met is a non-profit and generates revenue from government grants, donations and admission tickets. The client *does not* want your insight on improving these revenue streams.

BEHAVIORAL INTERVIEW QUESTION:

1. Tell me about a time when you had a difficult conversation with a direct manager or direct report.

2. Why consulting?

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Direct Costs
- Wages and Benefits
- Recruiting (ex. applicant tracking system)
- Training/education
- Retention/enrichment
- Turnover/severance packages
- Overhead and HR team capacity

Indirect Costs
- Opportunity cost (underperformance of hired staff)
- Loss of knowledge with turnover
- Decline in morale with turnover or poor management

External Factors
- Economic Cycle
- Competition
  - New museum openings?
- Labor Force (supply vs. demand)
  - Education patterns?
  - Union?

A **good candidate** will focus on costs and will not build in revenue considerations into their framework.

A **great candidate** will build incorporate differences between salary/hourly employees or even differences among the four types of staff (from the clarifying questions). Another framework option below. Candidate could fill in the table as case unfolds.

People Cost Considerations

Direct:

	Artistic	Executive	Administrative	Security
Department Size	Medium	Small	Medium	Big
Wages and Benefits	$$	$$$	$	$
Training/education	High	High	Medium	Low
Turnover/retention				
Severance	Low	High	Low	N/A

Indirect:
- Opportunity cost (hours sunk)
- Loss of knowledge
- Decline in morale

External Factors
- Economic Cycle
- Competition
- Labor Force

How to Move Forward:

To move forward, the candidate should call out different types of staff the client must hire for The Met. Ideally, the candidate points to turnover costs or cost of hiring as a potential lever to investigate further. **Provide Exhibit 1 and let candidate respond to the table.**

EXHIBIT 1

2019 Museum Department Snapshot

	Artistic	Executive	Administrative	Security
Cost per Staff Turnover	$30,000	$95,000	$10,000	$5,000
Average Time-to-fill[1]	3 months	6 months	2 months	2 weeks
Staff Count[2]	500	20	1,000	1,200
% Turnover	2.2%	10%	5.7%	~16.67%
Compensation Type	Salary	Salary + Bonus	Salary	Hourly

1. Time-to-fill counts the days from the date when you've published your new job opening. This metric answers the question: How long is your whole recruitment process?
2. Numbers as of 01/01/2019

Question 1

- How much did turnover cost The Met in 2019? We know that turnover cost $1.5M in 2018.

Exhibit or Question Guidance:

A **good candidate** will compare and contrast the departments then quickly realize the table provides unnecessary information for answering the question at hand. He/she should use staff count, % turnover and cost per staff turnover to solve for the turnover costs per department. Solution below (note, 16.67% = 1/6)

A **great candidate** will build out a clear structure for solving for each department's costs. He/she will also connect the total cost to the $1.5M in 2018 - pointing out a 39% or ~33% increase in turnover costs.

	Artistic	Executive	Administrative	Security
Staff Count	500	20	1,000	1,200
% Turnover	2.2%	10%	5.7%	16.67%
Turnover Count	**11**	**2**	**57**	**200**
Cost per Staff Turnover	$30K	$95K	$10K	$5K
Turnover Cost per Department	**$330K**	**$190K**	**$570K**	**$1M**
Total Turnover Cost	**$2.09M (or ~$2M)**			

How to Move Forward:

The candidate should call out the security department as the most expensive and recommend focusing on turnover cost reductions there. If the candidate does not suggest the security department, ask "where would you like the client to focus in 2020?"

BRAINSTORMING

"Amy wants to explore ways to cut HR cost in the security department overall. Brainstorm some ideas for her."

Brainstorming Guidance:

Note: This is just one possible set of categories and answers.

Sourcing → Interviewing/Onboarding → Retaining/Turnover

Sourcing

- Cut unnecessary advertising (cut subscriptions to channels that do not result in applications)
- Optimize criteria (for faster and more effective screening)
- Employee referral program (to save search costs)

Interviewing/Onboarding

- Streamline applicant tracking system (across departments) for efficiency in long-term
- First-round phone interviews
- University/community college partnerships (security staff for credit)
- Online training for onboarding (upfront cost but long-term savings and consistency)

Retaining/Turnover

- Fire underperforming (or surplus) of security staff
- Less security staff per gallery during slower days/seasons
- No severance and limit overtime pay
- Good management and predictability in schedule
- Tiered benefits based on tenure
- Low-cost staff perks (museum pass, gift store discount, exclusive tours of new exhibitions, family day, awards)
- Priority consideration for other full-time, salaried positions in artistic and administrative departments

How to Move Forward:

The candidate should come up with distinct buckets (example above uses hiring pipeline for structure) and 2-3 items under each bucket. Variable costs/fixed costs vs. short-term/long-term is one example of a 2x2 structure for this brainstorm. If candidate falls short, ask "how else could you cut costs in the security department." A **great candidate** will mention some risks behind their cost cutting ideas and may even star low risk options the client should prioritize.

At this point, the interviewer may move to the end recommendation or they may ask a follow-up question (to further test math analysis).

Question 2 (OPTIONAL IF TIME ALLOWS)

- Does Amy have the optimal number of security staff members?

Supply only when asked:

- Security staff only allowed to work 35 hours max (or average of 5 hours per day)
- 250 galleries under surveillance (also stated in the prompt)
- Museum hours 10am-6pm
- Museum open 350 days/year
- 2 security staff needed per gallery rooms when museum is open
- 1 security staff needed per 4 gallery rooms when museum is closed

Exhibit or Question Guidance:

	Calculations on Daily Basis	
	When Open	**When Closed**
Security staff/room	2	0.25
# of gallery rooms	250	250
# security staff positioned	**500**	**62.5**
Hrs/day	8 open	16 closed
Security hrs/day needed	**4,000**	**1,000**
Average hrs/day per staff	35/7 = 5	35/7 = 5
Security staff needed	**800**	**200**
Total security staff needed	**1,000**	

There are a number of ways to calculate 1,000. Math could be done on weekly or annual basis. Encourage candidate to stick with a daily basis (or weekly basis).

- A **good candidate** will calculate 1,000 security staff as the optimal number and realize Amy has too many people staffed in that department. A candidate may mention that having The Met should consider having a "reserve" of staff beyond the 1,000 required under the current assumptions.
- A **great candidate** will state that the Met has overstaffed the security department by 200 people (1,200-1,000) and realize this number equals the 2019 turnover number for security staff – and recommend not filling vacant security positions in 2020 to save on costs.

CONCLUSION

"The phone is ringing. Amy has called to ask for your recommendation. What would you say?"

Recommendation:

- The Met faced an overall ~33% increase in turnover costs from 2018 to 2019. Through analyzing the turnover costs per department, I've identified some opportunities for cost savings in the security department, which is responsible for almost half of 2019's turnover cost. I propose Amy…
  - Lower the minimum # of security staff per room on low visitation hours/days (ex. weekday mornings)
  - Disregard replacing 100-200 security staff positions in 2020 (Question 2 reveals Amy only needs 1,000 people staffed in the security department)

Risks with decreasing security staff concentration or size:

- Less oversight (potential damage from visitors or even art theft)
- Decreased job satisfaction (job becomes more stressful if security staff must cover more gallery rooms)

Next Steps:

- Quantify cost savings at different reductions of the security staff and weigh those savings against potential risks
- Schedule an in-person meeting on Monday to prioritize cost-savings options for the Executive team and Board of Directors

INTERVIEWER FEEDBACK FORM

Case Name ______________________ **Interviewer** ________________________

Case Book __________________ **Case Type** ___________ **Difficulty** ___________

Case Execution:

- ❑ Clarifying Questions + Framework
  - ❑ Good Questions
  - ❑ Structured
  - ❑ MECE
  - ❑ Creativity

1 2 3 4 5

Feedback:

- ❑ Exhibits + Quantitative Ability
  - ❑ Accuracy
  - ❑ Speed
  - ❑ Insights Presented
  - ❑ Errors / Guidance Needed

1 2 3 4 5

Feedback:

- ❑ Brainstorm + Conclusion
  - ❑ Creative & Structured
  - ❑ Good Business Judgment
  - ❑ Recommendation Strength

1 2 3 4 5

Feedback:

- ❑ Presence & Non-Verbal
  - ❑ Confidence
  - ❑ Poise / Posture
  - ❑ Clear & Concise
  - ❑ Body Language
  - ❑ Coachability

1 2 3 4 5

Feedback:

Total: _____ / 20

A Messi Situation

BCG | Round 1 | Sports and Entertainment

A MESSI DECISION

BCG | Round 1 | Sports

Prompt:

Your client is the CEO of a major English soccer team. He's called you while brimming with excitement after receiving news that Lionel Messi was looking for a new team. Players of Messi's quality rarely became available, and would surely improve any team. However, with COVID-19 restricting budgets, money would be tight and would need to generate a return. He would like you to figure out what the right amount of money to offer would be.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. **What is the team's goal?** To win the European Championship within 3 seasons. Due to recent financial restrictions, all of their player acquisitions must be offset with new revenue within 5 years.
2. **How do soccer teams acquire players?** In soccer transfers, the acquiring team buys out the new player for an agreed upon fee. After they pay that fee, they then agree a new annual contract with the player.
3. **How does the team make money?** If asked this question, have the candidate brainstorm revenue streams. Full guidance appears later on.
4. **What is soccer?** Soccer is a global sport where a team strives to score more goals then their opponent.
5. **How good is Messi?** He is in the conversation for greatest of all time. He contributed (scored or assisted) 55 goals last season.

BEHAVIORAL INTERVIEW QUESTION:

1. Describe your working style.

2. What's your favorite thing about Darden?

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Financials

Revenue
- Incremental Ticket Sales
- Jersey sales
- TV/AD Revenue

- **Costs**
- Acquisition Fee
- Salary Cost

Competitors

- How will they respond?
  - Could this start a talent arms race?

Messi

- How good is he?
- Age / Career Arc? – How many years
- Will he want to come?
- Are there cheaper alternatives?
- Language barriers?

Risks

- Injury risk (could increase with age)
- Could he ask to leave our club in a few years?
- Style of play doesn't adjust to our league

How to Move Forward:

A great candidate should recognize that they can value Messi like any type of asset, through a number of approaches including incremental cash flows or comparable players.

If the candidate gets stuck, encourage them to think about how they would value a different type of asset. Have them brainstorm cash flows and comps.

Ask the candidate to review Exhibit 1.

EXHIBIT 1

Recent Transfers of Top Forwards

Name	Age (at time of transfer)	Goal Contributions*	Transfer Fee	Transfer Year
Christiano Ronaldo	33	62	$117M	2018
Neymar	25	24	$225M	2017
Kylian Mbappe	19	31	$310M	2017
Pierre Emerick Aubameyang	29	28	$56M	2018
Diego Costa	27	28	$62M	2018

*Goal contributions include goals and assists – key offensive metrics. The European average for attacking players is 12, over 30 is considered elite.

EXHIBIT 1 – INTERVIEWER GUIDANCE

Recent Transfers of Top Forwards

Name	Age (at time of transfer)	Goal Contributions	Transfer Fee	Transfer Year	Multiple
Christiano Ronaldo	33	62	$117M	2018	~2x
Neymar	25	24	$225M	2017	~10x
Kylian Mbappe	19	31	$310M	2017	10x
Pierre Emerick Aubameyang	29	28	$56M	2018	~2x
Diego Costa	27	28	$62M	2018	~2x

Exhibit Analysis:

A good candidate should recognize that they can use market multiples to approximate a value. They should try to calculate a multiple of Transfer Fee to Goal Contributions. An average multiple would be 5x.

A great candidate will recognize that older players trade at lower multiples, and suggest a more conservative multiple of 2x.

How to Move Forward: With a multiple in mind, the candidate should ask for Messi's goal contributions. Tell them 55, and suggest that he will sell for a multiple of 2.6x – giving a value of $143M

ROI Calculation:

With the value of $143M on the table, the candidate should pivot towards looking at the incremental revenue Messi will bring in and whether the transfer will break even. Ask the candidate to brainstorm how the client makes money. Push them until they find the following:

- Ticket revenue
- Food + Beverage Revenue
- TV and streaming broadcast revenue
- Sponsorship & partnership revenue
- Jersey and merchandise sales

Once the candidate has established the revenue streams – they should ask for information on current performance of each channel. When they do, provide them with the following information:

- The team plays 25 home matches per year, with an average ticket price of $50. The stadium has 60,000 seats and is 83.33% full.
- Each fan typically spends $10 on food and beverages.
- TV rights are assigned based on popularity – the team currently receives $150M per year in revenue.
- Sponsors currently pay $50M a year
- In the past, the team has sold 1M jerseys at a price of $100 each, but only receives a 25% margin
- Given that information, the candidate should attempt to calculate the current revenue.

ROI Calculation (continued):

- Current revenue calculations:
  - 60,000 seats * 83.33% (5/6) fill rate * $50 ticket * 25 games = $62.5M
  - 60,000 seats * 83.33% * $10 food and beverage * 25 games = $12.5M
  - Broadcast ($150M) + Sponsorship ($50M) = $200M
  - 1M jerseys * $100 jersey * 25% margin = $25 M
  - Total Revenue = $300M

Once the candidate has completed those calculations, they should ask for the incremental costs and benefits associated the transfer. Give them the following.

- Given Messi's significant commercial draw, the team would expect to sell out every home game, and charge $15 more per ticket.
- Broadcast revenue would increase by 10% and sponsorship would double
- Last year, Messi had the highest selling jersey in the world. Selling 2M units. The team expects to sell that many each year of his contract, but it would cannibalize 50% of their current jersey sales. Pricing and margins would remain the same.
- Messi is the second highest player in the world, with a salary of $100M per year. His agents take a 10% fee annually.

ROI Calculation (continued):

- Future revenue calculations:
  - 60,000 seats * 100% fill rate * $65 ticket * 25 games = $97.5M
  - 60,000 seats * 100% * $10 food and beverage * 25 games = $15M
  - Broadcast ($150M*110% = $165M) + Sponsorship ($100M) = $265M
  - 2M new jerseys + 1M old jerseys * (50% cannibalization rate) = 2.5M total jerseys * $100 * 25% margin = $62.5M
- **Total New Revenue = $440M**
- New Revenue($440M) – Old Revenue ($300M) = $140M incremental per year
- Incremental Costs = $110M in new salary and fees
- Incremental Profit = $140M - $110M = $30M
- Upfront costs = $143M
- Payback period is just under 5 years

- A good candidate will realize that this investment will break even in just under five years.
- A great candidate will realize that the transfer breaks even but will want to dive into the risks. S/he might suggest that there might be issues with high wages for an older player, risk of injury, etc.

CONCLUSION

"The CEO and the world soccer community are waiting, what will you tell them"

Recommendation:

- Our client is interested in determining a fair market value for Lionel Messi
  - Based on a market multiples approach, we found it fair to offer ~$140M for his contract
  - Even with an annual salary of $100M, incremental revenues will allow this transfer to break even in 5 years
  - Players of Messi's quality are rare, and he could help the client achieve their goal of a European championship

Risks:

- Financial projections show an aggressive uptick in revenue that could be hard to obtain.
- Huge investment for an older player who may not have lasting value on the field

Next Steps:

- Do further diligence on the feasibility and sensitivity on the revenue model
- Lock in additional sponsorship dollars from corporations who might want to align their brand with Messi

New Rubber Plant Investment

BCG | Round 2 | Industrial

NEW RUBBER PLANT INVESTMENT

BCG | Round 2 | Industrial

Prompt:

The federal government of a foreign country is investigating whether to reopen a rubber factory in a western part of the country. The factory was operational in the past, but has not been used for 7 years. The plant was closed due to terrorism in the area. If rejuvenated, it may become a target for the rebels. All the equipment is usable, but the government would need to spend $12M on upgrades, which would allow the plant to produce 10M lbs of rubber per month. The demand for rubber is strong, but rubber must be transported by train to a port. Two trains a day can be used for this.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. **How is rubber made?** Gum resin is refined. Need 3lbs of gum resin to produce 1 lb of rubber
2. **How do we get resin?** By train from the capital. Up to 4 trains can be used for this purpose.
3. **How much can we sell rubber for?** $20 per pound. Gum resin costs $5 per pound.
4. **How many suppliers are there?** We have identified one gum supplier
5. **Who are our customers?** Rubber is highly commoditized. We would sell on the global markets.
6. **What is the government's goal?** Profitability, job creation, and economic development.

BEHAVIORAL INTERVIEW QUESTION:

1. How do you think about ranking competing priorities during stressful time periods?

2. Why consulting?

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Financials

Revenue
- Rubber pounds
- Rubber price

- **Costs**
- Up front investment
- Variable costs
    - Gum resin
- Fixed costs
    - Overhead
    - SG & A

Operational Considerations

- Can we ship and receive the required amount of finished goods and raw materials

Non-Financial Benefits

- Job creation
- Economic development
- Community improvement
- Positive PR
- Improved trade relations

Risks

- Supply chain
- Labor shortage
- Terrorism
- Commodity price changes

How to Move Forward:

- Push the candidate to calculate the ROI of the plant.
- If the candidate asks for demand, tell them that rubber demand worldwide is strong enough that all rubber produced by the plant can get sold.

ROI Calculation Guidance:

- Before the candidate starts calculating, encourage them to think about where the bottleneck lies. If they start to use the 10M pounds per month figure, ask them about the trains.
- Once the candidate asks you how much rubber the train can carry, give them the following:
    - 25 operating days a month
    - 2 trains / day
    - 8 bogies / train
    - 25 cases / bogie
    - 500 lbs / case

- Expected calculation:
    - 2 * 8 * 25 * 500 = 200,000 lbs a day
    - 200,000 * 25 = 5 M lbs a month

ROI Calculation Guidance:

- Before the candidate starts calculating, encourage them to think about where the bottleneck lies. If they start to use the 10M pounds per month figure, ask them about the trains.
- Once the candidate asks you how much rubber the train can carry, give them the following:
  - 25 operating days a month
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  - 8 bogies / train
  - 25 cases / bogie
  - 500 lbs / case

- Expected calculation:
  - 2 * 8 * 25 * 500 = 200,000 lbs a day
  - 200,000 * 25 = 5 M lbs a month

ROI Calculation Guidance (continued):

- Now that the candidate has realized that there production is limited by the amount of rubber they can ship out – they should also realize there is a limit to the raw material they can bring in. An astute candidate will ask about the capacity of the trains bringing resin in.
- Resin train information:
  - 25 operating days a month
  - 4 trains / day
  - 10 bogies / train
  - 25 barrels / bogie
  - 640 lbs / barrel

- Expected calculation:
  - 4 * 10 * 25 * 640 = 6400,000 lbs a day
  - 640,000 * 25 = 16 M lbs of resin a month – since it takes 3 lbs of resin to produce 1 lb of rubber – they can produce $5.3 M lbs of rubber from raw materials
  - **The candidate should realize that they can produce 5M barrels a month based on the limiting factor – the outbound trains**

ROI Calculation Guidance (continued):

- Other Financial Information:
  - Labor - $8M per month
  - Other overhead - $10M per month
  - Trains - $40k per trip

- **Expected calculation:**
  - **Transport Cost**:
    - $40K * (4 + 2) [trains per day] * 25 [days per month] = $6M
  - **Revenue**
    - 5M lbs rubber * $20 per pound = $100M
  - Material Cost
    - 15M lbs resin * $5 per pound = $75M

ROI Calculation Guidance (continued):

- **Final Income Statement (monthly)**
  - Revenue - $100M
  - COGS - $75M
  - Labor - $8M
  - Overhead - $10M
  - Transport - $6M
  - **Operating Profit - $1M (or 1% margin)**

- Given the above, a good candidate will recognize the plant has an operating profit of $1M monthly. Given an initial investment of $12M, that would have a payback period of 1 year.
- A great candidate will notice that the margins are wafer thin at 1%. Given that rubber is a commodity, a small dip in price could easily force this investment into the negative territory.
- Ask them what additional factors they should consider.

BRAINSTORMING

“What other factors could we consider when making a decision with this investment?

Brainstorming Guidance:

Note: This is just one possible set of categories and answers.

Cash Flow Improvements

- Plant is at 50% capacity, if we improve transportation – can we bolster profit
- Can we lock in a long-term price or hedge on resin prices

Economic Development

- Can we utilize an uptick in local wages to support other development priorities
- Could be used to help with reelection message

Risks

- Terrorism
- Fall in the rubber market price
- Scarcity of gum resin
- Mechanical failures on train tracks cause a shut down
- Local pushback against the project

How to Move Forward:

Feel free to push the candidate on any of their brainstorming ideas. Make sure they at least touch on the fact that the government has multiple criteria for success, including ROI, job creation, and economic developments. This could also be a good time to ask them to detail some of the risks involved.

PubU Footprint

McKinsey | Round 2 | Energy

PUBU FOOTPRINT

McKinsey | Round 2 | Energy

Prompt:

You are the Dean of a large public university in the Midwest. Your tenure has focused on raising the profile of the university through various initiatives. Recently, the Board of Regents has requested a plan that outlines the university's environmental footprint and a goal to reach net-zero waste by 2040. As a former business executive, you are familiar with the principles of ESG, but need to understand what the major drivers of environmental impact at PubU.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. **How big is PubU?** PubU is a large research institution consisting of an undergrad (35k students), graduate school (10k) and various professional schools (~2k). Number in student body is expected to be stable. The university is very large and requires an extensive diesel-powered bus system for students to commute all over campus.
2. **How much money does PubU have available / where does it come from?** The average operating budget of PubU is $2B. Of that $2B, roughly 30% comes from the state, 10% from alumni donations, 20% from the university endowment (fund that pays out money each year) and 40% from student fees.
3. **How does PubU currently get electricity?** From the local grid (which uses a mix of coal, gas, wind, and solar). The local utility is transitioning to 100% carbon-free by 2030.
4. **What does net-zero waste mean?** Net Zero means consuming only as much energy as produced, achieving a sustainable balance between water availability and demand, and eliminating solid waste sent to landfills.
5. **What is PubU's goal?** As noted in the prompt, a plan to reach net-zero by 2040.

BEHAVIORAL INTERVIEW QUESTION:

1. As a consulting professional, you will often have to resolve conflict within teams. Tell me about a time you successfully resolved conflict in a team setting.

2. Why should I hire you?

Framework Guidance:

Note: There are many possible alternatives to this framework. These are only provided as possible suggestions.

Solid Waste

- Sources
  - Dining halls
  - Dormitories
  - Laboratories
  - University Building
- Possible Strategies
  - Reduction
  - Recycling
  - Elimination

Energy

- Electricity
  - Add renewable generation
  - Negotiate with local utilities
  - Reduce usage
- University Transit
  - Bus fleet – diesel

Water

- Landscaping
- Plumbing and other Uses
- Athletic Facilities including golf courses, athletic fields
- Fountains throughout campus

Other Considerations

- State funding for waste-reduction efforts?
- Use current budget / re-allocate budget
- Positive impact on university recruiting both students and faculty.
- Leverage existing faculty know-how to get recommendations

A good framework here will hypothesize sources of waste and make preliminary estimates of relative size. A great framework will begin to hypothesize possible solutions and the considerations that a public university must have when evaluating these projects, particularly regarding impact on reputation / rankings and ability to fund initiatives.

How to Move Forward:

The interviewee should call out the many possible sources of waste and make a justified guess as to which waste stream has the largest impact for the university. Push the interviewee to flesh out the framework to include specific details to the university (for instance, dining halls) during framework discussion. While cost is certainly a consideration, this case does not revolve around the estimated return.

To move forward, the interviewee should call out the public transit system of the university. A great answer will include mentioning the inefficiency of diesel buses and the possibility of electrification.

Question 1

- One of the most promising areas identified by PubU is converting the diesel bus fleet to an electric fleet. The Board of Regents typically evaluates projects on a 5-year basis and have the goal of emitting less carbon dioxide. For the current diesel fleet, we would like to know the current cost and environmental impact of the diesel fleet?

Exhibit or Question Guidance:

- Give the candidate **Exhibit 1**
- Provide the info below for diesel costs when asked, prompt candidate until all information comes out.:
  - 1 bus per route, 2 miles per gallon, each route runs on average, four times an hour, for 15 hours a day, seven days a week, 50 weeks a year.
  - $6 / gallon of diesel. Other maintenance costs include $20,000 per bus in annual maintenance
  - 20 lbs CO2 / gallon of diesel
  - Answers:
  - **Total Annual Cost of Diesel (Round 104 miles to 100 miles, math will be significantly easier if structured as below):**
  - Miles: 100 miles of routes x 4 routes / hour x 15 hours / day x 7 days / week x 50 weeks / year = 2.1M miles
  - Fuel Usage: 2.1M Miles / 2 miles per gallon = **1.05M gallons of diesel** Cost = 1.05M x $6 / gallon of diesel = **$6.3M**
  - Maintenance: 25 buses x $20k per year = **$0.5M** **Total Cost: $6.8M per year**
  - Emissions: 1.05M gallons x 20 lbs CO2 = **21M lbs of CO2**

EXHIBIT 1

Current Bus Routes and Costs

Area of Campus	# of Routes	Average Miles Per Route
Main Campus	8	6
Athletic Fields	8	3
Med Center	4	3
Downtown Mall	5	4

Note: Buses run each route 4 times per hour, 15 hours per day.

Question 2

- PubU has received preliminary information from an electric bus manufacturer and the company has promised that their internal calculations show PubU will save significant amounts of money by switching to electric. We would like to independently verify the company's claims. How much money will PubU save by switching to electric?

Exhibit or Question Guidance:

Interviewee should ask about the following:
Cost per bus: $1M
Annual Maintenance Cost: $4,000 / bus
Bus Efficiency: 4 miles / gallon of diesel equivalent (gallon of diesel equivalent is a measure of energy)
Electric to Diesel Conversion: 25 gallon of diesel equivalent / megawatt-hour (MW-h)
Grid Stats: $100 / MW-h generated, 1000 lbs CO2 / MW-h generated (currently, future is 0)
A great caser should recognize that maintenance cost is 1/5th the diesel cost. The bus efficiency is 2x. This will simplify math. Interviewee should drive case towards five-year savings and recognize a negative ROI. From an emissions standpoint, this won't immediately affect carbon emissions. But as mentioned earlier, the grid is moving to a zero-carbon state.

Answers:
Electricity: 2.1M Miles / 4 miles per gallon of diesel equivalent = **525k gallons of diesel equivalent**
525k gallons of diesel equivalent (gde) / 25 gde / MW-h = **21k MW-h**
21k MW-h x $100 MW-h =**$2.1M / year**
Annual Maintenance: 25 buses x $4000 / bus = **$100,000 per year**
Total Cost = **$2.2M / year**

Emissions:
21k MW-H x 1000 = **21M lbs of CO2**
Cost Savings Per Year: $6.8M – $2.2M **= $4.6M**

Total Investment = $25M…over five years, **Save $23M**, ROI of (23-25)/25 = **-8%.**

BRAINSTORMING

It seems like the electric bus fleet might not successfully lower emissions. What are some other benefits of switching to an electric bus fleet outside the framework of carbon emissions?

Brainstorming Guidance:

Note: This is just one possible set of categories and answers. Many more are possible, and interviewers should assess both the volume and relevance of answers.

Local Impact

- Reduced noise
- Reduced fumes
- Increased student wellness (improved air quality
- Increased public safety (more advanced, sensors ala Tesla)

Reputation Boost

- Increased Student Attraction
- Increased Faculty Attraction
- Increased Research funding

Future Impacts

- Reduced maintenance staff
- Opportunity to automate
- Buses as energy storage

Best candidates display:
Candidate should provide a structure to their thinking and focus on other potential impacts on the university. Universities have multiple stakeholders including the students, faculty, employees, community and state and local governments. The best candidates will think about impact on multiple stakeholders.

CONCLUSION

To conclude, the interviewee should provide the following:

Recommendation:

- Either PubU should invest in electric buses or not. Either decision can be justified.
- Should Not Invest: ROI in 5 years is negative, no major change in emissions in short-term. Technology likely to get cheaper in coming years.
- Should Invest: In 6 years, ROI becomes positive. Eventual path to zero emissions. Significant other benefits.

Risks:

- First Adopter Risk – What are unknowns around the technology that have yet to be identified?
- Infrastructure Requirements – Need to build out significant other infrastructure and training (charging infrastructure, new maintenance training)

Next Steps:

- Prepare bid documentation and go forward with project.

INTERVIEWER FEEDBACK FORM

Case Name ____________________________ **Interviewer** ______________________________

Case Book ______________________ **Case Type** _____________ **Difficulty** _____________

Case Execution:

- ❑ Clarifying Questions + Framework
  - ❑ Good Questions
  - ❑ Structured
  - ❑ MECE
  - ❑ Creativity

1 2 3 4 5

Feedback:

- ❑ Exhibits + Quantitative Ability
  - ❑ Accuracy
  - ❑ Speed
  - ❑ Insights Presented
  - ❑ Errors / Guidance Needed

1 2 3 4 5

Feedback:

- ❑ Brainstorm + Conclusion
  - ❑ Creative & Structured
  - ❑ Good Business Judgment
  - ❑ Recommendation Strength

1 2 3 4 5

Feedback:

- ❑ Presence & Non-Verbal
  - ❑ Confidence
  - ❑ Poise / Posture
  - ❑ Clear & Concise
  - ❑ Body Language
  - ❑ Coachability

1 2 3 4 5

Feedback:

Total: ______ / 20

Whale Hotel

McKinsey | Round 2 | Consumer

WHALE HOTEL

McKinsey | Round 2 | Retail

Prompt:
Our client is a real estate company that owns and operates luxury hotels around the world. They've previously owned 3 resorts in Dubai and are considering building a fourth, targeted specifically at high net worth individuals – called whales.

Clarifying Information: *Note: Provide this only if corresponding questions are asked.*

1. **What's the payback period?** 5 years
2. **How long is the construction period?** 2 years
3. **What is the tourism industry in Dubai like?** Very ritzy and highly seasonal (25% increase in the summer)
4. **Does the company currently own hotels in Dubai?** No – ignore cannibilization
5. **Are there any similar resorts in Dubai?** Yes, the King's Palace, the Belzor, and the Egyptian

BEHAVIORAL INTERVIEW QUESTION:

1. As a consulting professional, you will often have to resolve conflict within teams. Tell me about a time you successfully resolved conflict in a team setting.

2. What would your learning team mates say about you?

Question 1 – Hand the candidate Exhibit 1

- After looking at Exhibit 1, calculate the total number of whales at expected at each hotel each night.
  - Prompt the candidate to do Peak and Off-Peak separately

Exhibit Guidance:

	Whales Per Night, Off-Peak	Whales Per Night, Peak
King's Palace	5000 * 80% * 25% = 1000	5000 * 80% * 25% = 1000
Egyptian	4000 * 75% * 25% = 750	4000 * 95% * 37.5% = 1425
Belzor	8000 * 75% * 33.3% = 2000	8000 * 100% * 50% = 4000
Total	**3750**	**6425**

- Interviewee should identify that:
  - Correlation between whale % and swimming pool quality
  - Impact of seasonality on overall demand (great candidates will notice that Belzor is at 100% utilization, meaning that there could be additional demand (for a hotel with an excellent pool) that is not being met
- Steer the interviewee towards the conclusion that the hotel **must have an excellent quality pool**
- Ask the interviewee what a reasonable rate to charge a whale for a new hotel would be – any rate is acceptable as long as it is supported logically

Question 2 : Market research indicates that a hotel with an excellent quality pool charging $2,500 a night would capture 100% of the whales who stay at the King's Palace and the Egyptian as well as an additional 250 whales per night during the off-season and 1575 during the peak season. What is the expected demand for the potential new hotel?

Exhibit Guidance:

- Nightly Whale Demand, Off-Peak = 2000
  - 1000 (King's Palace) + 750 (Egyptian) = 2000
- Nightly Whale Demand, Peak = 4000
  - 1000 (King's Palace) + 1425 (Egyptian) + 1575 (new) = 4000

Question 3 – Hand the Candidate Exhibit 2

How many stories will the new hotel require?

Exhibit Guidance:

- Interviewee should recognize that, in order to meet demand of 4000 rooms per night in peak season, the hotel must be at least 3 stories tall

Question 4: Annual operating expenses are $250M per 1500 rooms. Land acquisition is $2B. What is the total initial investment and would you recommend moving forward with the hotel.

Exhibit Guidance:

- **Initial investment**:
  - Land - $2B
  - Rooms - $3B – (3 stories)
  - Pool - $.5B – (excellent quality)
  - **Total - $5.5B**
- **Annual Revenue:**
  - $2,500/night * 30 nights = $75K per whale monthly
  - 4000 whales * $75K per whale = $300M (peak, monthly) * 3 Month Peak Season = $900M Peak
  - 2000 whales * $75k per whale = $150M (off – peak, monthly * 9 Months = $1.35B Off – Peak
  - **Total Annual Revenue = $2.25B Annually**

Question 4 (continued): Annual operating expenses are $250M per 1500 rooms. Land acquisition is $2B. What is the total initial investment and would you recommend moving forward with the hotel.

Exhibit Guidance:

- Annual Profit:
  - Annual Revenue - $2.25B
  - Annual Opex - $750M ($250M per 1500 rooms * 3)
  - Annual Operating Profit - $1.5B
- Payback Period:
  - 2 years of construction
  - 3 years of revenue (3*$1.5B) = $4.5B
  - After 5 – years, $5.5B cost - $4.5B revenue

- A good candidate will realize that:
  - We don't break even in 5-years
  - We will turn a profit, 8 months into year 5
  - We haven't considered additional revenue sources or a potential exit opportunity
  - If time allows – consider asking them how to raise additional revenue

Question 5: The real estate company's CEO is on his way in – what do you recommend?

Exhibit Guidance:

- A candidate can recommend either moving forward with the deal or foregoing the opportunity,
- If they recommend moving forward, they should include that they are evaluating additional revenue streams that will bring the company closer to a 5-year payback period
- A candidate might choose to turn-down the hotel because of:
  - Issues with the payback period
  - Competitive response from the King's Palace, Egyptian, or Belzor

EXHIBIT 1

Resort	# of Rooms	Off-Peak Utilization	Off-Peak Whales %	Rate	Pool Quality	Peak* Utilization	Peak* Whales %
King's Palace	5000	80%	25%	$2000/night	Poor	80%	25%
Egyptian	4000	75%	25%	$2000/night	Good	95%	37.5%
Belzor	8000	75%	33.3%	$2500/night	Excellent	100%	50%

Note: Peak season runs from June – August

EXHIBIT 2

Variable A: Hotel Stories

1500 rooms per story

$1 billion construction cost per story

Variable B: Pool Options

Excellent - $500 million

Good - $100 million

Poor - $50 million

INTERVIEWER FEEDBACK FORM

Case Name ______________________ **Interviewer** ______________________

Case Book ________________ **Case Type** __________ **Difficulty** __________

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  - ❑ Clear & Concise
  - ❑ Body Language
  - ❑ Coachability

1 2 3 4 5

Feedback:

Total: _____ / 20

ACKNOWLEDGEMENTS

Thank you to everyone who wrote or submitted cases for their year's book including: Chai Lu Clark, Adele Hunter, Tejaswi Kambalapally, Robby O'Brien, Adam Potrzebowski, Greg Schwartz, Rohan Sehgal, Supriya Shah Deo, Dan Shi, Kathryn Sullivan, Casey Ward, Parke Whitley, Jesse Wilkinson

Kellogg Consulting Club

2020 Casebook

Welcome to the Kellogg Consulting Club 2020 Casebook!

Over the summer of 2019, we made both major and minor changes to the Casebook. Changes have been made in response to feedback in the Spring 2019 KCC survey from 2019 and 2020 consulting candidates. The headline objective has been to bring more structure to the cases to benefit both interviewees and interviewers alike. A sample of changes is provided below:

- Fit questions: Appropriate Fit or Experience questions have been introduced at the beginning of every case.
- Case navigation: The first page of every case features a numbered list that now clearly aligns with subsequent case solving steps.
- Print-friendly: Exhibits now immediately follow the Case title page to facilitate economical printing of the most critical pages only.
- Case curriculum: A curated list of 25 cases and proposed timeline for traditional internship candidates (page 7).
- References: Easily searchable 3-character reference numbers simplify identification of desired cases by industry, business concept etc.
- Hyperlinks: Case contents now link to the relevant page of the Casebook.
- Difficulty ratings: Subjective case difficulty ratings have been removed with the intention to introduce evidence-based ratings next year.
- Cases archived: Removal of several cases deemed unpopular or out-of-date.
- Clear call-outs: For McKinsey-style interviewer-led cases, prompts to hand candidates Exhibits etc.
- Eco-friendly: Reduction in number of full-color pages and introduction of low-ink exhibits that are easy to read in black and white.

Please don't hesitate to contact us with any questions, suggestions or corrections that you may have regarding the Casebook.

Rohan Maini
Kellogg 2020
KCC VP Training

Contents

All contents

*See next page for detailed case contents

Contents

Detailed case contents

Contents

Detailed case contents (continued)

How to use this book

Planning your case preparation

Case curriculum

- New in the 2020 casebook, the Case Curriculum provides a list of cases curated by the KCC Exec team to give candidates a wide range of 'classic' and 'unusual' cases from a variety of industries and Casebooks
- The curriculum is provided to support case selection for practice but is completely optional and in no way required
- The Curriculum features 25 cases, but this is by no means a minimum nor a maximum number of suggested cases
- Cases are of increasing difficulty (as determined subjectively by the KCC Exec team) so don't feel dejected if you feel as though you're not getting better at casing

Timing	Difficulty	Case	Casebook
September / October	Easy Cases selected to build familiarity with the case interview process (primarily profitability and cost cutting)	DigiBooks	Kellogg 2020
		Dark Sky	Kellogg 2020
		Zephyr Beverages	Kellogg 2020
		Sosland Sports	Kellogg 2020
		Orange Yoga Studio	Fuqua 2014
	Moderate Straightforward cases that challenge candidates' reliance on pre-canned case-frameworks	Maine Apples	Kellogg 2020
		Chic Cosmetology	Kellogg 2020
November		Goodbye Horses	Fuqua 2016
		LifeRenew	Haas 2015
		California Parking Lot	Columbia 2017
		Tacotle	Kellogg 2020
	Hard Complex 'pressure' cases that challenge multiple skills and cannot be solved with traditional frameworks.	Orrington Office Supply	Kellogg 2020
Break		Mexico City Airport Taxi Services	Wharton 2009
		Garthwaite Healthcare	Kellogg 2020
		Salty Sole	Kellogg 2020
Winter Break		Mustard Clinic	Kellogg 2020
		Desert City	Yale 2013
		Coyotes	Fuqua 2014
		Rock Band	Columbia 2017
Early Jan	Confidence Boosters Cases selected to encourage custom framework creation. No major complexity ahead of impending interviews.	Ski Resort	BCG
		Contact Lens Manufacturer	Darden 2011
		Supermarket Deli Turnaround	BCG
		Maldovian Coffins	McKinsey

Planning your case preparation

Use of a single casebook alone is unlikely to prepare you adequately for success in the interview room. Suggested resources to supplement this casebook with include:

Other school casebooks
Most popular with Kellogg Students: Fuqua 2014, Sloan 2011, Wharton 2012

Firm representatives
For internship applicants, cases with firm reps tend to happen in Dec and early Jan

Sponsored students
Firms make sponsored students known at Presentations or on their school recruiting webpages

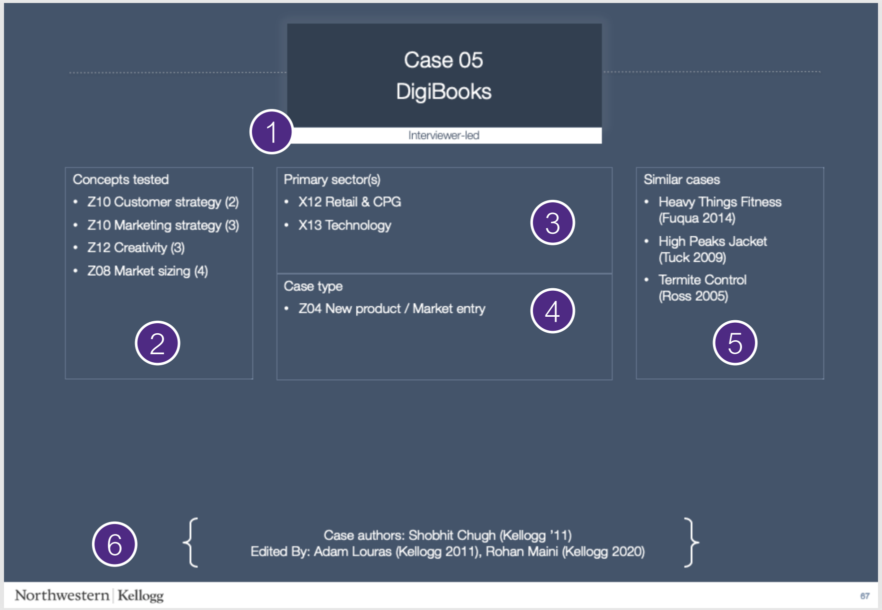
Recorded case interview analysis
Ask your IPG leader for more information on these (eg. Victor Cheng LOMS)

Casing textbooks
'Case Interview Secrets' and 'Case in Point' help get started with basic cases early on

Reading cases
Regularly reported to be a useful way to quickly gain broad case 'experience' when working alone

Understanding individual case pages

The Case title page contains details that help inform case selection



1	Format	Calls out interviews that follow the McKinsey-style, interviewer-led case format
2	Concepts tested	Provides a reference to the main concepts that the case tests (see page 16 for more information)
3	Primary sectors	Provides a reference to the primary sectors involved in the case (see page 14 for more information)
4	Case type	Provides a reference to the predominant case type (see page 15 for more information)
5	Similar cases	Provides examples of cases that test similar concepts as this case
6	Additional information	Contains miscellaneous information about the case

Understanding individual case pages

The Interviewer guide provides interviewers with a summary of the case structure

DigiBooks

Interviewer Guide

Case prompt

- Our client, DigiBooks, is a manufacturer and seller of electronic book readers (tablets). DigiBooks also distributes e-books for the tablets through their website. The tablet is only compatible with books sold through the DigiBooks site.
- DigiBooks is planning the launch of its tablets in a country where no electronic book readers are currently sold. Only 1% of the population has ever used an electronic book readers, though 50% is aware of the concept. The Chief Marketing Officer of DigiBooks has come to you to help determine:
- What factors should DigiBooks consider when launching and marketing DigiBook tablets in this new country?

1

Interviewer guide

- Problem: How should DigiBooks enter this new market?
- Key case steps
  1. Develop a problem-solving structure
  2. Analyze customer segments
  3. Brainstorm market entry considerations
  4. Estimated profits to identify optimal sales channel
  5. Provide CEO recommendation

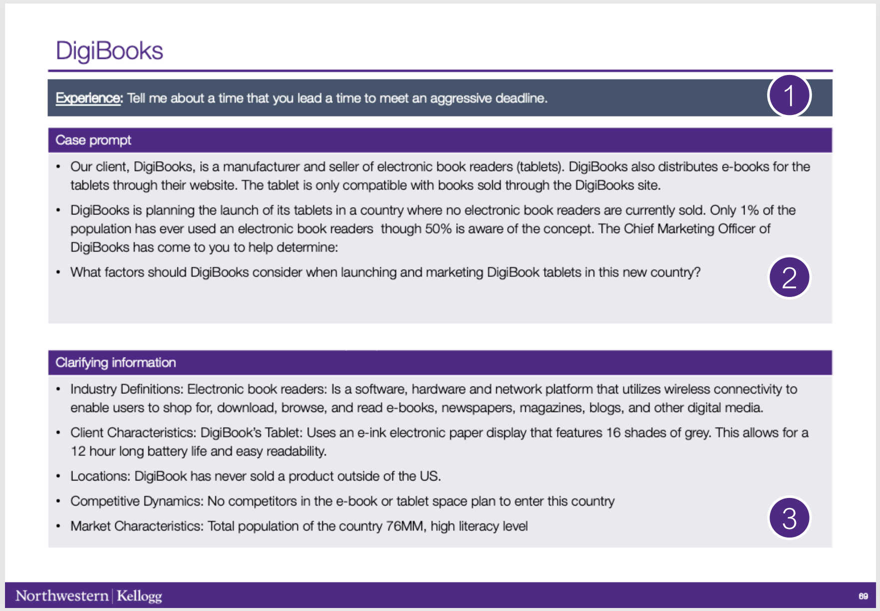
2

Northwestern | Kellogg 66

1	Case prompt	This is the information that is provided up front to the interviewee; it introduces the key case context and headline problem that the interviewee is to answer in the course of the case
2	Interviewer guide	This section provides a 30-second summary on how the case can be solved. Numbered list not only provides an ideal list of steps to solve the case, but aligns exactly with subsequent areas of the case that may be covered during the course of the interview

Understanding individual case pages

The Interview prompt page contains all pre-structure information



DigiBooks

Experience: Tell me about a time that you lead a time to meet an aggressive deadline. 1

Case prompt

- Our client, DigiBooks, is a manufacturer and seller of electronic book readers (tablets). DigiBooks also distributes e-books for the tablets through their website. The tablet is only compatible with books sold through the DigiBooks site.
- DigiBooks is planning the launch of its tablets in a country where no electronic book readers are currently sold. Only 1% of the population has ever used an electronic book readers though 50% is aware of the concept. The Chief Marketing Officer of DigiBooks has come to you to help determine:
- What factors should DigiBooks consider when launching and marketing DigiBook tablets in this new country? 2

Clarifying information

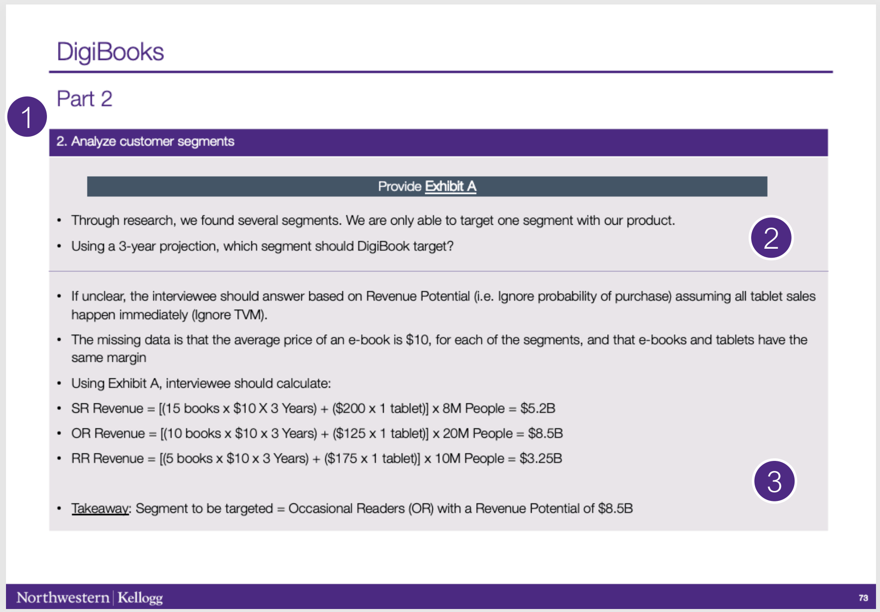
- Industry Definitions: Electronic book readers: Is a software, hardware and network platform that utilizes wireless connectivity to enable users to shop for, download, browse, and read e-books, newspapers, magazines, blogs, and other digital media.
- Client Characteristics: DigiBook's Tablet: Uses an e-ink electronic paper display that features 16 shades of grey. This allows for a 12 hour long battery life and easy readability.
- Locations: DigiBook has never sold a product outside of the US.
- Competitive Dynamics: No competitors in the e-book or tablet space plan to enter this country
- Market Characteristics: Total population of the country 76MM, high literacy level 3

Northwestern | Kellogg 69

1	Fit/Experience question	New this year, fit questions (experience for Interviewer-led cases) are provided ahead of each case
2	Case prompt	As summarized on the previous slide, this section introduces the key case context and headline problem
3	Clarifying information	Provides additional pieces of information that should be provided to the interviewee if requested

Understanding individual case pages

Case solving pages are broken down into numbered parts


DigiBooks

Part 2

2. Analyze customer segments

Provide Exhibit A

- Through research, we found several segments. We are only able to target one segment with our product.
- Using a 3-year projection, which segment should DigiBook target?

- If unclear, the interviewee should answer based on Revenue Potential (i.e. Ignore probability of purchase) assuming all tablet sales happen immediately (Ignore TVM).
- The missing data is that the average price of an e-book is $10, for each of the segments, and that e-books and tablets have the same margin
- Using Exhibit A, interviewee should calculate:
- SR Revenue = [(15 books x $10 X 3 Years) + ($200 x 1 tablet)] x 8M People = $5.2B
- OR Revenue = [(10 books x $10 x 3 Years) + ($125 x 1 tablet)] x 20M People = $8.5B
- RR Revenue = [(5 books x $10 x 3 Years) + ($175 x 1 tablet)] x 10M People = $3.25B

- Takeaway: Segment to be targeted = Occasional Readers (OR) with a Revenue Potential of $8.5B

Northwestern | Kellogg 73

1	**Part number**	New to the 2020 Casebook, each part number aligns with the numbered list on the interviewer guide (see page 10 for more information)
2	**Interviewer prompts**	Above the dotted line, interviewer guidance (including instructions about when to provide the interviewee with Exhibits) and contextual / problem voiceover is provided.
3	**Solution**	Below the dotted line: full working, part solutions, takeaways and interviewee assessment criteria are provided.

Finding cases

Introduction

- Consultancies hiring for generalists typically issue a wide range of cases from random industries, functions or problem areas.
- If you are interviewing with a boutique consultancy or specific practice area, you should expect to see a higher proportion of cases that are directly related to the type of work they do. For example…
  - ‘ZS Associates’ cases skew towards pharmaceutical industry clients
  - ‘BCG Digital Ventures’ cases typically involve a technology problem
- In the KCC Casebook, each ‘Case title page’ contains details that help inform case selection to aid easy searching for cases that test a certain industry sector, case type or concept. The casebook uses three character references to aid ‘Ctrl+F’ searching across ‘Case title pages’ (see page 9 for more information). A list of references is provided in the next three pages.

Finding cases

Industry sectors

Industries	Description
X01 Aerospace & Defense	Production, sale, and service of commercial vehicles, military weapons and systems designed to operate on land, sea, and air. Also includes production of aircraft and space vehicles (usually satellites) for both military and commercial use.
X02 Agriculture & Food	Agriculture, husbandry or farming, is activity of cultivating plants, animals, and other life forms for food, fiber, and fuel.
X03 Energy, Utilities & Mining	Utilities provide basic amenities, such as water, sewage services, electricity and natural gas. Mining companies locate and extract metal and mineral reserves, then used in jewelry-making, industrial applications, and investments.
X04 Engineering & Construction	Construction of buildings, civil engineering projects, and other industrial plant construction. The industry includes highway, tunnel, bridge, and other civil engineering operations, as well as commercial, residential and industrial buildings.
X05 Entertainment & Media	Comprised of businesses that produce and distribute motion pictures, television programs and commercials, streaming content, music and audio recordings, broadcast, radio, book publishing, video games and supplementary services
X06 Financial Services	Financial services are provided by the finance industry, which encompasses a broad range of businesses that manage money, including banks, credit-card companies, insurers, accountancies, stock brokerages and investment funds.
X07 Government & Public sector	Includes public goods and governmental services such as law enforcement, public infrastructure, transit, and education,
X08 Healthcare	The healthcare sector consists of companies that provide medical services, manufacture medical equipment or drugs, provide medical insurance, or otherwise facilitate the provision of healthcare to patients
X09 Hospitality & Leisure	The leisure and hospitality industry sector includes a broad category of fields within the service industry such as lodging, food services, event planning, theme parks, transportation and other tourism oriented products and services.
X10 Legal & Professional Services	Professional services are occupations in the tertiary sector of the economy requiring special training in the arts or sciences. Some professional services require holding professional licenses such as architects or lawyers.
X11 Pharmaceuticals	The pharmaceutical industry discovers, develops, produces, and markets drugs for use as medications to be administered to patients, with the aim to cure them, vaccinate them, or alleviate the symptoms.
X12 Retail & CPG	Retailers sell products, mainly consumer packaged goods (CPG) to end users/consumers. CPG refers to a broad spectrum of manufacturers, sellers, and marketers of (typically packaged) physical goods.
X13 Technology	Businesses involved in manufacturing of electronics, creation of software, computers or products and services relating to IT. The technology sector offers a wide arrange of products and services for consumers and businesses.
X14 Telecommunications	Comprised of companies that make wireless or wired communication possible on a global scale, (eg. phone, internet)
X15 Transportation & Logistics	Transportation and logistics involves planning, implementing, and controlling movement and storage of goods.

Finding cases

Case types

Case Type	Description
Y01 Cost reduction	Identifying internal or external costs that are out of line
Y02 Growth strategy	Identifying ways in which a firm can optimally grow
Y03 Mergers & Acquisitions	Evaluating whether a firm should merge or purchase another company
Y04 New product / Market entry	Analyzing a firm's opportunity to expand into a new product, business or segment
Y05 Operations	Identifying problems in internal or customer-facing processes
Y06 Opportunity assessment	Examining the potential purchase / sale of a new or existing business or installation / abandonment of infrastructure
Y07 Profitability	Analyzing causes for recent drop in profits / ways to increase profits

Finding cases

Business concepts

	Business Concept	Description
Quantitative	Z01 Accounting	Tests some aspect of accounting. Typically, this will be a simple Income Statement, Balance Sheet or Statement of Cash flows. Most common concept tested is depreciation/amortization.
Quantitative	Z02 Net Present Value	Tests ability to calculate the net present value of cash flows over time (or at a point in time). Usually in the context of investment, market entry or company acquisition case.
Quantitative	Z03 Breakeven analysis	Generally used in market entry cases, break-even analysis tends to test ability to determine how many units (or what price) a product should sell in order to cover a fixed cost.
Quantitative	Z04 Capacity	Tests understanding of production capacity, in particular long and short run considerations.
Quantitative	Z05 Elasticity	Tests understanding of price elasticity of demand or supply, usually in the context of price changes' impact on quantity sold and by extension revenue.
Quantitative	Z06 Macroeconomics	Tests understanding of macroeconomic variables trends than affect businesses including: inflation, foreign exchange rates, recessions, international trade.
Quantitative	Z07 Market share	Tests understanding of the client and its competitors' market share. This may include understanding of typical features of concentrated and fragmented markets.
Quantitative	Z08 Market sizing	Tests ability to develop a structured approach to sizing a market. Emphasis is on mathematical approach rather than accurate estimation of market size or dependent variables.
Quantitative	Z09 Microeconomics	Tests understanding of microeconomics, for example the role of demand and supply in market pricing.
Qualitative	Z10 Customer marketing strategy	Tests understanding of marketing to customer segments. May involve analyzing their needs, WTP, buying decision, preferred distribution channel etc.
Qualitative	Z11 Competitive analysis	Tests ability to analyze relevant aspects of the competition in relation to the client's business situation.
Qualitative	Z12 Creativity	Tests ability to develop creative options, usually as part of a brainstorming exercise.
Qualitative	Z13 Organizational changes	Tests ability to develop recommendations around the organizational structure, people and/or culture.
Qualitative	Z14 Pricing strategy	Tests ability to develop options and methodologies to price a new product or reprice an existing one.
Qualitative	Z15 Supply/value chain	Tests understanding of players and activities involved in sale of a product, from the delivery of source materials from suppliers to manufacturers, to delivery to the end user.
Qualitative	Z16 Vertical integration	Tests ability to develop a practical solution involving vertical integration of the supply chain.

Interviewee
Interviewer

Getting the most out of a case

Best practices before a case

Share focus areas
Inform your interviewer of any specific areas that you would like feedback on

Share your caselog
Share an up-to-date caselog with your interviewer so you don't accidently repeat a case

Don't sneak a peek!
Replicate a real-life case interview experience by going in completely in the dark

Bring materials
Bring several sheets of blank paper and a pen or pencil to the meeting

Brush up on the industry
Review unfamiliar industries with KCC's industry primers or online (eg. Vault.com)

Review the case
Familiarize yourself with the case ahead of time to avoid having to check guidance

Do the math beforehand
Gain practice with the math required and understand where common traps may lie

Print exhibits
Interviewers should bring printed out copies of any exhibits needed for the case

Getting the most out of a case

Interviewee
Interviewer

Best practices during a case

Take it seriously
You might be interviewing with a friend, but a formal atmosphere will be more valuable and provide a realistic interview experience

Keep quiet!
While silence may be uncomfortable, resist the urge to jump in with pointers, hints, or additional information

Ask fit questions
Almost all interviews start with fit or Experience questions, so the KCC now provides such a suggested question before each case prompt

Getting the most out of a case

Best practices after a case

Provide high-level performance assessment
Be honest with the interviewee about their performance. If it was a good case, tell them. If it was poor, it's even more important to tell them!

Provide detailed feedback
After providing a high-level performance assessment, explain why by running the interviewee through each part of their case

Give feedback!
A case is a two-sided conversation. Tell the interviewer how they could do anything differently in terms of case or performance assessment delivery

Evaluating case performance

Evaluation criteria

Case skills and driving the case		Grade
Problem definition	Clearly understands and defines the problem/ question; summarizes the essence of the issue	
Problem breakdown	Breaks problem into most important components	
Structure	Uses a structured and thoughtful approach to solve the problem (e.g. draw issue tree with critical pieces of analysis)	
Prioritization	Identifies critical path to the recommendation and most important issues/components	
Information	Identifies and addresses key pieces of information and assumptions needed to solve the problem	
Solution oriented	Formulates hypothesis when needed and maintains focus on the recommendation	
80-20 approach	Deep dives into identified critical issues to develop a recommendation (80% of solution with 20% of analysis)	
Recommendation	Ends up with a pragmatic/ realistic solution that answers the initial question; supported with the analysis	

Communication skills		Grade
Structure	Shares thinking process throughout the case and aligns his communications with the structure of the case	
Focus	Highlights key insights, important findings and critical issues	
Questions	Ask clear questions related to the case process and solution	
Engagement	Engages with the interviewer during the solution of the case	
Support	Clearly supports any conclusion or important claim with relevant arguments	
Business language	Feels comfortable discussing the case with business terminology	
Body language	Communicates naturally and uses body language to support the communication process	

Evaluating case performance

Evaluation criteria (continued)

Polish and interpersonal skills		Grade
Self confidence	Shows confidence when solving and attacking the case without sounding arrogant	
Quantitative skills	Feels comfortable handling complex calculations and analytics; shows clear calculations and data framing	
Analysis	Deep dives in identified critical issues or components and comes up with a solution for each issue	
Interpersonal skills	Drive a conversation and acts naturally	
Balance	Good balance of quantitative and qualitative analysis during the solution	

Business sense and high level thinking		Grade
Creativity	Identifies or uses different approaches to solve the problem. Out of the box thinking; uses creative methods and arrives at creative solutions	
Synthesis	Summarizes key findings through the solution of the case and translates them into insights or important take-aways	
Concepts	Clearly understands and uses the key business concepts to solve the case	
"So what" thinking	Clearly addresses and articulates what each analysis, conclusion or recommendation means to the case, solution or the client	
Testing	Frequently tests assumptions and conclusions with reality checks or other quick analysis	
Assessment	Assesses risks and consequences for the recommendations; identifies key next steps to further prove the solution	
Business sense	Uses common sense and realistic thinking to get to pragmatic recommendations; has the ability to think from different perspectives (e.g. client, competitor, consumer, etc.)	

2020 Cases

Case 01
Busch's Barber Shop

Concepts tested

- Z08 Market sizing (2)
- Z12 Creativity (5)

Primary sector(s)

- X09 Hospitality & Leisure

Case type

- Y04 Market entry
- Y06 Opportunity assessment

Similar cases

- Snack Foods Acquisition (Columbia 2017)
- Surfboard Wax in Hawaii (Fuqua 2014)
- Chic Cosmetology (Kellogg 2020)

Case author(s): Michael Eidem (Kellogg 2020)
Edited by: Rohan Maini (Kellogg 2020)

Busch's Barber Shop

Interviewer guide

Case Question

- Your friend, a current MBA student, has his heart set on starting a barbershop in Evanston after graduation.
- There are plenty of barbershops and salons near the Northwestern campus, but your eager friend argues they are either (A) vastly overpriced or (B) cheap, but really low quality.
- He wants your help coming up with a plan.

Interviewer guide

- Problem: Develop a market entry strategy for Busch's Barber Shop
- Key case steps:
    1. Develop a structure to address the problem
    2. Confirm market attractiveness (size)
    3. Calculate revenue and costs for two potential locations
    4. Evaluate profitability of potential loyalty program
    5. Brainstorm other areas of consideration
    6. Provide client recommendation

Busch's Barber Shop

Fit: Tell me something about yourself that is not on your resume.

Case Question

- Your friend, a current MBA student, has his heart set on starting a barbershop in Evanston after graduation.
- There are plenty of barbershops and salons near the Northwestern campus, but your eager friend argues they are either (A) vastly overpriced or (B) cheap, but really low quality.
- He wants your help coming up with a plan.

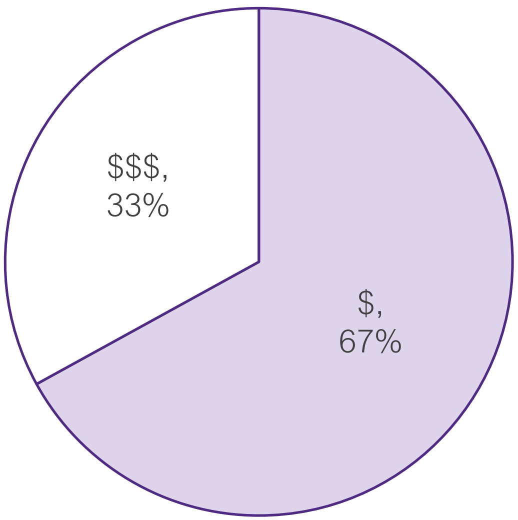
Clarifying information

- **Customers**: For this analysis, your friend wants to focus solely on a target market of the male population of Evanston.
- **Competitive dynamics**: Highly competitive, segmented into two distinct groups (high price & low price). Friend believes there is a profitable space in between these two segments.
- **Market**: Growing at GDP the past five years.
- **Your Friend**: No specific experience in the cosmetology area, has enough savings to fund initial upfront costs and early ongoing costs. Profitability is the main goal in the short term (wants to be profitable in year one to justify his decision not to take a high-paying consulting job).
- **Product**: Barbershop only intends to initially sell haircut service. Any other additional products or services can be considered in the future.

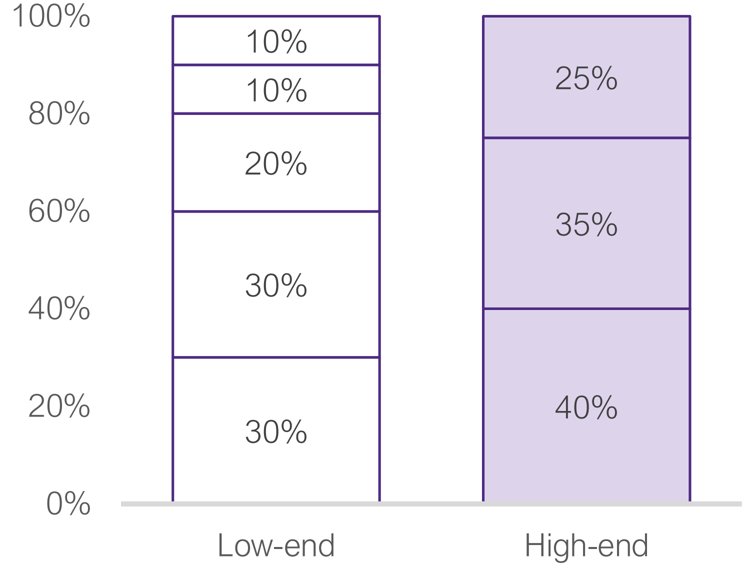
Busch's Barber Shop

Exhibit A – Market analysis

Where do men in Evanston get their haircut?



Competitors' market share



<u>Notes:</u>

- Men's haircut market split between two groups, high-end (avg price $50) and low-end (avg price $20).
- Evanston Adult Population: 60k (50% male)

Busch's Barber Shop

Exhibit B – Market Entry Projections

		Expected Customer Steal		Upfront Costs		Ongoing Costs	
Description		From Low-end	From High-end	Equip.	Advert.	Rent	Labor
Location #1	Downtown	10%	5%	$30k	$20k	$4k	4 workers, $15/hr
Location #2	Not Downtown	5%	5%	$30k	$25k	$1k	2 workers, $15/hr

Notes:

- Projections of customer steal based on consumer survey. Survey described new barbershop as in-between quality at price point of $30.

Busch's Barber Shop

Part 1

1. Develop framework for how to approach this new venture

A sample case structure would include the following:

- **Client**: Specific goals, strengths, capabilities, resources
- **Market**: Size, growth, competition, customer segmentation
- **Profitability**
    - Expected customer volume, target customers
    - Price elasticity, pricing method (ex: loyalty), service mix
    - Costs: Fixed costs (rent, equipment, merchandise, advertising), variable costs (labor)
- **Go-to strategy**: Build, acquire, partner with additional co-owner
- **Barriers**: Capital, local regulations, attracting talent
- **Risks**: Competitive response, no differentiation, opportunity cost

Following discussion of framework, interviewee should be asked to briefly market size the adult men's haircut market in Evanston

(See next page)

Busch's Barber Shop

Parts 2-3

2. Confirm market attractiveness (size)

Interviewee should make educated guesses regarding:

- City population size (~60k)
- Male/female ratio (~50/50)
- What % of male population pays for haircuts (i.e. likely omitting young kids, those who cut their own hair, bald men)
- What % of men in Evanston get their haircut in Evanston vs downtown Chicago near their place of work.
- Average annual haircuts per person being considered
- Price segmentation (average price for cut, high end vs low end portions of the market and distribution between the two)
- End result should be a total annual dollar amount spent on haircuts by men in Evanston.

There is no correct answer to this exercise. A good interviewee will show creativity, structure, and intuition regarding making educated guesses. Push interviewee to move quickly since this is not the primary purpose of the overall case.

3. Calculate revenue and costs for two potential locations

Provide Exhibits A & B

Your friend thinks there is a profitable middle ground between the low cost/low quality cut and the high cost/high quality cut markets.

Additional information:

- An average male in Evanston pays for 10 haircuts per year
- Barbershop will be open 10 hours/day, 360 days/year
- Assume customers stay with the same barbershop once they make a decision (i.e. customers don't switch back and forth between shops).

Lead interviewee towards calculating 1st year profit in each location to determine optimal choice [see next page for solution].

Busch's Barber Shop

Part 3 (continued)

3. Calculate revenue and costs for two potential locations (Exhibit A & B)

Adult male population count in each segment:

Market	Adult Male Customers
Low-end	= 60k * 50% * 2/3 = 20k
High-end	= 60k * 50% * 1/3 = 10k

Projected revenue calculation of each location:

Location	Total Customers Stolen	Revenue
Downtown	= 20k*10% + 10k*5% = 2.5k	= 2.5k * 10 cuts/yr * $30/haircut = $750k
Not Downtown	= 20k*5% + 10k*5% = 1.5k	= 1.5k * 10 cuts/yr * $30/haircut = $450k

Cost calculations of each location:

Location	Upfront Costs	Rent	Labor	Total
Downtown	= 30k+20k = 50k	= 48k	= 4*$15/hr*10hr/day*360days = $216k	$314k
Not Downtown	= 30k+25k = 55k	= 12k	= 2*$15/hr*10hr/day*360days = $108k	$175k

First year profitability:

Location	Revenue	-	Total Cost	=	Profit
Downtown	= $750k	-	$314k	=	$436k
Not Downtown	= $450k	-	$175k	=	$275k

Takeaway: Downtown location has higher projected first year profits.

Optional brainstorming question: What other factors should be considered when choosing a potential shop location?

Potential answers: Long term plans, proximity to other stores, ease of transportation to location, visibility, layout of store, capacity constraint for future growth, preference of target demographic

Busch's Barber Shop

Part 4

4. Evaluate profitability of potential loyalty program

Your friend (after having chosen the downtown location) is considering implementing a loyalty reward system as part his marketing strategy. He's decided that such a system would reward customers by giving them their 10th haircut for free. He projects this will result in a 10% increase in total first year customers. Is this a profitable decision?

One method is to calculate the new annual customer count, determine expected annual revenue, and compare with previously calculated revenue. Costs assumed to remain constant since no marginal costs for additional haircuts (employees paid hourly, assume no additional employees required).

New expected annual customer count:

= (Previously calculated total customers) * 110% = 2500 * 1.1 = 2750 customers

Expected revenue with loyalty program:

= (# of expected customers) * (average # haircuts paid for annually) * (price) = 2750 * (10 – 1) * $30 = $742.5k

<u>Takeaway</u>: Revenue without loyalty program was $750k. Since costs do not change, not profitable decision.

<u>Additional insight:</u> Revenue decline is minimal (~1%), are there potential advantages of increasing customer base by 10% that would still make implementing loyalty program attractive? (example: implement loyalty program for only the first year to build customer base, upsell products such as shampoo/additional services to this larger customer base, etc.)

Busch’s Barber Shop

Part 5

5. Brainstorm other areas of consideration (optional)

Additional optional brainstorm questions:

1. What changes could be made to make this loyalty program profitable?
   - Decrease frequency of freebies, make reward 50% off instead of free cut, etc.
2. Instead of the loyalty program, your friend is considering introducing a membership-based pricing. In this system, a customer would pay a set price every month for unlimited haircuts. What are pros and cons of such a system, and if it was implemented, how would you think about setting the price?
   - Pros (more predictable revenue stream, potentially increased data on customers, differentiation)
   - Cons (adverse selection likely to occur with only customers who would overuse membership signing up, potentially unhappy employees if tips reduce based on different payment scheme)
3. One key to success will be finding quality employees without having to pay as high of a base wage as high end competition. What are some possible methods of attracting and retaining talent in this scenario?
   - Possible options: more flexible work schedule, end of year profit sharing to make employees feel invested in store’s success, finding rising stars in the lower end market who haven’t had the chance to move to the high-end yet, etc.

Busch’s Barber Shop

Part 6

6. Provide client recommendation

Overall:

- Your friend should choose the downtown location for starting his new barbershop without the loyalty program.
- Projected first year profits of ~$430k
- Implementing free 10th haircut results in decreased revenue at current growth expectations.

Risks:

- Numbers assume immediate customers acquisition: unrealistic without effective marketing campaign.
- Competitive response: high end stores may offer discounts or decrease price if they experience large loss of customers, although, projected market steal from this segment is only 5%, unlikely to cause drastic response.
- Customers might not find quality increase enough to justify increased price compared to other low-end options.
- Opportunity costs: what other business options could your friend be pursuing with his saved capital? Are there other locations better suited than Evanston? Would it be more efficient to buy a current existing shop instead of starting a new one?

Next steps:

- Perform due diligence on buying an existing shop.
- Perform more extensive customer surveys to confirm existing projections.
- Research how to hire qualified barbers to meet expectations of improved quality compared to low level shops.
- Sign lease, purchase equipment, bring on advisor (since friend has no previous experience), develop marketing strategy.
- Evaluate changes to proposed loyalty program to improve profitability.

Case 02
Chic Cosmetology

Concepts tested

- Z03 Breakeven analysis (1)
- Z12 Creativity (2)
- Z07 Market share (3)

Primary sector(s)

- X09 Hospitality & Leisure

Case type

- Y04 Market entry

Similar cases

- Busch's Barber Shop (Kellogg 2020)
- Yumy Co (Yale 2012)

Case author(s): Peter Manoogian (Kellogg 2012)
Edited by: Rohan Maini (Kellogg 2020)

Chic Cosmetology

Interviewer guide

Case prompt

- Our client is a for-profit, specialty college named Chic Cosmetology University (CCU). Founded in 2005, CCU is a program for high school graduates seeking their professional cosmetology license. CCU is currently the market leader for cosmetology education with campuses in ten major metropolitan areas in the US.
- CCU has capital to invest in a new campus and is considering Chicagoland as a location – should they do it?

Interviewer guide

- <u>Problem</u>: Will CCU be able to enroll enough students to offset the initial investment and achieve positive profit?
- Key case steps:
    1. Evaluate CCU revenue and cost structures
    2. Brainstorm CCU customers
    3. Project CCU's market share
    4. Provide client recommendation
- Note: It is critical that the interviewee lands on the figures presented (or is course corrected toward them before proceeding)

Chic Cosmetology

Fit: What would be the hardest part about starting at our firm?

Case prompt

- Our client is a for-profit, specialty college named Chic Cosmetology University (CCU). Founded in 2005, CCU is a program for high school graduates seeking their professional cosmetology license. CCU is currently the market leader for cosmetology education with campuses in ten major metropolitan areas in the US.
- CCU has capital to invest in a new campus and is considering Chicagoland as a location – should they do it?

Clarifying information

- **Goal:** Achieve positive operating profit for the new campus two years after opening
- **Format:** Enrolled students take classes at a physical campus for one school year to earn degree (FY begins on 9/1)
- **Reputation:** CCU has the best campuses and equipment in the industry, and boasts strong job placement into top local slaons
- **Growth:** CCU and industry enrollments growing at 5% per year
- **Competitors:** 2-3 other large specialty colleges, and lower-cost community colleges
- **Industry:** H.S. Diploma and cosmetology degree required to enter the field
- **Students:** 98% of cosmetologists are women

Chic Cosmetology

Exhibit A – CCU 2010 financials (31-Aug-2010)

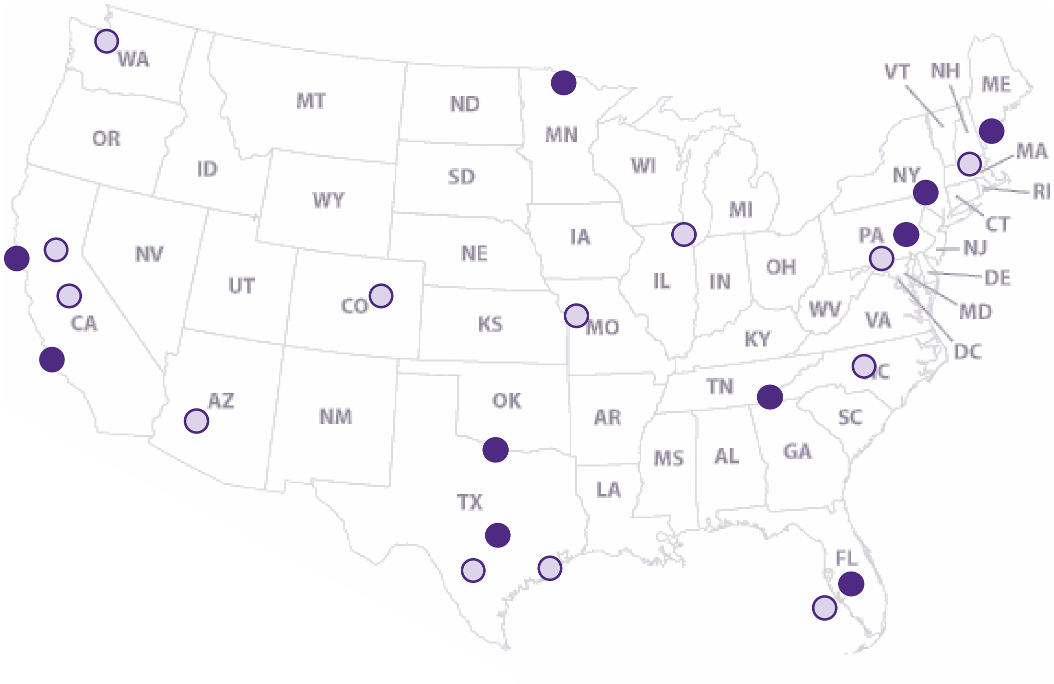
Student enrollments (all campuses)	10
Revenue from enrollments	$150,000
Total fixed campus costs	$48,000
Buildings and equipment	$32,000
Recruiting, general, and administrative	$16,000
Total variable campus costs	$80,000
Instructors	$40,000
Student supplies	$40,000
Operating profit	$22,000

Notes:

- All units in '000s

Chic Cosmetology

Exhibit B – CCU and major competitor locations (31-Aug-2010)



● CCU Campus ○ Major competitor campus

Campus	2010 share*
San Francisco, CA	8%
Los Angeles, CA	14%
Minneapolis, MN	15%
Dallas, TX	14%
Houston, TX	10%
Atlanta, GA	16%
Miami, FL	12%
Philadelphia, PA	12%
New York City, NY	16%
Boston, MA	8%

*Measured as share of total 'potential' students, as defined by CCU

Chic Cosmetology

Part 1

1. Evaluate CCU revenue and cost structures

Provide Exhibit A after interviewee asks about revenues or costs

- How many students will CCU need to break-even in year 1?
- If asked, the investment initial Chicagoland campus cost is $4.5M in initial building costs to renovate its chosen site. These costs can be amortized evenly over a three year period. Assume fixed costs remain flat per year.

- Interviewee should calculate
    - Total fixed costs per year = $6.3M ($4.8M + $1.5M from amortization).
    - Gross profit per student = $7K
        - Average revenue per enrollment = $15K (revenue / total enrollments)
        - Total annual fixed cost per campus = $4.8M ($48M / 10)
        - Total variable cost per student = $8K ($80M / 10K)
        - Gross profit per student = $7K ($15K - $8K)
    - Break-even number of enrollments per year = 900 ($6.3M / $7K)
- Next step: Interviewee should tackle the overall opportunity in the area and how many year 1 enrollments CCU could expect

Chic Cosmetology

Part 2

2. Brainstorm CCU customers

- What types of schools / students do you think CCU targets?

- Possible responses (schools):
  - Public schools (private HS more likely to have grads go to 4yr univ)
  - HS's in middle-class cities (may be an affordability issue w/lo income)
  - Closest to the campus (geography)
- Possible responses (students)
  - Female HS graduates
  - Not attending 4yr college
  - Interested in cosmetology
- After a few of the above criteria are noted, share:
  - CCU has identified 1,000 targeted high schools in the Chicagoland area
  - Within these HS, CCU's market research estimates that on average 6 students per HS have "potential" for CCU enrollment

Chic Cosmetology

Part 3

3. Project CCU's market share

Provide Exhibit B to the interviewee

- 80% of enrolled students come directly from high school, the other 20% of students come from the "Adult" market
- What is the highest share we could expect CCU Chicago to capture in Y1?

- Campuses w/competitors present tend to have a lower share (10%) than those w/out (15%)
- However, presence of >1 competitor does not have an increased negative impact on market share (Boston has 8% share w/only one competitor)
- Interviewee should assume a projected 10% market share for a Chicago campus (one competitor)
- 10% market share equals 750 enrollments
- Takeaway: CCU cannot break even based on the enrollment number estimated

Chic Cosmetology

Part 4

4. Provide client recommendation

- Overall, our client should NOT enter the Chicago market under the current cost structure. Even with a 10% market share assumption in year 1, the Chicago campus will enroll only 750 students, this is 150 fewer than the 900 required to break-even.
- The client should also consider several qualitative issues:
  - Consider offering scholarships to increase the number of potential students and/or conversion rate of potential students
  - Consider other cities beyond Chicagoland that currently do not have a CCU presence, or add a second campus to a city such as NYC that has high market share and potentially low capacity
  - Perform market research in other cities to understand if there is a greater potential per target high school to increase ROI
  - Consider ways to reduce fixed costs (e.g., transporting equipment / materials from campuses that are not at capacity)

- **Strong interviewees** identify several of the qualitative issues listed above as ways in which CCU could proceed
- **Outstanding interviewees** will recognize that the 10% market share is for campuses that have been in place for at least three years, therefore Chicago is unlikely to achieve that share in year 1 or 2; this rules out the feasibility of the follow-up question that suggests the possibility of reducing the one-time investment from $4.5M to $300K.

Case 03
Chicouver Cycle

Concepts tested

- Z12 Creativity (1)
- Z02 Net Present Value (2)
- Z03 Breakeven analysis (3)

Primary sector(s)

- X15 Transportation & Logistics

Case type

- Y04 New product / Market entry

Similar cases

- Fast Food Co. (Columbia 2017)
- Duck Island Beer Co. (Fuqua 2016)

Case authors: John Ng (Kellogg 2018)
Edited By: Michael Eidem (Kellogg 2020)

Chicouver Cycle

Interviewer Guide

Case prompt

- Our client, Chicouver Cycle (pronounced "Chai-cover"), is a bikesharing startup. Like other bikeshare operators in cities around the world, Chicouver Cycle owns bicycles and rents them out to users one trip at a time.
- Chicouver Cycle wants to know how they should launch operations in the city of Chicouver. They have specifically asked us to recommend one or more of Chicouver's neighborhoods to enter.

Interviewer guide

- This case test the interviewee's ability to move beyond the typical market entry framework to consider practical issues of launching a sharing economy business.
- Key case steps:
    1. Develop a structure to address the problem - identify factors for comparing different neighborhoods as potential launching grounds.
    2. Analyze cost and revenue drivers for different neighborhoods and trip types.
    3. Compute profitability for different operating models (docking versus dockless bikeshare systems)
    4. Provide client recommendation

Chicouver Cycle

Fit: You're interviewing for a generalist role, however, are there particular industries or functions that you're especially interested in?

Case prompt

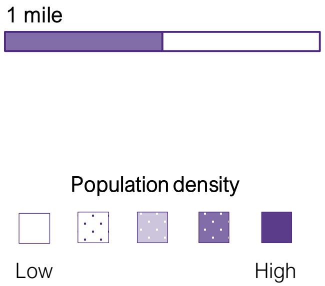
- Our client, Chicouver Cycle (pronounced "Chai-cover"), is a bikesharing startup. Like other bikeshare operators in cities around the world, Chicouver Cycle owns bicycles and rents them out to users one trip at a time.
- Chicouver Cycle wants to know how they should launch operations in the city of Chicouver. They have specifically asked us to recommend one or more of Chicouver's neighborhoods to enter.

Clarifying information

- **Customers:** Chicouver residents are avid bicyclists. The city is also a popular tourist destination
- **Competitive Dynamics:** There is currently no existing bikeshare system in Chicouver.
- **Company:** Our client wants to generate cash from initial launch to fund further growth. Profitability is important.
- **Product:** Most bikeshare systems charge $1 per trip. Our client will charge the same. Our client is choosing between two models of bikesharing systems: docking and dockless.
- **Other:** The city of Chicouver has worked with other sharing economy platforms before; permitting will not be an issue. Chicouver has reasonable weather for biking all year round.

Chicouver Cycle

Exhibit A – Chicouver's Neighborhoods



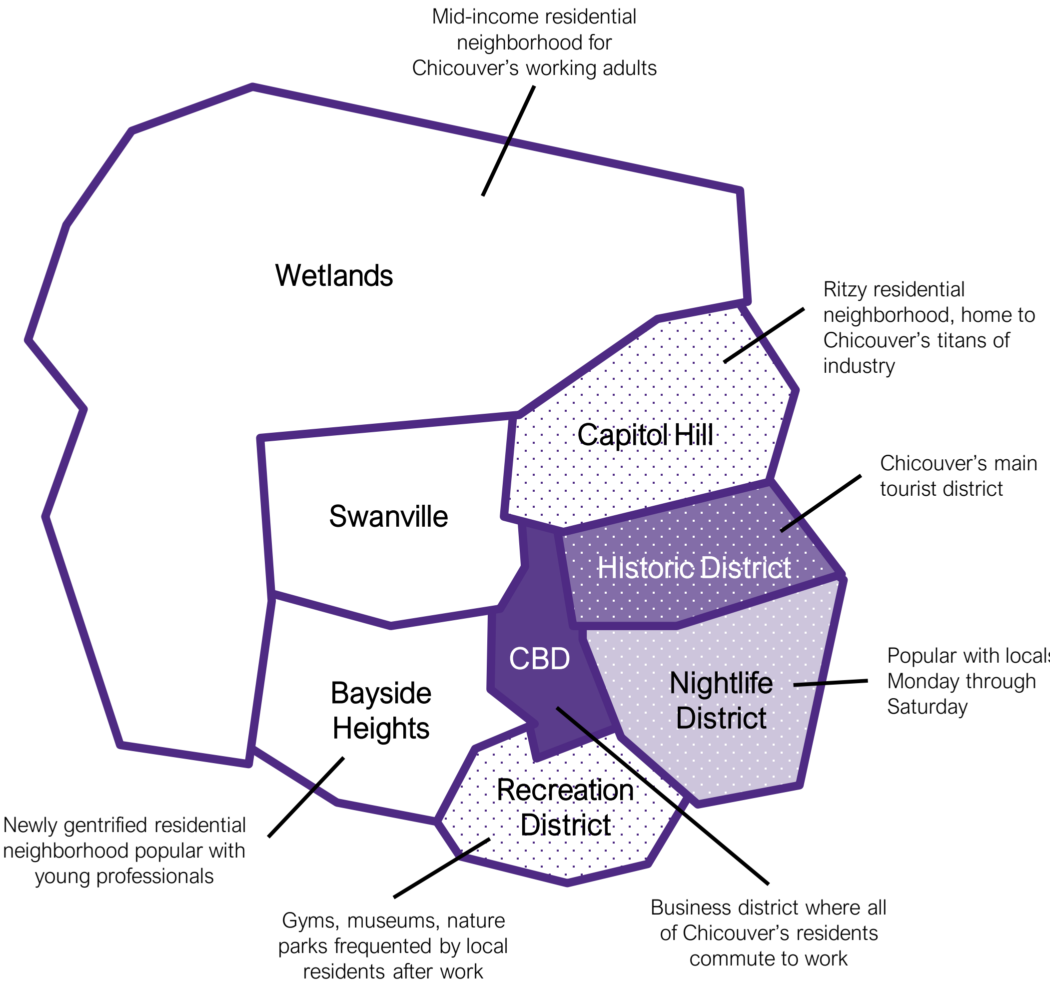


Exhibit B – Chicouver's Topography

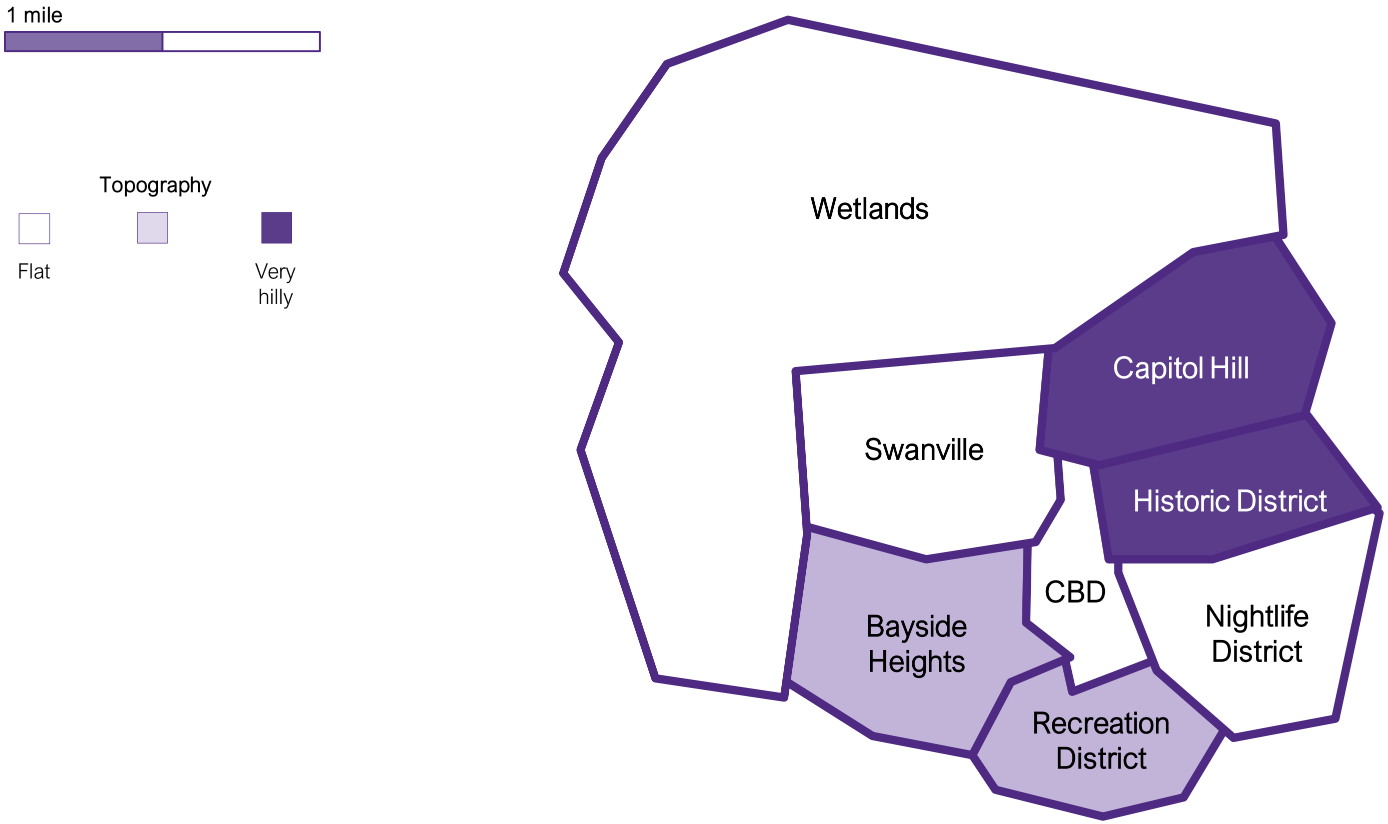


Exhibit C – Projections by Type of Bikeshare Trip

Trip Type	Expected No. of Trips Per Week (K)	No. of Bikes Needed to Meet Demand (K)	Utilization (%)
Commuting	500	50	4%
Tourism	400	5	24%
Recreation	300	4	22%
Nightlife	600	30	7%

Notes:

- Utilization = # hours bike is used each week / total # hours in a week

Exhibit D – Bikeshare Systems

DOCKING System

Users must start and end trips at a docking station.

DOCKLESS System

Users pick up any available bike and end a trip anywhere within the service area.

Exhibit E – Projected Costs

Costs		Docking System	Dockless System
Annual cost per bike		$200	$200
Annual cost per docking station*		$10,000	n/a
Annual distribution cost per bike	Flat	$100	$200
	Moderately Hilly	$500	$1,000
	Very Hilly	$2,000	$4,000

*Notes:

- Each docking station holds 20 bikes

Chicouver Cycle

Part 1

1. Develop a structure to address the problem

An ideal structure focuses mostly on the specific question at hand: which neighborhood(s) should Chicouver Cycle look to launch in first? Additional elements of a new venture/market entry framework help to round out a complete view of the problem.

Key elements expected to be included in this framework are:

- Overall Market: Who are the target customers and what are their preferences, what does the competitive landscape look like (even though there aren't other bikesharing companies, what are available substitutes), what are the overall economic trends in the city of Chicouver and how will that impact the sharing economy?
- Our Client: What are our core competencies, have we launched in other cities previously and learned from that experience, do we have a current image/brand, how lean are we looking to be at initial launch, what are our future aspirations (other products, services)?
- Profitability: What will the expected costs be (marketing, bikes, docking equipment, labor, technology development and maintenance, etc.) and how much revenue can we expect to earn (user volume, ride frequency, payment level and structure)?
- Location Choice: The prompt specifically focuses on location, so the interviewee should consider factors that matter when analyzing neighborhoods as potential launching grounds: population density, neighborhood uses, household income, topography (critical for bikeshare!), etc.

Chicouver Cycle

Part 2

2. Analyze cost and revenue drivers for different neighborhoods and trip types.

After discussing initial framework, when interviewee raises questions regarding how to evaluate which neighborhood to enter…

Provide Exhibit A & B

- There is a lot of info in Exhibit A: population density, what takes place in each neighborhood, and who is in each neighborhood.
- There are 3 residential neighborhoods where people commute from home to work in CBD. After work, residents travel from the CBD to the recreation and nightlife districts. Tourists tend to stay within the historic district.
- Terrain matters: it's easier to bike on flat terrain than hilly terrain, and this may affect our revenues or our costs.
- Interviewee should discuss how these different characteristics of neighborhoods affect the attractiveness of each for market entry.
- Interviewee may need help seeing that there are different types of trips taking place within and between neighborhoods.

Provide Exhibit C

- Exhibit C lays out 4 types of trips that people take in Chicouver. Interviewee may note that while commuting and nightlife have the greatest number of trips, they require many bikes to provide an acceptable level of service, leading to low utilization.
- No calculations needed at this time, but interviewee should raise issue of revenues and costs. If asked about revenues, tell interviewee that our client will charge $1 per trip. When asked about costs, ask interviewee to quickly brainstorm major cost items.

Chicouver Cycle

Part 3

3. Compute profitability for different operating models (docking versus dockless bikeshare systems)

- When the interviewee raises the need to look at costs and revenues…

Provide Exhibit D & E

Calculate revenue and costs for each distinct trip type to determine which neighborhoods should be targeted:

- Revenue = ($1) * (# of weeks) * (# of trips) *(Assume 50 weeks in a year)*
- Cost of bikes = ($200) * (# bikes)
- Number of stations = (# bikes) / 20 Cost of Stations = ($10,000) * (# stations)
- Distribution costs = (distribution costs) * (# bikes)

Type	# Trips	# Bikes	Terrain	Revenue	Bike Cost	# Stations	Station Cost	Dist. Cost (docking)	Dist. Cost (dockless)	Docking Profits	Dockless Profits
Commute	500	50K	All 3 (use flat)	$1 * 500K * 50 = 25M	$200 * 50K = 10M	50K / 20 = 2500	2500 * $10K = 25M	$100 * 50K = 5M	5M * 2 = 10M	25 – 10 – 25 – 5 = -15M	25 – 10 – 10 = 5M
Tourism	400	5K	Very hilly	$1 * 400K * 50 = 20M	$200 * 5K = 1M	5K / 20 = 250	250 * $10K = 2.5M	$2000 * 5K = 10M	10M * 2 = 20M	20 – 1 – 2.5 – 10 = 6.5M	20 – 1 – 20 = -1M
Recreation	300	4K	Moderate	$1 * 500K * 50 = 15M	$200 * 4K = 0.8M	4K / 20 = 200	200 * $10K = 2M	$500 * 4K = 2M	2M * 2 = 4M	15 – 0.8 – 2 – 2 = 10.2M	15 – 0.8 – 4 = 10.2M
Nightlife	600	30K	Flat	$1 * 500K * 50 = 30M	$200 * 30K = 6M	30K / 20 = 1500	1500 * $10K = 15M	$100 * 30K = 3M	3M * 2 = 6M	30 – 6 – 15 – 3 = 6M	30 – 6 – 6 = 18M

Part 4

4. Provide client recommendation

- **Recommendation**: Chicouver Cycle should launch a dockless system in the nightlife district:
  - This will generate $18m in profits per year, driven by the nightlife district's high volume of projected bikeshare trips.
  - Going dockless will save $15 in station costs in exchange for a doubling of distribution cots to $6m, which are relatively low thanks to the nightlife district's flat terrain.
  - Going forward, a dockless system will also entail lower costs and higher profits than a docking system as Chicouver Cycle expands to other neighborhoods and serves other trip types. Choosing the right operating infrastructure with the eye to future growth is important for a bikeshare system.
- **Next Steps:**
  - Utilization of bicycles for nightlife trips is low. Our client should explore ways to increase utilization and improve margins by using the same bikes to target additional trip types, such as recreation trips. Recreation is a good candidate because the recreating and nightlife districts are geographically adjacent.
  - Our client should investigate ways to reduce distribution costs. One idea is to incentive users to end trips in specific locations that won't require Chicouver Cycles to send someone to redistribute the bikes later on.
  - Chicouver Cycle should increase loyalty among customers and raise switching costs to protect itself from other sharing economy transportation competitors, including other bikeshare companies that may enter the city.

Case 04
Dark Sky

Concepts tested

- Z12 Creativity (1)
- Z05 Elasticity (2)
- Z14 Pricing strategy (2)

Primary sector(s)

- X01 Aerospace & Defense

Case type

- Y04 New product / Market entry

Similar cases

- Fruit Cart Vendor (Stern 2012)
- Sgt. Slaughter (Fuqua 2010)
- Ice Cream Dream (Darden 2016)

Case author(s): Sean Burrow (Kellogg 2011)
Edited by: Eugene Kim (Kellogg 2015), Rohan Maini (Kellogg 2020)

Dark Sky

Interviewer guide

Case prompt

- Our client, Dark Sky, is a small manufacturer of unmanned (ie. remotely piloted) data collection aircraft.
- Dark Sky produces the Assessor, an aircraft originally designed for unmanned weather exploration.
- In 2006, the United States military began purchasing Assessors for use in Intelligence, Surveillance and Reconnaissance (ISR) missions. The Assessor is profitable, but sales have stagnated and the client wishes to grow.
- What are some steps Dark Sky could take to achieve growth?

Interviewer guide

- This case intentionally uses terminology that may not be familiar to the typical MBA student. This is meant to challenge the interviewee to dismiss superfluous information and to focus on the business problem.
    1. Analyze historical growth and brainstorm growth strategies
    2. Explore attractiveness of prototype products
    3. Brainstorm other product selection considerations
    4. Provide client recommendation

Dark Sky

Fit: What is your greatest weakness? Tell me about a team experience when you where hampered by this weakness.

Case prompt

- Our client, Dark Sky, is a small manufacturer of unmanned (ie. remotely piloted) data collection aircraft.
- Dark Sky produces the Assessor, an aircraft originally designed for unmanned weather exploration.
- In 2006, the United States military began purchasing Assessors for use in Intelligence, Surveillance and Reconnaissance (ISR) missions. The Assessor is profitable, but sales have stagnated and the client wishes to grow.
- What are some steps Dark Sky could take to achieve growth?

Clarifying information

- **Customer / Price**: Dark Sky's only customer is the US Military, with which they have a Cost-Plus-Fixed-Fee contract. The contract has been extended in the past and is up for renegotiation; the Military has agreed to a marginal inflationary price increase
- **Company**: Dark Sky has additional capacity to manufacture. They are too small to acquire competitors.
- **Product**: Dark Sky designs a unique aircraft that is launched from a catapult device; the aircraft can be launched from ships at sea or from harsh terrain (e.g. desert, mountains). Dark Sky only sells the Assessor, but has other prototypes designed.
- **Competition**: There are approximately 20 competitors that manufacture unmanned aircraft.

Dark Sky

Exhibit A – Historical revenue (2014 – 2019)

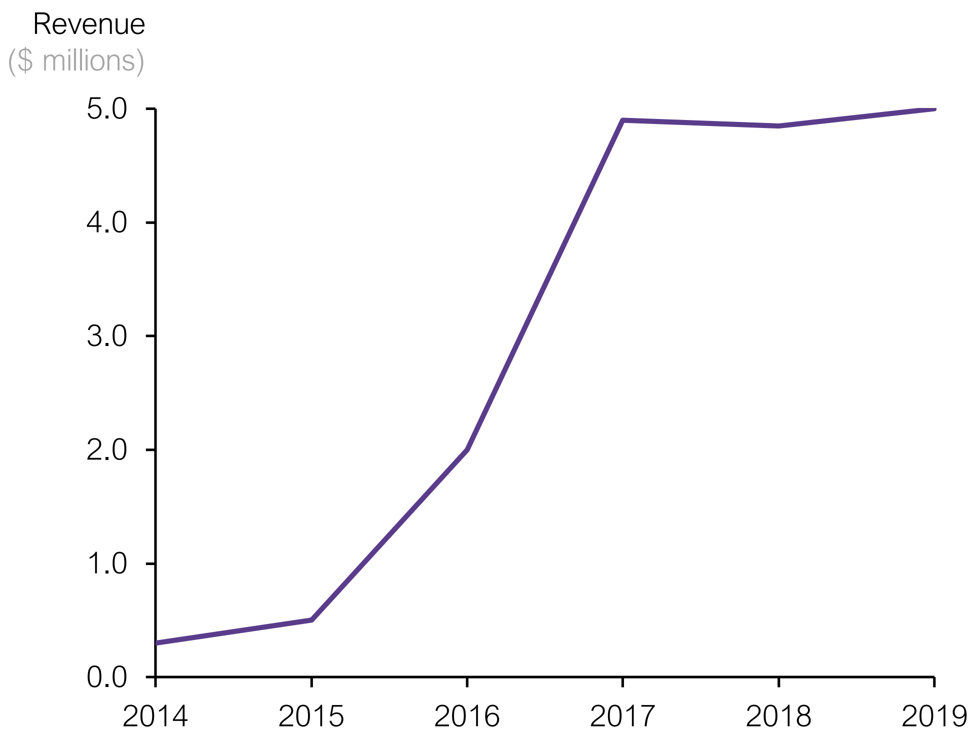


Exhibit B – New product sales forecast (2020)

New Product Offering	New Product Sales (units sold)		Price Per Aircraft
	Navy	Army	
SeaBird	50	--	$220,000
SandBird	--	60	$210,000
JointBird	38	52	$180,000

Exhibit C – Impact of new product on existing sales (2020)

	New Product Sales (units sold)			
New Product Offering	Navy	Army	Price Per Aircraft	Assessor unit sales lost (cannibalized)
SeaBird	50	--	$220,000	40%
SandBird	--	60	$210,000	70%
JointBird	38	52	$180,000	90%

Part 1

1. Analyze historical growth and brainstorm growth strategies

Provide Exhibit A when the interviewee asks about revenue

- The military started purchasing the Assessor in 2016. The price of the aircraft has remained constant at $100,000 per unit. Throughout the past decade, The Assessor has been Dark Sky's only source of revenue.
- How many units were sold in 2019 and what was the growth rate from 2015 to 2019? How could Dark Sky grow?

- How many units were sold in 2019?
  - $5,000k ÷ $100k/unit = 50 units
- What was the growth rate from 2015 to 2019?
  - ($5,000k - $500k) ÷ ($500k) x 100 = 900%

Organic	Inorganic
• Increase penetration with US military • Product development – develop new products for the military • New market entry to new markets or customers • Increase / reduce prices (based on demand elasticity)	• Joint Venture – to increase market accessibility or product offering. • M&A – add additional capacity and/or products.

Dark Sky

Part 2a

2a. Explore attractiveness of prototype products

Provide Exhibit B after Exhibit A asks about new products

- Dark Sky has developed several aircraft prototypes designed specifically for military missions. The company has the capability to continue producing the Assessor and to introduce one new aircraft.
- To maximize short-term growth, which aircraft should Dark Sky produce?

- To calculate the revenue for each scenario, the interviewee should add Assessor sales to the sales of the new product.
- Assessor sales are based on:
  - 50 units sold with no new product launch
  - Cannibalization forecast specific to each new product launch
  - $110,000 per aircraft
- New product sales can be easily calculated using shortcuts. For example:
  - SeaBird: $220k * 100 = $22m… then half of this
  - SandBird: $210k * 100 = $21m… then half of it and add (10% of $21m)
  - JointBird: Add to get 90… then $180k*100 = $18m, subtract (10% of $18m)

Dark Sky

Part 2b

2b. Explore attractiveness of prototype products

Provide Exhibit C only if the interviewee asks about cannibalization

- The introduction of a new aircraft will have a negative impact on Assessor sales. Which aircraft should Dark Sky produce?

- Assessor Sales (Units, Revenue):
  - No new product = 50 aircraft, $5,500,000
  - With SeaBird = 50 + (50 * (-40%)) = 50 - 20 = 30 aircraft, $3,300,000
  - With SandBird = 50 + (50 * (-70%)) = 50 - 35 = 15 aircraft, $1,650,000
  - With JointBird = 50 + (50 * (-90%)) = 50 - 45 = 5 aircraft, $550,000
- New Product Revenue:
  - SeaBird = 50 * $220,000 = $11,000,000
  - SandBird = 60 * $210,000 = $12,600,000
  - JointBird = (38 + 52) * $180,000 = 90 * $180,000 = $16,200,000
- Total Revenue:
  - Assessor Only = $5,500,000
  - Assessor and SeaBird = $3,300,000 + $11,000,000 = $14,300,000
  - Assessor and SandBird = $1,650,000 + $12,600,000 = $14,250,000
  - Assessor and JointBird = $550,000 + $16,200,000 = $16,750,000

Dark Sky

Part 3

3. Brainstorm other product selection considerations

- If the candidate doesn't start by listing other considerations relevant to selection of a new aircraft, as them to brainstorm.

Development

- Speed: How quickly could Dark Sky start manufacturing a third model (i.e. can Dark Sky produce SandBird this year, and be producing SandBird and SeaBird the following year)? If so, what are the revenue implications?
- Costs: How profitable are the four aircraft models in comparison? Note: Because Dark Sky has a Cost-Plus-Fixed-Fee contract, profitability for each aircraft is likely equivalent. For this reason, Dark Sky should focus on maximizing the number of aircraft sold. • How much and how long is the payback period for the investment in manufacturing each type aircraft?

Portfolio

- If Dark Sky produces JointBird, is $550,000 in Assessor revenue worth the associated cost to produce the aircraft? Should resources be allocated to another project?

Customer

- Potential benefits of have two customer bases for new product (Navy and Army).

Dark Sky

Part 4

4. Provide client recommendation

- Based on 2020 forecasted revenue alone, Dark Sky should introduce the JointBird to the US Military in order to boost growth.
  - Among the three new prototype product, the JointBird is forecasted to maximize short-term revenue
- However, there are several connected issues that Dark Sky should consider to include profitability, long-term revenue forecasts, competitive response, etc.

- Excellent interviewees will identify cannibalization as a consideration before beginning revenue calculations

Case 05
DigiBooks

Interviewer-led

Concepts tested
- Z10 Customer strategy (2)
- Z10 Marketing strategy (3)
- Z12 Creativity (3)
- Z08 Market sizing (4)

Primary sector(s)
- X12 Retail & CPG
- X13 Technology

Case type
- Z04 New product / Market entry

Similar cases
- Heavy Things Fitness (Fuqua 2014)
- High Peaks Jacket (Tuck 2009)
- Termite Control (Ross 2005)

Case authors: Shobhit Chugh (Kellogg ’11)
Edited By: Adam Louras (Kellogg 2011), Rohan Maini (Kellogg 2020)

DigiBooks

Interviewer Guide

Case prompt

- Our client, DigiBooks, is a manufacturer and seller of electronic book readers (tablets). DigiBooks also distributes e-books for the tablets through their website. The tablet is only compatible with books sold through the DigiBooks site.
- DigiBooks is planning the launch of its tablets in a country where no electronic book readers are currently sold. Only 1% of the population has ever used an electronic book readers, though 50% is aware of the concept. The Chief Marketing Officer of DigiBooks has come to you to help determine:
- What factors should DigiBooks consider when launching and marketing DigiBook tablets in this new country?

Interviewer guide

- <u>Problem</u>: How should DigiBooks enter this new market?
- Key case steps
    1. Develop a problem-solving structure
    2. Analyze customer segments
    3. Brainstorm market entry considerations
    4. Estimated profits to identify optimal sales channel
    5. Provide CEO recommendation

DigiBooks

Experience: Tell me about a time that you lead a time to meet an aggressive deadline.

Case prompt

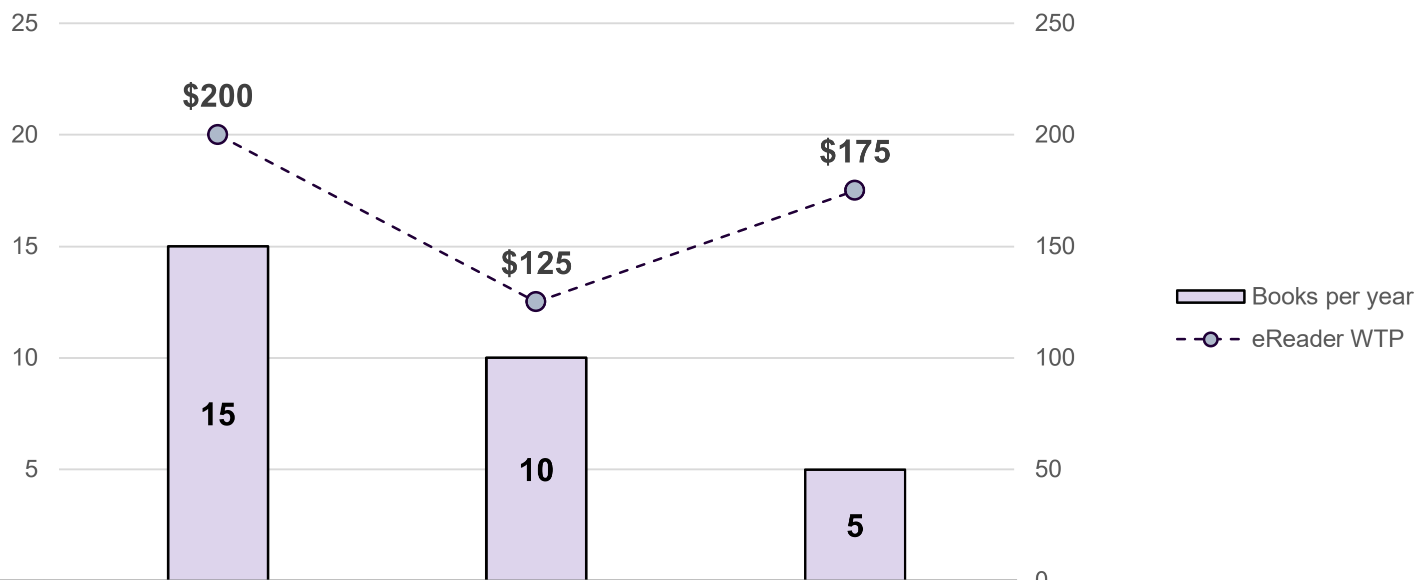
- Our client, DigiBooks, is a manufacturer and seller of electronic book readers (tablets). DigiBooks also distributes e-books for the tablets through their website. The tablet is only compatible with books sold through the DigiBooks site.
- DigiBooks is planning the launch of its tablets in a country where no electronic book readers are currently sold. Only 1% of the population has ever used an electronic book readers though 50% is aware of the concept. The Chief Marketing Officer of DigiBooks has come to you to help determine:
- What factors should DigiBooks consider when launching and marketing DigiBook tablets in this new country?

Clarifying information

- Industry Definitions: Electronic book readers: Is a software, hardware and network platform that utilizes wireless connectivity to enable users to shop for, download, browse, and read e-books, newspapers, magazines, blogs, and other digital media.
- Client Characteristics: DigiBook's Tablet: Uses an e-ink electronic paper display that features 16 shades of grey. This allows for a 12 hour long battery life and easy readability.
- Locations: DigiBook has never sold a product outside of the US.
- Competitive Dynamics: No competitors in the e-book or tablet space plan to enter this country
- Market Characteristics: Total population of the country 76MM, high literacy level

DigiBooks

Exhibit A – Market segments



Segment	Super Readers (SR)	Occasional Readers (OR)	Rare Readers (RR)
Population	8M	20M	10M

Exhibit B – Channel decisions

Channel	Reach as a % of Total potential market	E book Gross Margin %	E-reader Gross Margin %	Penetration	Overheads
Retail	50%	50%	30%	40%	$20M
Internet	50%	50%	60%	10%	$10M

DigiBooks

Part 1

1. Develop a structure to address the problem

- A structure should cover the key areas needed to explore in order to determine how DigiBooks should launch and market the tablets in this country. Key elements expected to be included in this framework are:
- Segmentation, targeting and positioning: Are there particular segments in the population that will be ideal customers for us?
- Product: What key capabilities are people looking for? Can we use our existing products or do we need to develop a new one for this country?
- Price: What price should the tablets and books be sold at? What is customers willingness to pay? Should we price the tablet at a low price so as to capture most of the market, and make margin on e-books?
- Promotion: How should the tablets be marketed? What promotion mechanisms should be used?
- Place/Distribution: Should the tablets be sold through retail channels, internet or other alternative means?
- Selection of e-books: Is a wide selection of books available for this country?

DigiBooks

Part 2

2. Analyze customer segments

Provide Exhibit A

- Through research, we found several segments. We are only able to target one segment with our product.
- Using a 3-year projection, which segment should DigiBook target?

- If unclear, the interviewee should answer based on Revenue Potential (i.e. Ignore probability of purchase) assuming all tablet sales happen immediately (Ignore TVM).
- The missing data is that the average price of an e-book is $10, for each of the segments, and that e-books and tablets have the same margin
- Using Exhibit A, interviewee should calculate:
- SR Revenue = [(15 books x $10 X 3 Years) + ($200 x 1 tablet)] x 8M People = $5.2B
- OR Revenue = [(10 books x $10 x 3 Years) + ($125 x 1 tablet)] x 20M People = $8.5B
- RR Revenue = [(5 books x $10 x 3 Years) + ($175 x 1 tablet)] x 10M People = $3.25B

- Takeaway: Segment to be targeted = Occasional Readers (OR) with a Revenue Potential of $8.5B

DigiBooks

Part 3

3. Brainstorm market entry considerations

- DigiBooks is now considering how it should sell its e-book readers: through retail stores or through the internet.
- How would you go about evaluating this decision?

	Pros	Cons
Retail	• Should encourage trial of the product • Retailers can help with joint marketing campaigns • Retailers can help with customer service, returns	• Lower margin due to value chain expansion • Will take time and money to set up and adds training costs
Internet	• Likely cheaper to establish, will result in higher margins	• Hard to encourage trial

- Takeaway: We should do some sort of financial analysis to determine which channel is more attractive.

DigiBooks

Part 4

4. Estimated profits to identify optimal sales channel

Provide <u>Exhibit B</u>

- Based on revised market estimates, we decided to price the e-reader at $100 and target the Occasional Reader segment.
- Using this information and Exhibit B, can you estimate the profit potential of each of these sales channels? Which should we choose?
- What segment would you recommend to your client?

- If unclear, the interviewee should answer this with a 1-year Profitability calculation for each of the Sales Channels and back out the Upfront Investment. They should ignore all other costs.
- There is no missing data; however, the Market Size of 20M people in the OR segment is needed from Exhibit A and the price per e-book of $10.
- Using Exhibit B, interviewee should calculate:
- Retail Profit = [(10 Books x $10/book x 50%) + ($100/tablet x 30%)] x (20M People x 50% reach X 40% Penetration) = $320M - $20M = $300M
- Internet Profit = [(10 Books x $10/book x 50%) + ($100/tablet x 60%)] x (10M People x 10% Penetration) = $110M - $10M = $100M
- <u>Takeaway</u>: Sales Channel to Use = Retail with a profit of $300M

Part 5

5. Provide CEO recommendation

- Overall, DigiBooks should launch the e-book reader for the Occasional Reader segment through the Retail Sales Channel.
- Based on our calculations, we expect to earn a $300MM annual return

Other items to consider:

- What advertising mechanisms do we use in this case?
- Do we setup a manufacturing facility in the country or do we source the products from our current manufacturing facilities?
- Are there any prospects of competitors entering the market?

- Strong interviewees notice key nuances in the case such as: Time Value of Money impacts on Exhibit A and Probability of Purchase or Penetration on Exhibit A
- Outstanding interviewees detail various elements of marketing strategy of a new product launch. They lay out tables appropriately and completes relatively complex calculations at a fast pace.

Case 06
Events.com

Concepts tested

- Z14 Pricing strategy
- Z07 Market share

Primary sector(s)

- X13 Technology

Case type

- Y07 Profitability

Similar cases

- Maine Apples (Kellogg 2020)
- Montoya Soup (Kellogg 2018)

Case author(s): Alex Fabry (Kellogg 2020)

Events.com

Interviewer guide

Case prompt

- Our client is Prospect Equity Partners ('Prospect'), a prominent Private Equity firm that invests in the technology space. They have recently acquired Events.com due to strong commercial wins and momentum in the market
- Events.com is a leading SaaS-based registration/ticketing platform for Endurance events (5K runs, Marathons, Triathlons, Mud Runs, etc.). They make money by taking registrations and processing payments for events and charging a fee per transaction (similar to Ticketmaster or Eventbrite) ($100 registration price x 10% Fee = $10 in Revenue for Events.com)
- Events.com has doubled market share since 2015, but in the last two years revenue is flat and profits are down, despite growing share. Prospect wants you to determine what is causing this and come up with a plan to improve profitability

Interviewer guide

- Problem: Are the costs associated with the DM program justified by the savings?
- This case is about a PE-portfolio company in Tech that has been undergoing a decline in profitability, despite commercial wins and market share growth. Events.com made a pricing change that has harmed profitability and needs to make a change
    1. Analyze profitability issues
    2. Identify root cause of issue
    3. Quantify price change impact
    4. Provide client recommendation

Events.com

Fit: What has been the most risky project that you have worked on?

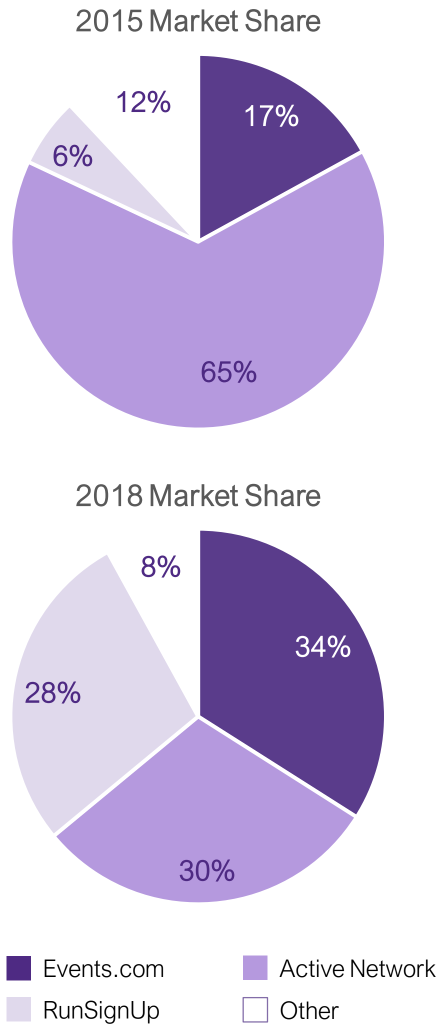
Case prompt

- Our client is Prospect Equity Partners ('Prospect'), a prominent Private Equity firm that invests in the technology space. They have recently acquired Events.com due to strong commercial wins and momentum in the market
- Events.com is a leading SaaS-based registration/ticketing platform for Endurance events (5K runs, Marathons, Triathlons, Mud Runs, etc.). They make money by taking registrations and processing payments for events and charging a fee per transaction (similar to Ticketmaster or Eventbrite) ($100 registration price x 10% Fee = $10 in Revenue for Events.com)
- Events.com has doubled market share since 2015, but in the last two years revenue is flat and profits are down, despite growing share. Prospect wants you to determine what is causing this and come up with a plan to improve profitability

Clarifying information

- **Market:** The market has declined ~4% per year since 2015, driven by low participation in experiential runs like Color or Mud Runs
- **Competition:** Two main other players in space: Active Network and RunSignUp. No recent entrants.
- **Customers:** Customers are all in the US. Historically, local 5K events are targeted, but Events.com recently signed IRONMAN triathlon in Q4 2017, which has $125M in transaction volume per year, and other premium events
- **Product:** The product platform is called EventWorks Endurance, and has been around for 10+ years
- **Company:** No changes have been made to company since being acquired by Prospect

Exhibit A – Historical P&L and Market Share



$m	2015	2016	2017	2018
Revenue	25.0	35.0	39.9	39.9
Variable Costs				
Payment Processing Costs	3.3	4.7	8.0	11.9
Server Hosting Costs	3.8	5.3	4.8	4.8
Total Variable Costs	7.1	9.9	12.8	16.7
Fixed Costs				
Headcount	5.0	5.3	5.5	5.5
Marketing	1.5	1.7	1.8	2.0
SG&A / Other Costs	2.0	2.1	2.2	2.2
Total Fixed Expenses	8.5	9.0	9.5	9.7
Operating Income	9.4	16.1	17.6	13.5
Operating Income Margin	38%	46%	44%	34%

Exhibit B – Payment Processing Breakdown

	2017	2018
Number of events	4,023	5,051
Total registrations	8.0M	7.9M
Dollars processed	$339M	$595M
Events.com Revenue	$39.9M	$39.9M
Payment Processing Expenses	$8.0M	$11.9M

Exhibit C – Pricing Structure

Old Pricing Structure	
Fee per transaction	10.0%

New Pricing Structure		
	Price under $50	Price over $50
Fixed fee per transaction	$3.00	$5.50

Events.com

Part 1

1. Analyze profitability issues

Provide Exhibit A when asked about Profitability (or revenue/costs)

- Using Exhibit A, have a discussion around what is driving the decline in profitability

- Interviewee should note that market share growth is from stealing share from Active Network, but largely ignore the share data
- Interviewee should focus on 2017 and 2018 and notice that payment processing costs have increased drastically, hypothesizing that is due to an increase in processing volume or processing rate (since this is a variable expense), and ask for more information on payment processing
- Interviewee should ignore other expenses, as the growth is not material

Part 2

2. Identify root cause of issue

Provide Exhibit B when about Payment Processing Costs or Revenue

- Provide the additional information along with the exhibit:
  - Price per Registration declined as higher priced customers (smaller events with fewer total registrations) were acquired (Ironman Triathlon) and lower priced customers did not renew
- If interviewee is stuck, start a discussion about pricing and how it affects revenue, and have the interviewee calculate the payment processing rate, average fee, and average price per registration in 2017 and 2018.
- Interviewee should now isolate whether the processing costs increase is driven by rate or volume, and should calculate the processing rate to confirm (Payment Processing Expenses / $'s Processed)

- 2017: $8m / $399m = 2%; 2018: $11.9m / $595m = 2%
- Interviewee should now realize cost increase is driven by volume and that registrations and volume are up, although revenue is down, leading to analysis of the components of revenue
- Avg. fee rate (Revenue / $'s Processed):
  - 2017 = 10%; 2018= 6.7%
- Price per registration ($'s Processed/Registrations):
  - 2017 = $50; 2018 = $75

Events.com

Part 3

3. Quantify price change impact

Provide <u>Exhibit C</u> when asked about Pricing

- Provide the additional information along with the exhibit:
  - Pricing was changed due to competitive pressure

- Interviewee should realize that pricing was changed from variable (10% fee) to a tiered fixed fee pricing, and as the price per registration increased, this caused revenue to be flat, despite acquiring customers
- Candidate should realize 'Over $50' pricing should be changed, and when prompted, let interviewee know that customer surveys have indicated that a 2.25% "Credit Card Fee" can be added to "Over $50" tier with negligible customer losses, and that ~$375m of volume is over $50
- Interviewee should now calculate revenue increase from adding 2.25% fee
  - 2.25% * $375m = $8,437,500
  - Do not allow rounding

Events.com

Part 4

4. Provide client recommendation

- Interviewee should summarize that a change in pricing to fixed fee tiered pricing caused revenue to remain flat and profitability to decline. They should recommend adding a 2.25% variable fee to the 'Over $30m', which will add ~$8.4m of revenue and profitability
- Risks: Additional increases to average price per registration, customer reaction to pricing increases
- Next Steps: Roll-out strategy for pricing change, investigation of ways to further change pricing to guard against additional increases in average price per registrations (add additional pricing tiers, customer/market research to figure out customer willingness to pay, etc.); Could look at targeting new sets of lower priced customers; consider acquiring RunSignUp to take over strong market position and stratify offerings; or exiting market due to its decline.

- **Excellent interviewees** demonstrate the ability to analyze a P&L and think through how variable costs and revenues are related, along with testing brainstorming on pricing strategy.
- **Outstanding candidates** will quickly focus on the correct items in the P&L and make the connections between pricing, revenue, and variable costs and how that has eroded profitability, despite being the market share leader.

Case 07
Garthwaite Healthcare

Interviewer-led

Concepts tested
- Z12 Creativity (2)
- Z15 Supply/value chain (4)
- Z16 Vertical integration (4)

Primary sector(s)
- X08 Healthcare

Case type
- Y07 Profitability

Similar cases
- Mustard Clinic (Kellogg 2020)
- Insurance for Underserved (Wharton 2017)

Case author(s): Aaron Mowery (Kellogg 2013)
Edited by: Rohan Maini (Kellogg 2020)

Garthwaite Healthcare

Interviewer guide

Case prompt

- Our client is Garthwaite Healthcare Co (GHC), a health insurance firm located in the Midwest.
- Customers pay GHC a fixed monthly premium per person covered under the plan. In exchange, GHC pays for all health services that each member requires (eg. physician care, prescription medications, hospitalization).
- In recent years, GHC's financial and competitive position has begun to decline, and the CEO has retained our firm to help them determine what is causing the problem and how to fix it.

Interviewer guide

- Problem: How can GHC reduce its total cost to serve its policy holders?
    1. Develop a structure to address the problem
    2. Brainstorm medical cost sources and solutions
    3. Calculate administrative costs
    4. Develop commission sharing arrangement
    5. Provide client recommendation

Garthwaite Healthcare

Experience: Tell me about a time when you had to come up with a creative solution for a problem.

Case prompt

- Our client is Garthwaite Healthcare Co (GHC), a health insurance firm located in the Midwest.
- Customers pay GHC a fixed monthly premium per person covered under the plan. In exchange, GHC pays for all health services that each member requires (eg. physician care, prescription medications, hospitalization).
- In recent years, GHC's financial and competitive position has begun to decline, and the CEO has retained our firm to help them determine what is causing the problem and how to fix it.

Provide all Clarifying information even if the interviewee does not request it

Clarifying information

Client Characteristics

- GHC is a mutual insurance company, meaning profits are returned to members in the form of lower premiums the following year. As such, GHC does not seek to maximize profit – it seeks to minimize cost, but does expect to earn a 5% profit margin.
- GHC's prices reflect underwriting of risk and the underlying cost to serve a customer

Competitive Dynamics

- Market share is steady, despite presence of major national health insurance company UHC (which has 30% share)

Industry Economics

- National medical cost inflation is 10% over the past 5 years. GHC's cost increase in this period is 12% and UHC's is 10%.

Garthwaite Healthcare

Part 1

1. Develop a structure to address the problem

- The interviewee should lay out a structure for analyzing the case.
- The interviewee could have determined that revenue is not relevant to this case based on information given in the Case prompt, so the interviewee should focus on cost.
- Costs in this case break out into fixed costs and variable costs:
    - Variable costs (medical costs – claims made by policyholders)
    - Fixed costs (administrative costs – e.g., marketing & sales, underwriting, finance, HR)
- Specifically, we will need to understand how these costs have changed in recent years.

Garthwaite Healthcare

Part 2

2. Brainstorm medical cost sources and solutions

- Medical costs are the largest component of GHC's costs. However, GHC's medical costs are increasing faster than the national average. What are some potential reasons why this is taking place? What potential opportunities could you explore to reverse this trend?

- Medical cost = (Number of claims per customer) x (Number of claimants) x (Cost per claim)

	Number of claims per customer	Number of claimants (% of customers claiming)	Cost per claim
Problems	• GHC customers sicker on average	• GHC customers older than average • Low deductibles incentivize more claims on average	• GHC pays more per procedure than average
Solutions	• Enhance wellness programs • Introduce pre-enrollment diagnosis diagnosis to improve cost estimates	• Increase marketing efforts toward younger customers • Increase deductibles	• Conduct benchmarking study to determine competitors' costs

Garthwaite Healthcare

Part 3

3. Calculate administrative costs

- GHC administrative costs are also higher than average. The biggest driver of this is high cost of sales. GHC policies are sold through independent agents, each of which works with a 'General Agency' that acts as a sales support organization.
  - How much does GHC pay in commissions each year?
  - What are some potential approaches GHC could take to reduce its cost of sales?
  - What potential strategic issues exist with these approaches?
- After interviewee explains how they would calculate commission expense, provide the below:
- Commission (10% of annual premiums) is paid to the General Agency, which passes a share to the independent agent. Total commission paid is, on average, $25 per agent, per month. There are 500,000 agents.

- Total commission expense = $25 * 500,000 * 12 = $150,000,000

Approaches	Issues
• Reduce commission percentage • Cap commission to a certain level per year • Change commissions from percent of premium to flat fee (% increases annually with inflation)	• Agents could shift business from GHC to another carrier that pays higher commission • Agents would lose incentive to sell if their commission is capped

Part 4

4. Develop commission sharing arrangement

- The team has decided to pay a flat commission directly to agents, and to pay the General Agencies a separate fee for the support services they provide to agents. If the total commission paid to both parties is set at $20 per member per month, what share should be given to the General Agencies?
- If interviewee asks, explain they should find the maximum amount that should be allocated to the General Agencies.

Additional information

- General Agencies perform three activities: training, application processing, and performance management.
- If GHC were to perform these activities internally, they would cost:
    - Training: $6,000,000
    - Application processing: $9,000,000
    - Performance management: $15,000,000

Potential approach

- The total cost of the activities that General agencies perform is $30,000,000 (=$6,000,000 + $9,000,000 + $15,000,000).
- There are 500,000 members and 12 months in a year.
- The maximum amount of money GHC should be willing to pay the General Agencies for the activities performed is the per member, per month cost of these activities ($30,000,000 / (500,000 x 12) = $5

Garthwaite Healthcare

Part 5

5. Provide client recommendation

- Taking into account what you've learned thus far as well as your own additional hypotheses, what initiatives would you recommend to the CEO at this point?

- Our client should take action to reduce both medical costs and administrative costs.
- At this point, the interviewee should synthesize the findings from the interview into several clear initiatives, for example:
  - Enhance marketing efforts to attract more young customers and bring down the average claims per member.
  - Conduct a benchmarking study to determine opportunities for reductions in payments for medical services.
  - Change the commission structure to flat fee per member per month. This achieves the goal of reducing commission expense, while at the same time keeping an agent's incentive to sell more business.
- **Strong interviewees** will demonstrate the ability to analyze issues using a clear structure and will draw out the implications of their analysis. The quantitative calculations in this case are elementary, but the process to get to them is somewhat more complicated

Case 08
Health Coaches

Concepts tested

- Z10 Customer strategy (2)
- Z08 Market sizing (3)
- Z12 Creativity (4)

Primary sector(s)

- X08 Healthcare

Case type

- Y05 Operations
- Y06 Opportunity assessment

Similar cases

- Mustard Clinic (Kellogg 2020)
- TV Screens (Wharton 2017)
- Vitality Insurance (Kellogg 2020)

Case author(s): David Wellner (Kellogg 2011)
Edited By: Craig DePriester (Kellogg 2012), Rohan Maini (Kellogg 2020)

Interviewer guide

Case prompt

- Our client is a large national healthcare payer (health insurance company, think Aetna) exploring the launch of a new disease management ('DM') program to better serve its 5 million members.
- The idea is to hire and train a team of 'Health Coaches' to manage a portfolio of patients to reduce the costs of overall health expenditures (eg. reminders to take drugs, provide limited medical advice, suggested diet, exercise etc). Studies show that once a month contact with each patient reduces health spending by 5% on average.
- Should our client launch the program? If so, what steps should it take?

Interviewer guide

- <u>Problem</u>: Are the costs associated with the DM program justified by the savings?
- Problem solving steps
    1. Develop a structure to address the problem
    2. Explore market segmentation
    3. Calculate program profitability
    4. Brainstorm other ideas to boost profitability
    5. Provide client recommendation

Health Coaches

Fit: Tell me about a project where you used your problem solving skills.

Case prompt

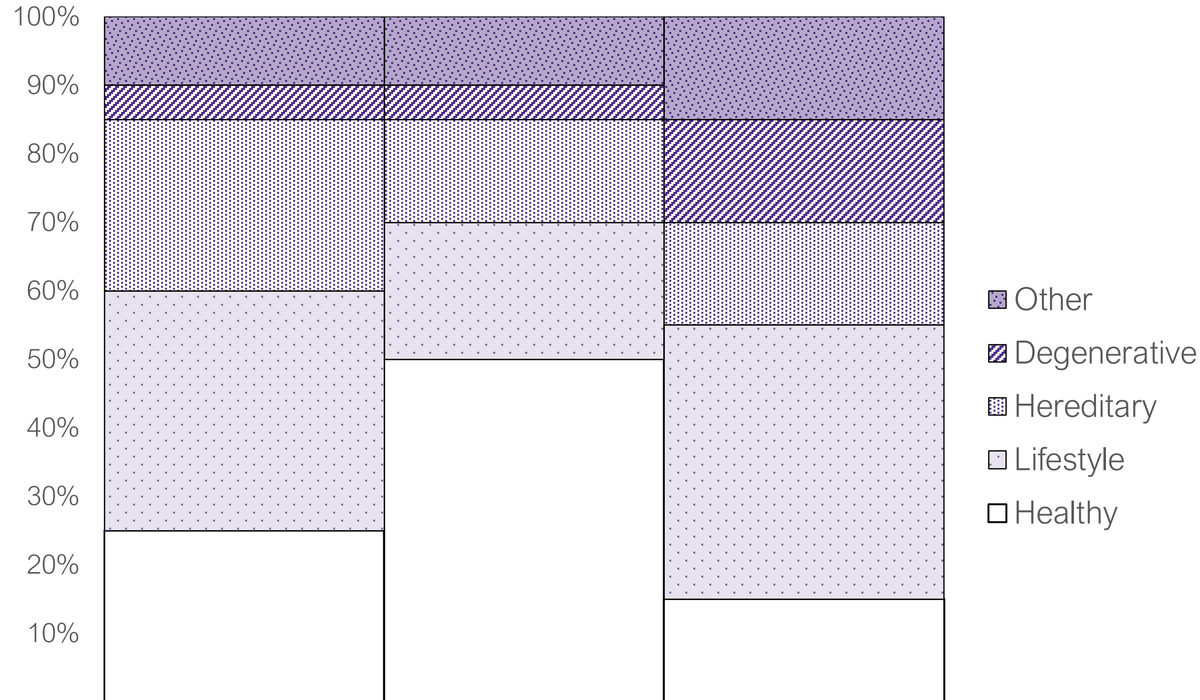
- Our client is a large national healthcare payer (health insurance company, think Aetna) exploring the launch of a new disease management ('DM') program to better serve its 5 million members.
- The idea is to hire and train a team of 'Health Coaches' to manage a portfolio of patients to reduce the costs of overall health expenditures (eg. reminders to take drugs, provide limited medical advice, suggested diet, exercise etc). Studies show that once a month contact with each patient reduces health spending by 5% on average.
- Should our client launch the program? If so, what steps should it take?

Clarifying information

- **Industry:** The whole industry is under pressure to innovate new products that will control spending
- **Company:** Assume client is first to market
- **Operations:** Past attempts to purely automate DM have yielded minimal savings
- **Health Coaches:** All activity conducted remotely via phone/email, typically by a nurse that wants to work from home
- **Patients:** It's difficult to actually reach patients, so Coaches can contact 8 members per day (assume 25 days per month)
- **Costs:** Annual costs per Coach: $60K salary +20% other (training, benefits, laptop, etc.). There are no other program costs

Health Coaches

Exhibit A – Client's member segmentation by disease type



Segment	Individual	Group	65+
Segment size	15%	65%	20%

Exhibit B – Average cost data

	Average cost PMPM*		
Segment	**Lifestyle**	**Hereditary**	**Degenerative**
Individual	$600	$150	$150
Group	$400	$100	$100
65+	$1,200	$300	$300

*Notes:

- PMPM = Per Member Per Month

Health Coaches

Part 1

1. Develop a structure to address the problem

- The interviewee should drive towards quantifying the savings
- Consideration of qualitative issues is ideal.

Program Savings	Program Costs	Risks
• Customer segmentation by disease area and cost per member	• Communication systems • Health Coach Salary • Training	• Assumption accuracy • Competitive response • Regulatory, liabilities

Health Coaches

Part 2

2. Explore market segmentation

Provide Exhibit A when the interviewee asks about segments or disease areas

- Group are employee sponsored plans (e.g. ,if you work for our consultancy, you are in a group plan), Individual are non-groups (eg. private contractors, unemployed, etc). 65+ (see note below chart).
  - Which disease area should we look at first?

- Interviewee should choose to focus on the 65+ segment
  - 65+ patients are the sickest,
  - Sicker patients are likely to drive higher costs
  - Higher costs provides greatest benefit for DM
- Interviewee should choose to focus on lifestyle diseases
  - Lifestyle diseases make up the largest portion of sick members
  - As diseases primarily brought on by behavior, this segment is likely to benefit from DM

- Number of 65+ lifestyle = 20% segment x 40% lifestyle x 5m members = 400,000

Health Coaches

Part 3

3. Calculate program profitability

Provide Exhibit B when the interviewee asks about medical costs

- Note: lead with Exhibit A. If the interviewee leads with profitability, steer him/her to first think about customer segmentation.
  - What can we do with this information?

- Cost per Coach = $60k base + 20% = $72k
- Size of Portfolio = 8 patients per day x 25 days per month = 200 patients per year
- Savings for one portfolio = $1,200 cost per month x 12 months per year x 5% average savings x 200 patients = $144k

- Overall savings = ($144k savings - $72k costs) x 2,000 coaches = $144m profit per year

- Takeaway: Profit is $72K per Health Coach (double the cost of a coach)
- Based on PMPM lifestyle cost data, Individual segment is break-even (50% less savings), Group segment is a loss

Health Coaches

Part 4

4. Brainstorm other ideas to boost profitability

- There are 650,000 Group members with lifestyle diseases left 'uncoached.' Is there a way to make the segment profitable?

More efficient DM program	Seek additional revenue sources	Client selection
• Coaching at work • Bi-monthly contact • Automated correspondence • Better training for Health Coaches	• Employers might be willing to pay a fee to enroll in service • Government support as a state-approved or sponsored program	• Target members who will respond with savings well above 5%

Health Coaches

Part 5

5. Provide client recommendation

- Client should launch the Health Coaching program, and first focus on lifestyle diseases in the 65+ segment
    - Launch a pilot program to prove out assumptions (eg. 5% cost reduction, Coach portfolio capacity, etc.)
    - First expand to entire 65+ lifestyle segment ($144M per year savings per coach, a 2x return on each Health Coach)
    - Consider introducing to Individual lifestyle segment despite break-even (customer retention, moral rationale, etc.)

As first to the market, client plans to expand Health Coach program externally. Who should they target?

- The program yields the greatest savings in the 65+ lifestyle disease segment. However, the client should keep in mind that more lifestyle members will increase overall health care costs, considerably (still almost 4x after savings).
- As an alternative, the client could sell its Health Coach service to other payers.

- **Excellent interviewees** should use common sense to make reasonable assumptions before you provide required inputs.
- **Outstanding interviewees** are able to keep track of all units from a math perspective.

Case 09
Healthy Foods

Concepts tested

- Z10 Customer strategy (2)
- Z10 Marketing strategy (2, 3, 4)
- Z12 Creativity (3)

Primary sector(s)

- X12 Retail & CPG

Case type

- Y02 Growth Strategy

Similar cases

- Dark Sky (Kellogg 2020)

Case authors: Milija Medic
Edited By: Mauricio Atri (Kellogg 2012), Tuhina Kapoor (Kellogg 2020)

Healthy Foods

Interviewer guide

Case prompt

- Our client is Healthy Foods, a wholesaler serving a variety of clients with Food products. The client is profitable but they want you to help them find revenue growth opportunities from their current business.
- How can we help Healthy Foods drive their revenue growth?

Interviewer guide

- Problem: How can Healthy Foods increase revenue?
- Problem solving steps:
    1. Develop a structure to address the problem
    2. Identify main customer types and their current contributions
    3. Analyze client's wallet share for different customers
    4. Share of Wallet analysis and Wallet Size versus Share of Wallet
    5. Provide client recommendation

Healthy Foods

Fit: Tell me about a time you had to lead a diverse team?

Case prompt

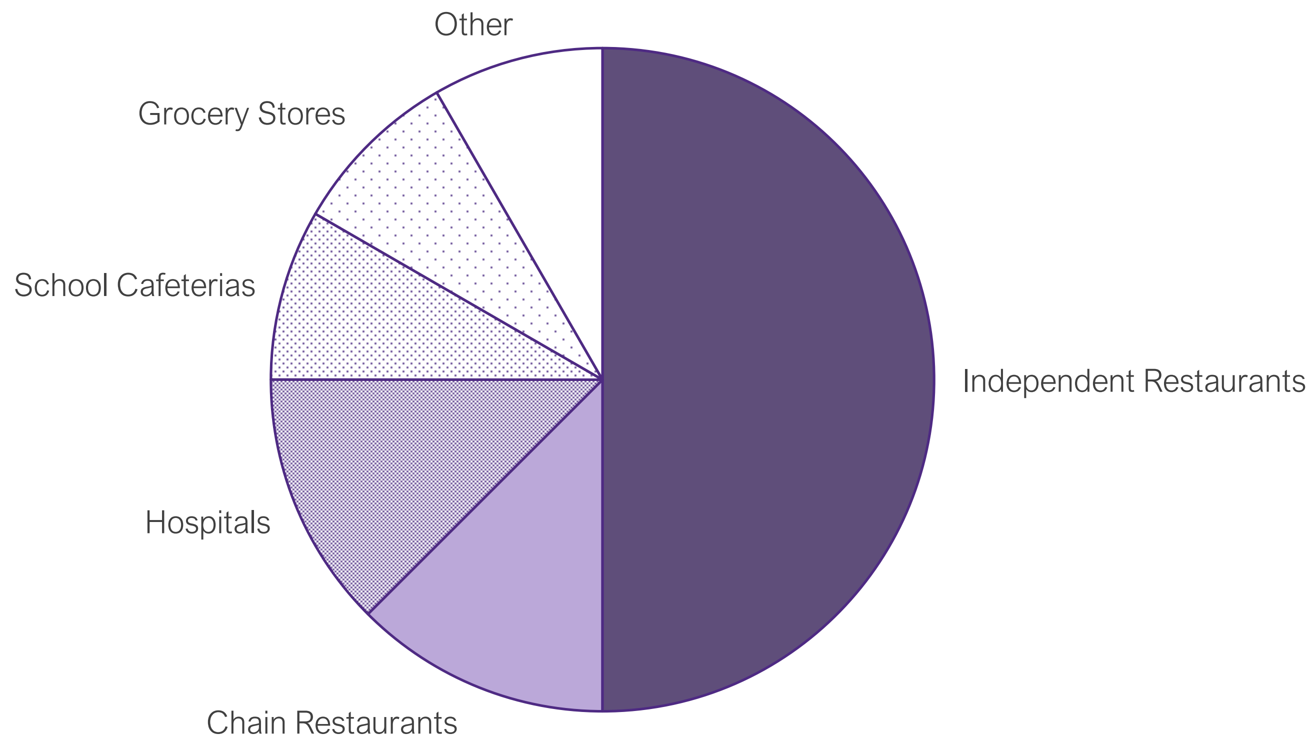
- Our client is Healthy Foods, a wholesaler serving a variety of clients with Food products. The client is profitable but they want you to help them find revenue growth opportunities from their current business.
- How can we help Healthy Foods drive their revenue growth?

Clarifying information

- **Customers:** The client serves various customer categories (shown in Exhibit A).
- **Customer sensitivities are (highest to lowest):**
  - Price
  - Convenient delivery
  - Help with location planning
  - Help with menu
  - Web site development
  - Inventory
  - Help with management optimization
- **Competition:** The client is one of the market leaders and is not losing the market share

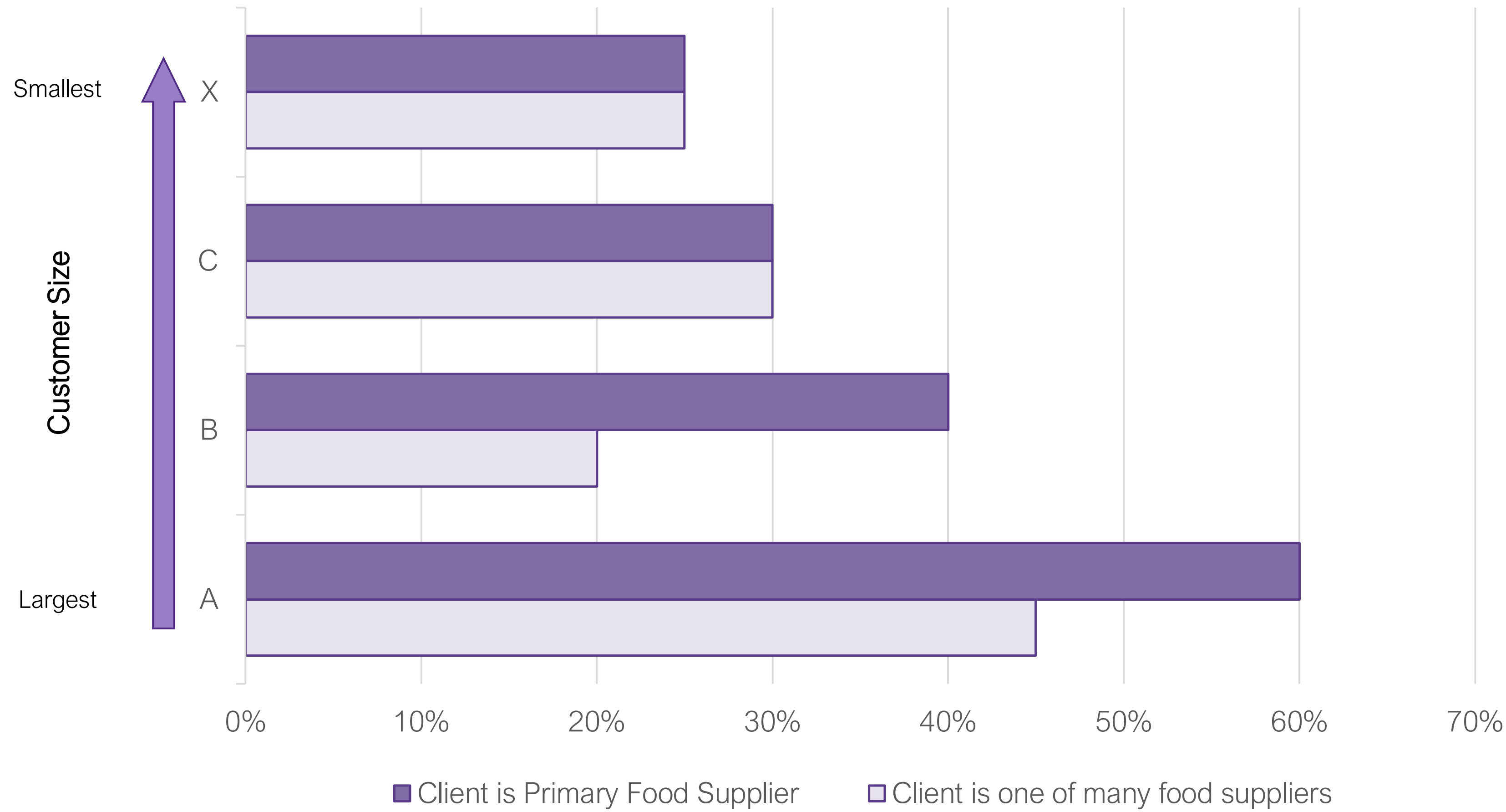
Healthy Foods

Exhibit A – Revenues by Customer Type



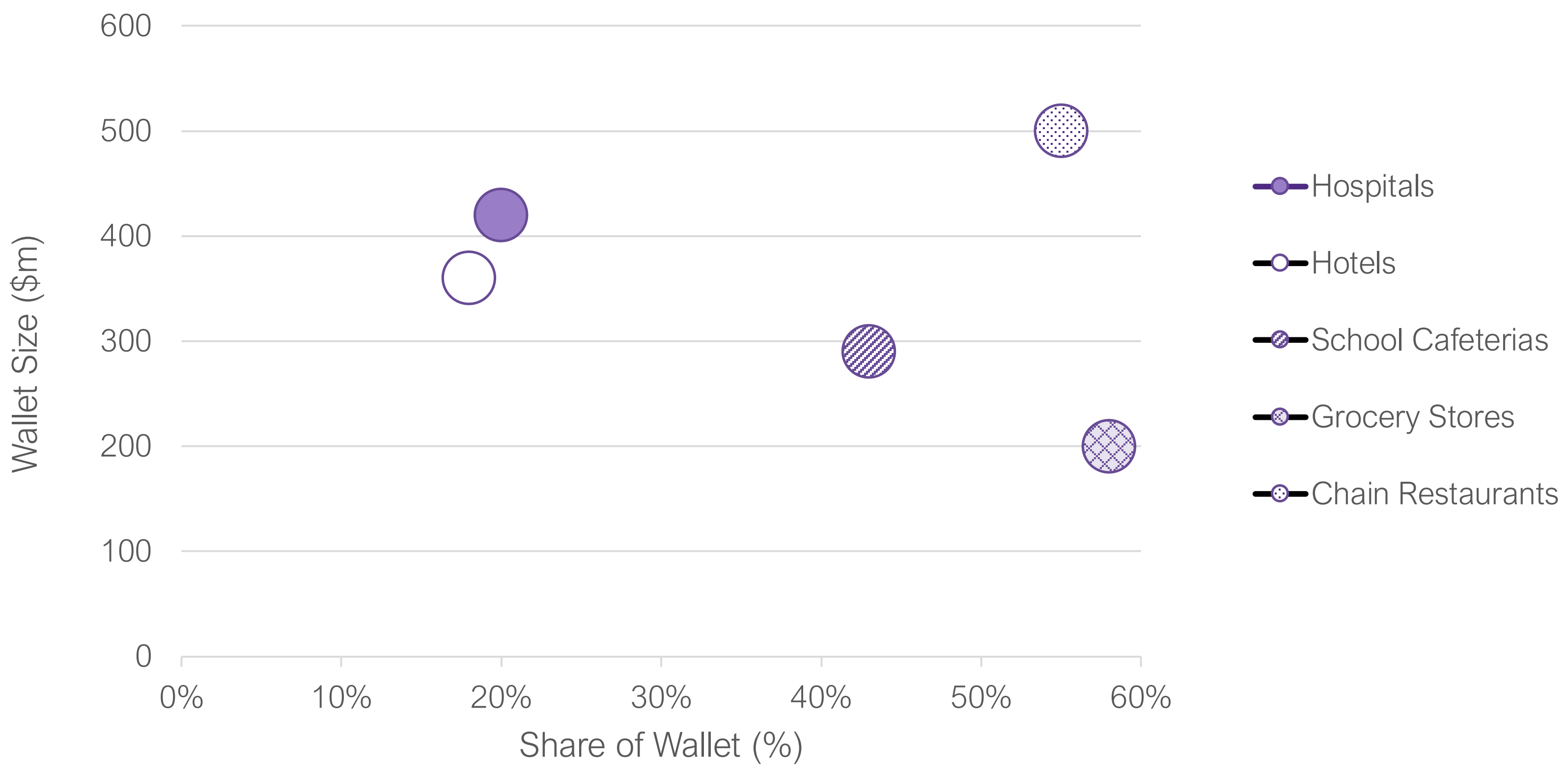
Healthy Foods

Exhibit B – Client's Share of Wallet



Healthy Foods

Exhibit C – Wallet Size vs. Share of Wallet for the Smaller-Revenue-Generating Customer Categories



Healthy Foods

Part 1

1. Develop a structure to address the problem

- A structure should cover the key areas needed to explore in order to determine how Healthy Foods can explore new revenue growth opportunities. Key elements expected to be included in this framework are:
- **Market:** Overall trends, offerings by competitors and customer preferences
- **Segmentation, targeting and positioning:** Are there particular segments in the population that will be ideal customers for us? How are positioned in the market?
- **Product and channel mix:** What is our current mix of products offered and what markets and channels do we service? What is the menu?
- **Price:** What price are our products sold at? Is there scope for increasing the price? Can we bundle any of our offerings?
- **Promotion:** How are our products marketed? What promotion mechanisms are being used?
- **Volume:** Who are our customers? How do we reach them? What is our wallet share with them?

Part 2

2. Identify main customer types and their current contributions

- The client has some information about the customer segments that it sells to:

Provide Exhibit A

- The interviewee will probably explore opportunities for growth in the independent restaurant category. If they inquire about customer satisfaction and sensitivities, provide information from the 'Clarifying information' section, and emphasize that the needs of this segment are already met.
- The interviewee should inquire about the Share of Wallet in the customer categories to get a better idea on where the growth opportunities lie.

Part 3

3. Analyze client's wallet share for different customers

Provide Exhibit B when the interviewee realizes they need to understand Share of Wallet

- The interviewee should recognize that Share of Wallet in the highest-revenue-generating customer categories is already high, and that the client is already a key provider for a lot of them.
- Ask the interviewees to list all options to increase revenue and the reasons behind (brainstorming exercise).
- Help interviewee to reach that the growth opportunity in the smaller revenue-generating customers, where client's Share of Wallet is smaller. Now the interviewee should formulate the criteria to prioritize among the smaller revenue-generating customer types: the bigger their Share of Wallet and the smaller client's Share of Wallet, the better.

Part 4

4. Share of Wallet analysis and Wallet Size versus Share of Wallet

- Share Exhibit C when the interviewee realizes they will need to understand the Share of Wallet vis-à-vis Wallet Size

Provide Exhibit C

- The bigger the Size of Wallet and the smaller client's Share of Wallet, the larger the revenue growth opportunity for the client.
- Using Exhibit C, the interviewee should identify the hospitals and the hotels as the most promising candidates for revenue growth given their large wallets and small client's Share of Wallet. The interviewee should identify the strongest sensitivities these clients would have and suggest ways to increase client's Share of Wallet there.

Part 5

5. Provide client recommendation

- In the current business, the largest growth opportunities lie in customer segments: hospitals and hotels.
- The interviewee should suggest ways to better serve those customers and increase client's Share of Wallet there, capturing significant new revenues due to the large Wallet Size of those clients.

- Excellent interviewees identify Share of Wallet as an important parameter, quickly recognize that there is little opportunity for growth in the largest-revenue-generating customers, and come up with the size of wallet vs. Share of Wallet plot as a good prioritization tool for identifying promising customer categories for the client's revenue growth.

Case 10
High Q Plastics

Concepts tested

- Z11 Competitive Analysis
- Z12 Creativity

Primary sector(s)

- X04 Engineering & Construction

Case type

- Y01 Cost reduction
- Y05 Operations
- Y07 Profitability

Similar cases

Case Authors: Erin Brooks (Kellogg 2011)
Edited By: Uri Kalir (Kellogg 2012), Tuhina Kapoor (Kellogg 2020)

High Q Plastics

Interviewer guide

Case prompt

- Our client, High Q Plastics, is an automotive parts supplier in the U.S. They primarily manufacture and sell plastic injection-molded parts, such as grills, door handles, decorative trim etc., to automotive customers.
- The client has two primary revenue sources: large automotive OEMs, and aftermarket. The client has recently seen declining profits, primarily due to increased price competition from new overseas competitors in China. Annual profits have declined from $50M to $20M over the past few years.
- *What is the reason behind declining profitability? How can High Q improve profits? Can they reach $100M in profits by 2014?*

Interviewer guide

- <u>Problem</u>: How can High Q generate $100m in profits by 2014?
    1. Develop a structure to address the problem
    2. Brainstorm ideas to improve profits
    3. Determine whether the profit goal can be met
    4. Provide client recommendation
- An effective interviewee should demonstrate clear and MECE approach at dissecting profitability, structured brainstorming in improving profits (e.g., brainstorming in buckets) and effectively using exhibits to outline the correct approach to calculating 2014 profits.

High Q Plastics

Fit: Tell me about a time you had to navigate a conflict and come up with a creative solution.

Case prompt

- Our client, High Q Plastics, is an automotive parts supplier in the U.S. They primarily manufacture and sell plastic injection-molded parts, such as grills, door handles, decorative trim etc., to automotive customers.
- The client has two primary revenue sources: large automotive OEMs, and aftermarket. The client has recently seen declining profits, primarily due to increased price competition from new overseas competitors in China. Annual profits have declined from $50M to $20M over the past few years.
- *What is the reason behind declining profitability? How can High Q improve profits? Can they reach $100M in profits by 2014?*

Clarifying information

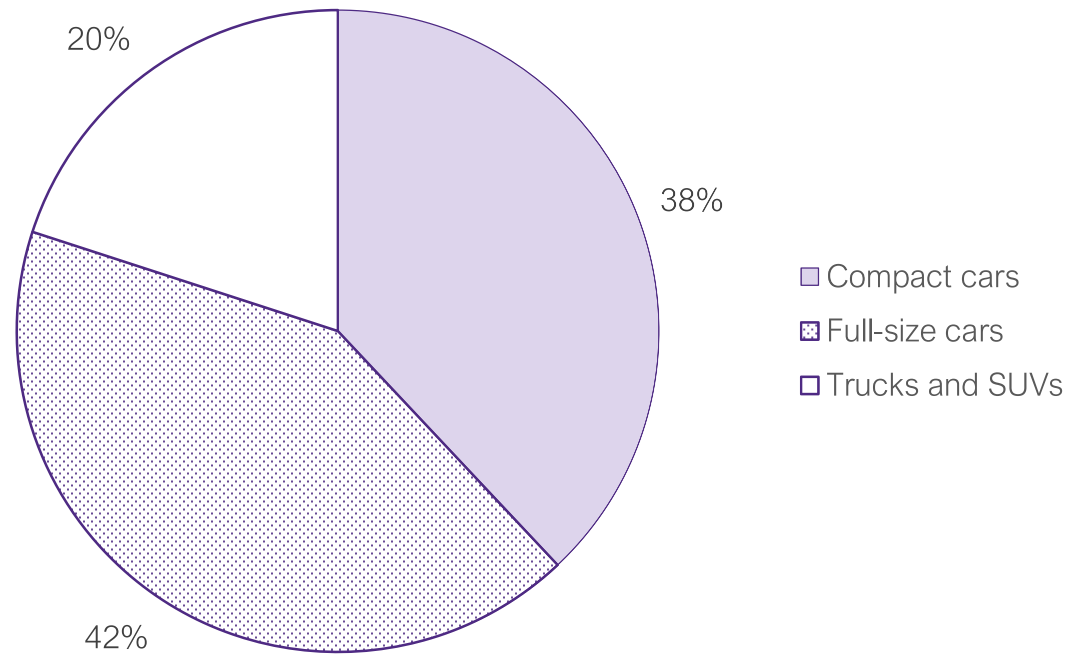
- Industry Characteristics/Market Economics
  - Automotive sales overall still growing steadily, driven by emerging markets
  - Automotive manufacturing is leaving the U.S.
- Client Characteristics
  - Client is currently one of the leaders in this category
  - Client has U.S.-based manufacturing
  - Revenues have been slowly declining over last 5 years
  - Client's products are of a higher quality than most Chinese competitors' products
- Competitive Dynamics
  - Automotive OEM customers are looking to reduce cost, driving increased price competition among parts suppliers

Exhibit A – High Q's 2010 Financials, By Facility

$m	Plant A	Plant B	Plant C	Plant D
Revenues	100	100	100	100
Labor	20	40	60	30
Material	55	40	20	35
Overhead	20	15	15	30
Net Profits	5	5	5	5

High Q Plastics

Exhibit B – 2010 U.S. Automotive Market

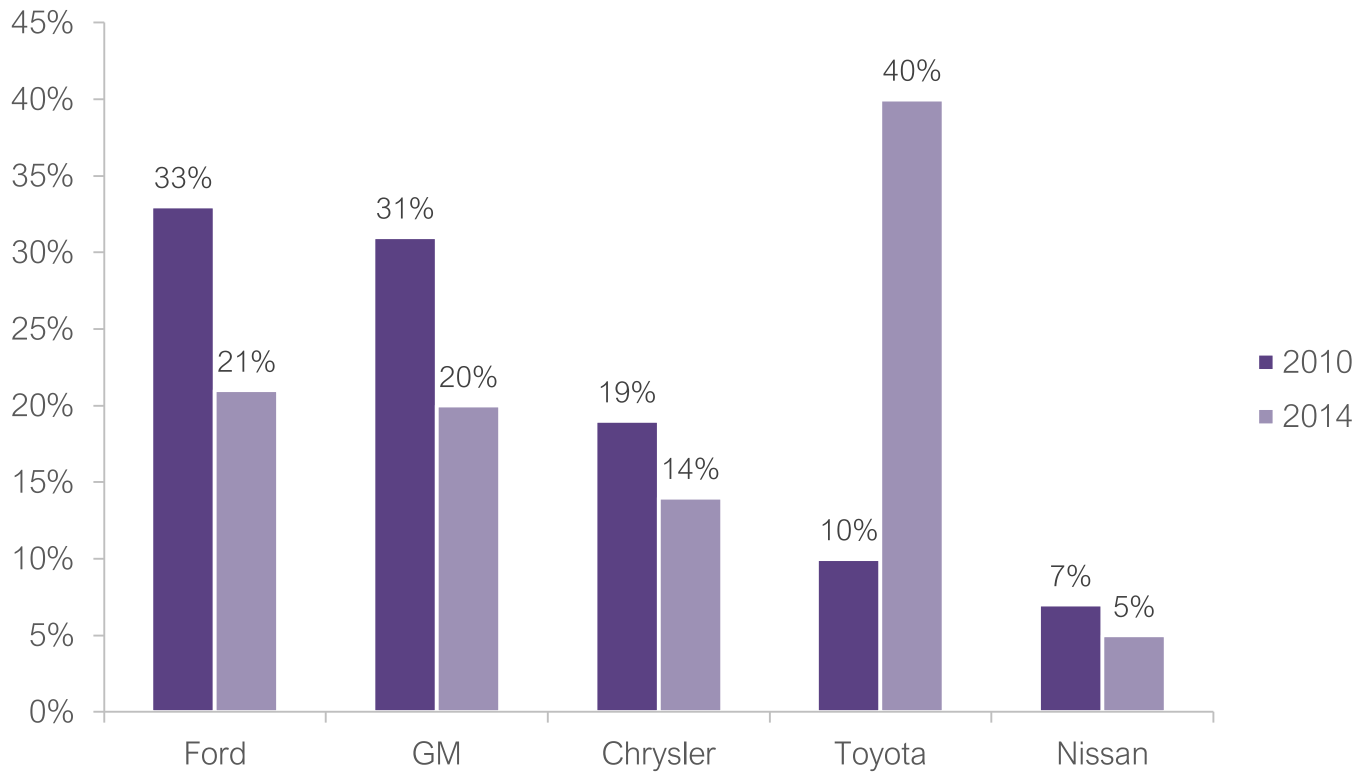


Additional Information:

- 2010 US Automotive Sales = 16 million units

High Q Plastics

Exhibit C – U.S. Truck / SUV Market Share (2010 – 2014)



<u>Additional information:</u>

- High Q supplies 70% of Toyota's business
- Average price of High Q products sold to Toyota = $20

High Q Plastics

Part 1

1. Develop a structure to address the problem

What key questions would you ask an industry expert in order to better understand the reasons behind High Q's declining profits?

An effective structure should address the following factors:

- **Industry:** What is the sales volume trend? What is the % of demand and growth of OEM vs. aftermarket segment? Is one of these segments more profitable than the other?
- **Competitors:** Who are they? What is their relative market share? What are their prices vs. our clients'? What is their cost structure vs. our clients'? Do they have a technology or quality competitive advantage relative to our client?
- **Revenue:** How have our clients' prices changed in recent years? Have they declined across all customers and products?
- **Costs:** What trends is our client seeing in their cost structure? Increasing labor or material costs?

High Q Plastics

Part 2

2. Brainstorm ideas to improve profits

The CEO of High Q wants to know if $100M in annual profits is achievable by 2014. What would you need to know in order to determine this? What data would you ask for?

What ways can you think of to increase revenues? What ways can you think of to reduce costs?

After asking the interviewee the above questions, he / she should come up with 2-3 ways each for cost reduction and increasing revenues:

- **Reduce Cost:** find alternative material sources, invest in process automation to reduce labor, consolidate multiple manufacturing sites to reduce SG&A costs, relocate close to customers to reduce transportation costs.
- **Increase Revenue:** segment customers to determine sensitivity to price, increase marketing in aftermarket segment, negotiate long-term contracts with OEM customers.

High Q Plastics

Part 3

3. Determine whether the profit goal can be met

Our client is planning on implementing lean manufacturing across all 4 of it U.S. plants, in order to provide cost savings and increase profits.

Provide Exhibit A

- The client is expecting to produce 80% of 2010 volumes in 2014. They are also planning on reducing prices by 10% due to increased competition.
- Lean manufacturing implementation across all plants will provide an additional 20% savings in raw material, and 30% savings in labor. What is the change in profits the High Q CEO can expect from 2010 to 2014, based on this information?

- Please see solution on the next page.

Part 3 (Continued)

3. Determine whether the profit goal can be met

- The interviewee should use the information provided in Exhibit A to calculate the following profitability for each plant in 2014, and walk the interviewer through the calculation steps. It is important to first note that revenues, labor, and material will decrease by 20% due to the reduced quantity output from each plant, plus the additional 20% savings in material and 30% in labor. Revenue will decrease by an additional 10%, in a cost cutting maneuver. Overhead costs will not change.

All figures in $m				
	Plant A	Plant B	Plant C	Plant D
Revenues	72.0	72.0	72.0	72.0
Labor	11.2	22.4	33.6	16.8
Material	35.2	25.6	12.8	22.4
Overhead	20.0	15.0	15.0	30.0
Net Profits	5.6	9.0	10.6	2.8
Total 2014 Profits				28.0
Additional Profits				8.0

- From this calculation, the interviewee should reference back to question 2. Even with the lean manufacturing implementation, High Q is still a long way from the CEO's goal of $100M in annual profits, and this is therefore not a realistic target. A strong interviewee should note the importance of aligning a client's expectations.

Part 3 (Continued)

3. Determine whether the profit goal can be met

- High Q ‘s CEO has also asked us to take a look at competitive dynamics among the automotive OEMs, in order to predict any increase in profits from increased sales. Hand out exhibits 2 and 3.
- Based on the information given, what do you expect High Q will see in additional profits due to Toyota’s predicted 30% increase in market share in truck and SUVs?

Provide Exhibit B & C

The interviewee should be able to use the information provided in the Exhibits to calculate the following revenue growth (“Sales” figures below are in units/vehicles). Rounded answers ($13 or $14M) are fine, given that interviewee has already demonstrate math proficiency.

	2010	2014
US Auto Market	16,000,000	
U.S. Truck & SUV Sales	3,200,000	
Toyota Truck & SUV Sales	320,000	1,280,000
High Q's Toyota Qty. Sold	224,000	896,000
High Q's Toyota Revenues	4,480,000	17,920,000
Additional Revenue		$13,440,000

High Q Plastics

Part 4

4. Provide client recommendation
Please summarize your findings to the CEO, including any other potential opportunities to increase High Q's profits over the next few years.

The interviewee should concisely summarize the overall goal of the case (to increase High Q's declining profitability due to new, low-cost competition), and main findings from each question, and a recommendation (yes, High Q should implement the lean manufacturing initiative, while recognizing that this initiative alone will not hit the CEO's total profit goal in 2014). The interviewee should also generate a list of additional opportunities that were not explored in the case, including:

a) Consolidation of the 4 manufacturing plants (especially Plant D, with its high overhead costs)

b) Pursue growth in the aftermarket segment of their business

c) Diversify their business into plastic injection-molded parts for other industries (outside of automotive), with less price competition

Case 11
Kellogg in India

Concepts tested

- Z08 Market sizing (2)
- Z07 Market share (3)
- Z03 Breakeven analysis (3)

Primary sector(s)

- X07 Government & Public Sector

Case type

- Y04 New product / Market entry

Similar cases

- Big Public High School (Darden 2012)
- Busch's Barber Shop (Kellogg 2020)
- Chic Cosmetology (Kellogg 2020)

Case author(s): Abhilash Sridharan (Kellogg 2015), Rashaad Jamaal (Kellogg 2015)
Edited by: Rohan Maini (Kellogg 2020)

Interviewer guide

Case prompt

- Our client is the Dean of Kellogg School of Management. She has hired you to advise her on an idea, which struck her during the previous week – To consider starting a satellite campus of Kellogg in India. She has asked you to determine whether Kellogg should enter the Indian market.

Interviewer guide

- This case is a quintessential market entry case.
- The two main quantitative concepts on which the candidate is being tested are on market size estimation and breakeven analysis.
    1. Develop a structure to address the problem
    2. Confirm market attractiveness (sizing)
    3. Market share and breakeven analysis
    4. Conduct risk analysis
    5. Provide client recommendation

Kellogg in India

Fit: Tell me about a time when you were provided feedback and what action you took.

Case prompt

- Our client is the Dean of Kellogg School of Management. She has hired you to advise her on an idea, which struck her during the previous week – To consider starting a satellite campus of Kellogg in India. She has asked you to determine whether Kellogg should enter the Indian market.

Clarifying information

- **Strategic Rationale:** India is a fast growing economy with huge demand for MBAs. Kellogg's Dean believes that an India campus would help Kellogg become a Top 3 global MBA program. The caliber of India candidates is the same as in the US.
- **Objective:** The Dean wants the satellite campus to breakeven in 4 years
- **Competition:** Eight top-tier business schools: 7 IIMs and the ISB (ISB has a partnership with Kellogg, for its pedagogy).
- **Candidate selection:** IIMs select based on CAT test results. The ISB admits candidates based on the GMAT.
- **Pricing:** Indian MBAs cost $20k per year (US MBAs cost $70k). Indian schools don't offer scholarships but banks offer loans.
- **Product:** Kellogg would only launch the 2Y MBA program in India.

Exhibit A – Indian business schools

Category	Indian Institutes of Management (IIMs)	Indian School of Business (ISB)
Description of program	• IIMs select via the Common Admission Test (CAT) • IIM interviews candidates with the top 6% CAT scores • 5 candidates are interviewed for every available seat • 85% of admitted candidates matriculate	• 70% of admitted students matriculate • Two campuses with a total class size of 1,400
Cost incurred by Student	• INR 1,200,000 per year* • 1 USD = 60 INR	

Notes:

- Assume the total cost incurred by a student annually at Kellogg is $70k per annum

Exhibit B – Admitted students

Year	Expected admits per year
1	600 (7.5% of 8,000)
2	600
3	900
4	900

Notes:

- Only source of revenue is the fee charged to students

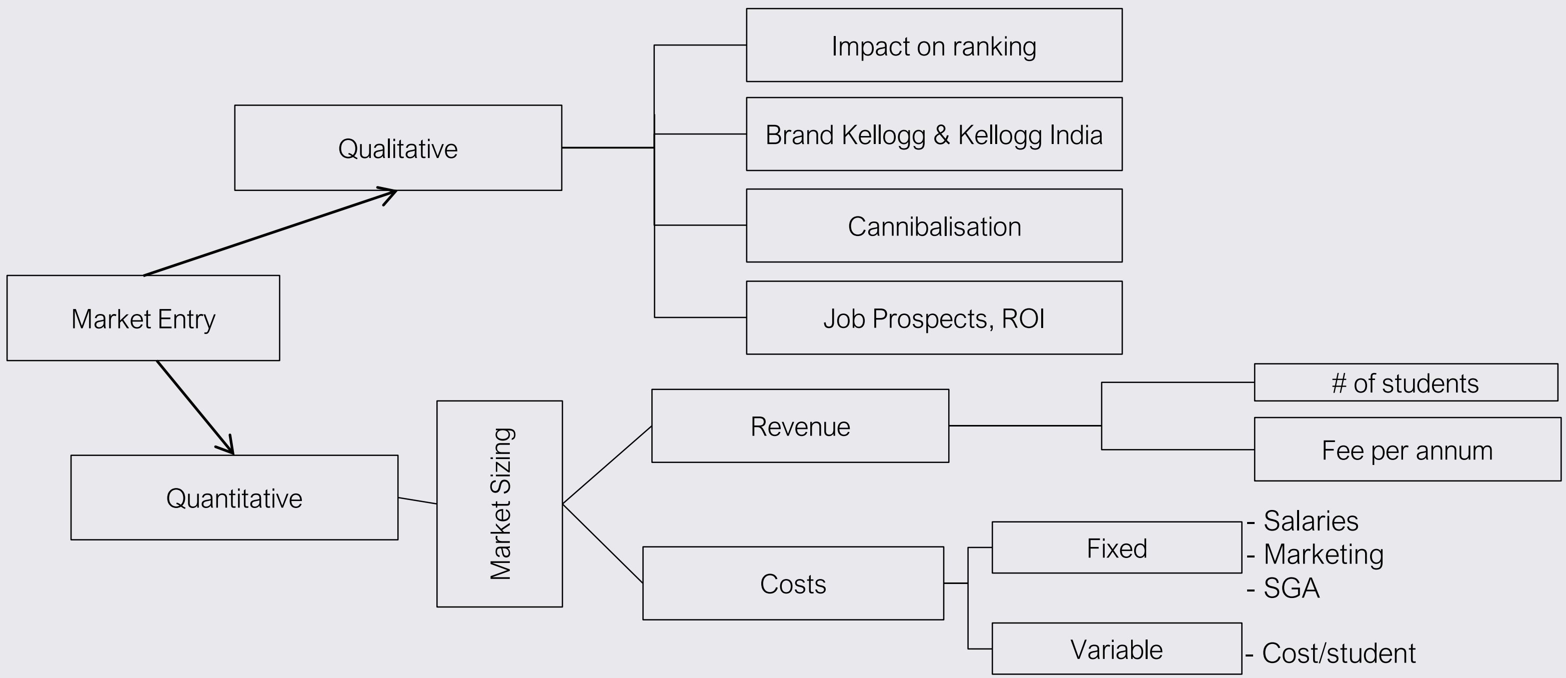
Exhibit C – Estimated cost structure

Fixed Costs	Annual Variable Costs			
Year 0	Year 1	Year 2	Year 3	Year 4
$100M (land) $50 (support infrastructure)	$30M	$30M	$30M	$20M

Kellogg in India

Part 1

1. Develop a structure to address the problem



Part 2

2. Confirm market attractiveness (size)

The candidate can choose to size the market either top-down or bottom-up. A top-down approach becomes too dependent on assumptions. Exhibit A can be used for a bottom-up approach.

Provide Exhibit A when the candidate requests any of the information that it contains

A. Estimate the Total Addressable Market from competition

1. IIMs

- 500,000 applications per year
- Top 6% are interviewed = 30,000 applicants
- 1 in 5 are accepted = **6,000 eligible students**

2. ISB

- 1,400 matriculated students / 70% of total admitted students = **2,000 eligible students**
- If interviewee gets this wrong, ask which student pool are we most interested in: matriculated students or all accepted students.

Total Addressable Market = 6,000 + 2,000 = **8,000 high quality applicants**

B. Market Size

Fee to be charged annually needs to be calculated. A value somewhere in between $20,000 and $70,000 is acceptable. $50,000 per year for 2 years: 8,000 * $50,000 * 2 = **$800M**

Kellogg in India

Part 3

3. Market share and breakeven analysis

- The candidate should mention a target market share in the year of launch. A lower number would be preferable to start with. After letting the candidate present their logic, ask them to assume 7.5% market share in the year of launch.

Provide the information below when requested:

- Breakeven Analysis: Expected breakeven in 4 years

Provide Exhibit B when asked about Revenue

- The candidate should note that from the second year onwards, last year's fee should be included in the current year.

Provide Exhibit C after Cost brainstorming

- Costs: Ask the candidate to brainstorm for costs
- The candidate must move towards a NPV Calculation:

	Y0	Y1	Y2	Y3	Y4
Number of students		600	600	900	900
Yearly Fee per student ($)		50,000	50,000	50,000	50,000
Revenue $m from students in year 1		30	30	45	45
Revenue $m from students in year 2			30	30	45
Total Revenue ($ M)		30	60	75	90
Costs ($ M)	150	30	30	30	20
Profits	-150	0	30	45	70

- When asked for a discount rate, confirm there is none.
- Conclusion: The project should go ahead: by the 4th year, the project doesn't breakeven by only $5M. Given rising revenues and declining costs, breakeven would be achieved in the first month of year 5.

Kellogg in India

Part 4

4. Conduct risk analysis

Ideally, the candidate will raise risks related to the project. If not, ask them to brainstorm:

Brand impact	Rankings impact	Cannibalization	Brand parity	Job prospects	Support
• No top US schools is successful in India • Satellite campus might dilute brand	• Diversity • International presence • Proximity to Asia • Job prospects	• 50-60 Indian students matriculate at Kellogg US • Impact on US MBA candidate pool across Asia	• Kellogg US MBA = Kellogg India MBA	• Premium for Kellogg India versus IIM / ISB	• Parent campus pedagogical support for satellites

Part 4

6. Provide client recommendation

Overall

- While starting a satellite campus makes financial sense, further scrutiny is needed on the impact of this move on Kellogg's brand and other factors that impact rankings
- Other additional points, which the candidate may add, could be:
  - Negotiate on the costs for initial investments, to lower it down from $150M.
  - Support from Indian government on subsidies to be offered
  - Develop additional sources of revenue, from supporting programs and corporate training sessions

Risks

- Brand dilution / considering the impact of a satellite campus on Brand Kellogg
- Cannibalization of existing revenue from Indian students
- Admission percentage is projected to increase from Year 2 to Year 3 by 50% (This is quite high)
- The salaries of Indian graduates, as per Indian Market conditions, (considering Indian PPP) may influence the average salary of Kellogg School of Management given global reporting, eventually impacting the ranking negatively
- Given Kellogg's new building being constructed, the $150M additional investment for a satellite campus, may require additional rounds of fund raising for the India campus

Next Steps

- Employ a Brand agency / consultant to figure out the impact of starting a satellite campus on Brand Kellogg
- Fund Raising for $150M to be worked out
- Potential Partners for promoting the program and supporting with faculty initially
- Discussions to be started with the government of India for the land, infrastructure investment and licenses.

Case 12
Maine Apples

Concepts tested

- Z08 Market sizing (2)
- Z14 Pricing strategy (3,4)
- Z15 Supply/value chain (4)

Primary sector(s)

- X02 Agriculture & Food

Case type

- Y04 New product / Market entry
- Y06 Opportunity assessment
- Y07 Profitability

Similar cases

- Antidepressant pricing (Sloan 2011)
- Jamaican Land Investment (Haas 2015)
- Mission Eternity (Fuqua 2016)

Case author(s): Adam Borchert and Joep Knijn (Tuck 2004)
Edited By: Peter Manoogian (Kellogg 2012), Rohan Maini (Kellogg 2020)

Maine Apples

Interviewer guide

Case prompt

- Our client is a Korean conglomerate named Danut that has acquired a small Boston-based biotechnology firm
- The biotech firm has developed a chemical that helps control the ripening of produce. After testing, this chemical appears to work especially well with apples: it allows apple orchards to harvest earlier and it improves the overall quality of the harvest.
- Danut traditionally uses a test market to determine commercialization. Given Danut's proximity to Boston and average apple yields, Maine has been chosen.
- Danut would like to know if they should attempt to commercialize this chemical.

Interviewer guide

- Problem: Is the market size large enough and the estimated profitability high enough for Danut to commercialize this chemical?
- Key case steps:
    1. Confirm market attractiveness (size)
    2. Quantify cost savings from earlier harvests
    3. Quantify revenue growth from improved yields
    4. Project farmers' margins and pricing for Danut
    5. Provide a recommendation and highlight risks

Maine Apples

Fit: Analysis is not always perfect. Tell me a time when the analysis wasn't perfect but you still had to use it.

Case prompt

- Our client is a Korean conglomerate named Danut that has acquired a small Boston-based biotechnology firm
- The biotech firm has developed a chemical that helps control the ripening of produce. After testing, this chemical appears to work especially well with apples: it allows apple orchards to harvest earlier and it improves the overall quality of the harvest.
- Danut traditionally uses a test market to determine commercialization. Given Danut's proximity to Boston and average apple yields, Maine has been chosen.
- Danut would like to know if they should attempt to commercialize this chemical.

Clarifying information

- **Product Benefits:**
  - Reduced costs through earlier harvesting
  - Improved apple yields
  - Improved juice yields (with higher quality apples)
- **Client Characteristics:** Only concerned about a "test-market" in the state of Maine
- **Competitive Dynamics:** No other competitive products on the market currently
- **Industry:** Growing at the rate of GDP

Maine Apples

Parts 1 - 3

1. Confirm market attractiveness (size)

When asked, provide the following:

- Maine has 200 orchards
- Avg. annual orchard revenue is $30K/acre
- Avg. orchard has 100 acres of land
- Only one apple harvest per year

Interviewee should calculate the market size based on info provided:

- ($30K/acre x 200 orchards x 100 acres/orchard = $600M)

This is a significant market and warrants further investigation

2. Quantify cost savings from earlier harvests

When asked to quantify the improvements, provide the following:

- It costs $1.5K/night to maintain crops for 100 acre orchard
- With the chemical, farmers are able to harvest crop 10 days sooner

Interviewee should calculate cost savings per year using this information:

- ($1.5K/day x 10 days / 100 acres = $150/acre/year)

3. Quantify revenue growth from improved yields

When asked to quantify additional revenue, provide the following:

- Our client's product improves the consistency of red apples and increases the selling price by 10%
- The sweetness factor increases the selling price of juice by 5%
- 25% of revenue comes from whole apple sales, 75% from juice sales

Improved yield:

- ($30K/acre x 25% x 10% = $750/acre/year)

Improved sweetness:

- ($30K/acre x 75% x 5% = $1,125/acre/year)

Total improvement (with cost reduction) = $2,025/acre/year

Maine Apples

Part 4

4. Project farmers' margins and pricing for Danut

When asked about product pricing, provide the following:

- Danut's product costs $100k per 200 acre farm

Farmer's incremental revenue/cost savings = $2,025/acre

Product costs = $100K/200 acres = $500/acre

Profit margin = ($2025-$500)/$2025= 75% [$1,525 per acre]

The interviewee should note that this is an extremely high profit margin for the farmer and realize that there is a significant opportunity for profits with this product.

- How much of this benefit can we capture in our pricing?
- Interviewee should provide a percentage between 25% and 50%. Anything higher than 50% should be questioned due to the novelty of the product and resulting lack of social proof.

A 50% profit margin for our client would also realize a 50% profit margin for farmers. This is absolutely a realistic price to set, if not a little low.

- Given the costs provided, will we make a profit? Yes
- Interviewee should calculate profit: ($100,000 / 200 acres = $500/acre). Assuming $1,000 price per acre, gross margin will be 50%. [($1,000 - $500) / $1,000]

Maine Apples

Part 5

5. Provide a recommendation and highlight risks

- Overall, our client should commercialize this chemical and price it at approximately $1,000 per acre to make a 50% margin.

Risks/Next steps:

- Differentiation: What is our positioning?
- Environmental issues: Is there a risk of backlash and/or boycott from the general public? Could the U.S. government attempt to regulate our product?
- Operational reality check: Does the company have the resources to do this?
- Patenting: Is the product already patented? If yes, then when does it expire? If no, then is it possible to patent? If not, then can we patent the manufacturing process?
- Representativeness of test market: Does it cost less to cover apples in other states?
- Strategic fit: Is this opportunity too small relative to the size of the client?

- **Strong interviewees** share several qualitative issues listed above to supplement the recommendation to enter the market.
- **Outstanding interviewees** consider value-based pricing: the need to quantify added profits that our client's product will make for its clients and how much of that money our client can capture.

Case 13
Money Bank Call Center

Concepts tested
- Z01 Accounting
- Z05 Capacity
- Z13 Organizational changes

Primary sector(s)
- X10 Legal & Professional Services
- X06 Financial Services

Case type
- Y01 Cost reduction
- Y05 Operations

Similar cases
- Call Center (Yale 2013)
- EasyNAV (Wharton 2009)

Case authors: Guruprasad Sankaranarayanan (Kellogg 2012)
Edited by Nikola Jakić (Kellogg 2016), Elizabeth Henry (Kellogg 2020)

Money Bank Call Center

Interviewer guide

Case prompt

- Our client is a large financial services firm with multiple locations around the world. Part of their service offering includes a 24-hour helpline. The client has their call centers in New York and Paris.
- The client has recently acquired a small firm (Firm B) in order to expand its reach in a particular geography. Firm B provides a subset of the services and has its call center located in the Philippines.
- The client has asked us to determine its strategy going forward for handling customer calls. In particular they want us to look into the call center operations.

Interviewer guide

- This is an outsourcing case with the following elements:
  - Use a framework that covers the most important areas of M&A and cost cutting
  - Read the exhibits to assess the cost effectiveness and efficiency of the 3 locations
  - Discuss qualitative information on the acquired company – products, culture, customers, etc.
- There is no right or wrong recommendation, as it will depend on the interviewees assessment of the qualitative concerns
- Key case steps:
  1. Evaluate existing and potential cost structure
  2. Explore alternative ideas for implementation
  3. Provide client recommendation

Money Bank Call Center

Fit: If you were a partner and could choose to work on any type of case, what would you do? What do you think you would learn?

Case prompt

- Our client is a large financial services firm with multiple locations around the world. Part of their service offering includes a 24-hour helpline. The client has their call centers in New York and Paris.
- The client has recently acquired a small firm (Firm B) in order to expand its reach in a particular geography. Firm B provides a subset of the services and has its call center located in the Philippines.
- The client has asked us to determine its strategy going forward for handling customer calls. In particular they want us to look into the call center operations.

Clarifying information

- Client Characteristics:
  - Provides full range of financial services for individuals and small organizations
  - Acquired firm was started 5 years ago and is still run by the original founders
- Call Center Characteristics:
  - New employees are college graduates with basic knowledge of financial services and products
  - Fluency and English and several European languages required
- Regulatory Environment:
  - Very difficult to lay off employees in the Paris location & significant costs will be incurred
  - Philippines government encourages investment in the country & significant tax advantage possible

Money Bank Call Center

Exhibit A – Call Center Performance FY 2010

Center	Calls / Year	Employee Cost / Year ($)	Overhead Cost / Year ($)	# Employees
New York	600,000	50,000	450,000	75
Paris	400,000	50,000	600,000	60
Philippines	300,000	20,000	300,000	75

Money Bank Call Center

Part 1

1. Evaluate existing and potential cost structure

Provide Exhibit A when the interviewee asks about call center performance

- Here, the interviewee needs to:
  - Compare the efficacy of the three locations & possible explanations for variance;
  - Identify the cost effective options & how it is impacted by integration cost
- Additional information:
  - Total cost incurred by the 2 firms is $9.6M
  - Philippines currently processes calls at half the efficiency of NY (per employee)
  - Interviewee could ask about available slack at any of the call centers but should be advised that all call centers are currently operating at capacity
- If asked, state that currently, we have space, infrastructure necessary to expand. Assume overhead is variable in this case. The candidate should be able to calculate that to process total call volume Philippines will need an additional 250 employees to handle the traffic (1.3M total calls/ 4000 calls/employee in Philippines). Operating cost after the change will be $7.8M; net savings of $1.8M.

- The interviewee should realize that this does not account for all the costs, including hiring and training costs. When prompted inform the interviewee about a 1 time cost of $5M (includes severance for NY and Paris, expanding the Philippines facility) implying that the move is not profitable

Money Bank Call Center

Part 2

2. Explore alternative ideas for implementation

- Client will not budge on two-year breakeven
- Prompt the interviewee to explore ways to make outsourcing to the Philippines feasible
- Other options: decrease $5m investment cost; increase efficiency of Philippines employees (guide interviewee towards the latter)

- The interviewee needs to identify the difference in calls / employee between the New York and Philippines locations
  - Ask the interviewee to assume that the best practices can be transferred and implemented within 3-6 months
- Potential cost savings if Philippines achieves same effectiveness as New York
  - # employees required = 1.3M calls / 8,000 calls / employee / year = 162.5 (allow rounding to 160)
  - New employee cost = 160 * $20,000 = $3.2M
  - Ask interviewee to assume overheads double with the need for better equipment. Before the efficiency improvement, OH = $1.3M for 1.3M call. New OH = $2.6M
  - New total cost = $3.2M + $2.6 = $5.8M ($3.8M savings from status quo and $2M better than pre-efficiency improved option)
- Other questions interviewee needs to consider
  - Will the client be able to acquire sufficient talented personnel within the short time frame?
  - How will customer satisfaction by impacted with the new labor base?
  - Legal constraints / requirements in NY and Paris – how quickly can we lay off the staff?
  - How will public opinion be impacted by the news of massive outsourcing?

Money Bank Call Center

Part 3

3. Provide client recommendation

- This is an open ended case. The interviewee needs to justify the recommendation based on the qualitative considerations
- A good recommendation would include 3 sections:
    - Recommendation: If the recommendation is to outsource the interviewee needs to highlight the risks associated with outsourcing and nature of the acquired firm. If the recommendation uses any other approach sufficient justification needs to be given to overcome the cost savings
    - Risks:
        - Risks associated with increasing capacity by more than 200% in the Philippines – people, infrastructure, service quality, gaps in knowledge transfer, organizational changes, etc.
        - Reputational impact – do customers notice a difference in service, can the competitor leverage this to steal customers?
    - Next steps: If outsourcing, some of the next steps would be to analyze the infrastructure requirements and capabilities, find the right talent, ensure smooth transfer and implementation of best practices, etc.

- The interviewee should explore the option of improving effectiveness of the Philippines location without being prompted
- Excellent interviewees need to address the qualitative information provided in the case: nature of merger, nature of markets being served, etc.

Case 14
Montoya Soup

Concepts tested

- Z14 Pricing strategy (2)
- Z10 Customer marketing strategy (3)

Primary sector(s)

- X02 Agriculture & Food
- X12 Retail & CPG

Case type

- Y01 Cost Reduction
- Y07 Profitability

Similar cases

- Frozen Food Co (Columbia 2017)
- Dark Sky (Kellogg 2020)
- Orrington Office Supplies (Kellogg 2020)

Case author(s): Nico Montoya (Kellogg 2016)
Edited by: Michael Eidem (Kellogg 2020)

Montoya Soup

Interviewer guide

Case Question

- In F14, Montoya Soup, a business unit of Izzy's Healthy Foods, grew revenue and increased the contribution margins on their traditional and light soups.
- However, a spike in fixed costs caused them to see a dip in profitability. To offset this effect in F15, they launched a line of premium soups to increase volume and generate economies of scale.
- Though they felt the new launch was a success, their profitability dropped again in F15. They have hired you to diagnose the problem and propose a solution for F16.

Interviewer guide

- Problem: Determine what is causing Montoya's profitability decrease and analyze/recommend a method for improving it.
- Key case steps:
    1. Develop a structure to address the problem
    2. Deep dive – Why did profitability decline?
    3. Deep dive – How do we fix profitability? (pricing strategy and potential cost reductions)
    4. Provide client recommendation

Montoya Soup

Fit: Tell me about your favorite class at business school thus far.

Case Question

- In F14, Montoya Soup, a business unit of Izzy's Healthy Foods, grew revenue and increased the contribution margins on their traditional and light soups.
- However, a spike in fixed costs caused them to see a dip in profitability. To offset this effect in F15, they launched a line of premium soups to increase volume and generate economies of scale.
- Though they felt the new launch was a success, their profitability dropped again in F15. They have hired you to diagnose the problem and propose a solution for F16.

Clarifying information

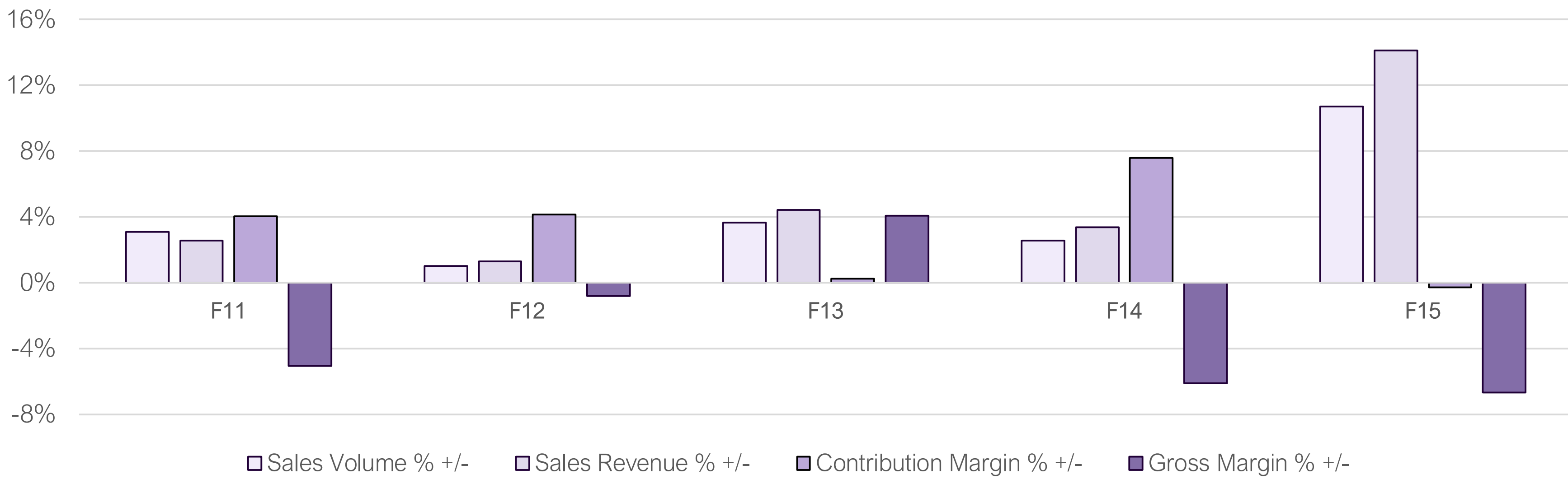
There is limited clarifying info up front, the interviewee will have to be comfortable making assumptions regarding the prompt and moving forward based on an inherent knowledge of the grocery industry.

- **Client**: Montoya sells cases of soup to buyers at grocery retailers who mark up the units inside to sell.
- **Product**: Traditional, Light, and Premium are the only product lines in Montoya Soup Co.'s product portfolio.

The prompt hints that revenue is up and fixed costs haven't increased in 2015, so the candidate should be thinking about variable costs right away. That said, this is a portfolio pricing strategy case disguised as a cost reduction case and a strong candidate might recognize that possibility.

Montoya Soup

Exhibit A – Performance Metrics



	F10	F11	F12	F13	F14	F15
Sales Vol. (M of cases)	126.5	130.4	131.7	136.5	140.0	155.0
Sales Rev. (M)	$3,282	$3,366	$3,409	$3,560	$3,680	$4,200
Contribution Margin (M)	$1,165	$1,212	$1,261	$1,264	$1,360	$1,356
Gross Margin (M)	$65.2	$61.9	$61.4	$63.9	$60.0	$56.0

Exhibit B – Product Lines

"Our research showed that many of our consumers were willing to pay more for a product with more meat and vegetable bounty in a carton (instead of a can). After testing several price points, we decided a lower margin and higher volume would help us reach the economies of scale we wanted to see. Consumers loved the product and thought it was a great bargain!"

	Trad.	Light	Prem.
Wholesale Price	$28	$24	$30
F14 Vol. (M cases)	80	60	-
F15 Vol. (M cases)	60	55	40

Exhibit C – Demand Analysis

Cost Reduction Effect on Demand

"We looked into moving premium out of cartons and into cans. On the plus side, it would gain us $3 of margin per case, but on the con side it would decrease demand by 20% and cannibalization of our Traditional line would spike to 75%."

"We could decrease our meat and vegetable bounty to be on par with Traditional. That would buy us $3 of margin points and consumers shouldn't know the difference, in the short run at least."

Price Elasticity & Cannibalization

	Last Year	Increase Price
Premium Price	$30	$33
Premium Demand (M cases)	40	20
Traditional Cannibalization Rate	50%	10%
Light Cannibalization Rate	12.5%	0%

Exhibit D – Stakeholder Input

Customer Feedback

- *"We really loved the new Premium Montoya Soup offering, it brought a new consumer to the shelf-stable soup category when all of the other players were introducing products that just stole from their competitors."*

- *"We're planning to give more shelf space to Montoya Soup in F16 after their successful premium launch this year. Our guests really loved the new packaging format and the higher meat and vegetable content. Product trial wasn't extremely high, but we saw a lot of repeat purchases from the people who were buying."*

Consumer Focus Group Excerpts

- *"I'm trying to eat healthier, and I'm really nervous about canned products with their BPA lining. As soon as Montoya came out with their new carton soup, I switched right away from their Traditional line and I'm never going back!"*

- *"I definitely think their brand is rising with me, the old stuff was mostly broth, this new stuff is a huge bargain and it actually has actual stuff in it."*

- *"Glad to see that when everyone else is trying to rip you off, Montoya is making soup that actually tastes like something I would make at home."*

Montoya Soup

Part 1

1. Develop framework for how to approach this problem

A sample case structure would include the following:

Question: Why is profitability down and what to do about it?

- Has **Revenue** decreased?
  - Volume: Has volume of sales changed? Are we selling different quantities of different products? How can we increase sales of higher margin soups? Are there new customer types we could target (restaurants, convenience stores, etc.)?
  - Price: Has price changed? How elastic is price to customers / is there room to increase it? Are we in line with our competition?
- Have **Costs** gone up?
  - Fixed: How have fixed costs changed? Facilities, R&D, marketing spend, distribution systems, etc. How can we adjust costs?
  - Variable: Have variable costs changed? Raw soup materials, labor, packaging, etc.
- Have there been changes in the **Market?**
  - Is the soup market growing/shrinking? Are grocery store sales increasing/decreasing?
  - Customers: Have shoppers' tastes & preferences changed? Are shoppers shifting to freshly made soup instead of packed?
  - Competition: Are there new companies competing with us? Have substitute products entered the market?
- **Risks** that need to be considered when making changes:
  - Competitive response, cannibalization of our other soup product lines, upsetting major grocery chain customers, etc.

Montoya Soup

Part 2

2. Deep dive – Why did profitability decline?

Several potential paths a candidate might want to dig into. Provide Exhibit A and then follow the below lines of thought:

Revenue

- Growth was driven by premium line. There was some cannibalization of traditional and light lines.

Question: "What trends do you see with regard to top line growth?"

Insights:

- Revenue grew significantly in F15, much faster than in any other year in recent history.
- Revenue outpaced volume, meaning that not only did revenue grow, but it grew even though avg price increased

Provide Exhibit B

Costs

- Input prices are the same as F14 for the traditional & light lines. No add'l wastage. No change in formulation.

Question:

- "What happed with fixed costs in F15? Variable costs?"
- "What could have driven up VC's?"

Insights:

- FC's were flat at $1.3B in F15 (GM – CM = FC's), so profit decline was driven by an increase in VC's.
- Increase in VC's could have come from pricier mix of inputs, same inputs but increase in input prices, more waste, or change in demand mix.

Provide Exhibit B

Product Mix

Questions:

- "How can profitability be down if revenue is up, FC's are flat, and the cost of our inputs have not changed?"
- "What info do you need to look into fixing the product mix to optimize profitability?"

Insights:

- Assuming no change in formulation or wastage, then the issue must be with cannibalization of higher margin products by lower margin ones.
- Candidates should want to look at the product lines' prices, COGS, elasticity, and cannibalization rates.

Provide Exhibit B

Montoya Soup

Part 3

3. Deep dive – How do we fix profitability?

There are several potential routes towards improving profits. When appropriate: Provide Exhibit B&C

Cost Reduction

- If asked: Competitors aren't playing in the "premium" space, only in "value" and "super-premium."

Question:

- "How much profit do we make per case of Premium? Traditional? Light?"

Insight:

- $10 contribution margin on Traditional & Light, $6 contribution margin on Premium (price – sum of VC's).
- Largest opportunity for variable cost reduction would be in packaging, meat, and vegetable, but reducing these might erode value prop of premium product.
- *(Math on following page)*

Pricing (Cannibalization / Elasticity)

- If we both raise prices and change packaging, we will lose enormous distribution.

Question:

- "What is the optimum price for profitability?"

Insights:

- Candidate should infer from Exhibit B that Premium cannibalized Traditional substantially.
- *(Math on next page)*

Stakeholder Value Proposition

Provide Exhibit D

Questions:

- "What are the long-run effects on customers for changing packaging? For reducing meat/veg costs? For increasing prices?"
- "What about for the end consumer?"

Insights:

- Candidate should see that customers are willing to pay for a pricier product, but that reducing variable costs (and thereby reducing quality) is not a viable long run strategy and will hurt the brand.

Montoya Soup

Part 3 (continued)

3. How do we fix profitability (math solutions)

<u>Logic behind the math:</u>

Below are the calculations the candidate would have to make if they calculated every single scenario. It seems like a lot, but keep in mind that the margins on Traditional and Light are $10, so candidates can simply add a zero to the cannibalized volume number to get cannibalized profit.

The candidate should feel free to elect not to calculate the first two scenarios if deemed strategically unwise long-term decisions.

Net profit from Premium will be the profit from Premium minus profit lost from cannibalizing Traditional and Light.

	Unit Margin	Volume	Profit	Trad. Vol. Cannib.	Trad. Margin	Trad. Profit Lost	Light Vol. Cannib.	Light Margin	Light Profit Lost	Net Total Profit
Last Year	$6	40	$240	-20	$10	($200)	-5	$10	($50)	($10)
If packaging changed	$9	32	$288	-24	$10	($240)	-5	$10	($50)	($2)
If meat/veg costs reduced	$9	40	$360	-20	$10	($200)	-5	$10	($50)	$110
If price raised to $33	$9	20	$180	-2	$10	($20)	0	$10	$0	$160

Montoya Soup

Part 4

4. Provide client recommendation

Overall:

- Profits have declined due to the introduction of a margin-dilutive product line that cannibalized higher margin products.
- Recommendation is to increase price of Premium product line to $33 per case to maximize profitability (Gross profit would more than quadruple). This recommendation:
  - Increases margins (though volume will drop)
  - Reduces cannibalization substantially
  - Other alternative cost-reduction measures hurt value proposition and will cause long-run issues with brand equity.

Risks:

- Pricing measures didn't consider competitive response (could competitor come in with a lower priced premium soup and force us out of the category?)
- Raising prices could upset some buyers and lose distribution
- Opportunity cost: could be better long-term strategy to keep prices low and start phasing out of old lines, ramping up Premium.

Next steps:

- Perform due diligence on long-term consumer preference forecast
- Launch advertising campaign to make sure we can justify higher prices and defend from competitors
- Look to reduce high fixed costs so we can protect against potentially price-aggressive competitors or increased commodity prices.

Case 15
Mustard Clinic

Interviewer-led

Concepts tested

- Z04 Capacity (3)
- Z12 Creativity (4)

Primary sector(s)

- X08 Healthcare

Case type

- Y07 Profitability
- Y01 Cost reduction
- Y05 Operations

Similar cases

- Alkaline Ash (Columbia 2017)
- Garthwaite Healthcare (Kellogg 2020)
- Princeton-Plainsboro (Wharton 2012)
- Orrington Office Supplies (Kellogg 2020)

{ Edited by: Rohan Maini (Kellogg 2020) }

Mustard Clinic

Interviewer guide

Case prompt

- Your client is the CEO of the Mustard Clinic, a for-profit hospital in the United States.
- The hospital is known primarily for its leading care for babies and young children.
- Patients pay a fixed fee to access services on arrival, and all subsequent costs are borne by the Mustard Clinic.
- Sugar Magnolia does not deal with insurance providers. Instead, patients submit expense claims directly with their insurance provider(s).
- In the last few years, the hospital's profitability has fallen, and they are facing bankruptcy. Last year they lost $1.4m
- The CEO asks you: "Why has profitability gone down and how can we turn it around?"

Interviewer guide

- Problem: How can the Mustard Clinic break even (increase profits by $1.4m)?
    1. Analyze customer segments
    2. Determine cost impact of shorter patient stays
    3. Determine profit impact of shorter patient stays
    4. Brainstorm ways to shorten patient stays
    5. Provide client recommendation

Mustard Clinic

Experience: Tell me about a time you implemented a new way of doing things in an organization.

Case prompt

- Your client is the CEO of the Mustard Clinic, a for-profit hospital in the United States.
- The hospital is known primarily for its leading care for babies and young children.
- Patients pay a fixed fee to access services on arrival, and all subsequent costs are borne by the Mustard Clinic.
- Sugar Magnolia does not deal with insurance providers. Instead, patients submit expense claims directly with their insurance provider(s).
- In the last few years, the hospital's profitability has fallen, and they are facing bankruptcy. Last year they lost $1.4m
- The CEO asks you: "Why has profitability gone down and how can we turn it around?"

Clarifying information

- **Goal**: The Mustard Clinic wants to at least break even.
- **Customers**: The Clinic cannot influence its patient mix in the short term.
- **Services:** The Clinic offers intrapartum (childbirth), neonatal (for newborns), pediatrics (for infants and children) and a small geriatrics (for the elderly) unit.
- **Competitors**: There aren't any competitors that have contributed to the Mustard Clinic's problem.
- **Revenue model:** Customers are charged a fixed fee at the time of checking-in. All subsequent costs are borne by the Mustard Clinic.

Mustard Clinic

Exhibit A – Key hospital unit metrics

Segment	Description	Annual volume (patients)	Average stay (nights)
Intrapartum	Care of due and in-labor mothers (during labor and childbirth)	500	10
Neonatal	Care of premature newborns (first 28 days of life)	300	7
Pediatrics	Care of infants, children, and adolescents (up to age 21)	150	11
Geriatrics	Care of elderly patients (aged 60 and over)	50	25

Exhibit B – Cost structure

Fixed costs	$1.4m
Variable costs	$600/patient per night
Average stay (nights)	10
Patients per year	1,000
Capacity utilization*	100%

Notes:

- Capacity = Total number of patient nights per year that the Mustard Clinic can accommodate

Mustard Clinic

Part 1

1. Analyze customer segments

Provide Exhibit A

- Our team has conducted the following analysis on various groups of customers.
- Providing overnight care is expensive for the Mustard Clinic. In number of nights, what is the average stay duration for a Mustard Clinic patient?

Unit	Volume	Average stay (nights)	Total nights
Intrapartum	500	10	500 x 10 = 5,000
Neonatal	300	7	300 x 7 = 2,100
Pediatrics	150	11	150 x 11 = 1,650
Geriatrics	50	25	50 x 25 = 1,250
Total	1,000		10,000

- Average stay duration = Total nights / Number of patients = 10,000 / 1,000 = 10 nights
- Takeaway: Because we have a fixed fee arrangement, it might be worth looking to reduce the average patient stay duration.

Mustard Clinic

Part 2

2. Determine cost impact of shorter patient stays

Provide Exhibit B

- If the Mustard Clinic were to reduce the length of an average patient stay by two nights, what would be the cost saving?

Costs with 10 night stay

- Fixed costs: $1.4m
- Variable costs: 1,000 patients x 10 night stay x $500 per night = $6m

Costs with 8 night stay

- Fixed costs: $1.4m
- Variable costs: 1,000 patients x 9 night stay x $500 per night = $4.8m

- **Takeaway:** Shorter stays saves $1.2m, which is promising but doesn't help the Mustard Clinic breakeven.
- But shorter stays also frees up capacity for new patients.

Mustard Clinic

Part 3

3. Determine profit impact of shorter patient stays

- Reducing the average stay length frees up space for new patients. How many additional patients can we serve and what would be the impact on profit if the average revenue per patient is $6,000?

- Hospital capacity: 1,000 patients x 10 nights average stay = 10,000 patient nights
- Capacity made available from stay reduction: 1,000 patients x 2 night stay reduction = 2,000 patient nights
- Additional patients that could be served: 2,000 patient nights / 8 night average stay = 250 additional patients

- Revenue: 1,250 patients per year x $6,000 revenue per patient = $7.5m
- Fixed Cost: $1.4m
- Variable Cost: 1,250 patients per year x 8 night average stay x $600 variable costs per night = $6m
- Proft = $7.5m – ($1.4m + $6m) = $100k

- **Takeaway:** The Mustard Clinic can return to profitability by shortening patient stays by 2 nights and using the freed up capacity.

Mustard Clinic

Part 4

4. Brainstorm ways to shorten patient stays

- What are some ways in which the Mustard Clinic could reduce the average patient stay duration from 10 to 8 nights?

- The actual ideas are less important here than providing some approach to structuring the brainstorm. One example might be to use steps in the patient journey to identify areas to optimize speed.

Patient Journey				
Admittance	Diagnosis	Surgery	Recovery	Other
• Decrease/eliminate geriatrics unit	• More receptionists • Partner hospitals • Tele-diagnosis	• Technology • Doctor skill/quality • Operational delays?	• Tele-medicine • At-home care • Partner hospitals	• End fixed fee pricing • Drive awareness of cost structure to doctors

Mustard Clinic

Part 5

5. Provide client recommendation

- **Overall**, the Mustard Clinic can meet their goal and return to profit.
- This is based on decreasing average patient stay duration from 10 to 8 days, which:
  - Saves $1.2m in variable costs per patient night for all patients
  - Frees up capacity for 250 additional patients
  - Brings in $300k in profit from these additional patients
  - One way to reduce patient stay duration would be to close the Geriatrics unit, which is not our core competency.
- **Risks:** Reducing average patient stay might affect revenues if patient care worsens or if Geriatrics is a complementary service.
- **Next steps:** Feasibility study into tactical ways to actually reduce average without impacting patient care.

- Strong candidates maintain organization well since there are several points in the case when they will need to refer back to previous clarifying information, exhibits or calculations.
- Outstanding candidates are able to think strategically about the impact of changes throughout the case. Structures math and finds quick ways to do calculations (eg. Q2 saving = 2 nights x 1,000 patients x $600 per night = $1.2m)

Case 16
Orrington Office Supplies

Concepts tested

- Z04 Capacity

Primary sector(s)

- X04 Engineering & Construction

Case type

- Y05 Operations
- Y07 Profitability

Similar cases

- Alkaline Ash (Columbia 2017)
- Garthwaite Healthcare (Kellogg 2020)
- Princeton-Plainsboro (Wharton 2012)
- Mustard Clinic (Kellogg 2020)

Case author(s): Andy Grieve (Kellogg 2001)
Edited By: Peter Manoogian (Kellogg 2012), Rohan Maini (Kellogg 2020)

Orrington Office Supplies

Interviewer guide

Case prompt

- Our client, Orrington Office Supplies (OOS) is a leading manufacturer of office products in 1992, with sales of $275m in 1991. They have strong brands, invest heavily in marketing and advertising, and have grown through product line extensions and 4 key acquisitions.
- OOS is organized into 5 autonomous divisions, but shares manufacturing and marketing functions. Shared costs (45% of total) are allocated on a percentage share of sales method. There are three plants running at a current capacity utilization of 50%.
- Analysts predict OOS is a potential acquisition target given its strong balance sheet but weakening earnings. They are publicly traded and have little long-term debt. As a potential investor, how would you improve its profitability?

Interviewer guide

- <u>Problem</u>: How can OOS increase profits?
- Problem solving steps:
    1. Identify trends in sales and profit
    2. Analyze plant production operations
    3. Determine financial impact of plant consolidation
    4. Provide client recommendation

Orrington Office Supplies

Fit: What role do you typically play in a team? Give me an example of this.

Case prompt

- Our client, Orrington Office Supplies (OOS) is a leading manufacturer of office products in 1992, with sales of $275m in 1991. They have strong brands, invest heavily in marketing and advertising, and have grown through product line extensions and 4 key acquisitions.
- OOS is organized into 5 autonomous divisions, but shares manufacturing and marketing functions. Shared costs (45% of total) are allocated on a percentage share of sales method. There are three plants running at a current capacity utilization of 50%.
- Analysts predict OOS is a potential acquisition target given its strong balance sheet but weakening earnings. They are publicly traded and have little long-term debt. As a potential investor, how would you improve its profitability?

Clarifying information

Industry

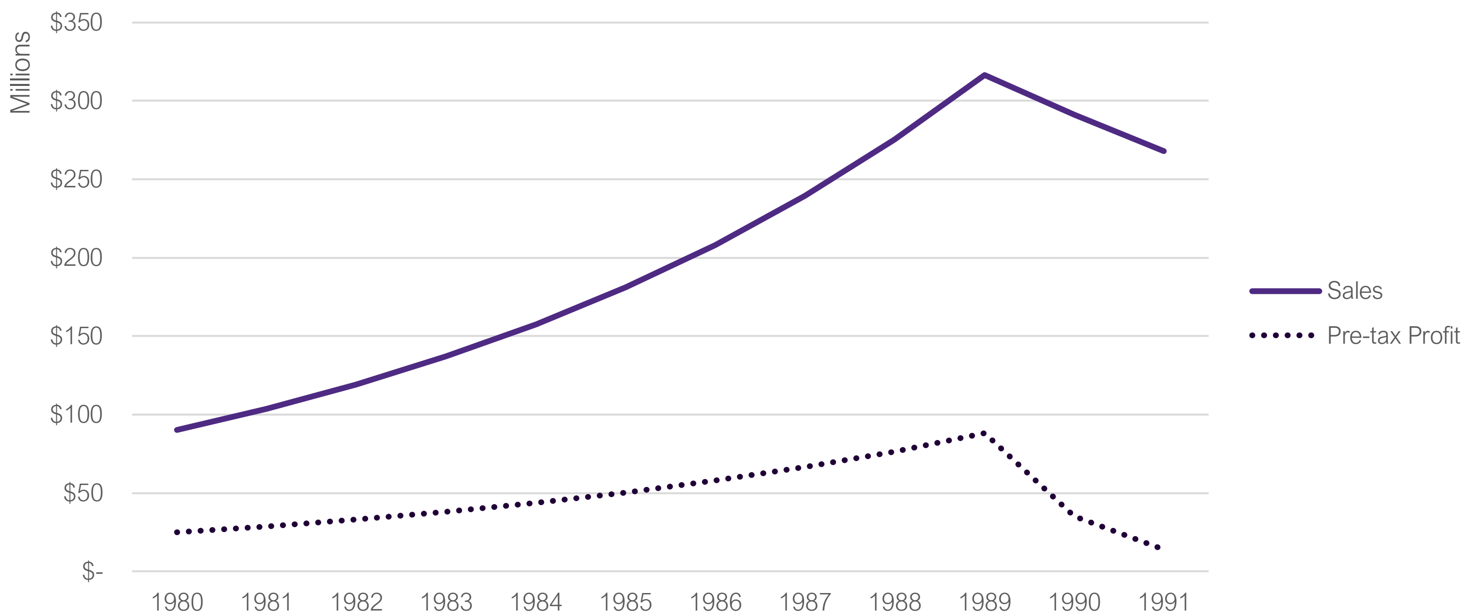
- U.S. Office supplies market grew at 5% CAGR historically. In 1990 and 1991, the market declined at 5% per year.
- Superstore channel is becoming increasingly critical
  - Gained 10 share pts in past 2 years
  - Typically discount products 30% to small retailers/dealers
- Superstores are aggressively substituting private label products for traditional brand names

Client Characteristics

- Broader product line than competitors (12.5k SKUs vs. 4-5k for competitors)
- Distribution: 75% wholesalers, 15% superstores, 10% end customers
- Highest selling product is a high-end branded stapler
- Staples, Inc. is OOS's largest customer

Orrington Office Supplies

Exhibit A – Historical revenues and profits



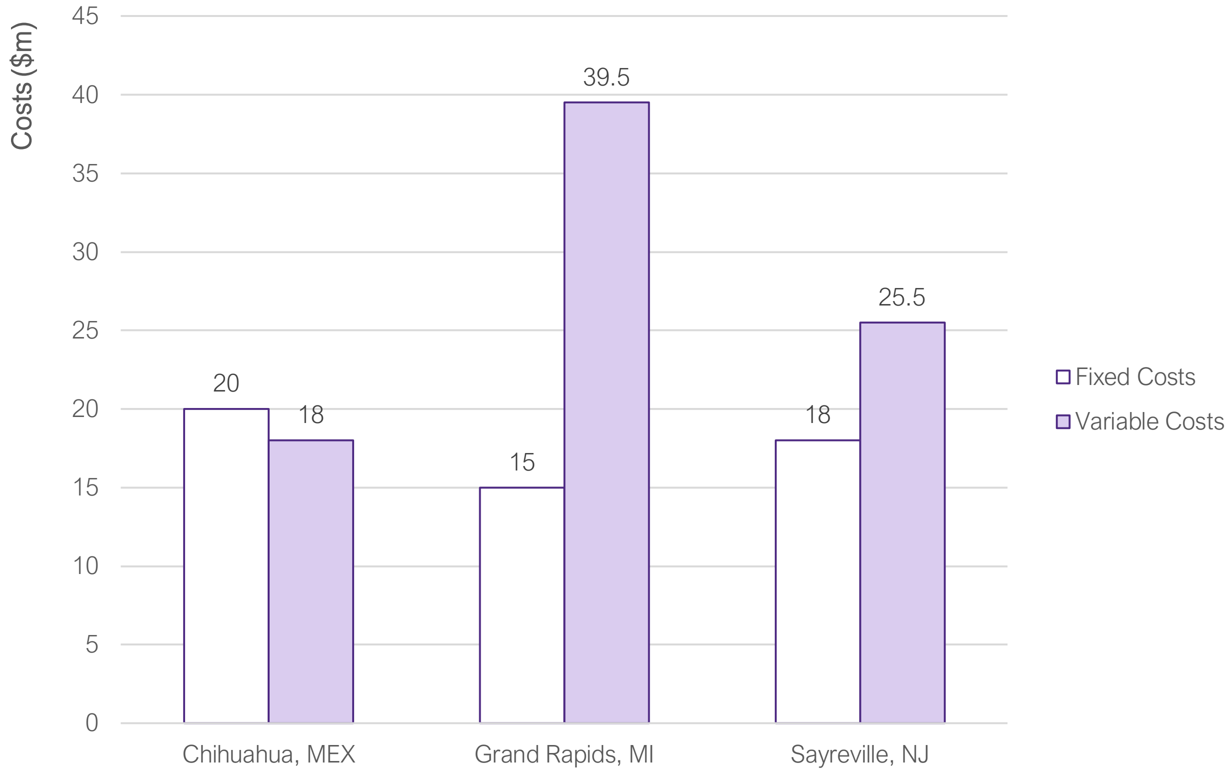
	1980 to 1989	1989 to 1991
Sales CAGR	15%	-8%
Pre-tax Profit CAGR	15%	-40%

Orrington Office Supplies

Exhibit B – Production plants

Orrington Office Supplies

Exhibit C – Plant operating costs



Orrington Office Supplies

Part 1

1. Identify trends in sales and profit

Provide Exhibit A after the candidate asks about profitability

- Why do the slopes for sales and profits differ as time elapses?

- The interviewee should not only be able to interpret the data on this slide, but also come up with two insights:
  1. The fact profits have been declining more steeply than sales reflects the fixed-cost nature of this business, and;
  2. The reason that sales did not grow at a faster clip than profitability during the 1980s likely reflects a strategy to grow through acquisitions, which prevented OOS from seeing the gains through economies of scale that one would normally expect in a business such as this

Part 2

2. Analyze plant production operations

Provide Exhibit B after the candidate asks about plant consolidation

- Qualitatively discuss the potential options for plant consolidation with the interviewee.

- The interviewee should recognize the Chihuahua plant is close to having capacity to produce OOS's 12.5k SKUs. Either OOS can close that plant and move all production to the US, or it could close the US plants, discontinue 500 SKUs and move production to Chihuahua.
- Strong interviewees will note that Chihuahua is the most feasible strategy, but will ask to see fixed and variable cost data.

Orrington Office Supplies

Part 3

3. Determine financial impact of plant consolidation

Provide Exhibit C after the candidate asks about Costs

- How would this change revenues? (currently $275m/year)
- How would this change production costs? What are they now?
- How would this change pre-tax profits (currently $25m/year?)

- **Revenues**: Each SKU earns annual revenues of $22k ($275m divided by 12,500 SKUs) therefore, eliminating 500 SKUs will decrease annual revenue by $11m, or 4%
- **Costs**:

Each plant currently has the following annual costs:

Chihuahua: $20m + $18m = $38.0m
Michigan: $15m + $39.5m = $54.5m
New Jersey: $18m + $25.5m = $43.5m
$136m

Each plant has the following variable cost per SLU:

Chihuahua: $18m / 4.5k SKUs = $4k per SKU
Michigan: $39.5m / 5k SKUs = $7.9k per SKU
New Jersey: $25.5m / 3k SKUs = $8.5k per SKU

- Consolidating revenues to Chihuahua will reduce annual costs by 50% to:
- Chihuahua: $20m + ($4k * 12k SKUs) = $20m + $48m = $68.0m
- **Profits**: We increased profits by $57m ($68m - $11m) to $82m, which more than triples them.

Orrington Office Supplies

Part 4

4. Provide client recommendation

- Overall, our client should eliminate 500 SKUs and consolidate all production to the Chihuahua plant to raise annual profits from $25m to $82m.
- The client should also consider several qualitative issues:
  - Implementation: Long-term timeframe.
  - Unionized labor: Whether organized labor exists at closing plants and the impact of that
  - Distribution and Warehousing: We will need a carefully-developed transition plan.
  - Purchasing: We will need to transition to a strong central purchasing department, rather than smaller local ones.
  - Culture: Communicating the change properly is key, and we will need to ensure that morale does not take a nosedive.

- **Excellent interviewees** need to recognize what macroeconomic issues are beyond the scope of the client's control and then quickly dive into the plant consolidation, then analyze the cost structures

Case 17
Plastic World

Concepts tested

- Z13 Organizational changes
- Z07 Market share
- Z10 Customer strategy

Primary sector(s)

- X06 Financial Services

Case type

- Y03 Mergers & Acquisitions

Similar cases

- Snack Foods Acquisition (Wharton 2017)
- Steel Corp (Haas 2015)
- Soda Ash Producer (Columbia 2017)

Case authors: Milija Medic
Edited By: Peter Manoogian (Kellogg 2012), Laura Mast (Kellogg 2020)

Plastic World

Interviewer guide

Case prompt

- Our client is a private equity firm interested in Plastic World, a plastic packaging manufacturer.
- Plastic World's owners are requesting $25m. The offer is final. Should our client buy the company?

Interviewer guide

- Problem: Should the PE firm purchase Plastic World for $25m?
- Problem solving steps:
    1. Examine financial statements
    2. Explore feasibility of target's profit margin improvement
    3. Provide client recommendations

Plastic World

Fit: Tell me about a time that you demonstrated entrepreneurial drive in a non-professional environment.

Case prompt

- Our client is a private equity firm interested in Plastic World, a plastic packaging manufacturer.
- Plastic World's owners are requesting $25m. The offer is final. Should our client buy the company?

Clarifying information

- Company
- Makes plastic packaging for beverages, cosmetics, household and automotive chemicals
- Products are top quality, they have 350 sets of molds, with different materials, finish, colors, always innovating
- Overall product mix has not changed in recent years
- The sales force is "the best in breed", they hold market share, and they are compensated on market share
- Two years ago they invested further in equipment for product innovation
- Customers
- Plastic Worlds' customers exhibit strong loyalty
- They are experiencing increasing pressures in their industries to innovate the plastic packaging

Plastic World

Exhibit A – Profit & Loss statement

		2018	2017	2016
Sales	($)	18,824,000	19,180,000	19,650,000
Volume	(units)	36,200,000	34,250,000	32,750,000
COGS	($)	9,050,000	8,900,000	8,650,000
SG&A	($)	7,500,000	7,200,000	7,300,000
Depreciation	($)	3,450,000	3,450,000	2,250,000
EBIT	($)	(1,176,000)	(370,000)	1,450,000

Exhibit B – Competitor Profit Margins

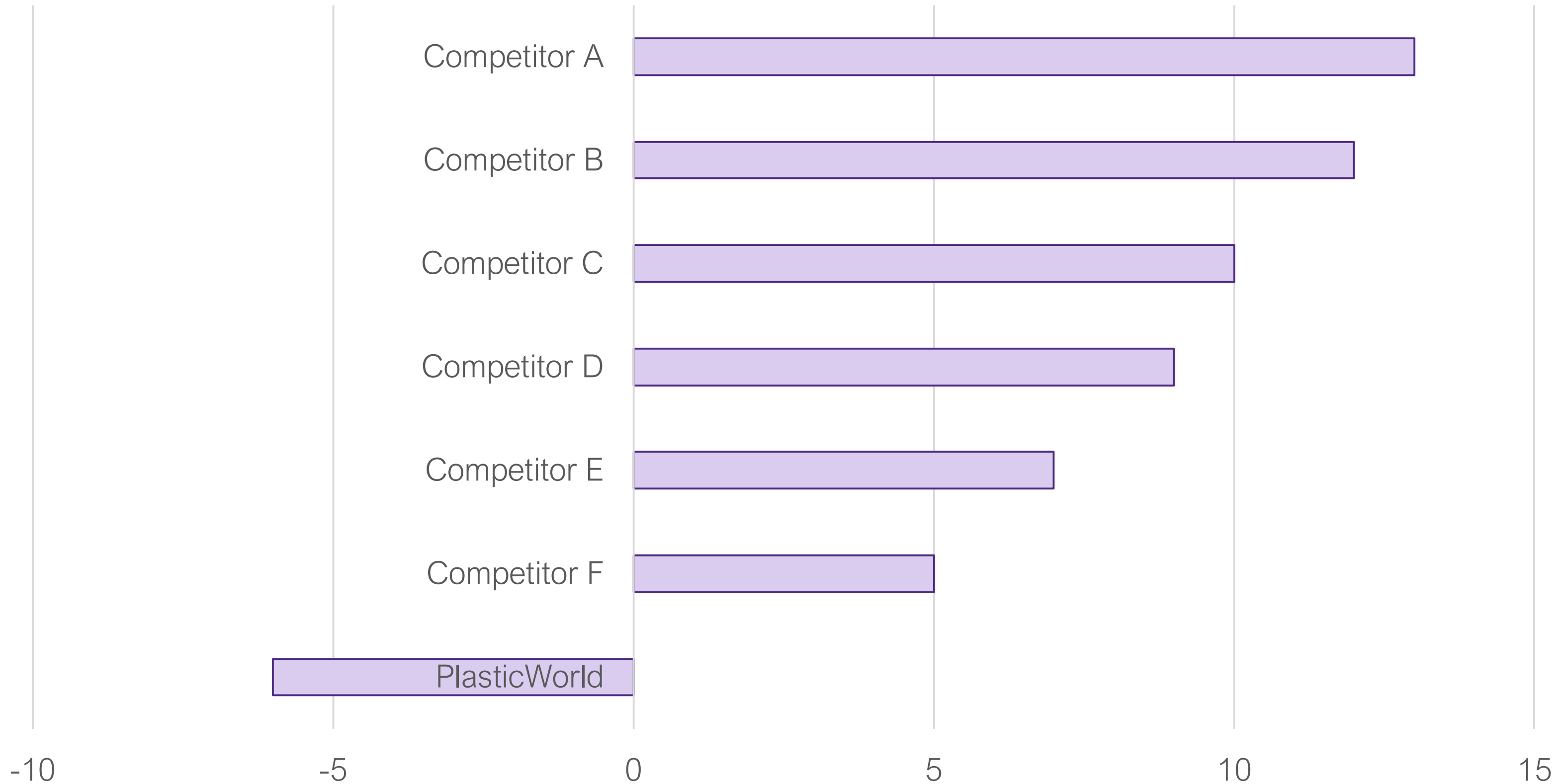
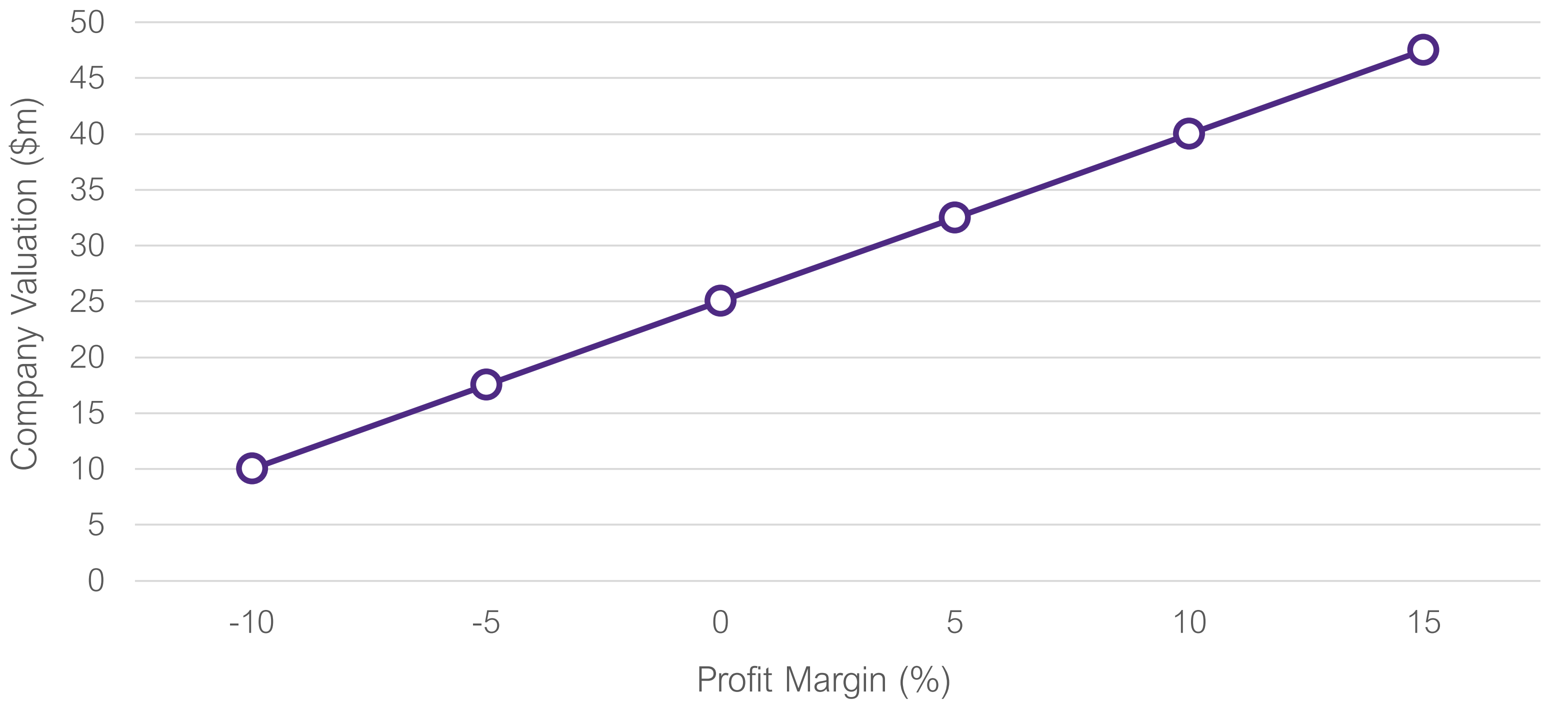


Exhibit C – Valuation by Profit Margin



Plastic World

Part 1

1. Examine financial statements

Provide Exhibit A immediately after the interviewee runs through their problem-solving structure

- What observations can be made from this P&L statement?
- Would could be the reasons behind what is in the data?

- Plastic World has experienced a steady drop in revenues while the sales volume has been growing.
  - Profit margin is dropping and negative; Interviewee should calculate the profit margin (-6%)
  - Given the unchanged product mix and increasing sales volume, the drop in revenues is caused by a reduction in prices;
  - Depreciation change – it was equipment investment.

- To check if it's an industry-wide or company-specific drop in profitability, they should request competition profitability data
- Interviewee should ask about the product quality and customer loyalty to discard price competition as the reason to drop prices. The products are high-quality and customers are loyal, so most of them would buy even at a higher price.
- The interviewee should find, asking independently or with your help, that sales force is compensated based on market share. This gives the sales force incentive to drop the prices.

Plastic World

Part 2

2. Explore feasibility of target's profit margin improvement

Provide Exhibit B when the interviewee requests information about Competitors

Provide Exhibit C after the interviewee starts talking about using Profit Margins in Valuation

- Exhibit B
    - The candidate should identify the profitability problem is client-specific, all competitors are profitable
    - Push the interviewee to discuss a realistic profit margin goal for Plastic World based on this industry profitability data
- Exhibit C
    - The observation from the graph is that the company would be worth $25M if Plastic World increased profit margin from –6% to 0%. If the profit margin reached the industry average, the company would be worth $40M.
    - Now the question is how easily can the profitability be increased above zero (making the company worth more than the $25M). The sales force incentive change is easy to make.
    - Looking for other high-impact improvements, the dense product line and constant innovation is the next largest candidate. Eliminate some molds to cut costs, mindful of innovation pressures in PW's clients' industries.
- Interviewee should investigate the profitability drop and the low prices further and suggest options to get Plastic World's profitability in line with the industry, and their feasibility

Plastic World

Part 3

3. Provide client recommendation

- Our client should accept the $25M offer and boost the profitability (and value) of PlasticWorld.
- The client should engage in the following easy-to-implement changes:
  - Compensate sales force based on company earnings instead of market share.
  - Simplify the product line - eliminate some of the 350 molds to cut costs while leveraging the superior sales force to maintain client satisfaction.
  - Examine the industry best practices to find other areas for improvement.

- **Excellent interviewees** will immediately notice that the company would be worth more than $25M if its profit margin was at the level of industry average.
- **Outstanding interviewees** will quickly identify the pricing as the issue behind the revenue decrease and lay out potential causes for the price drop, finding the sales force incentive. A framework comprehensive enough to find the product line size problem is a bonus.

Case 18
Rotisserie Ranch

Interviewer-led

Concepts tested

- Z10 Customer marketing strategy

Primary sector(s)

- X02 Agriculture & Food
- X12 Retail & CPG

Case type

- Y04 New product
- Y06 Opportunity assessment

Similar cases

- Beverage Manufacturer (Wharton 2012)
- Botox (Stern 2012)

Case author(s): Brian Fox (Kellogg 2004)
Edited By: Adam Louras (Kellogg 2011), Rohan Maini (Kellogg 2020)

Rotisserie Ranch

Interviewer guide

Case prompt

- Our client is Rotisserie Ranch, a poultry farming company that specializes in growing chickens for rotisserie roasting. Its primary customer segment is comprised of large grocery chains that buy chickens to fresh roast in the meat departments of their grocery stores.
- Market research has revealed to Rotisserie Ranch that more and more consumers have begun buying flavored rotisserie chickens recently.
- Rotisserie Ranch is thinking of pre-flavoring some of its chickens for grocers, what would you consider in making this recommendation?

Interviewer guide

- <u>Problem</u>: Should Rotisserie Ranch pre-flavor its chickens?
- Problem solving steps:
    1. Brainstorm value to customers of new product
    2. Analyze results of market test
    3. Provide client recommendation

Rotisserie Ranch

Fit: Tell me about a time you had to deal with a difficult boss.

Case prompt

- Our client is Rotisserie Ranch, a poultry farming company that specializes in growing chickens for rotisserie roasting. Its primary customer segment is comprised of large grocery chains that buy chickens to fresh roast in the meat departments of their grocery stores.
- Market research has revealed to Rotisserie Ranch that more and more consumers have begun buying flavored rotisserie chickens recently.
- Rotisserie Ranch is thinking of pre-flavoring some of its chickens for grocers, what would you consider in making this recommendation?

Clarifying information

- **Industry:** Predicting demand for cooked chickens is difficult for grocers; any leftover cooked chickens at the end of the day are thrown out; unthawed chickens cannot be re-frozen
- **Client:** Client has patented process for sterilely packaging chicken, so that it will remain fresh for 30 days, making freezing unnecessary. Client is currently the industry market share leader in rotisserie-ready chicken
- **Product:** Four New "Flavored" Products to be introduced concurrently: Barbecue, lemon herb, tandoori and teriyaki
- **Competitor:** No competition in new product market due to patented process

Rotisserie Ranch

Exhibit A – Store sales

	Standard Rotisserie		BBQ Seasoned Rotisserie	
Store	A	B	C	D
Weekly Sales	$1,000	$2,000	$1,600	$2,700
Retail Price	$3.33	$2.50	$4.00	$3.00
Retailer Margin	30%	30%	25%	25%

Rotisserie Ranch

Part 1

1. Brainstorm value to customers of new product

  - Do you think that grocery retailers would be interested in pre-seasoned chickens from Rotisserie Ranch?
- After the interviewee brainstorms, ask them:
  - After several interviews, grocers are interested in Rotisserie Ranch's proposed new product, but first they want to be sure that the chickens will sell well. How would you make sure?
- The candidate may begin going into detail on how this test would be run. Cut him or her off as soon as you are comfortable that they understand that: (a) a pilot test should be run and (b) the pilot needs to have some control or comparison group.

Yes	No
• Labor Cost Reduction: Meat department workers; don't need to spend time seasoning the chickens. • Economies of Scale: Seasoning centralization; lower cost. • Product Consistency: Centrally managed; able to spend more on R&D.	• Loss of Differentiation: Grocery chains differentiate by value-added . • Attune to Local Needs: Likely to be better at gauging consumer tastes. • Increases Inventory & SKUs.

Rotisserie Ranch

Part 1

2. Analyze results of market test

Provide Exhibit A once the interviewee identifies the need for market testing

- A test market launch for the new Rotisserie Ranch BBQ chicken was administered. What is the overall profit for both Store A and B from the test market?

- Using Exhibit A, interviewee should calculate:
  - Retailer profit for Seasoned Chicken compared to Standard Chicken
  - Retailer profit = # of chickens sold * (price per chicken * retailer margin per chicken)

- Standard Chicken (total profit for retailers = $300 + $600 = $900/week)
  - Store A: $1,000 (weekly sales) * 30% (retailer margin) = $300 overall profit
  - Store B: $2,000 (weekly sales) * 30% (retailer margin) = $600 overall profit

- Test Market BBQ Seasoned Chicken (total profit for retailers = $400+ $675= $1,075/week)
  - Store C: $1,600 (weekly sales) * 25% (retailer margin) = $400 overall profit
  - Store D: $2,700 (weekly sales) * 25%* (retailer margin) = $675 overall profit

Rotisserie Ranch

Part 3

3. Provide client recommendation

- Overall, our client should launch the Pre-Seasoned BBQ Chicken product and test other products because:
  - Competitive Necessity: Consumers are spending more money on seasoned rotisserie chicken than traditional rotisserie chicken and the market is shifting in this direction
  - Benefit to Grocers: Assuming test market was representative, Grocers can expect to earn $175 more gross profit using our client's product relative to the standard rotisserie chicken
  - Potential scale benefits to our Client over time as more pre-seasoned chickens are sold

Case 19
Salty Sole Shoe

Concepts tested
- Z12 Creativity
- Z01 Accounting (2/3)
- Z09 Microeconomics

Primary sector(s)
- X12 Retail and Consumer
- X06 Financial Services

Case type
- Y07 Profitability

Similar cases
- US Shoe Manufacturing (Wharton 2017)
- Kicks (Tuck 2009)

Case authors: Meredith Tierney (Kellogg 2011)
Edited By: Uri Kalir (Kellogg 2012), Derek Wiatrowski (Kellogg 2020)

Salty Sole Shoe

Interviewer Guide

Case prompt

- Your client is a large retail-focused private equity firm that owns Salty Sole, a leading designer of junior women's footwear, primarily targeting the 14 – 22 year old age group.
- Salty Sole was purchased last year by the private equity firm expecting to realize substantial profits upon sale in 2012 by increasing the company's EBITDA. The situation, however, is that due to a current recession, annual profit has only grown modestly post the acquisition and is not on track to generate the double-digit returns that the private equity firm originally anticipated.
- How can the company increase profitability and achieve the private equity firm's return on investment objectives?

Interviewer guide

- The case primarily tests an understanding of profitability and profitability growth strategies. Begin by reading the case question and asking the interviewee to take a few moments and then explain how they would like to proceed in the client's problem
    1. Develop a structure to address the problem
    2. Analyze client costs
    3. Analyze client revenues
    4. Analyze market size/share
    5. Provide client recommendation

Salty Sole Shoe

Fit: What is an example of when you showed initiative and leadership?

Case prompt

- Your client is a large retail-focused private equity firm that owns Salty Sole, a leading designer of junior women's footwear, primarily targeting the 14 – 22 year old age group.
- Salty Sole was purchased last year by the private equity firm expecting to realize substantial profits upon sale in 2012 by increasing the company's EBITDA. The situation, however, is that due to a current recession, annual profit has only grown modestly post the acquisition and is not on track to generate the double-digit returns that the private equity firm originally anticipated.
- How can the company increase profitability and achieve the private equity firm's return on investment objectives?

Clarifying information

- **Industry Characteristics/Market Economics:** Client is the market leader in junior women's footwear in the U.S. only. Apparel industry is characterized by cyclicality due to economy and consumer preferences.
- **Client Characteristics:** Client designs and distributes footwear to discount retailers (like Kohl's) and is considered mid-priced. Client outsources all manufacturing on a fixed-contract basis (i.e. manufacturing costs with outsourced providers fall under Fixed Costs for simplicity).
- **Competitive Dynamics:** Client follows a "me-too" strategy and follows fashion rather than inventing it then offering lower prices than name brands (i.e. not subject to fashion risk). Client competes on the basis of trendy fashion and value pricing.

Exhibit A – Salty Sole Financial Estimates

($ in millions)

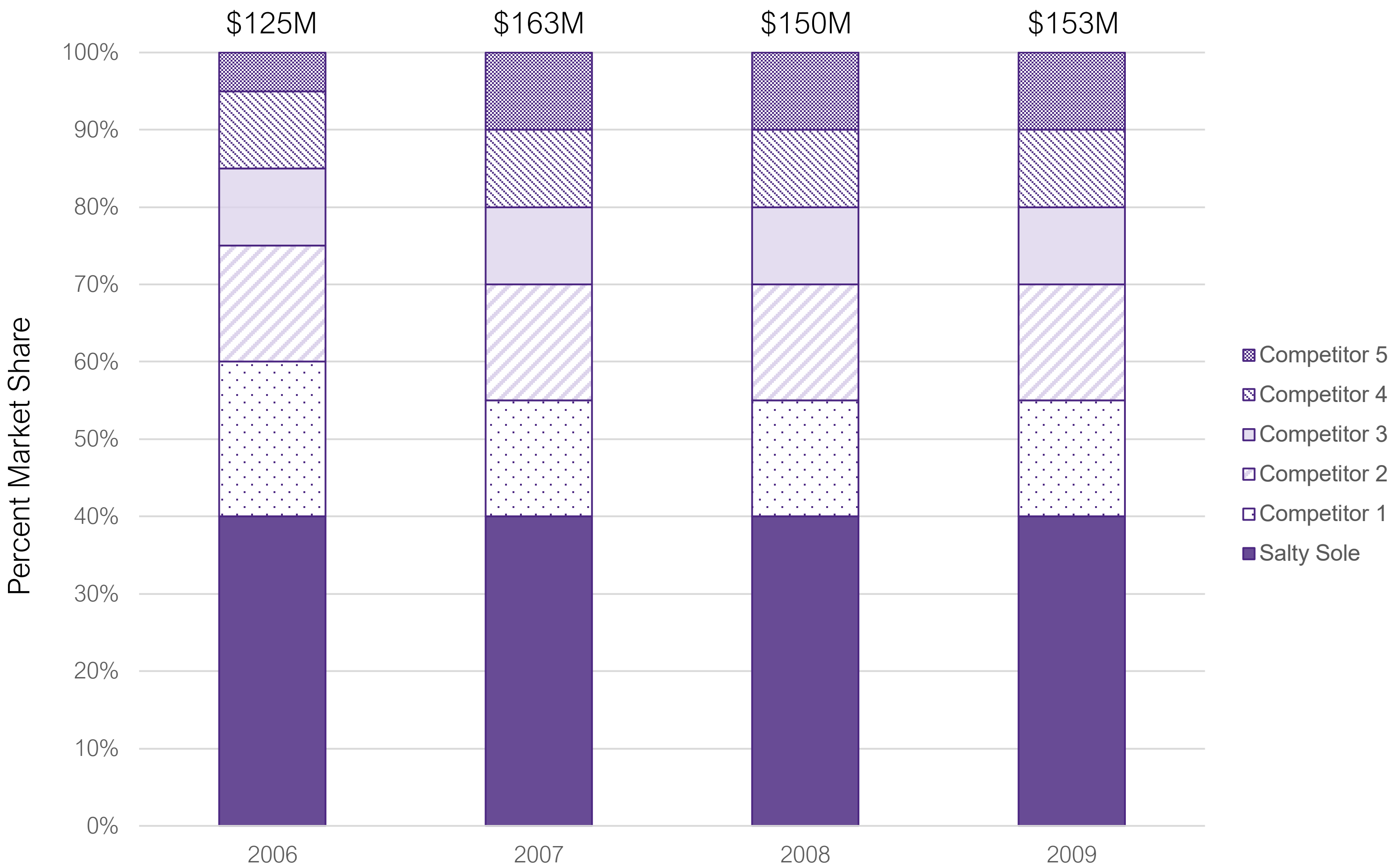
	2006A	2007A	2008A	2009E	2010E	2011E	2012E
Sales $	50.0	65.0	60.0	61.0	62.0	65.0	70.0
Less Discounts/Allowances $	(0.5)	(0.65)	(0.60)	(0.61)	(0.62)	(0.65)	(0.7)
Net Sales $	49.5	64.35	59.4	60.39	61.38	64.38	69.3
% Increase	20.0	30.0	(7.7)	1.7	1.6	4.8	7.7
COGS	24.75	32.18	29.70	30.20	30.69	32.18	34.65
Fixed Costs	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Total Costs	39.75	47.18	44.70	45.20	45.69	47.18	49.65
EBITDA $	9.75	17.18	14.70	15.20	15.69	17.18	19.65
Sale Multiple	6.5x	6.5x	6.5x	6.5x	6.5x	6.5x	6.5x
Purchase/Sale Price $		111.64	95.55	98.77	101.99	111.64	127.73
Return on Investment %							2.7

Notes:

- Acquisition occurred on December 31, 2006

Salty Sole Shoe

Exhibit B – US Casual Footwear Market Size and Share

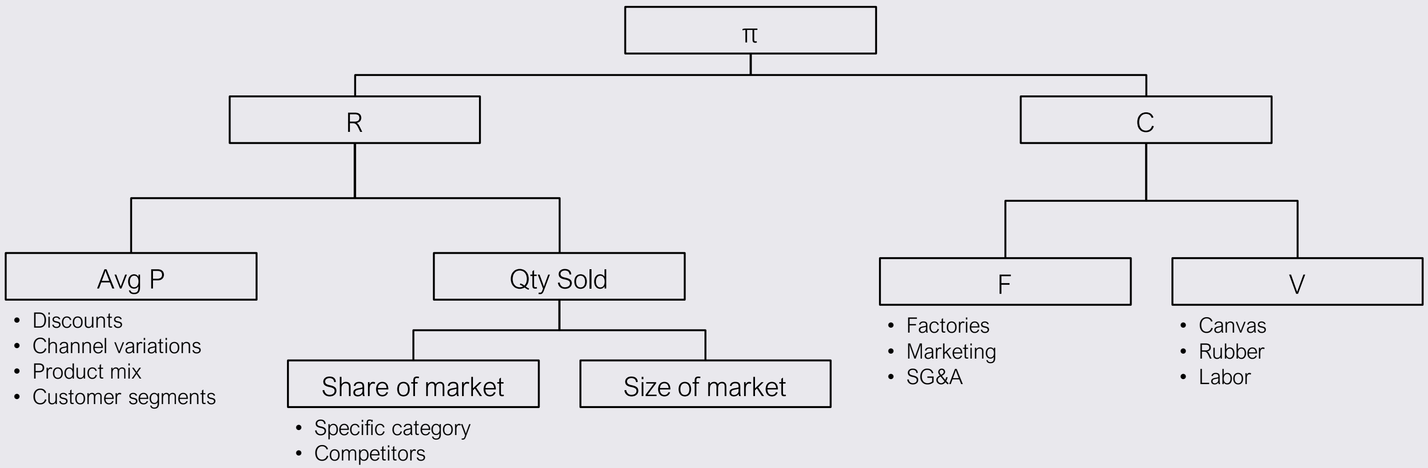


Salty Sole Shoe

Part 1

1. Develop a structure to address the problem

- After asking the case question, the interviewee should draw a framework that outlines the basic concept that profit is driven by revenue (price and volume) and cost (fixed and variable)



Salty Sole Shoe

Part 2

2. Analyze client costs

Provide Exhibit A

- What observations can be made from this chart? Interviewee should point out that the company experienced significant growth during the pre-recession years, but a decline and only gradual pick-up following.

- Interviewee should pick-up on the fact that the change in net sales is not due to increased discounts/allowances (remains 1% throughout years).
- Have a quick discussion on the company's **cost** structure
  - On the cost side, interviewee should note that variable costs remained flat at 50% and fixed costs remained flat
  - **Fixed:** Interviewee should note that fixed costs are not extremely high (about 23-25%), but could be an area for improvement. Ask how interviewee would reduce fixed costs? Examples include: renegotiate contracts, find cheaper manufacturing partners, etc.
    - State that in-fact fixed costs cannot be adjusted based on the company's research.
  - **Variable:** Interviewee should note that variable costs are approximately 50% of sales. Ask how interviewee would think about reducing variable costs? Examples include: reduce labor/sales force, use technology, renegotiate / volume purchase materials
    - State that variable costs are currently at the lowest possible rates based on market research.

Salty Sole Shoe

Part 3

3. Analyze client revenues

- Once interviewee determines that cost is not the issue, have a discussion on the components of **revenue** – price and volume.
- Price: Interviewee should ask if pricing has remained constant over time or if the company has adjusted its pricing to reflect lower consumer discretionary income.
- Ask what considerations the interviewee would have when considering adjusting price?
  - Answers should be price sensitivity / elasticity, cost structure, brand equity (dilute brand through price decrease but compete with more upscale brands if increase).
  - State that pricing has remained constant at an average of $25/unit. The company has determined that it would not be prudent to adjust pricing based on industry research. Interviewee can now determine the # of pairs sold for later in the case.
- Now that the interviewee has hopefully zeroed-in on the fact that the issue is volume, ask how many units must be sold by 2012 in order for the private equity firm to achieve a 20% return on the investment in Salty Sole Shoe, which equals approximately $300 million sale value (give this number). Note that interviewee should ignore discounts/allowances for simplicity.
- Interviewee should determine that if the sale value needs to be $300mm in 2012, then EBITDA will need to be $300 / 6.5 = $46.15 (round up to $50 million).
- The formula to determine how many pairs of shoes must be sold to reach that EBITDA level is as follows:
  - $50,000,000 = $25*v – (.5 * 25 * v) – 15,000,000
  - $65,000,000 = 12.5v
  - V = 5,200,000 pairs of shoes

Part 4

4. Analyze market size/share

- Interviewee should note that this is more than double the 2008 and 2009 volume levels. Ask what the interviewee would want to know to determine if this volume is feasible? Answer: market size / share.

Provide Exhibit B

- Show the candidate Exhibit B when he/she notes that market size/share would be helpful.
- Candidate should note that the client is already the market leader with 40% and that the market size is not projected to increase.
- This should lead to the conclusion that the client can increase volume by stealing share and/or new products in other categories.

Salty Sole Shoe

Part 5

5. Provide client recommendation

- The interviewee should zero-in on the fact that since cost-structure is fixed and price is also fixed, volume is the only real way to increase profitability.
- However, volume must more than double in order to achieve the growth desired by the private equity firm for a 20% return, which could be difficult given recession and the fact that the industry as a whole isn't growing.
- Interviewee should recommend potentials strategies for achieving that volume growth while outlining the risks of each: 1) Volume: new products / geographies / distribution channels (international?); increase marketing to steal share; acquire growth (brands); adjust product mix to higher-margin products. 2) Price: add value / features. 3) Risks: Capacity, cannibalization if new products.

- **Excellent interviewees** quickly identify that volume is the issue by ticking through the parts of the profitability equation.
- They will also ask about product mix and question the 50% gross margin. The interviewer should note that it's assumed that all products have the same margin, but that's a great question.
- **Outstanding interviewees** will note that since the company is not projected to have to adjust discounts / allowances, then it probably has a good product that is highly-valued by customers and/or this may be aggressive projecting.

Case 20
Sosland Sports

Concepts tested

- Z03 Breakeven analysis (2)
- Z11 Competitive analysis (3a)
- Z12 Creativity (3b)
- Z10 Customer strategy (4)

Primary sector(s)

- X09 Hospitality & Leisure

Case type

- Y04 Market Entry

Similar cases

- Thrill Park (Fuqua 2016)
- Tommy's Tennis (WSO 2012)
- Snack Foods Acquisition (Wharton 2017)

Case source: PrepLounge ('Fysikum')
Edited by: Rohan Maini (Kellogg 2020)

Sosland Sports

Interviewer guide

Case Question

- Your client, Sosland (pronounced sauce-land) Sports, is an operator of squash centers in Sweden. The squash centers include sauna, spa, pool, gym and - of course - the squash courts!
- Due to the extreme success in Sweden the company is considering expanding to other countries in Europe, in particular Germany.
- The founder and CEO, Felicity Sosland, has asked us to evaluate this possible expansion.
- What factors would you consider in order to estimate the outcomes of this expansion?

Interviewer guide

- Problem: Should Sosland Sports expand into Germany?
- Problem solving steps
  1. Develop problem solving structure
  2. Determine the breakeven point

  3a. Conduct competitive analysis

  3b. Brainstorm service differentiators

  4. Provide client recommendation

Sosland Sports

<u>Experience</u>: Tell me about your most meaningful career achievement to date.

Case Question

- Your client, Sosland (pronounced sauce-land) Sports, is an operator of squash centers in Sweden. The squash centers include sauna, spa, pool, gym and - of course - the squash courts!
- Due to the extreme success in Sweden the company is considering expanding to other countries in Europe, in particular Germany.
- The founder and CEO, Felicity Sosland, has asked us to evaluate this possible expansion.
- What factors would you consider in order to estimate the outcomes of this expansion?

Clarifying information

- **Company:** Sosland Sports centers are mid-range centers with medium-quality facilities. They only exist in Sweden.
- **Goal:** Breakeven at least. No timeframe.
- **Revenue:** Annual subscription based revenue model.

Exhibit A – Cost overview

Total annual cost	€200,000
Number of courts	15
Opening hours	8am – 6pm
Days of use per week	7
Court use	1 hour per member per week
Usage capacity	70%

Part 1

1a. Develop problem solving structure

- This question should give an overview of the candidate's ability to structure an answer. The best way to solve this is by using a "3C's" or "Five Forces" analysis.
- The interviewee should recognize the question as an opportunity to brainstorm.
- The answer should include some of the following points:

Customers

- Market size and growth rate
- Market segmentation (activity level, ages)
- Cultural factors (ie. German sporting preferences)

Competitors

- Number and concentration, substitutes
- Intensity
- Positioning

Company

- Replication of business model
- Economies of scale
- Cost of expansion
- Projected profitability

1b. Determine data gathering approach

Good answers

- Purchase marketing analyses / research reports
- Internet research on competitors
- Contact real estate agent for real estate costs
- Contacting someone in the consulting company who has experience in the market or industry

Outstanding answer

- An outstanding candidate would structure their answer. For example: they would gather information (1) internally, using firm resources and within the client's own organization, and (2) externally from third party sources.

Part 2

2a. Determine the breakeven point

Provide Exhibit A

- Can you determine the minimum annual membership fee Sosland Sports has to charge in order to cover the running cost?
- Information that can be shared if inquired: If the candidate asks about revenues, tell him/her that they are equal to the annual costs.
- Courts are always used during operating hours.
- The candidate should think about the possibility of doubles. If they ask, they should assume 50% single and 50% double matches.

- Number of hours available per week = 10 hours/day x 7 days/week x 15 courts = 1,050
- Number of hours courts in use = 70% utilization x 1,050 = 735
- Average number of players per hour = (50% x 2) + (50% x 4) = 3
- Members = 735 hours x 3 members/hour = 2,205
- Membership = €200,000 / 2,205 = €90.70

2b. Sense check calculation

Are you sure this is an annual fee and not a weekly one?

This is meant to be a tricky question to show the confidence of the interviewee. But as the annual costs are divided by the total number of members this is indeed an annual fee.

Ideally the candidate should note that the €90 membership fee seems low and look to compare against the competition.

Part 3

3a. Conduct competitive analysis

The dominant market player for squash centers (70% market share in Germany) offers memberships for €70. Would you recommend entering the market?

Good answer

- Further investigation is required, in particular what the competitor is offering and if Sosland Sports can differentiate its services from this offering.
- For instance if the competitor is using a cost leadership strategy and offers a very cheap, but low-quality service, Sosland Sports could launch a premium, high quality squash center.

Outstanding answer

- There could be other outcomes of the investigation.
- If the competitor operates across all segments, from low-end to high quality, and has a lower cost base, Sosland Sports should not enter the market. An entrance would only lead to a price competition that our client cannot win.

3b. Brainstorm service differentiators

What could Sosland Sports offer to customers to differentiate their service offering?

There are several possible solutions (some mentioned at the beginning of the case) but these should be structured by the interviewee:

- Providing high-quality courses
- Setting up cross-country tournaments between Sweden and Germany
- Advertise the squash center with famous people (celebrities)
- Offer longer opening-hours for members paying a higher fee
- Offer services like a café or a bar

Sosland Sports

Part 4

4. Provide client recommendation

- Overall, there is only a case for Sosland Sports to enter the German market if they can differentiate themselves from the dominant competitor.
  - Sosland Sports needs to charge €90 for an annual membership to break-even
  - The major incumbent charges €70 per year
  - Sosland Sports needs to determine how they can differentiate themselves to charge this higher price
- Risks: Competitor reaction to a new entrant, differing consumer preferences/buying habits in Germany
- Next steps: Deeper dive into competitors' businesses and market research into Germans' leisure buying habits

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- Strong interviewees quickly contextualize the €90 fee in terms of the client problem and look to compare in the market.
- Outstanding interviewees structure the math correctly and solve it in a simple and clear manner.

Case 21
Tacotle

Concepts tested

- Z06 Macroeconomics (2)
- Z01 Accounting (4,5)
- Z10 Customer strategy (6)

Primary sector(s)

- X02 Agriculture & Food

Case type

- Y07 Profitability
- Y05 Operations

Similar cases

- Yumy Co (Yale 2013)
- Burger Chain (Ross 2012)
- Le Seine (Harvard 2015)

Case author(s): Ryan Sullivan (Kellogg 2016)
Edited by: Rohan Maini (Kellogg 2020)

Tacotle

Interviewer guide

Case prompt

- Your client is Tacotle, a leading national fast casual restaurant with $420m in revenue in 2019.
- Over the five years proceeding 2019, Tacotle has experienced steady revenue growth and industry leading profitability. But for the first time in its 15 year history, Tacotle has experienced three straight quarters of EBITDA erosion.
- Tacotle's CEO has hired you to explore what is causing profits to drop and what can be done to reverse the tide.

Interviewer guide

- Problem: How can we return Tacotle to profit growth?
- Problem solving steps:
  1. Develop a structure to address the problem
  2. Analyze external market conditions
  3. Identify trends in profitability over time
  4. Deep dive into drivers of revenue change
  5. Calculate change in units sold between 2018 and 2019
  6. Analyze operational reasons for price increases
  7. Provide client recommendation

Tacotle

Fit: Tell me about a time you felt conflict in the workplace.

Case prompt

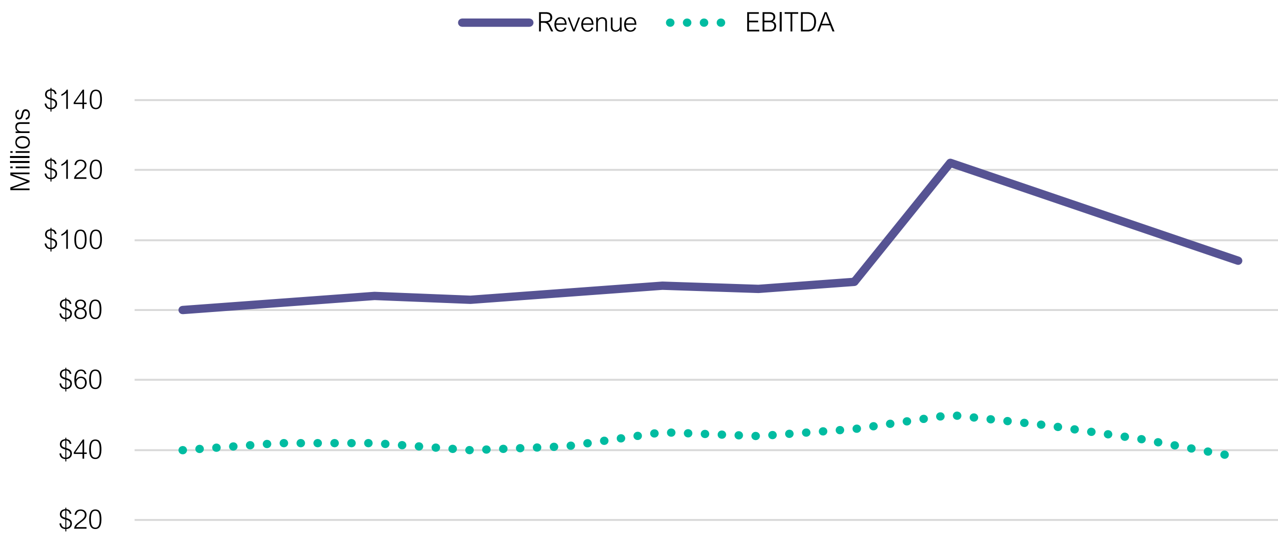
- Your client is Tacotle, a leading national fast casual restaurant with $420m in revenue in 2019.
- Over the five years proceeding 2019, Tacotle has experienced steady revenue growth and industry leading profitability. But for the first time in its 15 year history, Tacotle has experienced three straight quarters of EBITDA erosion.
- Tacotle's CEO has hired you to explore what is causing profits to drop and what can be done to reverse the tide.

Clarifying information

- **Goal:** Profitability (no specific milestones, looking for positive annual profit growth in the short term)
- **Market:** Defer until after the framework presentation
- **EBITDA:** Ensure interviewee understands that EBITDA is Earnings before interest, tax, depreciation and amortization (profit)

Tacotle

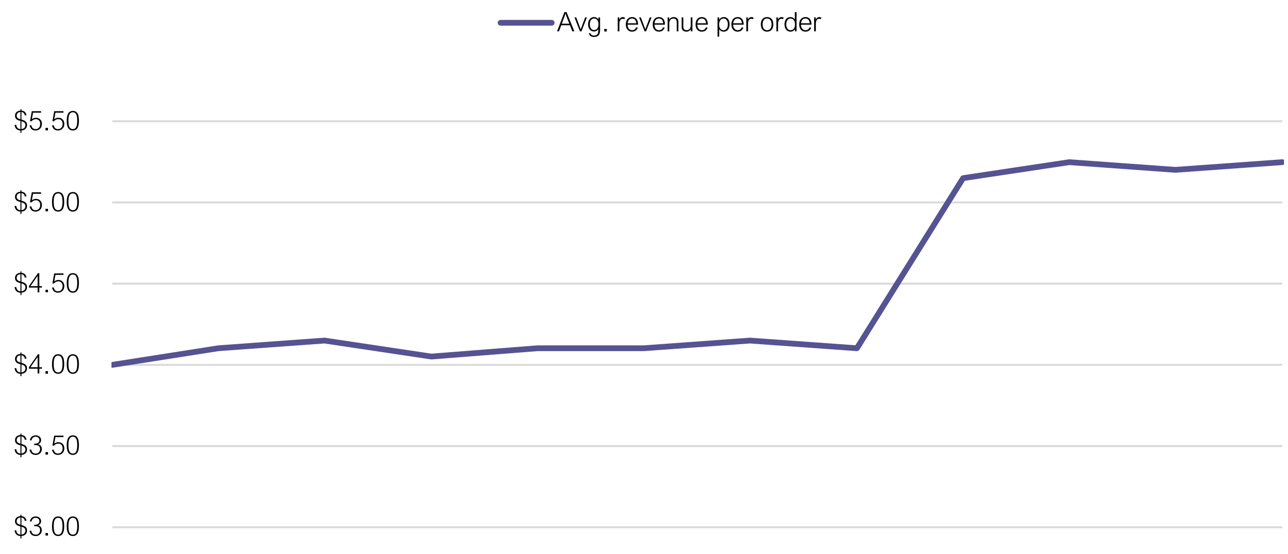
Exhibit A – Quarterly revenue and EBITDA



Period	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019
EBITDA (%)	44	45	44	46	45	45	44	46	39	40	39	40

Tacotle

Exhibit B – Average revenue per order

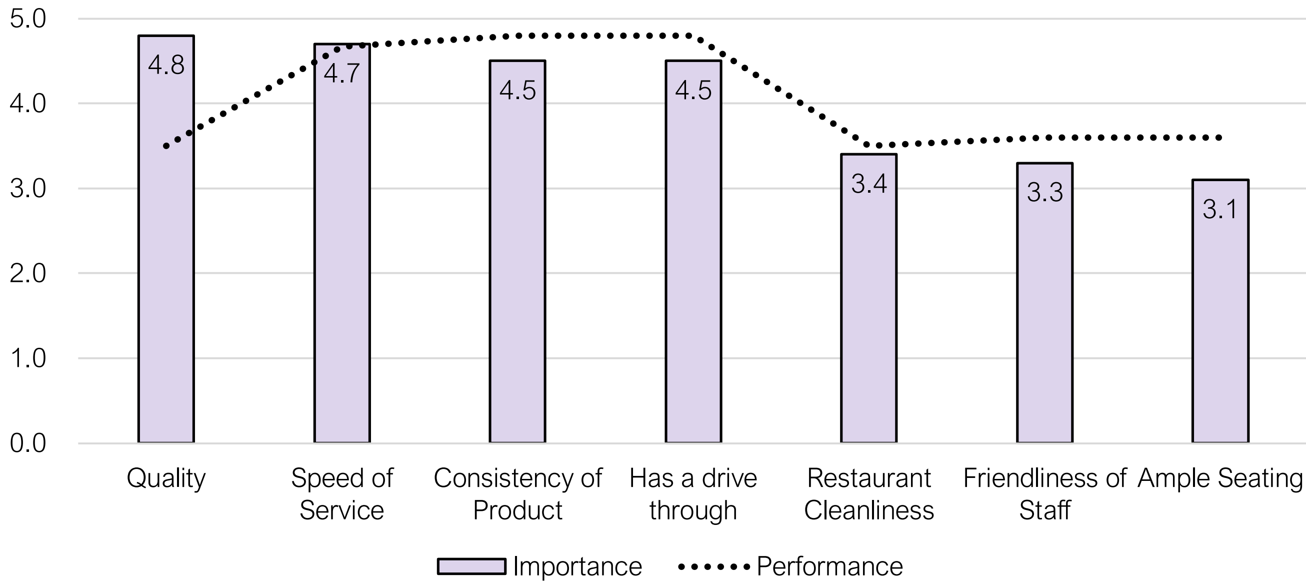


Period	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019

Exhibit C – Income statement

	2017	2018	2019
Revenue ($M)	364	377	420
Expenses ($M)			
COGS	51	54	96
Wages	96	99	101
SG&A	11	10	10
Fixed Overhead	43	44	44
EBITDA ($M)	163	170	169

Exhibit D – Customer survey (2018)

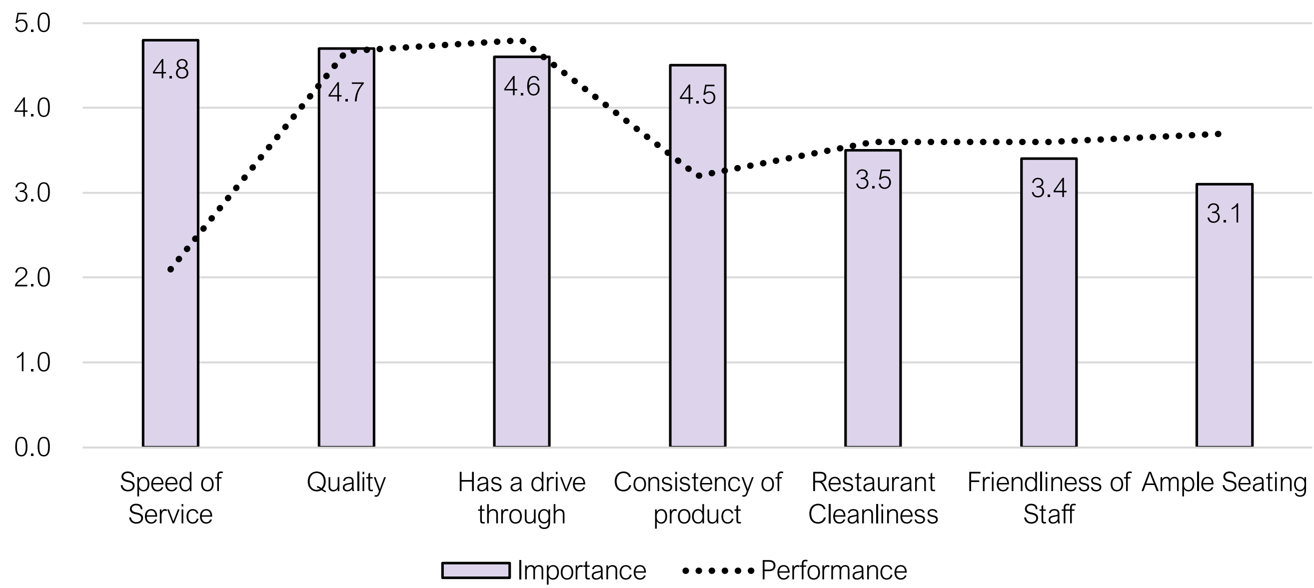


Notes:

- On a scale of 0-5, how important are the following characteristics when dining at fast casual restaurants?
- On a scale of 0-5, how well does Tacotle Co. perform against the following characteristics?

Tacotle

Exhibit E – Customer survey (2019)



Notes:

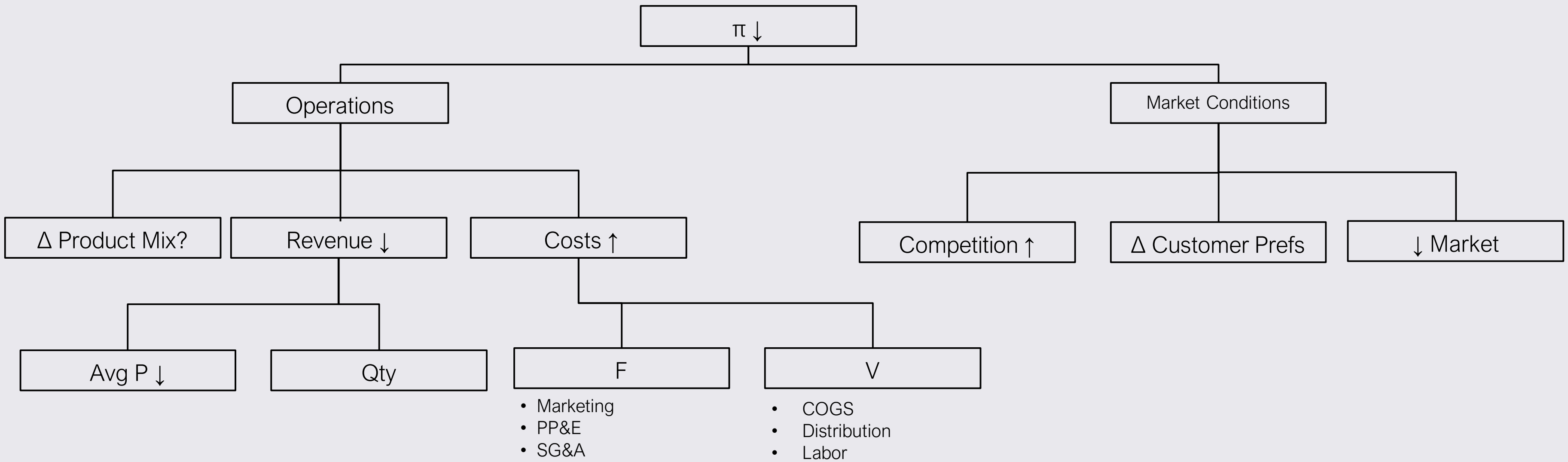
- On a scale of 0-5, how important are the following characteristics when dining at fast casual restaurants?
- On a scale of 0-5, how well does Tacotle Co. perform against the following characteristics?

Tacotle

Part 1

1. Develop a structure to address the problem

- After framework review, Candidate should:
  - Understand that the problem could originate from market conditions or company operations
  - Discuss the basis profitability framework with some focus on anticipated fixed and variable cost drivers for Tacotle



Tacotle

Part 2

2. Analyze external market conditions

- When asked, provide the interviewee with the following information about the market, competitors and customers:
- Market growth
  - Market is growing at the same rate as GDP
  - Mature market
- Competition
  - No major competitors have entered or exited
  - No new substitutes introduced
  - Tacotle currently has a 30% market share (by revenue) which it has maintained
- Customers
  - Customers are beginning to stress the importance of ingredient quality and order customization

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- Takeaway: the profitability issue is not one that is market wide. The problem seems to be specific to Tacotle.
  - There are no major competition related factors that are driving the decreased profitability. The issue is most likely related to a change within Tacotle
  - The change in customer preferences doesn't seem like it is directly driving decreased profits but it may have influenced decisions made within Tacotle

Tacotle

Part 3

3. Identify trends in profitability over time

Provide Exhibit A once the interviewee requests information regarding Tacotle's Revenue or Profitability

- What are potential drivers of:
  - Revenue spike? (Increase in price or units sold)
  - EBITDA erosion? (Increase in cost, decrease in rev.)
  - EBITDA % decline? (Decrease in margin)

- Spike in revenue in Q1 2019 with relatively flat EBITDA and large decrease in EBITDA %. Followed by steady revenue decline
- Good response will hypothesize what could cause this, with the conclusion that either prices and/or purchases increased with costs increasing more than the additional revenue
- A good interviewee will take a deep dive into the profitability framework looking to determine why:
  1. Revenue spiked then declined over the following quarters
  2. Profitability (EBITDA) did not follow revenue

Tacotle

Part 4

4. Deep dive into drivers of revenue change

- Guide the candidate down the revenue side of the profitability framework if they do not do so.

Provide Exhibit B once the interviewee has hypothesized potential drivers of increased revenue

- After interviewee has stated that price increased, interviewee should recognize that a change in price could lead to a change in quantity.

Provide Exhibit C once the interviewee asks how the units sold changed in 2019

- Takeaways (Exhibit B):
  - A good interviewee will quickly identify that Tacotle increased the average price of their orders.
  - It should initially be ambiguous whether units sold increased or decreased. A good interviewee will not rush to a conclusion
- Takeaways (Exhibit C):
  - Interviewee should evaluate the entire slide then attempt to answer the question posed regarding units sold in 2019
  - Interviewee should refer back to the exhibit and notice that COGS nearly doubled from 2018 to 2019

Tacotle

Part 5

5. Calculate change in units sold between 2018 and 2019

- If the interviewee does not calculate the change in units sold themselves, ask them to

<u>Units sold in 2018:</u>

- Units sold = Revenue / (Avg. price per unit)
- 2018 Revenue = $377m (Round to 380M)
- 2018 Avg. price per unit = $4.05 (Round to $4)
- Units sold = $380m / $4 = 95m units sold

<u>Units sold in 2019:</u>

- Units sold = Revenue / (Avg. price per unit)
- 2019 Revenue = $420m
- 2019 Avg. price per unit = $5.25
- Units sold = $420m / $5.25 = 80m units sold

Takeaways:

- Although revenue increased sharply, the total number of orders decreased.
- As revenue continued to decline over the last three quarters of 2019, prices remained the same. Therefore, a decrease in the quantity sold is responsible for the eroding revenues and EBITDA

Part 6a

6a. Analyze operational reasons for price increases

- Why did Tacotle increase prices?
- Why did units sold continue to decrease throughout 2019?

Provide Exhibit D once the interviewee or interviewer asks these questions

- Ensure that before moving into ‘operations’ the interviewee has analysed Exhibits A, B and C and has received Exhibit D.

- Exhibit D illustrates Tacotle’s performance against customer preferences
- Tacotle lags with regards to quality but is on par or exceeding expectations for all other categories
- Interviewee should conclude that Tacotle did something that was aimed to increase quality which most likely caused COGS and revenue to increase

Part 6b

6b. Analyze operational reasons for price increases

- After interviewee has speculated on potential operational changes Tacotle could have implemented, inform them that Tacotle introduced a new menu focused on allowing the consumer to customize their orders more and higher quality and selection of ingredients

Provide Exhibit D at this point

- If asked for, the average time to serve a customer increased from ~1 minute to ~3.5 minutes.

- Interviewee should recognize that Exhibit E is the same survey as Exhibit D but for the next year (post menu upgrade)
- Interviewee should also recognize that the order of attributes has changed
- “Speed of Service” is now Tacotle’s weakest attribute
    - This is due to the new menu which added complexity to food preparation
- “Consistency of Service” has also dropped below customer expectations due to the added complexity of food preparation
- Although Tacotle has met expectations with regard to “Quality”, the decline of ratings in “Speed of Service” and “Consistency of Service” have more than cancelled it out, resulting in a net decrease in customer satisfaction
- Takeaway: The menu change was not effective

Part 7

7. Provide client recommendation

Overall: Scale back the menu changes that were implemented during 2019.

- The menu change led to a significant increase in COGS which decreased EBITDA %
- The menu change led to overall customer dissatisfaction, degrading brand equity
- The customer dissatisfaction lead to decreasing unit sales (quarter over quarter) which is driving the EBITDA erosion

Risks

- Scaling back the menu too much could lead to decrease in customer satisfaction for "Quality"
- Scaling back could disrupt relationships with suppliers require asset divesture relating to initial menu change
- A scale back that does not focus on margin improvement could lead to smaller revenues and profits, effectively downsizing the company.

Next steps

- Perform more detailed and focused customer surveys to gage what Tacotle customers expect from the chain
- Perform a scale back on the menu size that focuses on cost cutting balanced with customer needs
- Follow-on menu changes should be implemented on a smaller/trial basis at a small number of individual restaurants

Case 22
Vitality Insurance

Concepts tested

- Z13 Organizational changes (3)

Primary sector(s)

- X06 Financial Services

Case type

- Y07 Profitability

Similar cases

- TV Screens (Wharton 2017)

Case author(s): Peter Manoogian (Kellogg 2012)
Edited by: Matthew Heintz (Kellogg 2016), Rohan Maini (Kellogg 2020)

Vitality Insurance

Interviewer guide

Case prompt

- Our client, Vitality Insurance, is a leading provider of supplemental insurance products in the United States.
- Vitality agents partner with companies to offer their employees optional, supplemental insurance for such conditions as life, long-term disability, etc.
- Vitality has undergone fairly steady growth in the past two years, but profit margin is decreasing. What should they do about it?

Interviewer guide

- Problem: How can Vitality improve its profit margins?
- Problem solving steps:
    1. Identify cost trends
    2. Determine root-cause of sales cost changes
    3. Examine mis-aligned incentive programs
    4. Provide client recommendation

Vitality Insurance

Fit: What role do you typically play in a team? Give me an example of this.

Case prompt

- Our client, Vitality Insurance, is a leading provider of supplemental insurance products in the United States.
- Vitality agents partner with companies to offer their employees optional, supplemental insurance for such conditions as life, long-term disability, etc.
- Vitality has undergone fairly steady growth in the past two years, but profit margin is decreasing. What should they do about it?

Clarifying information

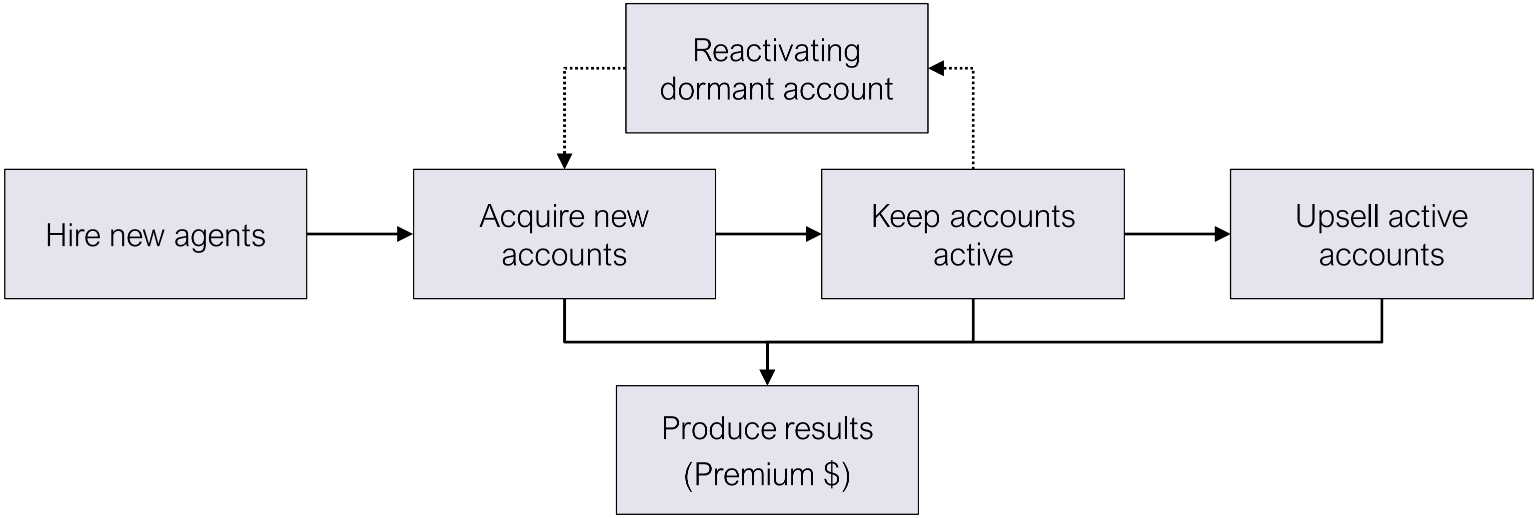
- **Client:**
  - Vitality is the leader in its category and has over 10,000 field sales agents (FSAs)
  - Vitality sells all policies through FSAs who are solely compensated on a percentage commission of total new premium, (defined as premium from new customers or additional premium up-sell from existing policyholders)
  - In addition to the commission, short term priorities are often communicated via sales contests that focus on a particular customer segment or activity and pay a bonus in addition to standard commission
  - Major costs: sales, G&A, and advertising
- **Competition:** Few competitors in this mature market with similar growth. Vitality is a leader in the space; competition not the focus
- **Industry:** Agent turnover is very high on a yearly basis (though was lower during the recessionary period)

Vitality Insurance

Exhibit A – Results and Costs

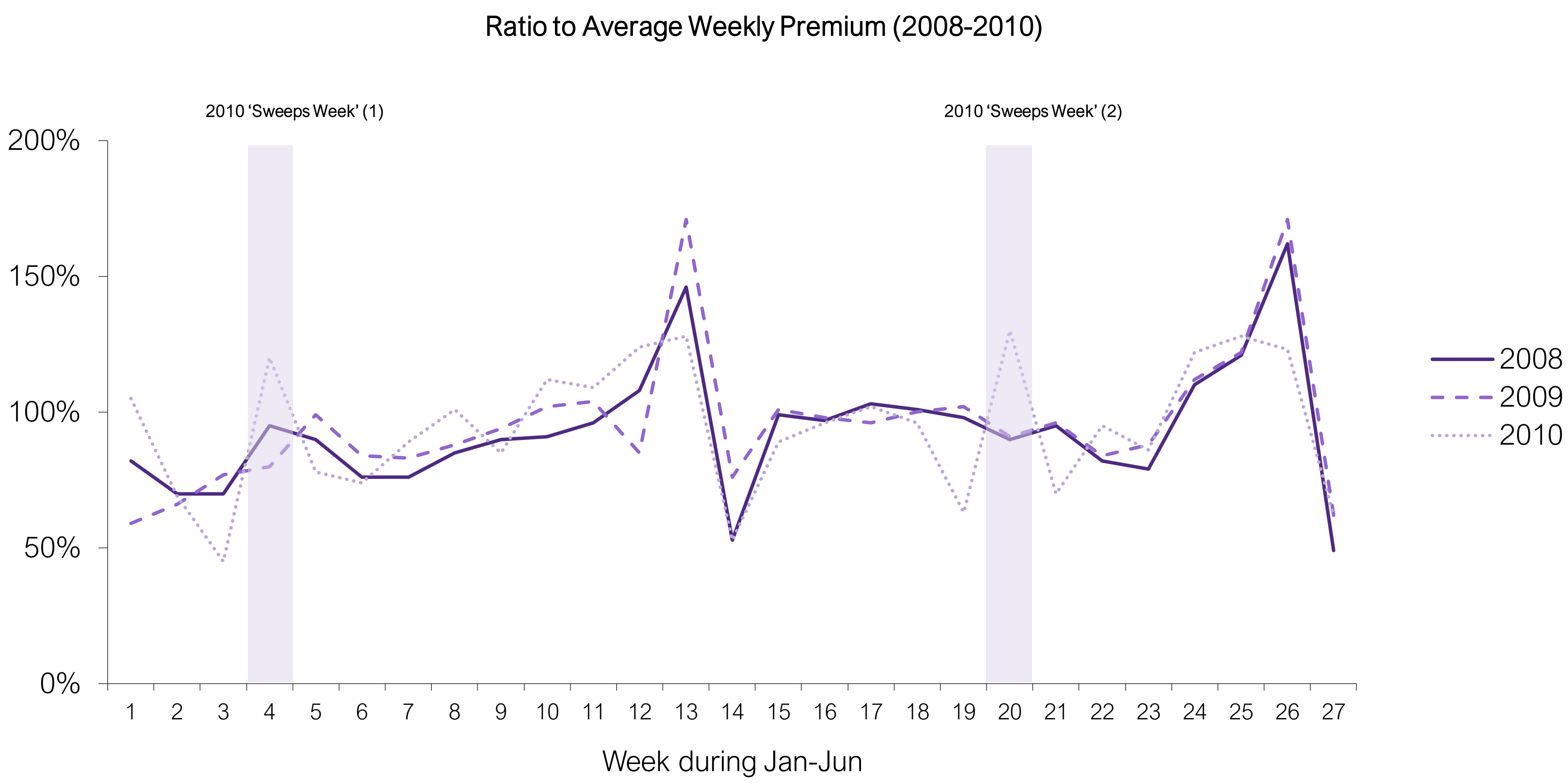
Vitality insurance key results and costs (figures in '000s)			
	2008	2009	2010
Accounts converted	500	550	605
Total policyholders enrolled	1,500	1,650	1,815
Total premium from policyholders	$2,500,000	$2,750,000	$3,025,000
Total costs			
General and Administrative	$50	$55	$58
Sales	$250	$275	$400
Advertising	$25	$28	$30
Profit margin	9.50%	9.40%	8.50%

Exhibit B – Insurance sales process



Number of sales contests targeted at these leverage points on the selling process					
	New Agents	Acquire new accounts (bonus based on # of accounts)	Keep accounts active (bonus based on # of accounts)	Upsell active accounts (bonus based on # of accounts)	Produce results (bonus based on total premium $)
2008	n/a	2	4	1	2
2009	n/a	2	4	1	2
2010	n/a	4	0	1	4

Exhibit C – Snapshot of ‘Sweeps Week’ contest results



Vitality Insurance

Part 1

1. Identify cost trends

Provide Exhibit A when the interviewee asks for cost information

- Interviewee should recognize the following:
  - All line items except for sales costs growing at 10% per year
  - Sales costs grow at 10% from 2008 to 2009, but at 45% from 2009 to 2010 (while premium growth remains at 10%)
  - Stronger interviewees will quickly note that something is strange with the 2010 sales costs, but will calculate to confirm
  - Finally, profit margins are declining significantly from 2009-10, suggesting that the increase in sales costs is not paying off

Vitality Insurance

Part 2

2. Determine root-cause of sales cost changes

Provide Exhibit B if the interviewee asks about the value chain or sales process

- If the interviewee asks about the new contests focused on premium, provide the following information:
    - Vitality launched a contest called 'Sweeps Week' that aimed to drive increased premium in weeks that were traditionally low volume for the company. Vitality paid an extra 10% bonus on all premium booked in those two weeks.
    - Sales agents thought 'Sweeps Week' was a great contest
- Assume the types of contests run in 2008 and 2009 were fairly similar
- Do not share Exhibit C until the interviewee recognizes this shift in mix and begins asking questions about the new programs

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- As seen in Exhibit B; Vitality's sales agents are engaged in several activities along the sales process, and that new premium can be generated in many ways.
- The interviewee should recognize the shift in contest mix from 2008/09 to 2010. Coupled with the additional information provided in the previous slide, the interviewee should realize that Vitality has shifted its focus more toward total premium and new accounts in 2010

Vitality Insurance

Part 3

3. Examine mis-aligned incentive programs

Provide Exhibit C if the interviewee asks about the effectiveness of 'Sweeps Week'

- If asked, confirm that agents have authority to 'book' sales whenever they want by influencing the enrollment timing by up to one week
- Strong interviewees will also recognize that, despite not having charts to support it, a shift in customer focus toward acquiring new accounts in 2010 will likely also hinder profit margins, as acquiring a new customer costs considerably more than retaining (or up-selling) an existing customer

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- Exhibit C shows weekly premiums for all of Vitality from 2008 – 2010. The chart is shown in a way that compares each year's actual premium to the average of historical premium for that year, so as to provide for a 'benchmark' comparison.
- The 'Sweeps Week' contest launched in 2010 is shown in weeks 4 and 20 in the chart, and clearly yields high premium volume for those particular weeks. However, it is done at the expense of the weeks surrounding the sweeps week.
- This implies that agents may be 'gaming' the system by pushing/pulling sales into that week to earn the contest rewards

Vitality Insurance

Part 4

4. Provide client recommendation

- The interviewee should conclude that Vitality overspent in 2010 on the ‘Sweeps Week’ sales contest, thus hurting its profitability
  - Exhibit C indicates that the contest influenced the sales force to conduct undesirable selling practices by pushing / pulling forward business to earn the extra commission
  - Further, the contest’s focus, driving new premium was duplicative with that of the main commission system, therefore it did not add much value
- Recommendation: eliminate ‘Sweeps Week’ for 2011 and potentially repurpose those funds toward an activity that is not already covered by the main commission structure
- It is unclear whether we should remove the increased contests on new accounts, as this could be a new customer focus that we do not know about

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- **Excellent candidates** will make the following observations:
  - Recognize that the likely decline in profit margin from 2009 to 2010 is linked to the abnormal increase to sales costs
  - That the ‘contest mix’ in Exhibit B is similar to a firm’s marketing mix, especially given that the sales channel has already been established as the main marketing channel for these products
  - Suggest that the added contests on acquiring new accounts will also decrease profitability because acquiring new customers is more costly than retaining existing ones.

Case 23
Wildcat Wings

Concepts tested

- Z08 Market sizing (2)
- Z12 Creativity (4)
- Z16 Vertical integration (4)

Primary sector(s)

- X01 Aerospace & Defense
- X15 Transportation & Logistics

Case type

- Y06 Opportunity assessment
- Y05 Operations

Similar cases

- case, casebook + year

Case author(s): Adam J. Louras (Kellogg 2011) [formerly A+ Airlines]
Edited by: Deepika Singh (Kellogg Class'16), Rohan Maini (Kellogg 2020)

Wildcat Wings

Interviewer guide

Case prompt

- Our client is Wildcat Wings, the third largest airline in the United States by passengers carried. This week, the CEO flew with our primary competitor, Phoenix Air, and she noticed something interesting: Phoenix has stopped accepting cash for in-flight food and beverage services and they now only accept major credit cards.
- The CEO of Wildcat Wings wants to know why Phoenix Air switched to Card only, and if Wildcat Wings should follow them.

Interviewer guide

- Problem: Should Wildcat Wings go cashless for in-flight purchases?
- Problem solving steps:
    1. Develop a structure to address the problem
    2. Analyze current in-flight purchases
    3. Explore cost impacts of switching to card only
    4. Brainstorm additional benefits
    5. Provide client recommendation

Wildcat Wings

Fit: Tell me how about a time someone convinced you to take a differnet approach.

Case prompt

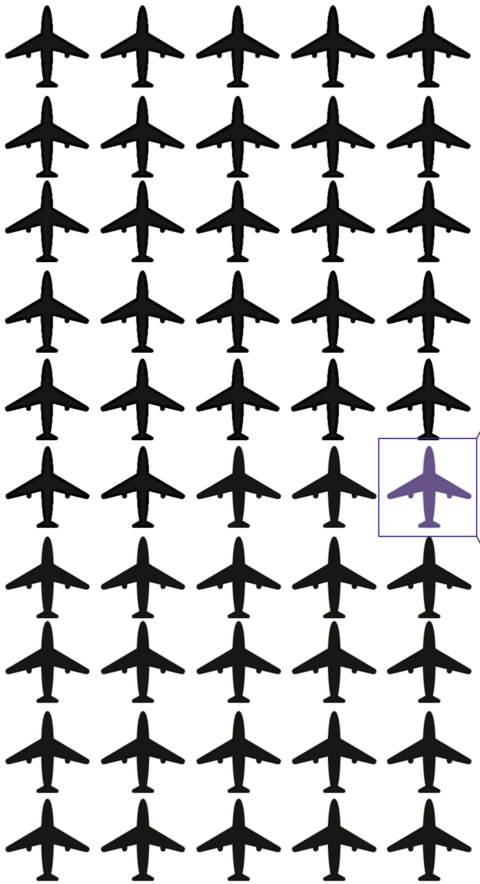
- Our client is Wildcat Wings, the third largest airline in the United States by passengers carried. This week, the CEO flew with our primary competitor, Phoenix Air, and she noticed something interesting: Phoenix has stopped accepting cash for in-flight food and beverage services and they now only accept major credit cards.
- The CEO of Wildcat Wings wants to know why Phoenix Air switched to Card only, and if Wildcat Wings should follow them.

Clarifying information

- **Card Use:** Roughly 99% of all consumers purchase their airline tickets using a credit card, i.e. all consumers on an airplane have a credit card available to them.
- **Items Sold:** Only food and alcoholic beverage items are sold on Wildcat flights.
- **Competitive Dynamics:** Phoenix is the only airline that has made the switch; however all other airlines are evaluating the switch.
- **Competitors:** For the purposes of this case, Phoenix and Wildcat should be considered to be exactly the same in all regards.

Wildcat Wings

Exhibit A – Flight economics



Fleet size: 50

Average Wildcat Wings flight
Boeing 737-800

Total seats	200

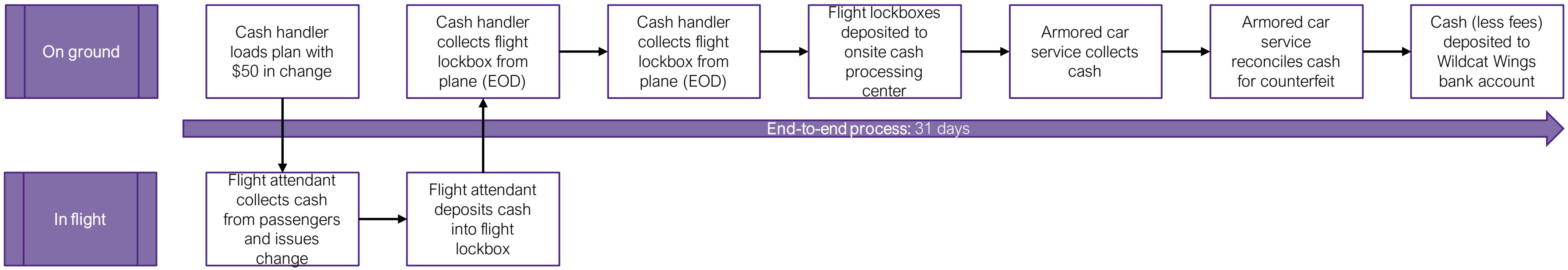
Cabin	Cabin share of seats	Traveler type		Seat utilization
		Business	Leisure	
First Class	25%	100%	0%	100%
Economy	75%	50%	50%	80%

Traveler type	Purchase rate	Average purchase value
Business	40%	$10
Leisure	25%	$5

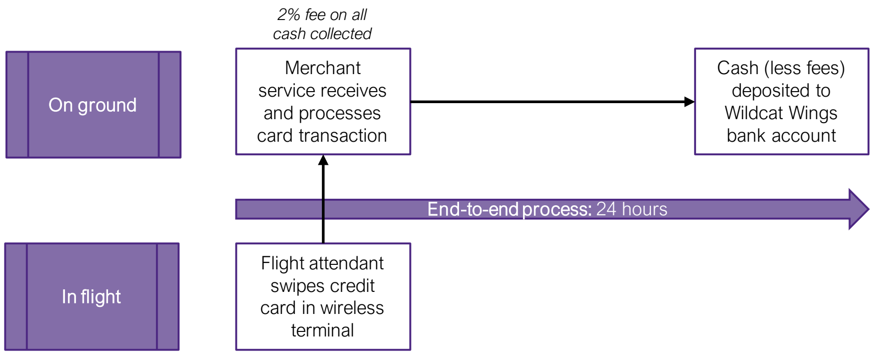
	Method of payment
Cash	20%
Card	80%

Exhibit A – Cash and Credit Card management processes

Wildcat Wings Cash Management Process*



Wildcat Wings Credit Card Process



Additional information:

- 5 cash handlers per airport
- 2 employees onsite cash processing center at each airport where Wildcat operates

Part 1

1. Develop a structure to address the problem

- Case Structure – Interviewee's structure should be a before and after comparison of the switch from Cash & Card to Card only and should include:
    - **Revenue Changes:** Loss of Cash Only customers vs. Increase in Credit Card customers
    - **Cost Changes:** Benefit of Cash Management Cost Removed vs. Incremental Cost (Fee) of Credit Card
    - **Cash Flow Changes:** Interest and Time Value of Money (TVM), and Working Capital impacts due to an increase in collection speed

Wildcat Wings

Part 2

2. Analyze current in-flight purchases

Provide Exhibit A when the interviewee asks about market sizing

When asked, state we will lose 1/3 of cash customers when we move to card-only

- Ask the interviewee to determine the Total Market Size in ($) for food and beverage purchases on an average flight

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- The interviewee should calculate the current allocation of purchases (Cash vs Card) for an average flight.
- The interviewee should begin with the correct assumption that revenue will be lost due to unhappy, cash-only passengers
    - First class business passengers = 200 seats x 25% share x 100% utilization x 100% business = 50 passengers
    - Economy business passengers = 200 seats x 75% share x 80% utilization x 50% business = 60 passengers
    - Economy leisure passengers = 200 seats x 75% share x 80% utilization x 50% leisure = 60 passengers
    - Business spend = (50 + 60) x 40% x $10 = $440
    - Leisure spend = 60 x 25% x $5 = $75
    - Cash payments = $515 x 20% = $103
    - Card payments = $515 x 80% = $412
- Takeaway: Lost revenue = 1/3 x 103 = ~$35

Part 3

3. Explore cost impacts of switching to card only

- Interviewee should make mention of Cost changes due to the shift to a Card Only strategy.

Provide Exhibit B when the candidate after cash and credit card processing cost brainstorming

When asked, explain that the total, per flight, savings from eliminating overhead due to Cash Management Operations is $35/flight

- The interviewee should notice the following information:
  - Cash Management & Card Management both have 2% fees associated, so this is a "wash" in terms of savings.
  - Cash Management requires additional overhead, 7 total employees per airport, that could be eliminated for further savings.
- Interviewee should notice that the $35 savings offsets the $35 loss in revenue. A good candidate will notice that savings go straight to the bottom line whereas revenue doesn't.

Wildcat Wings

Part 4

4. Brainstorm additional benefits

If the candidate does not mention TVM, ask them about benefits of collecting payment early

- The interviewee should qualitatively mention that there are benefits to eliminating the longer cash management process:
  - Time Value of Money: Wildcat Wings will receive their money 30 days sooner, and this money could be used to:
    - Invest in interest earning accounts or growth projects
    - Pay off suppliers early and take advantage of discounts
    - Pay down lines of credit faster
  - Working Capital Improvement: $50 per flight in change can be eliminated, thus freeing up cash flow. Additionally, there will be a reduction in loss of cash due to theft and damage
  - Happier Customers: The majority of customers will be able to place and receive their order faster on the plane which will also increase sales

Part 5

5. Provide client recommendation

- Overall, our client Wildcat Wings, should switch to a Credit Card only system for in-flight food & beverage because:
  - **Quantitative Benefits:** We calculated that there would be a loss of 3 business customers and 1 economy customer per flight which amounted to a Revenue loss of $35. We also found that we could save $35 in overhead expenses by eliminating the Cash Management process. In sum, the decision to switch is in favor because the savings are to the bottom line and the revenue losses are top line.
  - **Qualitative Benefits:** We also found that we will receive payment 30 days sooner by only accepting credit cards. This improves our cash flow and could allow us to earn interest, pay down creditors, or invest in projects. Additionally, by reducing cash losses and eliminating "Change" tied up on airplanes, we can improve our Working Capital and also put this money to work for us. Finally, it appears as though customers, in general, might actually be happier because the speed of transactions on the airplane will improve.
- **Outstanding interviewees** will note:
  - Due to the increased transaction speed, probability of purchase for both Business and Economy passengers in the AFTER state should go up due to a reduction in frustration. The people on the back of the airplane often abandon a purchase if it takes too long to place an order. Making change takes a lot of time!
  - Average purchase amount should also increase. There is a proven psychological phenomenon that shows how consumers who do not carry cash purchase less when a cash option is offered because they feel guilty using their card. A card-only option eliminates this guilt and consumers don't mind using the card.
  - Being creative when listing the change of costs as: Wifi cost (connect with banks and verify transaction), Fraud cost (increased chance of fraud to happen after implementing card only payment).

Case 24
Wine & Co

Interviewer-led

Concepts tested

- Z02 Net Present Value (2)
- Z10 Marketing strategy (3)

Primary sector(s)

- X02 Agriculture & Food

Case type

- Y06 Opportunity assessment

Similar cases

- Pharmacy in Supermarket (Sloan 2011)
- Rocky Resort (WSO 2012)
- Jamaican Land Investment (Haas 2015)

Case authors: Anil Goteti (Kellogg 2011)
Edited By: Mauricio Atri (Kellogg 2012), Laura Mast (Kellogg 2020)

Wine & Co

Interviewer Guide

Case prompt

- Wine & Co is a niche wine manufacturer in the San Francisco Bay area. Wine & Co recently acquired 12 acres of land outside San Francisco.
- The company wants to investigate opportunities to best use the land and needs a recommendation from you.
- What are the different ways in which Wine & Co can use the land?

Interviewer guide

- Problem: How can Wine Co maximize the
- Problem solving steps:
  1. Develop a structure to address the problem
  2. Identify most profitable product
  3. Determine preferred product for manufacturing
  4. Provide client recommendation

Wine & Co

Experience: Tell me about a time when you faced conflict in a team setting.

Case prompt

- Wine & Co is a niche wine manufacturer in the San Francisco Bay area. Wine & Co recently acquired 12 acres of land outside San Francisco.
- The company wants to investigate opportunities to best use the land and needs a recommendation from you.
- What are the different ways in which Wine & Co can use the land?

Clarifying information

- **Product:** Wine & Co only manufactures red wines. The company does not sell any other products.
- **Customers:** The company serves only the local market (the San Francisco Bay area).
- **Company:** The company is currently very healthy and does not face any problems.

Wine & Co

Part 1

1. Develop a structure to address the problem

- The interviewee should create a framework and structure the problem. The interviewee should suggest options including manufacturing the wine, creating adjacent products (like wine tasting tours), using the land for other uses (commercial real estate/selling the land for a profit/other opportunity costs).
- A strong candidate would provide a detailed structure (eg. profitability framework for manufacturing feasibility with customization of the framework - yield of grapes, cost per liter of wine, etc.) and outline the risks or considerations involved in some of these options (like usability of land for manufacturing or company competency in pursuing in other opportunities unrelated to wine manufacturing).

Wine & Co

Part 2a

2. Determine most profitable product

- Wine & Co has decided to use the land to manufacture wine. Each acre of land produces 1,000kg of grapes annually. Wine & Co has an option to manufacture Merlot or Bordeaux.
- The two wines use different grapes and the grapes have varying yields. While the Merlot grapes yield 2 litres/kg, the Bordeaux grapes yield 1 litre/kg. Wine & Co can charge $20 per liter of Merlot and can charge $40 per liter of Bordeaux.
- Which wine yields more profits annually?
- When asked, provide the following information:
    - Profit Margins on Merlot are 10% while the margins on Bordeaux are 15%.

- A good candidate would ask for the profit margins/costs without being prompted. Look for organization and structure when the candidate evaluates the annual profits for each wine (a good candidate would use a table like structure when doing the math). The revenues would be $480,000 for both wines annually but the margins would be higher for Bordeaux ($72,000 for Bordeaux versus $48,000 for Merlot). After the candidate arrives at the profits, look for interpretation.
- A strong candidate would recommend using Bordeaux while at the same time consider other factors (competency in manufacturing either of the wines, customer demand in the bay area, sensitivity to product yields, customer reservation price, etc.)
- A creative candidate might suggest that we compare the age of the two wines (and hence will impact when the profits might actually start)

Part 2 (continued)

2. Determine most profitable product

- Math working for Part 2

	Description	Value
A	Acres of Land	12
B	kg of grapes produced/acre	1,000
C	kg of grapes produced total [A x B]	12,000

	Description	Merlot	Bordeaux
D	Yield (Liter/kg)	2	1
E	Total Yield (Liter) [C x D]	24,000	12,000
F	Price / Liter	$20	$40
G	Total Revenue [E x F]	$480,000	$480,000
H	Profit Margin	10%	15%
I	Total Profit [G x H]	$48,000	$72,000

Wine & Co

Part 3

3. Determine preferred product for manufacturing

- Aging has an effect on the revenues and profitability. Merlot has to be stored for 6 years while Bordeaux has to be stored for 12 years before revenues can be generated. Which wine would you choose for manufacturing?
- When asked, provide the following information:
  - Discount rate is 12% (strong candidates will use the ‘Rule of 72’ to discount
  - Assume the costs are only incurred when the revenues are realized after aging (no costs until year 6 for Merlot and no costs until year 12 for Bordeaux).

- The interviewee should identify that the cash flows for Merlot would be $48,000 annually starting year 6. Cash flows for Bordeaux would start in year 12 ($72,000 annually). Then, consider TVM, calculating annual cash flow discounted to the same year:
  - **Merlot**: Perpetuity value of cash flow (value in year 6) = $48,000/0.12 = $400,000
  - **Bordeaux**: Perpetuity value of cash flow (value in year 12) = $72,000/0.12 = $600,000

    Value of perpetuity in year 6 = $600,000 / (1.12^6) = $300,000 (Rule of 72).
- Provide help here if the candidate is struggling with the division. Look for the candidate's approach rather than the exact number. Since value of pursuing Merlot ($400,000) is higher than value of pursuing Bordeaux ($300,000), the company should manufacture Merlot.
- Strong interviewees interpret the results and suggest we consider factors like inventory costs, sensitivity to discount rate, etc.

Wine & Co

Part 3 (continued)

3. Determine preferred product for manufacturing

- Math working for Part 3

		Merlot	Bordeaux	Comments
A	Annual Profit	$48,000	$72,000	See Part 2
B	Years to Maturity	6	12	
C	Discount Rate	12%	12%	
D	Merlot NPV once ripe (at year 6)	$400,000		A/C
E	Bordeaux NPV once ripe (at year 12)		$600,000	A/C

	Method 1			
F	Bordeaux NPV at year 6 (using discount rate)		$300,000	$E/(1.12)^6$
G	Comparison at year 6	$400,000	$300,000	D and F

	Method 2			
H	Merlot NPV at year 12 (using discount rate)	$800,000	$600,000	$D \times (1.12)^6$
I	Comparable comparison at year 12	$800,000	$600,000	I and E

	Method 3			
J	Discount rate	12%	12%	
K	Years to double value = 72/Discount Rate	6	6	72/12
L	Value after 6 years	$400,000	$300,000	Halve Bordeaux at 12 years
M	Value after 12 years	$800,000	$600,000	Double Merlot at 6 years

Wine & Co

Part 4

4. Recommend a marketing strategy

- Wine & Co has decided to manufacture Merlot. How should they market this product in the San Francisco Bay area?

- Customer segment currently served by Wine & Co is **niche wine enthusiasts**.

- Candidate should ask for the customer segments that the company might sell to and suggest appropriate marketing channels/strategies to consider. Look for a MECE structure here.
- Suggestions should include retail strategies, direct to consumer strategies (like wine clubs, wine tasting), traditional media and print advertising and online advertising.

Wine & Co

Part 5

5. Provide client recommendation

- **Excellent interviewees** would recommend a solution (manufacturing Merlot) but would detail out the risks/next steps associated with the recommendation. Next steps may involve market research, land usability testing, evaluation of opportunity costs. Risks have been discussed previously.
- **Outstanding interviewees** provide an answer that includes:
  - Identification of opportunity costs, particularly of not selling/leasing the land, which might be more profitable considering the current value of land in the Bay Area and/or Napa
  - Considering industry specific issues like aging of wine
  - Considering time value of money/perpetuity of cash flow
  - Considering risks like customer demand, land usability
  - Potential benefits of diversifying the acreage and producing multiple types of grapes (compensate for shifts in consumer demand, broader appeal to local market, etc.)

Case 25
Winter Olympics Bidding

Concepts tested

- Z02 Net Present Value (2)
- Z12 Creativity (3)

Primary sector(s)

- X05 Entertainment & Media

Case type

- Y06 Opportunity assessment

Similar cases

- World View (Harvard 2015)
- Mobilizing Your World (Fuqua 2015)
- Footloose (LBS 2012)

Case author(s): Chris Dupre (Kellogg 2003)
Edited By: Uri Kalir (Kellogg 2012), Rohan Maini (Kellogg 2020)

Winter Olympics Bidding

Interviewer guide

Case prompt

- Our client, a major US television network, is trying to figure out how much to bid for the exclusive right to broadcast the Winter Olympics Games in four years time
- The Winter Olympics are a huge deal and will require a significant amount of capital to secure the rights, so our client has brought us in to help them figure out the right bid amount after considering all relevant factors.

Interviewer guide

- This is a very quantitative case that requires the interviewee to run the numbers on an Olympics bid. The candidate will have to decide potential ad revenue/cost information, as well as the NPV, to determine bid size.
- The candidate will need to ask for additional information to solve the problem, rather than relying on the interviewer to dispense it. After getting the initial calculations right, there are a lot of implications that may change the level of the bid.
- Especially for less finance-minded interviewees, you may have to help nudge candidates through the math.
    1. Develop a structure to address the problem
    2. Calculate NPV
    3. Brainstorm intangible benefits and risks
    4. Provide client recommendation

Winter Olympics Bidding

Fit: Why do you want to join our consultancy in particular?

Case prompt

- Our client, a major US television network, is trying to figure out how much to bid for the exclusive right to broadcast the Winter Olympics Games in four years time
- The Winter Olympics are a huge deal and will require a significant amount of capital to secure the rights, so our client has brought us in to help them figure out the right bid amount after considering all relevant factors.

Clarifying information

Revenues

- No subscription revenue, but can keep 100% of advertising revenue
- Ad rates are $400k per 30 second ad for prime time (weekends, weekdays 1900 - 2300) and $200k non-prime time
- Market research has shown that you can include no more than 10 minutes of advertising per hour.

Costs

- $482m of total production costs
- Opportunity cost: $1m/hour
- Time value of money: 4 year lag for receipt of revenue

Winter Olympics Bidding

Exhibit A – Winter Olympics Schedule

	Day 1 *Opening Ceremony*	Day 2 – 15 *Main events*		Day 16 *Closing Ceremony*
	Friday	Weekday	Weekend	Saturday
0800 – 0900				
0900 – 1000		Biathlon		
1000 – 1100		Bobsleigh		
1100 – 1200		Skating / Skiing	Biathlon	
1200 – 1300			Skiing	
1300 – 1400			Skating	
1400 – 1500		Curling	Bobsleigh	
1500 – 1600		Ice Hockey	Skating	
1600 – 1700		Luge	Skiing	
1700 – 1800			Ice Hockey	
1800 – 1900			Skiing	
1900 – 2000		Skating	Luge	
2000 – 2100	Opening commentary	Luge	Skiing	Closing commentary
2100 – 2200	Opening ceremony	Skiing		Closing speeches
2200 – 2300	Opening speeches	Luge		Closing ceremony

Winter Olympics Bidding

Part 1

1. Develop a structure to address the problem

Provide Exhibit A if the interviewee asks for TV schedules or identifies ad revenues in their structure

- Candidate should determine that this is a cost-benefit / NPV analysis.
- Candidate should identify potential revenue streams from hosting the Olympics, i.e. ad revenue, product placements, etc.
- Then, the candidate will have to figure out if this is a good investment. They should identify 3 costs (production costs, opportunity costs, and time value of money). By factoring in these costs, the candidate will find out if the Olympics are worth the investment.
- Some of the numbers and assumptions here are difficult, so nudge the candidate along if necessary.

Winter Olympics Bidding

Part 2

2. Calculate NPV

<u>Revenues</u>

- $400k/ad for prime time (M-F 7-11 PM, all weekend) and $200k/ad for non-prime time
- 10 minutes/hour of advertisements

<u>Costs</u>

- $482M of production costs
- Opportunity: $1m/hr
- WACC: 10%

- Total revenues should be equal to $928M for the project.
  - Primetime: Weekdays (M-F): 10 weekdays x 4 hrs/day x 10 min/hr x 2 slots/min x $400,000/ad = $320M
  - Non-prime: Weekdays (M-F): 10 weekdays x 6 hrs/day x 10 min/hr x 2 slots/min x $200K/ad = $240M
  - Weekend: 4 days x 10 hrs/day x 10 min/hr x 2 slots/min x 400K/ad = $320M
  - Opening/Closing: 2 days x 3 hrs/day x 10 min/hr x 2 slots/min x 400K/ad=$48M
- Total profit should be equal to $300M.
  - Profit: Revenues $928m - $482m of total costs - $146m of opportunity cost (2 days x 3 hours x $1m/hr + 14 days x 10 hours x $1m/hr) = $300m
- NPV should be equal to $200m.
  - Discount rate: 1.104 = 1.4641 (ask candidate to round to 1.50)
  - $300m/1.5 = $200m

Winter Olympics Bidding

Part 3

3. Brainstorm intangible benefits and risks

- Might give network access to new viewers
- There is prestige associated with hosting this event
- We can use the air time to promote other programming
- Opportunities for product tie-ins, supplemental revenue
- After finishing the discussion, ask the candidate for a recommendation

Winter Olympics Bidding

Part 4

4. Provide client recommendation

- While the NPV of the project is $200m, the fact that there are other intangibles (new viewers, plugging our programs, and prestige) the bid should just be $200m.
- While there is no one correct answer, most answers should be in the range of $200m. If there is significant fluctuation from $200m, the candidate will have to provide in-depth justifications and make a concrete argument.

- This case tests the interviewee's comfort with numbers and understanding of how intangible factors may influence financial value. The bid process requires another level of understanding around game theory and what dynamics will ultimately determine the value of the bid beyond NPV.
- Ultimately, the best interviewees will make a very strong argument using the facts provided and support their bid and explain why they moved their bid from the NPV figure.
- There is also a lot of room for creativity for the interviewee to discuss other factors, including supplemental streams of revenue, intangible factors, and things to consider during the bid process.

Case 26
Zephyr Beverages

Concepts tested

- Z10 Customer marketing strategy
- Z11 Competitive analysis

Primary sector(s)

- X12 Retail & CPG

Case type

- Y03 Mergers & Acquisitions

Similar cases

- ABC Conglomerate (Wharton 2005)
- InsureCo (Fuqua 2015)

Case author(s): Edwin Van Dusen, Brian Fox and David Welch (Kellogg 2004)
Edited by: Rohan Maini (Kellogg 2020)

Zephyr Beverages

Interviewer guide

Case prompt

- Our client, Zephyr Beverages, is a division of a large consumer products company. The division produces fruit juices in three forms, all under the Zephyr name: chilled, juice boxes, and frozen concentrate. Zephyr had sales of $600 million last year, about 3% of the company's overall sales of $20 billion.
- The chilled segment represents $120 million in sales per year. While juice boxes and frozen concentrate have been consistently profitable, chilled juices are only breaking even in good quarters and are losing money in bad quarters. Zephyr has received a proposal from upper management to sell the chilled juices business. We need to help them decide whether or not this is a good idea.

Interviewer guide

- Problem: What does Zephyr do with an underperforming business?
- Problem solving steps:
    1. Develop a structure to address the problem
    2. Conduct competitive analysis
    3. Determine product analysis
    4. Provide client recommendation

Zephyr Beverages

Fit: What do you think makes a good management consultant?

Case prompt

- Our client, Zephyr Beverages, is a division of a large consumer products company. The division produces fruit juices in three forms, all under the Zephyr name: chilled, juice boxes, and frozen concentrate. Zephyr had sales of $600 million last year, about 3% of the company's overall sales of $20 billion.
- The chilled segment represents $120 million in sales per year. While juice boxes and frozen concentrate have been consistently profitable, chilled juices are only breaking even in good quarters and are losing money in bad quarters. Zephyr has received a proposal from upper management to sell the chilled juices business. We need to help them decide whether or not this is a good idea.

Clarifying information

Industry:

- It has been growing at GDP (~3%) the last few years and is projected to continue that growth rate.
- The market for chilled juices is dominated by mothers with young kids.
- Brand name is important in this market, as mothers tend to prefer reliable products. However, the brand premium must be in line with other branded products and all branded juices sell in the same price range.
- This is a highly price sensitive market that loves coupons, promotions, etc.

Competition: Highly concentrated market. There has not been a lot of change, technological progress or threat of new entrants

Zephyr Beverages

Part 1

1. Develop a structure to address the problem

- A sample case structure would include the following:
    1. Identifying the options: sell chilled juice, sell all juice businesses, continue on with all businesses
    2. Qualitative discussion of competitive dynamics
    3. Discussion of product selection/components, as well as ways to cut costs

When asked, the interviewer can reveal the following additional information:

- Chilled beverages are a $1 billion worldwide industry

Zephyr Beverages

Part 2

2. Conduct competitive analysis

- Using basic information provided, interviewee should deep dive the competitive dynamics in further detail.

- Relevant info:
  - Bad market position: 12% vs. 40% and 25%
  - Assumed profitability differences
  - Disadvantage on trade promotions
  - The two largest players have market shares of 40% and 25%, respectively. Zephyr's market share, 12% makes it third in the industry.
  - The two market leaders are able to do more advertising, couponing, promotion, and trade than Zephyr is able to do. We do not know about their profitability, but assume it is positive

- Interviewee should be able to see that Zephyr is at a serious disadvantage on all fronts as a smaller company that is both less profitable and less engaged in the kinds of trade promotions that key customers covet. The overall conclusion should be that this is a weak competitive position.

Part 3

3. Determine product selection

- Using information about our products vs. our competitors, the interviewee should focus on discussion about how to cut costs.

- Relevant info (when asked):
  - The market leaders produce pure orange juice/blends based on citrus juices. Zephyr uses more elaborate blends, usually with a base of pear or peach juice (60% of inputs) and flavor with cranberries, bananas, mangoes, etc. (the other 40%). Pear and peach juice are a similarly price to orange juice, but the other flavorings cost about twice as much.
  - A plant in California produces all products; chilled, juice boxes and frozen. Each of the three products uses different machinery. It would be difficult to find another use for the plant without a major conversion.
- Additionally, there are currently synergies between chilled, frozen and juice boxes – mothers are slightly more likely to buy products from the same brand
- This indicates that, despite a disadvantage, divesting is not realistic and there may be room for cost reduction based on reformulation to make Zephyr profitable.

Part 4

4. Provide client recommendation

There are three possible solutions, with no right answer. The recommendation should be well-reasoned, comprehensive, and include as much relevant information as possible.

- Sell the chilled juice business. This would, however, affect the juice and frozen concentrate businesses, as there are both advertising and manufacturing synergies.
- Sell all of the juice business. This may be more feasible, as the buyer could capture the synergies, but would not be too likely to turn the business around. The selling price is likely to be low.
- Keep the chilled juice business and rework the ingredients and costs. This is the most feasible option, as evidenced by the success of the competitors. We are probably developing extra features in our ingredient mix that the market does not want and is not willing to pay for. Eliminating or scaling back those features will probably allow us to cut costs without affecting revenue.

- Interviewees who do well on this case will have to be comfortable with ambiguity and with a lack of perfect information. They will quickly grasp the issues and delve into the underlying qualitative discussions, coming up with a lot of additional risks/potential benefits for each option.
- Creative solutions beyond those listed are possible and encouraged, though should be done within the framework of the information available.

Case 27
Zoo Co

Concepts tested

- Z12 Creativity (1)
- Z02 Net Present Value (2)
- Z02 Breakeven analysis (3)

Primary sector(s)

- X06 Financial Services

Case type

- Y03 Mergers & Acquisitions

Similar cases

- Car Wash Chain (Columbia 2017)
- National Zoo (Wharton 2011)

Case authors: Aneri Jambusaria (Kellogg 2011)
Edited By: Ron Mantel (Kellogg 2015), Matthew Heintz (Kellogg 2016), Michael Eidem (Kellogg 2020)

Zoo Co

Interviewer Guide

Case prompt

- Our client is a zoo that is thinking about acquiring a famous zebra from an African preserve.
- It's a huge investment, but they believe the new zebra would be a great contribution to their animal community. You have been engaged to help decide whether this is a good idea. What would you consider when trying to help your client make this decision?

Interviewer guide

- Even though the client is a zoo, we're undertaking a similar process to what is done when underwriting an insurance policy. The case evaluates basic concepts but involves many calculations and the use of financial assessment techniques.
    1. Develop a structure to address the problem
    2. Investment valuation - Walk through the valuation process of an asset.
    3. Breakeven analysis – Determine the revenue increase needed for a positive NPV
    4. Risk assessment – Should the zoo use an insurance contract to hedge downside risk?
    5. Provide CEO recommendation
- Note: Rounding numbers is generally okay but should not be done to the extreme as it will alter the results.

Zoo Co

Fit: Talk about a time when you had to influence someone who initially disagreed with you.

Case prompt

- Our client is a zoo that is thinking about acquiring a famous zebra from an African preserve.
- It's a huge investment, but they believe the new zebra would be a great contribution to their animal community. You have been engaged to help decide whether this is a good idea. What would you consider when trying to help your client make this decision?

Clarifying information

- **Goal:** Zoo's primary concern is whether the zebra acquisition would be profitable. No specific timeline, but zebras do have a finite lifespan.
- **Client Characteristics:** Major zoo within the US. Majority of revenue generated through admission sales to daily zoo visitors.
- **Competitive Dynamics:** No other zoo within the local market.

Exhibit A – Market Research Findings

Possible Attendance Increases	Annual Revenue	Probability
3% Increase	$135,000	20%
5% Increase	$225,000	40%
7% Increase	$315,000	30%
9% Increase	$405,000	10%
Expected Additional Annual Revenue	$252,000	
Plus: Current Annual Revenue	$4,500,000	
Expected Total Annual Revenue	**$4,752,000**	

Zoo Co

Part 1

1. Develop a structure to address the problem

An ideal structure should resemble the typical M&A framework. Focus should be on determining whether the acquisition of this zebra is a smart financial decision. Key elements expected to be included in this framework are:

- **Market:** What does local competitive landscape look like? (Not necessarily other zoos, but substitutes for how families/individuals spend their leisure time) How has the zoo attendance market been trending? Who are the target customers and what do they care about? (i.e. more concerned with animal selection, activities hosted by the zoo, general cleanliness and layout, etc.)
- **Target (the zebra):**
  - **Financial evaluation** – What are the expected costs (purchase price, transportation, ongoing maintenance, update in habitat space) vs the expected revenue increase (increased attendance, change in ticket price, merchandise sales)
  - **Non-financial evaluation** – How old is the zebra? What is its expected lifespan? Why is the zebra famous, does that matter?
- **Transition:**
  - What synergies does the zebra provide? Are there ways to reduce cost by sharing food production/habitat/maintenance investment with a similar animal? Are there revenue synergies (example: being able to promote a complete African exhibit)
  - How will the zoo market the acquisition of this new zebra?
  - Does adding a zebra benefit/fit the zoo's brand?
- **Deal execution:** What will the payment structure look like? Are there opportunities to lease a zebra from another zoo instead of purchase?

Zoo Co

Part 2

2. Walk through the valuation process of an asset.

Data to provide when asked more about expected revenues and costs:

<u>Revenue:</u>

- 300K people visit the zoo annually; admission is $15 per person
- Benefits from zebra acquisition could lead to increased attendance. Another zoo that acquired a similar zebra had an 8% increase.

<u>Costs from zebra acquisition:</u>

- Immediate costs: Acquisition cost ($235K), new facilities ($850K), transportation ($110K)
- Annual maintenances: Food, health costs, and additional trainers ($90K)
- Discount rate = 20%, Assume that the immediate costs are paid today, and annual costs and benefits are realized beginning next year and sustained into perpetuity, even though the Zebra will not live on to perpetuity.

The interviewee should use the above data to calculate the NPV of the acquisition:

- *Assume that the attendance benefits are realized immediately and maintained thereafter*
- Annual benefits = (300K)*($15)*(0.08) = $360K
- Upfront costs = $235K + $850K + $110K = $1.195M
- Annual costs = $90K
- NPV = -$1,195K + (($360K - $90K)/0.20) = $155K
- **Takeaway:** Acquisition is NPV positive. Financially (assuming assumptions are accurate), this is a smart decision.

Zoo Co

Part 3

3. Breakeven analysis – Determine the revenue increase needed for a positive NPV

- **Additional prompt:** Zoo Co is concerned about using the other zoo's attendance benefits as a proxy. They think that attendance could increase by less than 8%. What analysis could you perform to address their concerns? What is the breakeven attendance increase required?
- The interviewee should think about performing a break-even and a sensitivity analysis. Afterwards, they need to think about performing a risk assessment.

Break-even Analysis:

- Break-even = 0 = -$1,195,000 + ((revenue - $90,000)/0.20)

  ($1,195,000) * 0.20 = revenue - $90,000

  Revenue = $239,000 + $90,000 = $329,000 *(this is the required additional revenue to break even)*

  $329,000 = (300,000) * (15) * (% increase in attendance)

  % increase in attendance = ($329,000 / $4.5M) = 7.3%

- **Takeaway:** We already knew from the previous calculation that the acquisition of the zebra was profitable if attendance increased by 8%. This new calculation shows us that our 8% assumption is barely above the break-even calculation. If our attendance assumption is wrong be even 1%, the investment may end up NPV negative.

Zoo Co

Part 4

4. Risk assessment – Should the zoo use an insurance contract to hedge downside risk?

- Since the zoo is very risk-averse, they're interested in hedging some of their downside risk. An insurance company has offered to provide the zoo with a constant revenue to increase revenue to $250K per year if attendance increases are less than or equal to 5% (example: If post-zebra acquisition is only 3% and thus revenue increases by only $135K, the insurance will give the zoo $115K to reach a total increase of $250K). In exchange, the insurance company wants the zoo to pay 1% of the zoo's total annual revenues as a premium. What might you do to determine if this was a good deal?
- The interviewee should recognize that additional information is needed and that a market research study could aid in this process. Hand out exhibit after interviewee identifies this notion.

Provide Exhibit A

The interviewee should use the market research to determine the probable attendance increase:

- Annual cost to zoo: 1% of total zoo revenues = (0.01) * ($4,752,000) = $47,520
- Annual expected benefit to zoo: ($250,000 - $225,000) * (0.40) + ($250,000 - $135,000) * (0.20) = $33,000
- **Takeaway:** Costs > Benefits, so this is not a good deal.

Zoo Co

Part 5

5. Provide CEO recommendation

- It is unlikely that the zebra acquisition is a good idea for the zoo to undertake given the information provided. At other zoos, attendance has gone up substantially due to a new zebra; however, based upon our market research, it seems less likely that we can breakeven on the investment through increased attendance. We have received an insurance contract to help mitigate some of the downside risk; however, it is too expensive to create value.

Other items to consider:

- In order to make the investment more palatable, we may consider negotiating with the insurance company to either increase the revenue benefits provided or decrease the premium cost.
- There are other creative options to drive zebra related revenue (merchandise) or decrease cost (look for a less expensive zebra)

- <u>Excellent interviewees</u>:
    - Identify that we can use another zoo's attendance increase as a proxy for estimating our own attendance increases.
    - Notice in Exhibit A that it is unlikely that attendance will increase sufficiently enough for the zoo to break even.
- <u>Outstanding interviewees</u>:
    - Notice that the insurance company's premiums and benefits are both impacted by attendance increases; so if attendance increases are always greater than 5%, the zoo will be paying even more but getting no benefit.
    - Notice that the insurance company's contract is essentially an option; so a different structure to the contract may be more suitable for the zoo.

2020 Edition

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KCC Case Book 2016

June 10, 2016

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This book was edited in 2016 by KCC

CONTENTS

The title page for each case contains details that will inform case selection

Using the case book

Overview of case title page

Maine Apples

Quant: **8** Industry: **CPG**
Structure: **6** Framework: **Market Entry**

By: Adam Borchert and Joep Knijn (Tuck Class of '04), Edited By: Peter Manoogian (Kellogg Class of '12)

Case Question

- Our client is a Korean conglomerate named Danut that has acquired a small Boston-based biotechnology firm
- The biotech firm acquired has developed a chemical that helps control the ripening of produce. After testing, this chemical appears to work especially well with apples: it allows apple orchards to harvest earlier and it improves the overall quality of the harvest.
- Danut traditionally uses a test market to determine commercialization. Given proximity to Boston and average apple yields, Maine has been chosen.
- Danut would like to know if they should attempt to commercialize this chemical.

Case tracker

- **Industry:** Consumer Goods
- **Case format:** Developing a new product
- **Concepts being tested:**
  - Market sizing
  - Investment
  - Pricing Strategy

Guide to interviewer

- After hearing the prompt, the interviewee should be able to develop a variant of the following question:
  Is the market size large enough and the estimated profitability high enough for Danut to attempt to commercialize this chemical?
- Key case steps:
  1. Confirm market attractiveness (size)
  2. Evaluate orchard revenue and cost structures
  3. Project farmers margins and pricing for Danut
  4. Identify qualitative issues (Risks) to consider

1. **Case tracker:** **Provides overview on case including industry, format, and concepts tested**
2. **Status bar:** **Includes ratings for quant intensity and structure (1 = lowest, 10 = highest), as well as industry and case format. Quant indicates how much math is involved and Structure represents the level of difficulty around developing frameworks.**
3. **Guide to interviewer:** **Contains the overview of the case and allows users to determine whether they should give the case based on its attributes**

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The "Clarifying answers" page contains supplemental information and a suggested guide to the case's flow

Overview of clarifying answers and case guide page

Clarifying answers and case guide

1

Clarifying answers to provide

(Provide this information on request)

Competitive dynamics
- Highly fragmented industry
- No information about market leaders or trends

European industry overview
- GoNet plans to capture a base of 10 million subscribers
- Subscriptions will cost $20/month
- The average GoNet subscriber purchases $1,800 of goods on the internet annually
- GoNet receives 3% commission
- Fixed costs are $1 billion annually
- Variable costs are $110/subscriber annually

2

Guide to case

Part 1 – Quantitative discussion
- This should be the meat of the case and should be completed before discussing any general or qualitative responses.

Part 2 – Qualitative discussion
- After navigating the math, ask the candidate the following questions:
  - 1) How could we reduce the fixed costs of investment?
  - 2) Would there be any reason to continue with the investment even if it looks like it will lose money?
  - 3) Are there are any other risks/benefits that GoNet should consider?
  - 4) How would you sum up the situation and what is your recommendation?

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1 **Clarifying answers:** **Contains information that is less crucial to the main solution path. This is for supplementary information such as: "we do not know the competitive dynamics" or "the market has been growing at GDP."**

2 **Guide to case:** **Lays out the ideal structure for the case and includes hints on how to walk through the interview/handouts, as well as when to show them to the interviewee.**

The "Key elements to analyze" page contains the analysis of the key case concepts

Overview of key elements to analyze page

1

2

Key elements to analyze

Market sizing	Cost savings	Revenue increase
▪ How big is the apple market in Maine? ▪ Does this seem potentially large enough to continue investigating this product?	▪ What are the cost savings from using the chemical? ▪ The chemical allows the farmer to harvest 10 days sooner	▪ How much additional revenue will farmers be able to generate? ▪ What is the total profitability increase (including cost savings?
Note to interviewer	**Notes to interviewer**	**Qualitative Assessment**
▪ When asked, provide the following: – Maine has 200 orchards – Avg. annual orchard revenue is $30K/acre – Avg. orchard has 100 acres of land – Only one apple harvest per year ▪ Interviewee should calculate the market size based on info provided ($30K/acre x 200 orchards x 100 acres/orchard = $600M) ▪ This is a significant market and warrants further investigation.	▪ When asked to quantify the improvements, provide the following: – It costs $1.5K/night to maintain crops for 100 acre orchard – With the chemical, farmers are able to harvest crop 10 days sooner ▪ Interviewee should calculate cost savings per year using this information: ▪ ($1.5K/day x 10 days / 100 acres = $150/acre/year)	▪ When asked to quantify additional revenue, provide the following: – Our client's product improves the consistency of red apples and improves the yield by 10% – The sweetness factor is estimated to improve the juice yield by 5% – 25% of revenue comes from whole apple sales, 75% from juice sales ▪ Improved yield: ($30K/acre x 25% x 10% = $750/acre/ year) ▪ Improved sweetness: ($30K/acre x 75% x 5% = $1,125/acre/year) ▪ Total improvement (with cost reduction) = $2,025/acre/year

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1 **Concept box:** **Includes the key question or objective associated with a main case concept tested. The interviewee should naturally move to asking or addressing the information in this box, but you may need to provide a little "push" at times.**

2 **Notes to interviewer:** **Contains additional information that you may provide to the interviewee during an investigation of the particular case concept. This information is CRITICAL to the interviewee solving the case both numerically and conceptually.**

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Tips for effective pre- and post-case activities

Before meeting

Interviewer (delivering case)

- Ask the interviewee if they wish to focus on specific:
  - Case formats / concepts
  - Levels of difficulty
  - Industries
- Inform interviewee which case you plan to deliver to confirm they have no prior knowledge of the case
- Spend at least 30 minutes to review the case

Interviewee (receiving case)

- Inform your interviewer if you have specific areas for improvement
- Send the interviewer a list of cases you have already done
- DO NOT read the case ahead of time or discuss the case contents with peers!
- Bring plenty of paper to take notes!

After the case

Interviewer (delivering case)

- Provide detailed feedback (both positive and constructive) to interviewee
- Seek feedback from the interviewee on your case delivery

Interviewee (receiving case)

- Seek feedback from the interviewer on your case performance
- Review the case and log your performance in a "case tracker"
- Provide detailed feedback (both positive and constructive) to interviewer

Additional tips for giving an effective case

While there is no single “right way” to give a case, here are a few suggestions:

Take the interview seriously; pretend that you are a real interviewer

- While your interviewee may be your friend, providing a formal atmosphere will be much more valuable and provide a more realistic interview experience

Learn to be comfortable with silence

- While silence may be uncomfortable, resist the urge to jump in with pointers, hints, or additional information

Solve the case math on your own beforehand

- Not only will you gain practice with the math required, thinking through the approach may help you identify traps your interviewee may fall into

If you are not familiar with the industry, spend a few minutes quickly reviewing of the industry summaries (found in the back of this deck) or Vault.com

Case prep scoring: Provide tangible points that can be practiced and improved

1.- General feedback	Needs improvement	Good	Strong
Quantitative: comfort with complex math; shows math and logically lays out data			
Qualitative: conveys understanding of big picture takeaways; realistic thinking			
Creative: identifies different approaches to solve the problem			
Communication: strong listener, openly shares thought process, good body language			

2.- Case specific Feedback	Needs improvement	Good	Strong
Clearly understands and defines the problem/question; breaks problems into components			
Prioritizes analysis; Identifies critical path to the recommendation and most important issues			
Provides a structured and thoughtful approach to solve the problem (e.g. draw issue tree with critical pieces of analysis)			
Summarizes key findings through the solution of the case and translates them into insights or important takeaways			
Pragmatic/ realistic solution that answers the initial question with supporting evidence			
Assesses risks and consequences for the recommendation; identifies key next steps to further prove the solution			

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Feedback Reviewer Form

Structure:

Quant:

Business Acumen:

Creativity:

Recommendation:

Client Presence:

Strengths (circle 2)

Framework / Structure
Analytics / Data Interpretation
Qualitative Analysis
Synthesizing

Creativity/insights
Driving the Case
Conclusion
Other

Weaknesses (circle 2)

Framework / Structure
Analytics / Data Interpretation
Qualitative Analysis
Synthesizing

Creativity/insights
Driving the Case
Conclusion
Other

Score (8 is passing): 1 2 3 4 5 6 7 8 9 10

Evaluation criteria (1/2)

Case skills and driving the case	Communication skills
Problem definition: Clearly understands and defines the problem/ question; summarizes the *essence* of the issue	Structure: Shares thinking process throughout the case and aligns his communications with the structure of the case
Problem breakdown: Breaks problem into most important components	Focus: Highlights key insights, important findings and critical issues
Structure: Uses a structured and thoughtful approach to solve the problem (e.g. draw issue tree with critical pieces of analysis)	Questions: Ask clear questions related to the case process and solution
Prioritization: Identifies critical path to the recommendation and most important issues/components	Engagement: Engages with the interviewer during the solution of the case
Information: Identifies and addresses key pieces of information and assumptions needed to solve the problem	Support: Clearly supports any conclusion or important claim with relevant arguments
Solution oriented: Formulates hypothesis when needed and maintains focus on the recommendation	Business language: Feels comfortable discussing the case with business terminology
80-20 approach: Deep dives into identified critical issues to develop a recommendation (80% of solution with 20% of analysis)	Body language: Communicates naturally and uses body language to support the communication process
Recommendation: Ends up with a pragmatic/ realistic solution that answers the initial question; supported with the analysis	

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Evaluation criteria (2/2)

Polish and interpersonal skills	Business sense and high level thinking
Self confidence: Shows confidence when solving and attacking the case without sounding arrogant	Creativity: Identifies or uses different approaches to solve the problem. Out of the box thinking; uses creative methods and arrives at creative solutions
Quantitative skills: Feels comfortable handling complex calculations and analytics; shows clear calculations and data framing	Synthesis: Summarizes key findings through the solution of the case and translates them into insights or important take-aways
Analysis: Deep dives in identified critical issues or components and comes up with a solution for each issue	Concepts: Clearly understands and uses the key business concepts to solve the case
Interpersonal skills: Drive a conversation and acts naturally	"So what" thinking: Clearly addresses and articulates what each analysis, conclusion or recommendation means to the case, solution or the client
Balance: Good balance of quantitative and qualitative analysis during the solution	Testing: Frequently tests assumptions and conclusions with reality checks or other quick analysis
	Assessment: Assesses risks and consequences for the recommendations; identifies key next steps to further prove the solution
	Business sense: Uses common sense and realistic thinking to get to pragmatic recommendations; has the ability to think from different perspectives (e.g. client, competitor, consumer, etc.)

CONTENTS

Broad Range of Business Concepts Evaluated

Each case will follow a specific format and cover multiple business concepts

Sample Business Concepts	
Quantitative focus	**Qualitative focus**
Accounting	Customer strategy
Basic NPV	Competitive analysis
Break-even analysis	Creativity
Capacity expansion/Contraction	Operations
Elasticity	Marketing strategy
Investments	Organizational changes
Macroeconomics	Pricing strategy
Market share	Supply/value chain
Market sizing	Vertical integration
Microeconomics	Brain teaser (rare)

Case Topics Vary

The following represent the most common case topics on which a case interview may be based (ranked in descending order of frequency)

Format	Focus
Profit improvement	Analyzing causes for recent drop in profits / ways to increase profits
Market entry	Analyzing a firm's opportunity to expand into a new business or segment
Opportunity assessment	Examining the potential purchase / sale of a new or existing business or installation / abandonment of infrastructure
Increasing sales	Identifying ways in which a firm can optimally increase sales
Merger / Acquisition	Evaluating whether a firm should merge or purchase another company
Market sizing	Determining the size, usually in terms of a firm's revenue potential, of a market
Industry analysis	Evaluating an industry's structure and/or desirability
Starting a new business	Similar to entering a new market; then taking an investment point of view
Growth strategies	Determining the optimal ways to grow a company
Developing a new product	Assessing a new product offering
Reducing costs	Identifying internal or external costs that are out of line
Competitive response	Evaluating ways to address a competitor's action (*e.g.*, new product launch)
Turnarounds	Gathering info on why company is failing and then suggesting corrective action

A Typical Case Flow (Standard Case)

Intro & Fit Interview	Case Interview	Wrap Up/Q&A
5-10 min	20-30 min	5 min

Case Interview: 5 -10 min (steps 1–2) · 15 min (steps 3–4) · 5 min (step 5)

1. **Structure the problem**
   - Summarize the essence of the problem
   - Ask clarifying questions
   - Structure thoughts
2. **Develop Hypothesis**
   - Develop a hypothesis
   - Prioritize analyses
3. **Deep Dive**
   - Deep dive into priority areas
   - Make connections between information given throughout case
4. **Develop Solution**
   - Refer back to the initial problem and your hypothesis
   - Be creative
   - Ask 'so what?'
5. **Synthesize**
   - Summarize recommendation for client
   - Lay out risks and next steps

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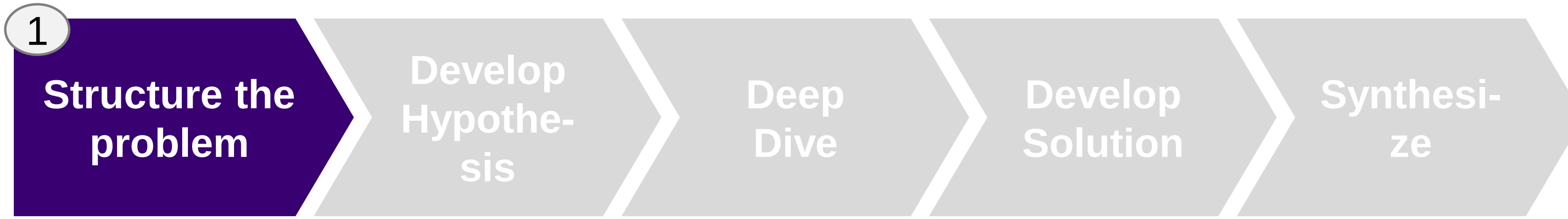
Structure the Problem



- **Get the facts right – ask clarifying questions**
  - Make 100% sure that you understand the objective: e.g. if the objective is to be the market leader, clarify what this means (highest market share, revenue, profit?)
- **Summarize the essence of the problem**
  - Do not just repeat all of the facts back to the interviewer
- **Draw out your approach to solving the problem (i.e. framework)**
  - Try to include at least 2 levels of depth in your framework
  - Customize your framework to the case
  - Be MECE
- **Walk your interviewer through your framework**

Remember: since every case is unique, don't try to force fit standard frameworks!

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Develop Hypothesis

Structure the problem | **2** Develop Hypothe-sis | Deep Dive | Develop Solution | Synthesi-ze

- **Use the info provided to form an initial hypothesis**
  - For example, if the case asks you to determine whether to enter a new market, take a position (e.g., enter), and list out the questions you would need to answer in order to validate your hypothesis
- **Use your hypothesis to prioritize your analyses**
  - What is most important to look into first, second, and third?
- **Engage with the interviewer**

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Deep dive into 1 or 2 areas

- **Treat your notes as "slides"**
  - e.g. separate pages for revenue analysis, cost analysis, profit analysis
- **Link various data points together**
  - Look at the case holistically and tie together information provided at various points in the case
- **Structure quantitative data "Excel-style" / in tables**
  - Before doing any calculations, write out your approach to solving the math problem (e.g., write the formula in words)
  - Turn the page around and walk the interviewer through your math structure (similar to how you would walk them through your framework)
  - Don't start calculating numbers until you've received your interviewer's buy-in that your approach will lead you to the right solution

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Develop Solution

Structure the problem | Develop Hypothe-sis | Deep Dive | 4 **Develop Solution** | Synthesi-ze

- **Be sure to ask the 'so what' questions**
  - Don't just state the obvious; explain what each conclusion means for your client
- **Develop creative solutions**
  - Pressure test your solution
  - If you think the goal is not achievable then suggest alternatives
- **Always consider implementation implications, risks and mitigation**
- **Utilize your analysis to make a powerful statement – take a stand, don't hesitate**
- **Always end your case with a succinct recommendation**

A good solution is:

1. Best among alternatives

2. Practical

3. Based on facts

Synthesize

Structure the problem | Develop Hypothe-sis | Deep Dive | Develop Solution | 5 Synthesi-ze

- **Take a moment to prepare your thoughts**
  - But be prepared for the “elevator test”(interviewer doesn’t allow you time to prepare your thoughts)
- **Provide your recommend approach, backed up by facts**
- **List out risks that the client should consider when evaluating your recommendation**
- **Recommend next steps for analysis**

Tip: Highlight or circle main points as you go through the analysis to facilitate a concise summary

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Table of Contents (1/2)

*Interviewer-led case

Table of Contents (2/2)

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*Interviewer-led case

Maine Apples

Quant: **8** Industry: **CPG**
Structure: **6** Framework: **Market Entry/ New Product**

By: Adam Borchert and Joep Knijn (Tuck Class of ‘04), Edited By: Peter Manoogian (Kellogg Class of ‘12)

Case Question

- Our client is a Korean conglomerate named Danut that has acquired a small Boston-based biotechnology firm
- The biotech firm acquired has developed a chemical that helps control the ripening of produce. After testing, this chemical appears to work especially well with apples: it allows apple orchards to harvest earlier and it improves the overall quality of the harvest.
- Danut traditionally uses a test market to determine commercialization. Given proximity to Boston and average apple yields, Maine has been chosen.
- Danut would like to know if they should attempt to commercialize this chemical.

Case tracker

- **Industry:** Consumer Goods
- **Case format:** Developing a new product
- **Concepts being tested:**
  - Market sizing
  - Investment
  - Pricing Strategy

Guide to interviewer

- After hearing the prompt, the interviewee should be able to develop a variant of the following question:
  Is the market size large enough and the estimated profitability high enough for Danut to attempt to commercialize this chemical?
- Key case steps:
  1. Confirm market attractiveness (size)
  2. Evaluate orchard revenue and cost structures
  3. Project farmers margins and pricing for Danut
  4. Identify qualitative issues (Risks) to consider

Clarifying answers and case guide

Clarifying answers to provide

Product Benefits
- Reduced costs through earlier harvesting
- Improved apple yields
- Improved juice yields (with higher quality apples)

Client Characteristics
- Only concerned about a "test-market" in the state of Maine

Competitive Dynamics
- No other competitive products on the market currently

Local industry Characteristics/Economics
- Growing at the rate of GDP

Guide to case / Guide to handouts

1. **Calculate Market Size (determine attractiveness)**
   - Share market size information with interviewee after probing questions are received
   - Is the market large enough to continue?

2. Evaluate orchard profitability – Share product benefit details – i.e. 10% increase (from calculation page)
- How much incremental profit does our product create for an apple orchard owner?
- Next, the interviewee should determine the profit margins for the farmers given the costs of purchasing the product. Additionally the interviewee should determine a reasonable price for the product

3. Risks & Other Considerations – Guide the interviewee to consider qualitative risks and issues before moving forward with commercialization

Key elements to analyze

Market sizing

- How big is the apple market in Maine?
- Does this seem potentially large enough to continue investigating this product?

Cost savings

- What are the cost savings from using the chemical?
- The chemical allows the farmer to harvest 10 days sooner

Revenue increase

- How much additional revenue will farmers be able to generate?
- What is the total profitability increase (including cost savings)?

Note to interviewer

- When asked, provide the following:
  - Maine has 200 orchards
  - Avg. annual orchard revenue is $30K/acre
  - Avg. orchard has 100 acres of land
  - Only one apple harvest per year
- Interviewee should calculate the market size based on info provided: ($30K/acre x 200 orchards x 100 acres/orchard = **$600M**)
- This is a significant market and warrants further investigation

Notes to interviewer

- When asked to quantify the improvements, provide the following:
  - It costs $1.5K/night to maintain crops for 100 acre orchard
  - With the chemical, farmers are able to harvest crop 10 days sooner
- Interviewee should calculate cost savings per year using this information:
  - ($1.5K/day x 10 days / 100 acres = **$150/acre/year**)

Qualitative Assessment

- When asked to quantify additional revenue, provide the following:
  - Our client's product improves the consistency of red apples and improves the yield by 10%
  - The sweetness factor is estimated to improve the juice yield by 5%
  - 25% of revenue comes from whole apple sales, 75% from juice sales
- Improved yield: ($30K/acre x 25% x 10% = **$750/acre/ year**)
- Improved sweetness: ($30K/acre x 75% x 5% = **$1,125/acre/year**)
- Total improvement (with cost reduction) = **$2,025/acre/year**

Key elements to analyze (cont.)

Product Profitability

- If our product costs $100K per 200 acre farm, what will the farmer's profit margin be if they buy it at cost?
- What should our client sell the product for? (If the candidate needs help, ask him/her what the max and min prices are for the product).
- Is a 50% margin realistic?

Note to interviewer

- Farmer's incremental revenue/cost savings = $2,025/acre
- Product costs = $100K/200 acres = $500/acre
- Profit margin = ($2025-$500)/$2025= 75%
- The interviewee should note that this is an **extremely high profit margin** for the farmer and realize that there is a significant opportunity for profits with this product.
  - How much of this benefit can we capture in our pricing?
  - Interviewee should provide a percentage between 25% and 50%. Anything higher than 50% should be questioned due to the novelty of the product and resulting lack of social proof.
- A 50% profit margin for our client would also realize a 50% profit margin for farmers. This is absolutely a realistic price to set, if not a little low.
  - Given the costs provided, will we make a profit? **Yes**
  - Interviewee should calculate profit: ($100,000 / 200 acres = $500/acre). Assuming $1,000 price per acre, gross margin will be **50%.** [($1,000 - $500) / $1,000]

Solution and recommendations

Solution & Recommendations

- Overall, our client should commercialize this chemical and price it at approximately $1,000 per acre to make a 50% margin.
- Ask the interviewee if there are other non-financial risks/benefits that our client should consider.
- A potential answer would note that the client should consider several qualitative issues:
  - — Differentiation: What is our positioning?
  - — Environmental issues: Is there a risk of backlash and/or boycott from the general public? Could the U.S. government attempt to regulate our product?
  - — Operational reality check: Does the company have the resources to do this?
  - — Patenting: Is the product already patented? If yes, then when does it expire? If no, then is it possible to patent? If not, then can we patent the manufacturing process?
  - — Representativeness of test market: Does it cost less to cover apples in other states?
  - — Strategic fit: Is this opportunity too small relative to the size of the client?

Bonus/Guide to an Excellent Case

- Excellent interviewees need to address value-based pricing: the need to quantify added profits that our client's product will make for *its* clients and how much of that money our client can capture.
- Additionally, a strong interviewee will share several qualitative issues listed above to supplement the recommendation to enter the market.

Kellogg in India

Quant: **8** Industry: **Education**

Structure: **5** Framework: **Market Entry**

By: Abhilash Sridharan (Kellogg ’15) & Rashaad Jamaal (Kellogg ’15)

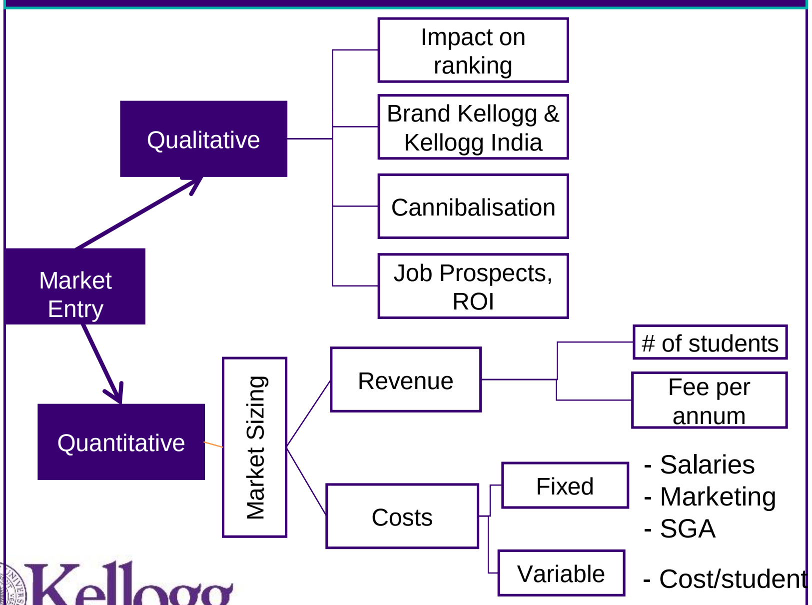
Case Question

Our client is the Dean of Kellogg School of Management. She has hired you to advise her on an idea, which struck her during the previous week – To consider starting a satellite campus of Kellogg in India. She has asked you to determine whether Kellogg should enter the Indian market.

Guide to the interviewer

- ✓ This case is a quintessential market entry case.
- ✓ The two main quantitative concepts on which the candidate is being tested are on market size estimation and breakeven analysis.

A Model Structure should include the following



Clarifying answers to be provided (If asked by the candidate)

✓ **What’s the strategic rationale behind starting a campus in India?**
- Fastest growing economies with a huge demand for business education both in India and students travelling abroad
- Dean Sally believes that it would help Kellogg move to the Top 3
- She wants the satellite campus to breakeven in 4 years
- **Please Note:** The quality of students and the selection procedure would be comparable to the current procedure and there would be no compromise on the quality of applicants, to increase revenue.

✓ **What’s the local competition in India for Kellogg?**
- India has it’s own top-tier business schools such as the 7 Indian Institutes of Management (IIM) and the Indian School of Business (ISB) (ISB has a tie-up with Kellogg, for its pedagogy).

✓ **How do the top schools in India, select candidates?**
- The B-Schools in India admit for the MBA program based on the Common Admission Test (CAT). The Indian School of Business admits candidates based on the Graduate Management Admission Test (GMAT).

✓ **How expensive is an MBA education in India?**
- It costs a student about $20,000 per year for an MBA education in India, as compared to an expense of about $70,000 at Kellogg. Indian schools don’t offer many scholarships but banks offer generous educational loans for top MBA schools in India.

✓ **What programs are we launching?**
- Only the 2Y MBA program to start with.

Case Guide

Topic 1 Being Tested: Market Sizing

The candidate can choose to size the market, in anyway he wants – either top-down or bottom-up. A problem with the top-down approach is that it becomes too dependent on assumptions. Use Exhibit A for a bottom-up approach. (Don't hand it over right away – Let the candidate ask for it.)

A. Estimate the Total Addressable Market from competition
- Indian Institutes of Management (IIM)
- Indian School of Business (ISB)
- Students joining B-Schools abroad (negligible amount)

1. IIMs
- *Every year, there are around 500,000 applications*
- *Top 6% get closed listed for an interview = 30,000 applicants*
- *1 out of 5 are accepted* ***= 6,000 eligible students***

2. ISB
- *1,400 matriculated students / 70% of total admitted students =* ***2,000 eligible students***
- *If interviewee gets this wrong, ask which student pool are we most interested in: matriculated students or all accepted students (some students may not matriculate due to prestige level of school).*

Total Addressable Market = 6,000 + 2,000 ***= 8,000 high quality applicants***

B. Market Size
Fee to be charged annually needs to be calculated. A value somewhere in between $20,000 and $70,000 is acceptable. Too low or high a value needs to be challenged. Taking a value of $50,000 per year for 2 years.
Market Size = 8,000 * $50,000 * 2 = $800M (Good enough to proceed ahead)

Topic 2: Market Share & Breakeven Analysis

- The candidate needs to mention a target market share in the year of launch. A lower number would be preferable to start with. After letting the candidate present his/her logic, ask him/her to take an assumption of **7.5% market share in the year of launch.**

Breakeven Analysis
- Expected breakeven in 4 years
- Calculate the revenue and cost structure for 4 years

Revenue: (hand over exhibit B)
- Only source of revenue is the fee charged from students.
- Revenue each year = Number of students admitted * Fee/year
- From the second year onwards, add last year's fee back

Costs:
- **Initial Costs incurred**
  - Land acquisition / leasing
  - Setting campus up
  - Infrastructure costs
- **Fixed Costs**
  - Salaries to Professors
  - Infrastructure Maintenance
- **Variable Costs**
  - Costs incurred per student

Handover Exhibit C at this time.

The candidate must move towards a NPV Calculation, as explained in the next page, to understand the breakeven possibility in 4 years.

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Breakeven Analysis & Qualitative Insights

The Calculations are as follows:

	Y0	Y1	Y2	Y3	Y4
Number of students		**600**	**600**	**900**	**900**
Yearly Fee per student ($)		**50,000**	**50,000**	**50,000**	**50,000**
Revenue from student in year 1 ($ M)		**30**	**30**	**45**	**45**
Revenue from student in year 2 ($ M)			**30**	**30**	**45**
Total Revenue ($ M)		**30**	**60**	**75**	**90**
Costs ($ M)	**150**	**30**	**30**	**30**	**20**
Profits	**-150**	**0**	**30**	**45**	**70**

Inferences from the above calculations:

- Candidate must ask for discount rate to do the NPV Calculation. However, there is no discount rate and we could go ahead without it.
- From the above calculations, by the 4th year, it doesn't breakeven
    - A candidate could say that it doesn't breakeven even without using discount rates and to not go ahead with the market entry strategy
    - A good candidate would conclude that the venture misses the breakeven mark by only $5M. Given the rising revenues ($90M in Y4) and declining costs ($20M in Y4, vis-à-vis $30M in Y3), the breakeven would be achieved in the first month of year 5 itself.
- From a quantitative standpoint, the move makes sense

Qualitative Insights

In addition to the breakeven analysis, a good candidate must discuss the qualitative factors, before moving to a conclusion

✓ **Brand Impact / dilution**

No Top B-School from the US (except for INSEAD) has successfully ventured to start a satellite campus in India. Whether a satellite campus will dilute the Kellogg brand needs to be studied in detail.

✓ **Influence on rankings**

What are the factors which may be impacted by the satellite campus:

- Diversity
- International Presence
- Proximity to other Asian countries
- Job prospects, in terms of % placements

✓ **Cannibalisation**

Kellogg Evanston has about 50-60 students who join every year from India . Will this cannibalise that number? Additionally, there are other students who join Kellogg from other Asian countries. Will this result in those quality applications moving out?

✓ **Brand Parity**

Will global employers view an MBA from Kellogg India on the same scale as they would view an MBA from Kellogg Evanston?

✓ **Job Prospects & ROI**

A huge premium is being charged on the joining fee vis-à-vis IIMs and ISB. Will students experience a similar increase in ROI?

✓ **Infra & pedagogy support**

The support on Infra and pedagogy from the parent campus to the satellite campus is critical

Suggested conclusion

Conclusion

A good candidate must highlight that while starting a satellite campus makes financial sense, further scrutiny needs to be done to check the impact of this move on brand Kellogg and other factors that impact the rankings (positively / negatively)
Other additional points, which the candidate may add, could be:

- Negotiate on the costs for initial investments, to lower it down from $150M.
- Support from Indian government on subsidies to be offered
- Develop additional sources of revenue, from supporting programs and corporate training sessions

Risks

- Brand dilution / considering the impact of a satellite campus on Brand Kellogg
- Cannibalization of existing revenue from Indian students
- Admission percentage is projected to increase from Year 2 to Year 3 by 50% (This is quite high)
- The salaries of Indian graduates, as per Indian Market conditions, (considering Indian PPP) may influence the average salary of Kellogg School of Management given global reporting, eventually impacting the ranking negatively
- Given Kellogg's new building being constructed, the $150M additional investment for a satellite campus, may require additional rounds of fund raising for the India campus

Next steps

- Employ a Brand agency / consultant to figure out the impact of starting a satellite campus on Brand Kellogg
- Fund Raising for $150M to be worked out
- Potential Partners for promoting the program and supporting with faculty initially
- Discussions to be started with the government of India for the land, infrastructure investment and licenses.

Exhibit A – B-Schools in India

Category	Indian Institutes of Management (IIMs)	Indian School of Business (ISB)
Description of program	- IIMs select via the Common Admission Test (CAT) - The CAT has 500,000 applications every year and the Top 6 percentile gets closed listed for an interview by the IIMs - 5 candidates are interviewed for every slot available - 85% of the admitted candidates end up joining an IIM	- 70% of admitted students matriculate each year between the two campuses for a total class size of 1,400
Cost incurred by Student	INR 1,200,000 for each year (All expenses included)* Use the conversion rate of 1 USD = 60 INR	

***Assume the total cost incurred by a student annually at Kellogg, Evanston as $70,000 per annum**

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Exhibit B: Number of Admitted Students

Year	Expected Number of new students to be admitted each year
1	600 (7.5% of 8,000)
2	600
3	900
4	900

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Exhibit C: Intake and cost structure

Initial Cost (Incurred in Year 0)
Acquiring land and setting up the campus = $100M
Support Infrastructure = $50M

Total Variable Costs per Year			
Year 1	Year 2	Year 3	Year 4
$30M	$30M	$30M	$20M

Rotisserie Ranch

Interviewer-Led Case

Quant: **6** Industry: **CPG**
Structure: **5** Framework: **Market Entry/ New Product**

By: Brian Fox (Kellogg Class of '04), Edited By: Adam Louras (Kellogg Class of '11)

Case Question

- Our client is Rotisserie Ranch, a poultry farming company that specializes in growing chickens for rotisserie roasting. Its primary customer segment is comprised of large grocery chains that buy its chickens to fresh roast in the meat departments of their grocery stores. Market research has revealed to Rotisserie Ranch that more and more consumers have begun buying flavored rotisserie chickens recently.
- Rotisserie Ranch is thinking of pre-flavoring some of its chickens for grocers, what would you consider in making this recommendation?

Case tracker

- **Industry:** Consumer Goods
- **Case format:** Developing a new product
- **Concepts being tested:**
  - Microeconomics
  - Elasticity
  - Customer strategy

Guide to interviewer

- This case is similar in style to a McKinsey & Company 1st round case in that the *Interviewer* should drive the case.
- The case is primarily tests the ideas behind a new product introduction and forces the interviewee to consider market testing, profitability, etc. before rolling out a new product.
- Because this is a "Market Introduction" case, the interviewee SHOULD ask questions about *competition*.
  - For the purposes of this case, assume that Rotisserie Ranch will only compete against existing Private Label brands at grocery stores.

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Clarifying answers and case guide

Clarifying answers to provide if Asked

Industry Characteristics/Product Details

- *Perishability*: Predicting demand for cooked chickens is difficult for grocers; any leftover cooked chickens at the end of the day are thrown out; unthawed chickens cannot be re-frozen

Client Characteristics

- *Competitive Advantage*: Client has patented process for sterilely packaging chicken, so that it will remain fresh for 30 days, making freezing unnecessary
- Client is currently the industry *market share leader* in rotisserie-ready chicken
- Four New "Flavored" Products to be introduced concurrently: Barbecue, lemon herb, tandori and teriyaki

Competitive Dynamics

- No competition in new product market due to patented process

Interviewer Guide to case and handouts

Case Structure – Interviewee's structure should include:

- *Value to customers (grocery chains) – Will they buy it?*
- *Revenue and Cost implications of new venture*
  - Cost increase to client is offset by price increase to grocers
- *Competition*
  - None. Competition freezes chicken so can't be pre-seasoned.

After Interviewee walks through structure, ask them:

- **Prompt 1**: Do you think that grocery retailers would be interested in pre-seasoned chickens from Rotisserie Ranch?
- **Prompt 2**: After several interviews, it turns out that the grocers are very interested in Rotisserie Ranch's proposed new product, but first they want to be sure that the Rotisserie Ranch chickens will sell well. Suggestions?
- **Prompt 3:** After discussing Prompt 2, discuss the results of the market test.

Prompt 1 – Value to Grocers

Prompt 1 - Value to Grocers

- Do *you think that grocery retailers would be interested in pre-seasoned chickens from Rotisserie Ranch?*

Prompt 1 - Sample Answers

- There is not correct answer here, what you should be looking for is how well reasoned the recommendation is:
- Sample "YES" response:
  - Labor Cost Reduction: Meat department workers; don't need to spend time seasoning the chickens.
  - Economies of Scale: Seasoning centralization; lower cost.
  - Product Consistency: Centrally managed; able to spend more on R&D.
- Sample "No" response:
  - Loss of Differentiation: Grocery chains differentiate by value-added .
  - Attune to Local Needs: Likely to be better at gauging consumer tastes.
  - Increases Inventory & SKUs.

Prompt 2 – Market Testing

Prompt 2 - Market Testing

- After several interviews, grocers are interested in Rotisserie Ranch's proposed new product, but first they want to be sure that the chickens will sell well. *How would you make sure?*

Prompt 2 - Sample Answer

- The correct answer is to run a test market for the new products.
  - The candidate may begin going into detail on how this test would be run. Cut him or her off as soon as you are comfortable that they understand that:
    - *A pilot test should be run.*
    - *The pilot needs to have some control or comparison group.*

Prompt 3 – Demand Elasticity

Prompt 3 - Demand Elasticity

- A test market launch for the new Rotisserie Ranch BBQ chicken was administered (Hand interviewee **Exhibit 1**).
- *What is the overall profit for both Store A and B from the test market?*

Prompt 3 - Sample Answer and Notes on Exhibit 1

Using Exhibit 1, interviewee should calculate:

- Retailer profit for Seasoned Chicken compared to Standard Chicken
- Retailer profit = # of chickens sold * (price per chicken * retailer margin per chicken)

Standard Chicken (total profit for retailers = $300 + $600 = $900/week)

- Store A:
    - $1,000 (weekly sales) * 30% (retailer margin) = $300 overall profit
- Store B:
    - $2,000 (weekly sales) * 30% (retailer margin) = $600 overall profit

Test Market BBQ Seasoned Chicken (total profit for retailers = $400+ $675= $1,075/week)

- Store C:
    - $1,600 (weekly sales) * 25% (retailer margin) = $400 overall profit
- Store D:
    - $2,700 (weekly sales) * 25%* (retailer margin) = $675 overall profit

Solution and recommendations

Solution & Recommendations

- Overall, our client should launch the Pre-Seasoned BBQ Chicken product and test other products because:
  - *Competitive Necessity*: Consumers are spending more money on seasoned rotisserie chicken than traditional rotisserie chicken and the market is shifting in this direction
  - *Benefit to Grocers*: Assuming test market was representative, Grocers can expect to earn $175 more gross profit using our client's product relative to the standard rotisserie chicken
  - Potential scale benefits to our Client over time as more pre-seasoned chickens are sold

Exhibit #1: Store sales

	Standard Rotisserie		BBQ Seasoned Rotisserie	
Store	A	B	C	D
Weekly Sales	$1,000	$2,000	$1,600	$2,700
Retail Price	$3.33	$2.50	$4.00	$3.00
Retailer Margin	30%	30%	25%	25%

Tarrant Fixtures

Quant: **8** Industry: **Industrials**
Structure: **7** Framework: **Profitability**

By: David Welch (Kellogg Class of ‘04), Edited By: Adam Louras (Kellogg Class of ‘11)

Case Question

- Our client, Tarrant Fixtures, is a low-intensity manufacturing company that produces display fixtures for retail clients. The company’s financial performance has deteriorated in each of the last three years. Specifically, they are concerned with the company’s falling Return on Investment (ROI).
- The CEO has asked us to look into this problem. How can Tarrant Fixtures get back on track?

Case tracker

- **Industry:** Industrial goods
- **Case format:** Improving profitability
- **Concepts being tested:**
  - Operations
  - Accounting

Guide to interviewer

- This case is about improving ROI and requires a real understanding of finance to solve. There has been a massive increase in working capital due to inventory build-up from an increase in the number of SKUs.
- This is a short case, designed to be solved in approximately 15-20 minutes. There are no slides.
- The important steps are:
  - Establishing a viable structure (Using ROI formula)
  - Breaking down the problem into component parts
  - Continuing to examine issues until the correct ones are identified.

Clarifying answers and case guide

Clarifying answers to provide if asked

Industry Characteristics/Market Economics

- The market has grown 25% in total over the past three years

Client Characteristics

- Client has remained the industry *market share leader* in displays over the past three years and has maintained 25% market share

Competitive Dynamics

- There are several players in the market, but everything has remained stable from a competitive standpoint

Interviewer Guide to Case

A sample case structure would include the following:

1) Start with the definition of ROI and identify the potential areas for problems
2) Identify differences in profits over the last three years
3) Identify capital employed and deep dive increase in working capital

Necessary Information that should be given only when specifically asked :

- Product Types:
  - *Custom displays* (50% of Sales) - Produced only when an order is placed and the payment is received
  - *Standard displays* (50% of Sales) - Manufactured to "open standard" for display sizes/types and stored in inventory (Built-to-stock)
    - 5 standardized products account for 80% of sales in standardized products; Number of standardized products increased from 5 to 12 over last 3 years
- Past Three Years of Financial Performance:
  - *Total Revenues*: Grew by 25%, from $100M to $125M, equally across both types
  - *Costs of production* (COGS, labor, SG&A, etc.): Remained stable as a percentage of revenue [80%]
  - *CAPEX:* The company has no new investments in Property, Plant, & Equipment
  - *Working Capital*
    - Total Working Capital Employed three years ago = $80M
    - Total Working Capital Employed today = $130M
    - Inventory levels increased by 200% (primarily in finished goods), from $25 million to $75 million

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Key elements to analyze

Definition of ROI

- To begin this case correctly, the interviewee must understand the components of ROI
- If the interviewee doesn't know the formula for ROI, the case is dead; however, you should guide the interviewer to help them practice

Net Profits

- The interviewee will likely begin by discussing the "top line" of the ROI equation
- Net Profit is not the cause of the ROI issue as shown from the calculation below

Capital Employed

- The interviewee should examine Capital Employed to find that PP&E is constant as no CAPEX was employed, Inventory is the culprit
- Once identified, follow up with, "What can management do to improve the Inventory Problem?"

Notes to Interviewer

- The formula for ROI:

$$\text{ROI} = \frac{\text{Return}}{\text{Investment}} = \frac{\text{Profits}}{\text{Capital Employed}} = \frac{\text{f(price, quantify, fixed costs, variable costs)}}{\text{f(PPE, working capital)}}$$

Notes to Interviewer

- Net Profit can be calculated based on the information from the prior page as follows:

	Year 1	Year 3
Revenue	100M	125M
Cost of Production $	80M	100M
Net Profit	20M	25M
Cost of Production % of Revenue	80%	80%

- The company's absolute level of profits have increased 25% during the last three years, so this is not the cause of the ROI issue

Notes to Interviewer

- A line-by-by line examination of a typical Working Capital statement will indicate all of the relevant categories of capital for purposes of calculating ROI.
- Based on the data from the prior page, following conclusion may then be drawn:
  - Total Working Capital increased by $50M because Inventory levels increased by $50M
  - PP&E, AR, AP, Cash etc. are all stable
- Potential Causes/fixes for Inventory Increase:
  - Proliferation of standardized product lines. Rationalize product portfolio
  - Inaccurate demand forecasts resulting in excess safety stock
  - Obsolete inventories of outdated product lines

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Solution and recommendations

Solution & Recommendations

- The client's ROI has fallen over the past three years due to a $50M increase in Working Capital caused by a 200% increase in inventory. Inventory has grown because of:
  - The increase in the Total number of standardized product SKUs from 5 to 12
  - Inaccurate demand forecasts resulting in excess safety stock
  - Obsolete inventories of outdated products
- To correct this issue, the client should work to reduce its inventory by:
  - Writing off or working down obsolete inventory (a write-off will cause an immediate hit on profits, so management may be reluctant)
  - Improving demand forecasting to set more realistic safety stock levels
  - Reducing the "Standard" product-line down to the top 5 products (80% of current sales)

Bonus/Guide to an Excellent Case

- An excellent interviewee will:
  - Provide creative, logical reasons for the inventory increase
  - Provide creative, logical solutions to reduce Inventory
  - Detail a cohesive demand forecasting plan that would improve accuracy
  - Provide a plan to limit future product proliferation in the "Standard" product lines

Portkey Inc.

Quant: **5**	Industry: **Transportation**
Structure: **4**	Framework: **New Product/ Market Entry**

By: Arielle Solomon (Kellogg '16) and Lumay Wang (Kellogg '16)

Case Question

Portkey Inc. is a British company that has developed a new technology, *Apparate*, that can transport a person in a matter of seconds. The founder, Albus Severus Potter, invented the technology when he needed a fast way to travel from McMuggle to the Hogwarts School of Management. *Apparate* is first technology of its kind, patented and does not have any direct competitors. Up-front fixed costs are estimated to be 2.3BN GBP.

Albus has tasked us with figuring out whether to launch *Apparate,* and if launched – how to price this new service.

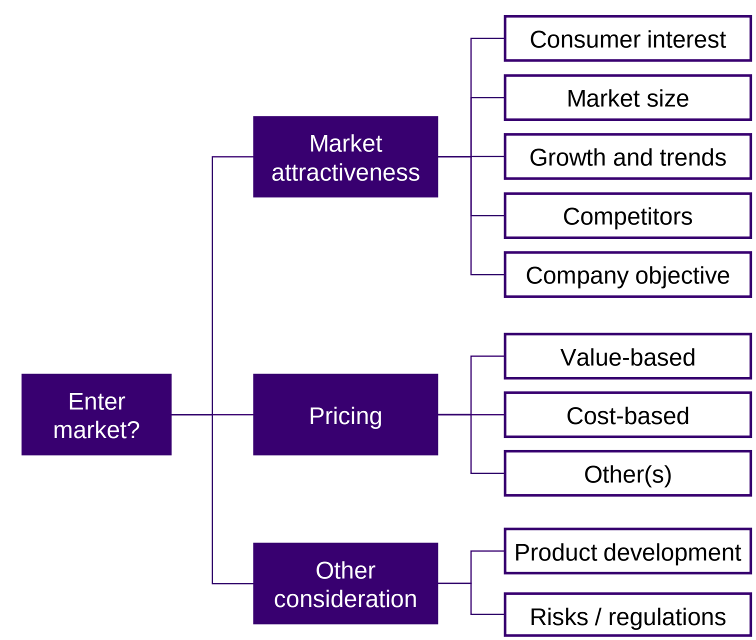
Clarifying answers to provide (if asked)

- The U.K. is the only country that has given regulatory approval
- From an initial consumer survey, 60% of travelers indicated they are open to this new mode of travel
- From initial testing, out of 200k people, one person experienced half-a-body delay – an often fatal condition
- The trip is instant, but the technology's risks increase as trip distance increases

Candidate reflections / initial hypothesis should include

- Business appears promising because there are no competitors and the patented technology creates new value for customers
- Candidate should focus on market attractiveness before addressing pricing

A model framework should include the following



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Deep dive

Further evidence to provide – Market Size

Q: Calculate the potential size of the market for a 400 mile trip (for example from London to Edinburgh). For the purpose of this analysis, candidate should focus on the UK market for 400-mile airplane trips.

Provide Exhibit A after candidate brainstorms inputs needed to size the market such as a transportation route, ticket prices of current substitutes, number of travellers, etc.

Further evidence to provide – Pricing

Q: As a next step, assess pricing strategies. What price would you recommend?

Candidate should take some time to write a second framework to think about pricing. Make sure candidate is not anchored to 100 GBP price shown in Exhibit A

Candidate insights –Market Size

A: The potential market size is equivalent to **30.4 billion GBP.** The candidate should break down the market into Price*Quantity and recognize that there are two customer segments, business and leisure travelers.

Business: 60M*.66*.80*9*100 = 28.8BN
Leisure: 60M*.66*.20*2*100 = 1.6BN
Total: 28.8B+1.6BN = 30.4BN (304MM total trips)

- This is a large market and growing.
- Candidate could also mention that business tickets tend to be pricier than leisure tickets
- Breakeven point isn't covered by the case but is a logical next step – assuming $100/trip, need 23MM trips to break even or 8% market share of trip volume

Candidate insights – Pricing

- Candidate should discuss cost- vs. value-based pricing and determine that Apparate should be value-based priced because of low breakeven, no direct competition, and high price of substitutes.
- May mention target return pricing (setting price to achieve breakeven in 1 year) or psychological pricing (setting price high as signal)
- Price should be at least the average price of a plane ticket as this method saves time/
- Candidate could brainstorm how to value time saved (work hours saved, opportunity cost, etc.)
- Candidate can mention how travelers may be hesitant to try this new product so may need discount / promotion

Suggested conclusion

Conclusion

Portkey Inc. should move forward with launching *Apparate:*
- The market for short-haul trips is 30.4BN GBP and growing at 2% a year
- There are no other direct competitors and the technology is patented
- Portkey Inc. could pursue a value-based pricing strategy that would position the company for future growth while funding new research and product development

Risks

Risks include:
- Safety risks of product malfunctioning
- Lack of consumer adoption of a new product
- Changes in the regulatory environment/restrictions in commercializing the technology in other geographic markets
- Competitive entry affecting value-based pricing

Next steps

As next steps, Portkey Inc. could:
- Complete a rigorous study on the safety of *Apparate* that may be publically available to ensure consumer confidence
- Conduct market research to better understand consumer interest / needs and how to maximize value creation
- Choose pilot market and/or segment (e.g. business travelers) and conduct test

Exhibit A

Category	Statistic
Population of UK	60 million
Percentage of UK population that travels	66%
Average price of ticket (400 miles)	100 GBP (around $150 USD)
% of traveling population that fly for business	80%
% of traveling population that fly for leisure	20%
# trips/year for business travellers	9
# trips/year for leisure travellers	2
Year-on-year growth of travel	2%

Salty Sole Shoe Co.

Quant: **7** Industry: **Retail**
Structure: **6** Framework: **Profitability**

By: Meredith Tierney (Kellogg Class of '11), Edited By: Uri Kalir (Kellogg Class of '12)

Case Question

- Your client is a large retail-focused private equity firm that owns Salty Sole, a leading designer of junior women's footwear, primarily targeting the 14 – 22 year old age group. Salty Sole was purchased last year by the private equity firm expecting to realize substantial profits upon sale in 2012 by increasing the company's EBITDA. The situation, however, is that due to a current recession, annual profit has only grown modestly post the acquisition and is not on track to generate the double-digit returns that the private equity firm originally anticipated.
- *How can the company increase profitability and achieve the private equity firm's return on investment objectives?*

Case tracker

- **Industry:** Retail Apparel
- **Case Format:** Improving profitability
- **Concepts Tested:**
  - Creativity
  - Accounting
  - Microeconomics

Guide to interviewer

- **The case primarily tests an understanding of profitability and profitability growth strategies**
- Begin by reading the case question and asking the interviewee to take a few moments and then explain how they would like to proceed in the client's problem

Clarifying answers and handout guide

Clarifying answers to provide

Industry Characteristics/Market Economics

- Client is the market leader in junior women's footwear in the U.S. only.
- Apparel industry is characterized by cyclicality due to economy and consumer preferences.

Client Characteristics

- Client designs and distributes footwear to discount retailers (like Kohl's) and is considered mid-priced.
- Client outsources all manufacturing on a fixed-contract basis (i.e. manufacturing costs with outsourced providers fall under Fixed Costs for simplicity).

Competitive Dynamics

- Client follows a "me-too" strategy and follows fashion rather than inventing it then offering lower prices than name brands (i.e. not subject to fashion risk).
- Client competes on the basis of trendy fashion and value pricing.

Guide to handouts

- After asking the case question, the interviewee should draw a framework that outlines the basic concept that profit is driven by revenue (price and volume) and cost (fixed and variable)
- **Exhibit 1** – Hand out after interviewee presents his/her framework.
  - What observations can be made from this chart?
  - Interviewee should point out that the company experienced significant growth during the pre-recession years, but a decline and only gradual pick-up following.
  - Interviewee should pick-up on the fact that the change in net sales is not due to increased discounts/allowances (remains 1% throughout years).
  - On the cost side, interviewee should note that variable costs remained flat at 50% and fixed costs remained flat
- **Exhibit 2** – Hand out when discussing revenue / increasing volume.
  - Note that the "casual" footwear market is used as a proxy for the junior women's category in which the client competes and is the market leader.
  - What observations can be made from this chart?
  - Candidate should note that the client is already the market leader with greater than 35% share and that the industry is not projected to grow.

Key elements to analyze

Costs

- Using **Exhibit 1**, have a quick discussion about the company's cost structure.

Revenue

- Once interviewee determines that cost is not the issue, have a discussion on the components of revenue – price and volume.

Notes to interviewer

- Fixed: Interviewee should note that fixed costs are not extremely high (about 23-25%), but could be an area for improvement. Ask how interviewee would reduce fixed costs? Examples include: renegotiate contracts, find cheaper manufacturing partners, etc.
  - State that in-fact fixed costs cannot be adjusted based on the company's research.
- Variable: Interviewee should note that variable costs are approximately 50% of sales. Ask how interviewee would think about reducing variable costs? Examples include: reduce labor/sales force, use technology, renegotiate / volume purchase materials
  - State that variable costs are currently at the lowest possible rates based on market research.

Notes to interviewer

- Price: Interviewee should ask if pricing has remained constant over time or if the company has adjusted its pricing to reflect lower consumer discretionary income.
- Ask what considerations the interviewee would have when considering adjusting price?
  - Answers should be price sensitivity / elasticity, cost structure, brand equity (dilute brand through price decrease but compete with more upscale brands if increase).
  - State that pricing has remained constant at an average of $25/unit. The company has determined that it would not be prudent to adjust pricing based on industry research. Interviewee can now determine the number of pairs of shoes sold for later in the case.

Key elements to analyze

Revenue (cont'd)

- Now that the interviewee has hopefully zeroed-in on the fact that the issue is volume, ask how many units must be sold by 2012 in order for the private equity firm to achieve a 20% return on the investment in Salty Sole Shoe, which equals approximately $300 million sale value (give this number). Note that interviewee should *ignore* discounts/allowances for simplicity.

Notes to interviewer

- Interviewee should determine that if the sale value needs to be $300mm in 2012, then EBITDA will need to be $300 / 6.5 = $46.15 (round up to $50 million).
- The formula to determine how many pairs of shoes must be sold to reach that EBITDA level is as follows:
    - $50,000,000 = $25*v – (.5 * 25 * v) – 15,000,000
    - $65,000,000 = 12.5v
    - V = 5,200,000 pairs of shoes
- Interviewee should note that this is more than double the 2008 and 2009 volume levels.
- Ask what the interviewee would want to know to determine if this volume is feasible? Answer: market size / share.

Market Size

- Show the candidate Exhibit 2 when he/she notes that market size/share would be helpful.
- Candidate should note that the client is already the market leader with 40% and that the market size is not projected to increase.
- This should lead to the conclusion that the client can increase volume by stealing share and/or new products in other categories.

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Solution and recommendations

Solution & Recommendations

- The interviewee should zero-in on the fact that since cost-structure is fixed and price is also fixed, volume is the only real way to increase profitability.
- However, volume must more than double in order to achieve the growth desired by the private equity firm for a 20% return, which could be difficult given recession and the fact that the industry as a whole isn't growing.
- Interviewee should recommend potentials strategies for achieving that volume growth while outlining the risks of each: 1) Volume: new products / geographies / distribution channels (international?); increase marketing to steal share; acquire growth (brands); adjust product mix to higher-margin products. 2) Price: add value / features. 3) Risks: Capacity, cannibalization if new products.

Bonus/Guide to an Excellent Case

- An excellent interviewee will quickly identify that volume is the issue by ticking through the parts of the profitability equation.
- An excellent interviewee will also ask about product mix and question the 50% gross margin. Interviewer should note that it's assumed that all products have the same margin, but that's a great question.
- An excellent interviewee will also note that since the company is not projected to have to adjust discounts / allowances, then it probably has a good product that is highly-valued by customers and/or this may be aggressive projecting.

Exhibit #1: Client Financial Estimates

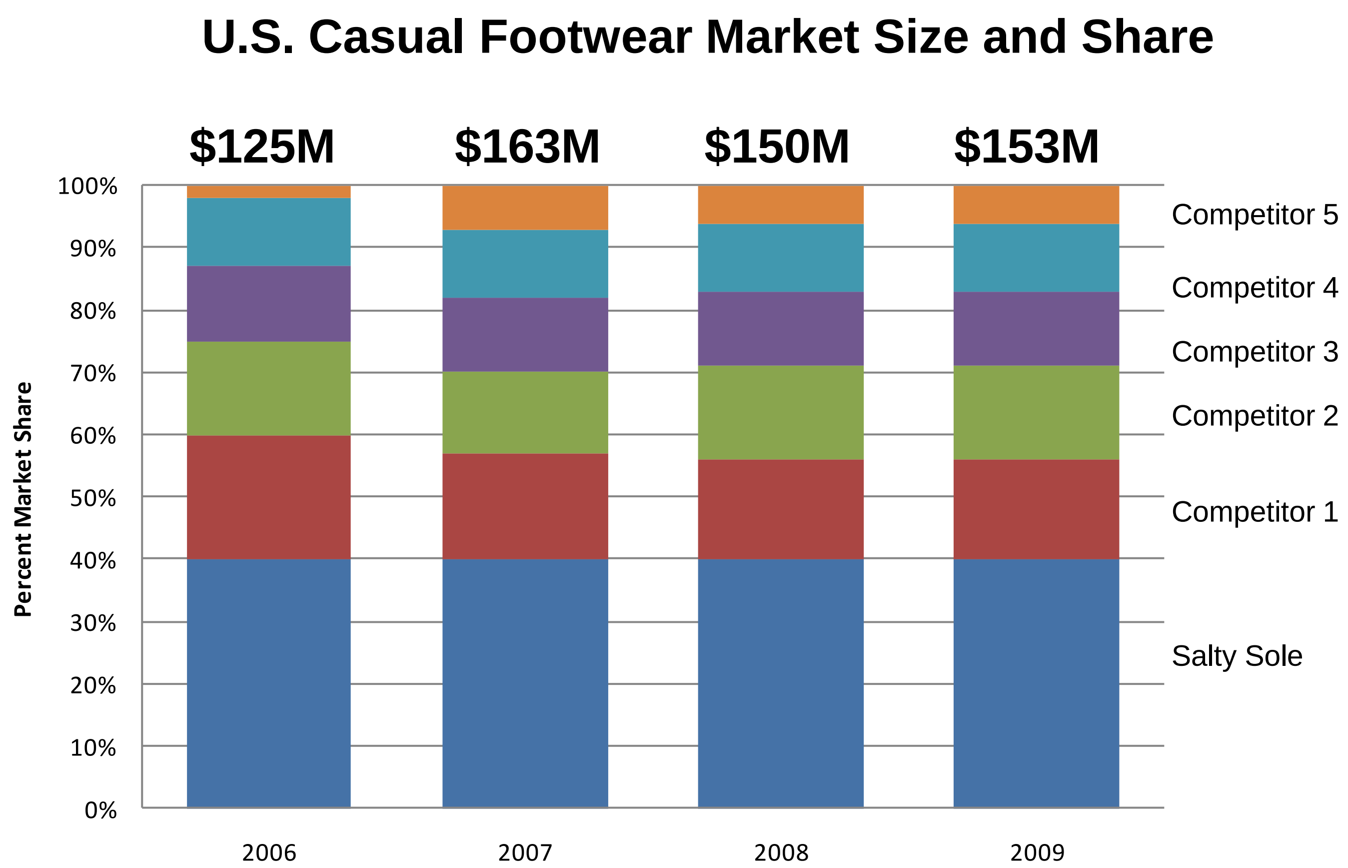
Salty Sole Financial Estimates

($ in millions)

	2006A	2007A	2008A	2009E	2010E	2011E	2012E
Sales	50.00	65.00	60.00	61.00	62.00	65.00	70.00
Less: Discounts/Allowances	(0.50)	(0.65)	(0.60)	(0.61)	(0.62)	(0.65)	(0.70)
Net Sales	$49.50	$64.35	$59.40	$60.39	$61.38	$64.35	$69.30
% Increase / Decrease	*20.0%*	*30.0%*	*(7.7%)*	*1.7%*	*1.6%*	*4.8%*	*7.7%*
Cost of Goods Sold	24.75	32.18	29.70	30.20	30.69	32.18	34.65
Fixed Costs	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Total Costs	39.75	47.18	44.70	45.20	45.69	47.18	49.65
EBITDA	$9.75	$17.18	$14.70	$15.20	$15.69	$17.18	$19.65
Sale Multiple	6.50x	6.50x	6.50x	6.50x	6.50x	6.50x	6.50x
Purchase/Sale Price		$111.64	$95.55	$98.77	$101.99	$111.64	$127.73
Return on Investment							2.7%

Note: Acquisition occurred on December 31, 2006.

Exhibit #2: Market Size and Share



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Money Bank Call Center

Quant: **8** Industry: **Call Center**
Structure: **9** Framework: **Cost / M&A**

By: Guruprasad Sankaranarayanan (Kellogg Class'12); edited by Nikola Jakić (Kellogg Class '16)

Case question

- Our client is a large financial services firm with multiple locations around the world. Part of their service offering includes a 24-hour helpline. The client has their call centers in New York and Paris
- The client has recently acquired a small firm (Firm B) in order to expand its reach in a particular geography. Firm B provides a subset of the services and has its call center located in the Philippines
- The client has asked us to determine its strategy going forward for handling customer calls. In particular they want us to look into the call center operations

Case tracker

- **Industry:** Operations / financial services
- **Case format:** Cost optimization
- **Concepts being tested:**
  - Financial analysis
  - Organizational fit
  - Option evaluation

Guide to interviewer

- This is an outsourcing case with the following elements:
  - Use a framework that covers the most important areas of M&A and cost cutting
  - Read the exhibits to assess the cost effectiveness and efficiency of the 3 locations
  - Discuss qualitative information on the acquired company – products, culture, customers etc
- There is no right or wrong recommendation, as it will depend on the interviewees assessment of the qualitative concerns
- Key case steps:
  1. Evaluate existing and potential cost structure
  2. Explore alternatives / ideas for implementation
  3. Make a recommendation based on the data

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Clarifying answers and case guide

Clarifying answers to provide

The following information can be provided to the interviewee if asked:

Client Characteristics

- Provides full range of financial services for individuals and small organizations
- Acquired firm was started 5 years ago and is still run by the original founders

Nature of call center

- New employees are college graduates with basic knowledge of financial services and products
- Fluency and English and several European languages required

Regulatory environment

- Very difficult to lay off employees in the Paris location – significant costs will be incurred
- Philippines government encourages investment in the country – significant tax advantage possible

Guide to case / Guide to handouts

Case structure – The interviewee should draft in a couple of minutes a framework that covers the most important areas in this case

- **Options**
  - No changes – maintain all 3 call centers
  - Close Firm B's call center and route calls to one of the exiting locations
  - Consolidate to a single location
- **Company**
  - Comparison of services offered at the 3 call centers / product mix
  - Metrics for evaluating call center performance (cost / call, calls / rep, etc.)

Specifics to outsourcing – The interviewee should include specific concerns to the industry such as employment regulations, quality of call, infrastructure capabilities, etc.

Client goals – the client wants any proposed solution to be **cash neutral by the end of year 2**, and is not flexible on this requirement

Key elements to analyze

Outsourcing

- Compare the efficiency of the 3 locations – possible explanations for variance
- Identify the cost effective option – how is this impacted by integration cost

Note to interviewer

- When asked, the interviewer should provide data from *Exhibit 1*. Key takeaways from the exhibit are:
    - Total cost incurred by the 2 firms is $9.6M
    - Philippines currently processes calls at **half the efficiency of NY** (per employee)
    - Interviewee could ask about available slack at any of the call centers but should be advised that all call centers are currently operating at capacity
- If asked, state that currently, we have space, infrastructure necessary to expand. Assume overhead is variable in this case. The candidate should be able to calculate that to process total call volume Philippines will need an additional 250 employees to handle the traffic (1.3M total calls/ 4000 calls/employee in Philippines). Operating cost after the change will be $7.8M; net savings of $1.8M.
- The interviewee should realize that this does not account for all the costs, including hiring and training costs. When prompted inform the interviewee about a 1 time cost of $5M (includes severance for NY and Paris, expanding the Philippines facility) implying that the move is not profitable

	Calls / employee / year	Cost / call ($)
New York	8,000	7.00
Paris	6,667	9.00
Philippines	4,000	6.00

Key elements to analyze (cont.)

Outsourcing

- Prompt the interviewee to explore ways to make outsourcing to Philippines feasible
- Client will not budge on two-year breakeven
- Other options include decrease $5M investment cost and increase efficiency of Philippines employees (guide the interviewee to the latter)

Note to interviewer

- The interviewee needs to identify the difference in calls / employee between the New York and Philippines locations
  - Ask the interviewee to assume that the best practices can be transferred and implemented within 3-6 months
- Potential cost savings if Philippines achieves same effectiveness as New York
  - # employees required = 1.3M calls / 8,000 calls / employee / year = 162.5 (allow rounding to 160)
  - New employee cost = 160 * $20,000 = $3.2M
  - Ask interviewee to assume overheads double with the need for better equipment. Before the efficiency improvement, OH = $1.3M for 1.3M call. New OH = $2.6M
  - New total cost = $3.2M + $2.6 = $5.8M ($3.8M savings from status quo and $2M better than pre-efficiency improved option)
- Other questions interviewee needs to consider
  - Will the client be able to acquire sufficient talented personnel within the short time frame?
  - How will customer satisfaction by impacted with the new labor base?
  - Legal constraints / requirements in NY and Paris – how quickly can we lay off the staff?
  - How will public opinion be impacted by the news of massive outsourcing?

Solution and recommendations

Solution & Recommendations

- This is an open ended case. The interviewee needs to justify the recommendation based on the qualitative considerations
- A good recommendation would include 3 sections:
  1. Recommendations: if the recommendation is to outsource the interviewee needs to highlight the risks associated with outsourcing and nature of the acquired firm. If the recommendation uses any other approach sufficient justification needs to be given to overcome the cost savings
  2. Risks:
     - Risks associated with increasing capacity by more than 200% in the Philippines – people, infrastructure, service quality, gaps in knowledge transfer, organizational changes, etc.
     - Reputational impact – do customers notice a difference in service, can the competitor leverage this to steal customers?
  3. Next steps: If outsourcing, some of the next steps would be to analyze the infrastructure requirements and capabilities, find the right talent, ensure smooth transfer and implementation of best practices, etc.

Bonus/Guide to an Excellent Case

- Excellent interviewees need to address the qualitative information provided in the case: nature of merger, nature of markets being served, etc.
- The interviewee should explore the option of improving effectiveness of the Philippines location without being prompted to do so

Exhibit 1

Call center performance – FY2010

Center	Calls / year	Employee cost / year ($)	Overhead cost / year ($)	# Employees
New York	600,000	50,000	450,000	75
Paris	400,000	50,000	600,000	60
Philippines	300,000	20,000	300,000	75

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Zephyr Beverages

Quant: **1** Industry: **CPG**
Structure: **5** Framework: **Opportunity Assessment**

By: Edwin Van Dusen, Brian Fox and David Welch (Kellogg Class of '04), Edited By: Ameed Mallick (Kellogg Class of '12)

Case Question

- Our client, Zephyr Beverages, is a division of a large consumer products company. The division produces fruit juices in three forms, all under the Zephyr name: chilled, juice boxes, and frozen concentrate. Zephyr had sales of $600 million last year, about 3% of the company's overall sales of $20 billion.
- The chilled segment represents $120 million in sales per year. While juice boxes and frozen concentrate have been consistently profitable, chilled juices are only breaking even in good quarters and are losing money in bad quarters. Zephyr has received a proposal from upper management to sell the chilled juices business. We need to help them decide whether or not this is a good idea.

Case tracker

- **Industry:** Consumer Goods
- **Case format:** Opportunity assessment
- **Concepts being tested:**
  - Competitive analysis
  - Capacity contraction

Guide to interviewer

- This is a relatively short case that requires the candidate to create a holistic structure for solving the problem: what does Zephyr do with an underperforming business? It can divest chilled juices, sell its whole juice division, or remain in all its business. Any of the three possible solutions listed at the end can be argued, but the third solution makes the most economic sense.
- The candidate will need to ask for additional information that is necessary to solve the problem, rather than relying on the interviewer to dispense it all at once.
- This case is not representative of the quantitative rigor of interview cases and therefore we recommend it only be given as a warm-up early in the process.

Clarifying answers and case guide

Clarifying answers to provide if Asked

Industry Characteristics/Market Economics

- It has been growing at GDP (~3%) the last few years and is projected to continue that growth rate.
- The market for chilled juices is dominated by mothers with young kids.
- Brand name is important in this market, as mothers tend to prefer reliable products. However, the brand premium must be in line with other branded products and all branded juices sell in the same price range.
- This is a highly price sensitive market that loves coupons, promotions, etc.

Competitive Dynamics

- This is a highly concentrated market. There has not been a lot of change, technological or otherwise, recently and there are no obvious entrants.

Interviewer Guide to Case

A sample case structure would include the following:

1) Identifying the options: sell chilled juice, sell all juice businesses, continue on with all businesses
2) Qualitative discussion of competitive dynamics
3) Discussion of product selection/components, as well as ways to cut costs

When asked, the interviewer can reveal the following additional information:

- Chilled beverages are a $1 billion worldwide industry
- The two largest players have market shares of 40% and 25%, respectively. Zephyr's market share, 12% makes it third in the industry.
- The two market leaders are able to do more advertising, couponing, promotion, and trade than Zephyr is able to do. We do not know about their profitability, but assume it is positive.

Key elements to analyze

Competitive Dynamics

- Using basic information provided, interviewee should deep dive the competitive dynamics in further detail.

Notes to interviewer

- Relevant info:
  - Bad market position: 12% vs. 40% and 25%
  - Assumed profitability differences
  - Disadvantage on trade promotions
- Interviewee should be able to see that Zephyr is at a serious disadvantage on all fronts as a smaller company that is both less profitable and less engaged in the kinds of trade promotions that key customers covet. The overall conclusion should be that this is a weak competitive position.

Product selection

- Using information about our products vs. our competitors, the interviewee should focus on discussion about how to cut costs.

Notes to interviewer

- Relevant info (when asked):
  - The market leaders produce pure orange juice/blends based on citrus juices. Zephyr uses more elaborate blends, usually with a base of pear or peach juice (60% of inputs) and flavor with cranberries, bananas, mangoes, etc. (the other 40%). Pear and peach juice are a similarly price to orange juice, but the other flavorings cost about twice as much.
  - A plant in California produces all products; chilled, juice boxes and frozen. Each of the three products uses different machinery. It would be difficult to find another use for the plant without a major conversion.
- Additionally, there are currently synergies between chilled, frozen and juice boxes – mothers are slightly more likely to buy products from the same brand
- This indicates that, despite a disadvantage, divesting is not realistic and there may be room for cost reduction based on reformulation to make Zephyr profitable.

Solution and recommendations

Solution & Recommendations

There are three possible solutions, with no right answer. The recommendation should be well-reasoned, comprehensive, and include as much relevant information as possible.

- Sell the chilled juice business. This would, however, affect the juice and frozen concentrate businesses, as there are both advertising and manufacturing synergies.
- Sell all of the juice business. This may be more feasible, as the buyer could capture the synergies, but would not be too likely to turn the business around. The selling price is likely to be low.
- Keep the chilled juice business and rework the ingredients and costs. This is the most feasible option, as evidenced by the success of the competitors. We are probably developing extra features in our ingredient mix that the market does not want and is not willing to pay for. Eliminating or scaling back those features will probably allow us to cut costs without affecting revenue.

Bonus/Guide to an Excellent Case

- Prospects who do well on this case will have to be comfortable with ambiguity and with a lack of perfect information. They will quickly grasp the issues and delve into the underlying qualitative discussions, coming up with a lot of additional risks/potential benefits for each option.
- Creative solutions beyond those listed are possible and encouraged, though should be done within the framework of the information available.

Shermer Pharma

Quant: **5** Industry: **Healthcare**
Structure: **5** Framework: **New Product/ Market Entry**

By: Ameed Mallick (Kellogg Class of '12)

Case Question

- Our client, Shermer Pharma, is a venture backed start-up Pharmaceutical company. Over the past 15 years, Shermer has been developing a molecule that has been approved by the FDA to cure Alzheimer's with 90% efficacy.
- Shermer's owners have hired us to determine:
  - How should we sell our product?
  - Is our product going to be profitable?

Case tracker

- **Industry:** Health Care
- **Case format:** Market entry
- **Concepts Tested:**
  - Break Even analysis
  - Marketing strategies
  - Organizational changes

Guide to interviewer

- This case is focused on 2 questions: can you determine what it takes to launch a new product profitably through a cost benefit analysis, and can you think through the implications of starting a Sales & Marketing organization from scratch. The case should be driven by the interviewee.
- The interviewee should be guided towards 2 primary options for the Sales & Marketing question
  1. Start your own sales force
  2. Contract sales
- Bonus sales force answer is sell Shermer to a larger firm
- Profitability will center on the interviewees ability to read tables and data on the market and our market share.

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Clarifying answers and case guide

Clarifying answers to provide if asked

Industry Definitions

- Our product is a pill that cures Alzheimer's, an illness that currently has no treatment that cures or stops the progress of this disease
- Alzheimer's is a degenerative, terminal disease that causes senility and dementia. 30 MM people suffer worldwide
- Sales would be focused on Neurologists and Geriatric psychiatrists (not the consumer of the product)

Client Characteristics

- We don't have a Sales or Marketing organization, the company has purely been a research firm to this point.
- FDA approval, etc has been granted

Competitive Dynamics

- We will not focus on competitive response during this case as we are the only firm that has a cure for this illness and will be for the next 5 years

Interviewer Guide to case and handouts

Case Structure – Interviewee should focus on the questions separately. First we will brainstorm how to sell our product and ask questions to get after the costs of a sales force (Exhibit 1). An optional middle step is a brain teaser to determine the size of the Alzheimer's market. (provide answer of 5MM at the end of the exercise. They then need to ask about the costs and revenues from our new product (Exhibit 2).

Exhibit 1-3 – After Interviewee walks through structure, they should ask questions about the costs of sales and then ultimately the profit equation.

- *Let the Interviewee drive the case. When you feel that they have asked enough information about the following topics, give them the exhibit that shows this information:*
  - *Sales force options* → *Exhibit 1*
  - *Revenues vs Costs* → *Exhibit 2*
- *If the interviewee isn't getting to the question on the three Sales Force options, guide them back toward this and provide Exhibit 1.*
- *Have a conversation with the Interviewee to force them to talk through the essential components of the profit equation that are needed to answer the question.*

Answer – The numbers reveal that our product will be profitable. However, a critical question will be the sales channel, which is why they need to determine to use contract sales in order to be profitable. It is also correct to state that Shermer should sell the product to a larger firm, but the second half of the case should be under the assumption that the owners decide to do contract sales.

Key elements to analyze

Market Entry

- Using Exhibits 1 the interviewee should be able to determine that contract sales is the best financial option

Profitability

- Using Exhibit 2, the interviewee should determine that our product will be profitable utilizing either type of sales force.

Notes to interviewer

- The question boils down to realizing that our client's competencies are rooted in developing a product, not Sales and Marketing. The correct approach is therefore to contract sales or sell the company
- The qualitative approach to the answer is appropriate, but once the interviewee has discussed enough of the inputs, **exhibit 1** should be shared:
  - There is missing data in the chart that should be easy to calculate (solutions provided)
- A third option with no attached data would be to sell the company to a larger firm, this is an appropriate discussion to have and if prompted the interviewee should discuss the tradeoffs of this more qualitatively
- A contract sales organization is typically less effective than internal sales, though most interviewers wont pick up on this and simply giving the financial answer is appropriate

Notes to interviewer

- You should let them try to size the market as a first step, but then provide the actual number of 5MM.
- The firm requires that R&D costs be recovered by Year 5 of the product (a window before which there will be no competitive response)
  - We can ignore NPV for this question and just assume a straight line amortization…interviewee should come to this conclusion on their own, but course correcting is okay if they get stuck
- Critical information on the exhibit should be provided as the interviewee asks, though should only be volunteered if the interviewee is stuck
- We can ignore tax, however a good interviewee will ask about it, and doing so would realize we still hit our profit targets by year 5
- Manufacturing & Packaging costs are included in the Gross Margin

Math Solutions: Exhibit 1

	Develop own Sales Force	Contract Sales Force
Percent of visit focused on our product	100%	50%
Annual fully loaded cost per Sales Rep	$200k	n/a
Cost per sales call	$170 (($200k*85)/100)	$60
Total calls required	100k (should be asked/given)	200k (100k*2)
Total Sales Reps needed	85	170 (85*2)
Total annual Selling Cost	$17MM ($200k*85)	$12MM ($60*200k)

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Math Solutions: Exhibit 2

Total Market	5MM
Annual gross margin per user	$1000
R&D Cost	$1.5B
G&A cost	$25MM

*Data at left to be provided as the questions are asked by interviewee

	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Market penetration	5%	10%	25%	40%	60%
Total Users	250k (5%*5M)	500k (10%*5M)	1.25MM (25%*5M)	2MM (40%*5M)	3MM (60%*5M)
Total Gross Margin	$250MM (250*$1000)	$500MM (500*$1000)	$1.25B (1.25MM*$1k)	$2B (2MM*$1k)	$3B (3MM*$1k)
Amortized R&D Costs	$300MM ($1.5B/5)	$300MM ($1.5B/5)	$300MM ($1.5B/5)	$300MM ($1.5B/5)	$300MM ($1.5B/5)
Selling Costs	$12 MM (from ex.1)	$12 MM (from ex.1)	$12 MM (from ex.1)	$12 MM (from ex.1)	$12 MM (from ex.1)
G & A Costs	$25 MM	$25 MM	$25 MM	$25 MM	$25 MM
Net Income	($87MM)	$163MM	$913MM	$1.663B	$2.663B

Solution and recommendations

Solution & Recommendations

- Shermer Pharma’s core competency is their research focus. The plausible argument can be made that they should sell the company to a larger firm that has the appropriate capabilities that it takes to market and sell a product. Though this might be the right answer, the client isn't always going to do take the optimal approach, particularly when it comes to ownership of the firm. We need to be flexible to account management’s wishes
- Assuming the owners decide not to sell the company, contract sales is the next best option, that gives us the best scenario when determining overall profitability of our product.
- The latter half of the case is simple math, determining a P & L for our product and coming up with the correct answer that Shermer can be profitable.
- Ask for high level analysis at the end of the case, what else should be consider before engaging this plan?

Bonus/Guide to an Excellent Case

- An excellent interviewee will note:
  - There is an option to sell the company, even though there is no data provided to support this conclusion
  - Some of the numbers give an obvious answer before needing the exact calculations
  - Challenging the interviewer on the effectiveness of a contract sales organization is a bonus. A qualitative argument can be made that for an additional $5MM a year, we can realize the benefit of a more effective sales force, this isn't the financially correct answer but may be the right tradeoff given the relatively minimal impact to the bottom line vs. revenues of $3B
  - $1000 per year for a life saving cure for a currently incurable ailment is definitely under priced!

Exhibit 1: Sales force options

	Develop own Sales Force	Contract Sales Force
Percent of visit focused on our product	100%	50%
Fully loaded annual cost of 1 sales rep	$200k	n/a
Cost per sales call		$60
Total calls required		
Total Sales Reps needed	85	
Total annual Selling Cost		

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Exhibit 2: Annual Net Income

	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Market penetration	5%	10%	25%	40%	60%
Total Users					
Total Gross Margin					
Amortized R&D Costs					
Selling Costs					
G & A Costs					
Net Income					

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Orange Retailer Co.

Quant: **5** Industry: **Retail**

Structure: **5** Framework: **Market Entry**

By: Mauricio Atri (Kellogg Class of ‘12)

Case Question

- Orange Retailer Co. (ORC) manufactures, import/exports and distributes **high-end** world known brands and conservative/traditional apparel brands in several countries in Latin America. ORC is considering entering a new country in Latin America, and you have been hired to determine whether they should enter this new market or not.
- *Don’t mention this until they have determined to enter the market:* What would be the best entry strategy?

Case tracker

- **Industry:** Retail
- **Case Format:** Market Entry
- **Concepts Tested:**
  - Market Sizing
  - Marketing Strategy
  - Creativity

Guide to interviewer

- This case tests the ability to understand business concepts and quantify the benefits and risks of entering a new market
- The interviewee should be able to size the potential market, distinguish different type of customer segments, and identify entry strategy for Orange Retailer Co.
- Additionally, the interviewee should identify some associated risks and potential ways to mitigate them
- Hand out exhibit #1 – Size of potential market and customer segments
- Hand out exhibit #2– Current players’ share and margins
- After quantifying the size of the opportunity and the ideal strategy to enter this market, the interviewee should identify qualitative aspects of entering this new market
- *Consider doing this case as an interviewer led case for beginners, and interviewee driven case for advanced casers*

Clarifying answers and case guide

Clarifying answers to provide

Industry Characteristics/Market Economics

- Macroeconomic outlook is positive in the new market
- Distribution channels are primarily department stores, free standing points of sale, and online sales

Client Characteristics

- Client is currently the third biggest apparel retailer and has focused on F/H and T/C brands for over 30 years
- ORC has traditionally targeted High-End clients, men and women of ages 15-40

Guide to case / Guide to handouts

Part 1 – Hand out after introducing case

- Is there a market opportunity for ORC? What is the size of the relevant market? Interviewee should quantify the size of the market for fashion/high end and conservative/traditional apparel
- Additionally, what is the most attractive customer segment(s) to target

Part 2 – Hand out Exhibit 2 after solving Exhibit 1

- The data should lead the interviewer to recognize that the high-end fashion market is probably driven by brand and/or other factors besides price. The margins are more attractive. ORC should be able to leverage the "world known" brands to attract customers in this segment. Additionally, by targeting "young adults" and "teen & children" it can serve 70% of the market
- In the conservative/traditional market, there seems to be stronger competition, which is probably driven primarily by price. Achieving low costs in this market by importing would be unlikely due to tariffs, and local manufacturing would probably require significant fixed (plants, …) and variable (labor, …) costs

Part3 – What other elements should ORC consider in its decision to enter this market?

Key elements to analyze

Topic 1 being tested

- What is the potential of the market for this apparel brand?
- What segment of the apparel market, and customers should ORC target?
- *When asked, answer the following: ORC has traditionally targeted **High-End** clients, men and women of ages 15-40*

Topic 2 being tested

- What could the client drivers be for each segment?
- Should ORC compete in both segments, one or neither?
- *When asked, current players include local/domestic players*

Topic 3 being tested

- What channels would you use to enter the market
- What other elements need to be considered?
- What factors would impact how much market share we could get?

Notes to interviewer

- Use Exhibit 1 to size each market: Value Driven (235M), Conservative (147M), Fashion & High-end (118M)
- Exhibit 2 shows that margins are higher and there is less competition in the High-end market
- Together, both Exhibits point to ORC targeting the High-End market
- Note: Value Driven is not appealing since it is not an existing competency
- Can target either Young Adults or Teens & Children, or both
- Should size market opportunity for target segments

Notes to interviewer

- Fashion/High-end market: Driven by factors such as brand, trendiness of items, aspiration aspects, etc. Assuming manufacturing costs are similar, players seem to be able to charge more for products that have a brand recognition
- Traditional/Conservative market: appears to be more price sensitive market, driven by cost. Assuming that ORC has no cost advantages over local players, this seems like a less attractive market (tariffs or invest. cost would increase ORC's costs)

Notes to interviewer

- ORC can enter by:
  - Creating standalone stores – More control over branding, but higher costs and longer startup time
  - Distributing to department store – May work well if target mom as buyer for Teens & Children and lower fixed costs
  - Online only
- Other elements to consider: Partnering with local partner, emerging market risks, delivery logistics, tariffs, foreign exchange risk

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Solution and recommendations

Solution & Recommendations

- ORC should enter the Fashion/High-end market. It should be able to leverage the "world known" brands to position itself in this market as an attractive option for either "young adults" or "teens & children" segments. If candidate recommends both segments, they should discuss synergies between the two segments that would make this feasible or examples of other brands that have successfully done this
- To enter this market, ORC could focus on department stores first to test the market with low risk. It could enter the department stores and online channels without the need of a local partner. Conversely, ORC could build its own stores or acquire/form a JV with a local partner if they want greater control over their brand

Bonus/Guide to an Excellent Case

- An excellent answer should mention investments costs, manufacturing costs, transportation costs, and exchange rate risks. If costs are expensed outside of the new market, there are options to mitigate exchange rate risks by buying currency financial options

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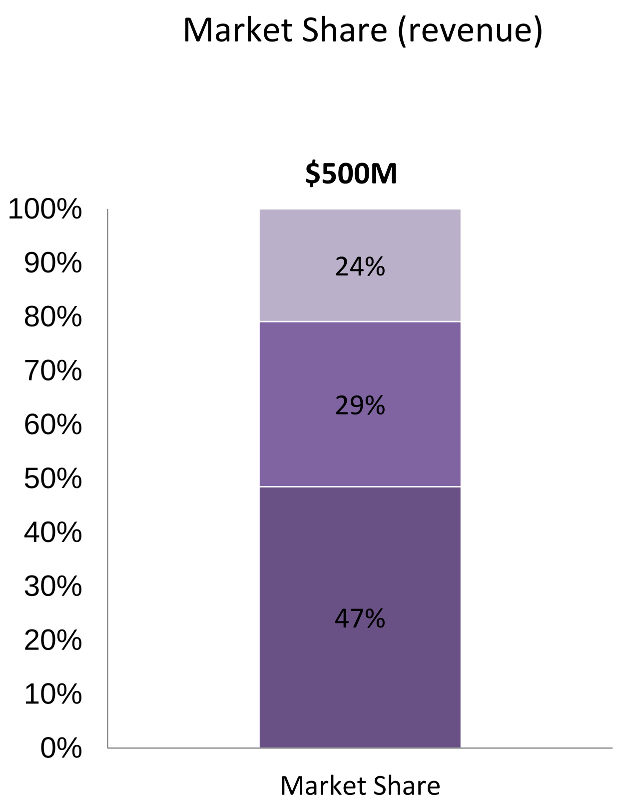
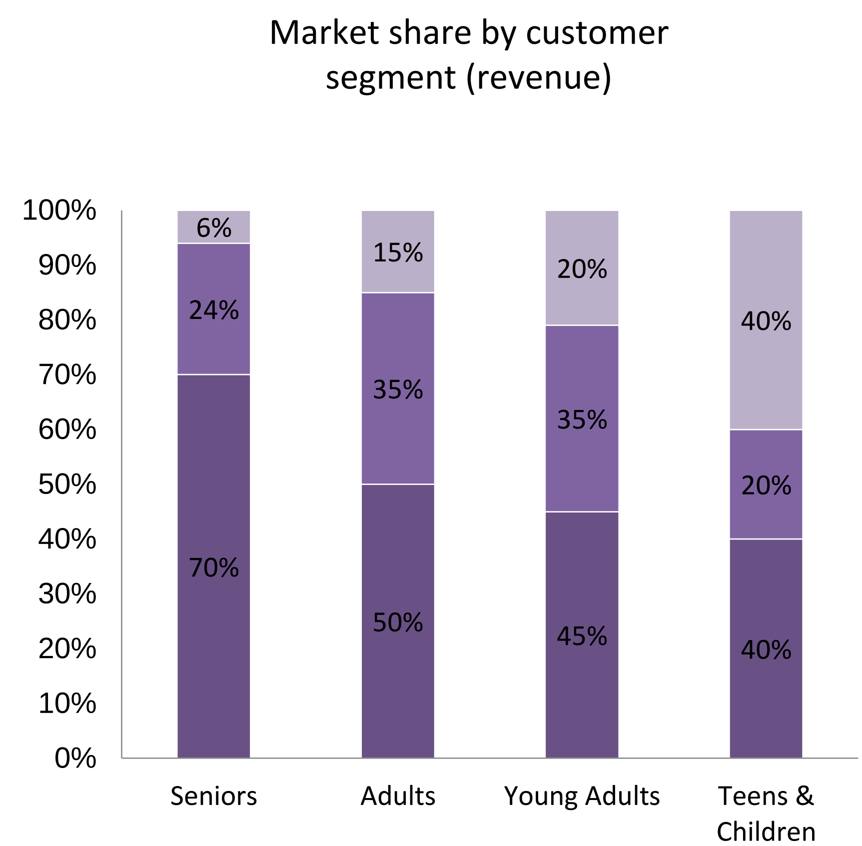
Exhibit #1: Apparel market





	Seniors	Adults	Young Adults	Teens & Children
Segment's share of total revenue	10%	20%	40%	30%

Fashion/High-end · Traditional/Conservative · Value Driven

Exhibit #2: Current players

Current players in the Fashion/High-end market

Fashion/High-end	Player 1	Player 2	Player 3
Market share	40%	26%	34%
Gross Margin	70%	43%	55%
Operating Margin	45%	18%	30%

Current players in the Conservative/Traditional market

Conservative/ Traditional	Player 1	Player 2	Player 3	Player 4	Player 5
Market share	21%	18%	19%	21%	21%
Gross Margin	21%	22%	20%	23%	20%
Operating Margin	11%	12%	10%	13%	10%

Vitality Insurance, Inc.

Quant: **3** | Industry: **Insurance**
Structure: **7** | Framework: **Profitability**

By: Peter Manoogian (Kellogg Class of '12), Edited: Matthew Heintz (Kellogg Class of '16)

Case Question

- Our client, Vitality Insurance, is a leading provider of supplemental insurance products in the United States.
- Vitality agents partner with companies to offer their employees optional, supplemental insurance for such conditions as life, long-term disability, etc.
- Vitality has undergone fairly steady growth in the past two years, but profit margin is decreasing. W*hat should they do about it?*

Case tracker

- **Industry:** Financial Services
- **Case Format:** Improving profitability; Reducing Costs
- **Concepts Tested:**
  - Supply/value chain
  - Marketing strategy
  - Customer strategy

Guide to interviewer

- This case is primarily about diagnosing the source of cost increases for an insurance firm and then determining whether those increases are justified by increased profits
- The case is fairly structured in that the interviewee will need to "peel back" the layers of this case in the following process
  - Recognize that sales costs are rising drastically
  - Identify the shift in sales contest mix for 2010
  - Evaluate the effectiveness of the new contest mix
- With any cost reduction case, an interviewee may seek information on other cost drivers. If this occurs, politely tell the interviewee nothing else exists and then refocus

Clarifying answers and case guide

Clarifying answers to provide

Client Characteristics
- Vitality is the leader in its category and has over 10K field sales agents
- Vitality sells all policies through its field sales agents who are solely compensated on a % commission of total new premium, defined as premium from new customers or additional premium (up-sell) from existing policyholders
- In addition to the commission, short term priorities are often communicated via sales contests that focus on a particular customer segment or activity and pay a bonus in addition to standard commission
- Major costs: sales, G&A, and advertising

Competition
- Vitality has a few other competitors in this market who have seen similar growth, but Vitality is a leader in the space and thus competition is not the focus

Industry trends
- Mature market
- Agent turnover is very high on a yearly basis (though was lower during the recessionary period)

Guide to case / Guide to handouts

Exhibit 1– Provide once interviewee receives clarifying information (left pane) and asks for more detail on costs

Interviewee should recognize the following:
- All line items except for sales costs growing at 10% per year
- Sales costs grow at 10% from 2008 to 2009, but at 45% from 2009 to 2010 (while premium growth remains at 10%)
- Stronger interviewees will quickly note that something is strange w/the 2010 sales costs, but will calculate to confirm
- Finally, profit margins are declining significantly from 09-10, suggesting that the increase in sales costs is not paying off

Exhibit 2– Provide if interviewee asks about the value chain or selling process. If the interviewee asks about the **new contests** focused on **premium**, provide the following information:
- Vitality launched a contest called “Sweeps Week” that aimed to drive increased premium in weeks that were traditionally low volume for the company. Vitality paid an extra 10% bonus on all premium booked in those two weeks.
- Sales agents thought “Sweeps Week” was a great contest
- We have no info on the additional two contests on new accounts

Exhibit 3- Provide if interviewee asks for further detail on the effectiveness of “Sweeps Weeks”

Key elements to analyze

Supply/value chain

- As seen in **Exhibit 2**; Vitality's sales agents are engaged in several activities along the sales process, and that new premium can be generated in many ways.
- The interviewee should recognize the shift in contest mix from 2008/09 to 2010. Coupled with the additional information provided in the previous slide, the interviewee should realize that Vitality has shifted its focus more toward total premium and new accounts in 2010

Marketing strategy

- **Exhibit 3** shows weekly premiums for all of Vitality from 2008 – 2010. The chart is shown in a way that compares each year's actual premium to the average of historical premium for that year, so as to provide for a "benchmark" comparison.
- The "Sweeps Week" contest launched in 2010 is shown in weeks 4 and 20 in the chart, and clearly yields high premium volume for those particular weeks. However, it is done at the expense of the weeks surrounding the sweeps week.
- This implies that agents may be "gaming" the system by pushing/pulling sales into that week to earn the contest $$

Notes to interviewer

- Assume the types of contests run in 2008 and 2009 were fairly similar
- Do not share **Exhibit 3** until the interviewee recognizes this shift in mix and begins asking questions about the new programs

Notes to interviewer

- If asked, confirm that agents have authority to "book" sales whenever they want by influencing the enrollment timing by up to one week
- Strong interviewees will also recognize that, despite not having charts to support it, a shift in customer focus toward acquiring new accounts in 2010 will likely also hinder profit margins, as acquiring a new customer costs considerably more than retaining (or up-selling) an existing customer

Solution and recommendations

Solution & Recommendations

- The interviewee should conclude that Vitality overspent in 2010 on the "Sweeps Week" sales contest, thus hurting its profitability
  - Exhibit three indicates that the contest influenced the sales force to conduct undesirable selling practices by pushing / pulling forward business to earn the extra commission
  - Further, the contest's focus, driving new premium was duplicative with that of the main commission system, therefore it did not add much value
- Recommendation: eliminate "Sweeps Week" for 2011 and potentially repurpose those funds toward an activity that is not already covered by the main commission structure
- It is unclear whether we should remove the increased contests on new accounts, as this could be a new customer focus that we do not know about

Bonus/Guide to an Excellent Case

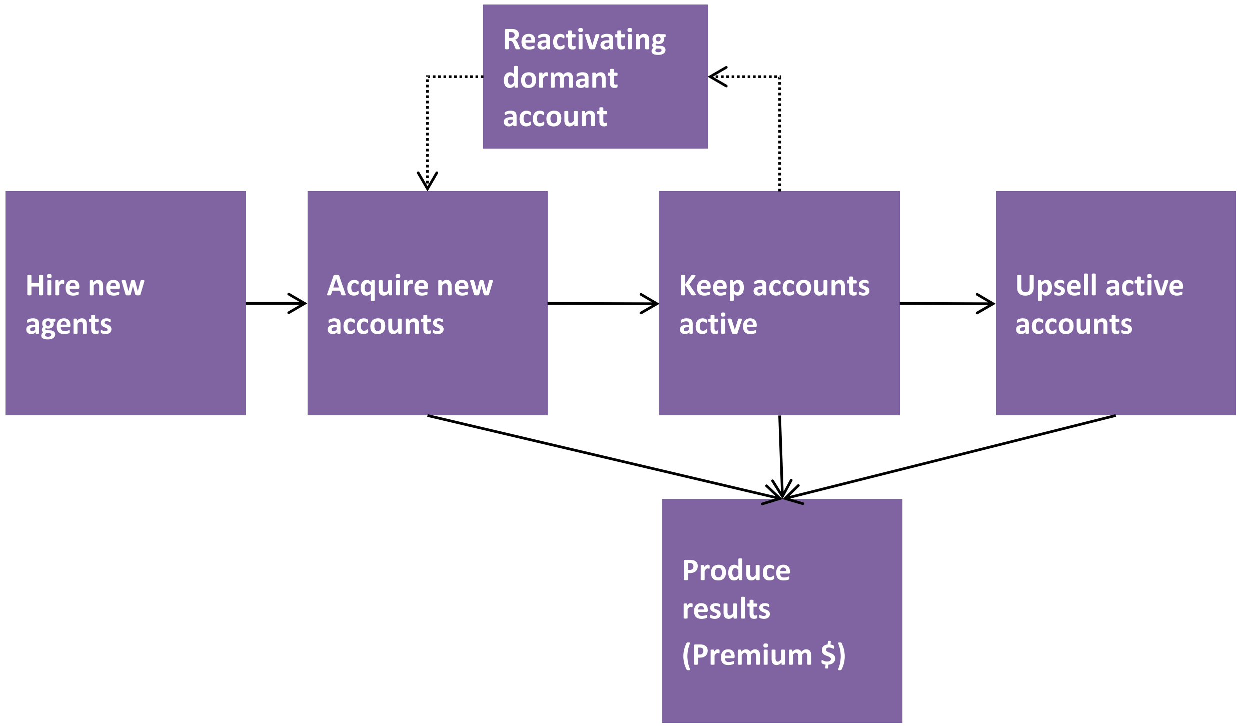
- Strong candidates will make the following observations:
  - Recognize that the likely decline in profit margin from 2009 to 2010 is linked to the abnormal increase to sales costs
  - That the "contest mix" in Exhibit two is similar to a firm's marketing mix, especially given that the sales channel has already been established as the main marketing channel for these products
  - Suggest that the added contests on acquiring new accounts will also decrease profitability because acquiring new customers is more costly than retaining existing ones.

Exhibit 1: Vitality results and major costs

Vitality insurance key results and costs (Figures in 000s)

	2008	**2009**	**2010**
Accounts converted	500	550	605
Total policyholders enrolled	1,500	1,650	1,815
Total premium from policyholders	$2,500,000	$2,750,000	$3,025,000
Total costs			
General and Administrative	$50	$55	$58
Sales	$250	$275	$400
Advertising	$25	$28	$30
Profit margin	9.50%	9.40%	8.50%

Exhibit 2: Vitality insurance sales process



# of sales contests targeted at these leverage points on the selling process

Year	New Agents	Acquire new accounts (bonus based on # of accounts)	Keep accounts active (bonus based on # of accounts)	Upsell active accounts (bonus based on # of accounts)	Produce results (bonus based on total premium $)
2008	N/A	2	4	1	2
2009	N/A	2	4	1	2
2010	N/A	4	0	1	4

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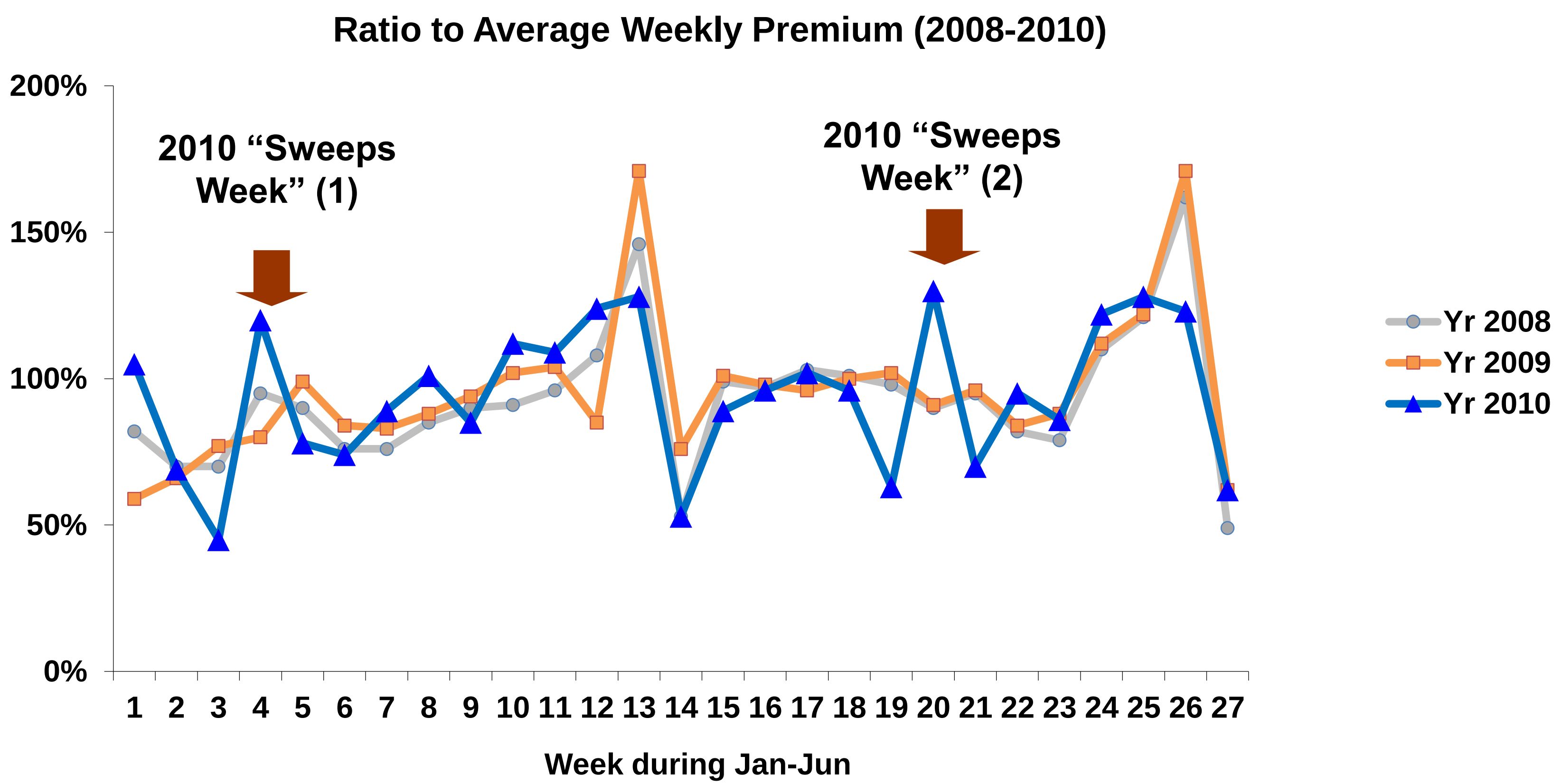
Exhibit 3: Snapshot of “Sweeps Week” contest results



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Realty Seattle

Quant: **7** Industry: **Real Estate**
Structure: **4** Framework: **Profitability**

By: Ryan Grandin (Kellogg Class of ‘16)

Case Question

Realty Seattle has been one of the fastest growing real estate companies in Seattle with $2.625 billion in sales in 2014, with 250 agents. In 2010, they became the 2nd-highest producing agency in Seattle after just 5 years in business, and by 2014 had grown to #1. They are known primarily for their technology-based approach to real estate, with their website driving “leads” that they provide to their realtors. They are expecting their growth to stagnate over the next few years, and have hired us to come up with successful growth opportunities. What are your suggestions for how they can grow the bottom line?

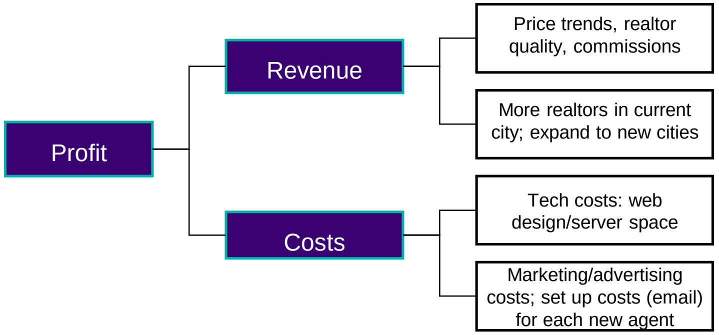
Clarifying answers to provide

- Realtor’s commissions are 3% of the sale price of the house. Realty Seattle takes 30% of a realtor’s commission on up to 5M in sales in a year, and after that, they take 10%
- Realty Seattle has centralized marketing costs and charges agents $500 per month
- They currently have 10 offices, all in Seattle

Candidate reflections / initial hypothesis should include

- This case is a profitability problem
- Customers don’t care what company their agent works for
- Should come up with expansion either in current city or in a new city
- Realize that most costs are fixed, so revenue growth is important

A model framework should include the following



Company
- Strengths
- Locations
- Turnover
- Funding

Competition
- Landscape
- Consolidation

Customers
- Type
- Reputation matter?

Other
- Regulatory
- Real estate trends

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Question 1: Brainstorming

Question to provide

Take me through what you think are Realty Seattle's biggest drivers of profit and give me some ideas of what you might come up with to improve profitability.

What are the Pros/Cons of Realty Seattle's payment model?

Candidate insights – Expansion

A good candidate will have most of the following:

- Low variable costs/High fixed costs, therefore revenue growth is important
- Brand recognition is not a key driver for customers
- Options for profitability – grow market share or find a new market

Payment model:
Pros – incentive to sell more volume
Cons – does this incentive encourage volume sales at the expense of service?

Question 2: Employee Pay

Further evidence to provide – Salary

How much does Realty Seattle receive from its realtors in brokerage fees?

- Realtor's commissions are 3% of the sale price of the house. Realty Seattle takes 30% of a realtor's commission on up to 5M in sales in a year, and after that, they take 10%.
- Average home price: $400,000

Further evidence to provide – Marketing Charges

What is the realtor's return on investment for marketing charges? Assume all marketing charges are spent on postcards mailed out to prospective buyers/sellers.

Hand over exhibit A

NOTE: This is an optional math problem – if you think the person needs to focus more on math, ask it. Alternatively, if the candidate solves the first math problem very quickly, go ahead and ask this.

Candidate insights – Salary

- Realty Seattle receives an average of $61,500 per agent per year
- 2.625B/250 Agents is an average of 10.5M in sales per agent.
- 5M*3% realtor commission*30% Brokerage fees=$45,000
- (10.5M-5M)*3% realtor commission*10% Brokerage fees=$16,500

- Total is 45,000+16,500, or $61,500

Candidate insights – Marketing Charges

- Realtors at Realty Seattle make a 740% ROI (or 980%, depending on whether they assume it is in the first 5M of sales)

- 1000 postcards sent, .1% response rate = 1 sale per month. Commission on 1 sale = 3% * 70% (or 90%)

- Candidate should analyze this number and suggest reason why it is so high
  - Pros: reduces employee turnover and makes it an attraction for star realtors
  - Cons: They may be able to charge more money to the realtors and capture more of the value

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Question 3: Expansion Plans

Further evidence to provide – Expansion

Realty Seattle is considering 3 options for expansion: Hiring more realtors in Seattle; Portland, Oregon; Vancouver, Canada – Which would you suggest?

Hand over Exhibit B

- *If candidates ask any questions about expected market share, ask them to discuss what they think is likely*
- *Any other brainstorming ideas that the candidate comes up with, ask them to justify and walk through their thinking*

Candidate insights – Expansion

City	Advantages	Concerns
Seattle	City knowledge, brand recognition, leverage costs, dominant player	Overexposure, difficulty to increase market share
Portland, Oregon	Faster growing, similar market to Seattle, fragmented market	No market knowledge, no presence in the market
Vancouver, BC	Fastest growing market, highest home price	Regulatory, currency, financial institutions, very concentrated market

<u>Other Concerns</u>

- City demographics
- Real estate trends
- Ability to cater to each market
- Financial ability to enter

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Suggested conclusion

Conclusion

- Expand into nearby markets (Vancouver/Portland) to further grow the business
- Charge realtors more for marketing fees → If you ask this question
- Mention potential add-on services
- Discuss repeat purchase aspect of houses (not a very frequent purchase/sale)

Risks

- Potentially inherent differences between markets – does the company have the knowledge to expand
- Difficult to manage more disperse groups of realtors
- Exchange rate risks in foreign markets
- Realtor turnover when fees go higher → If you ask about the marketing fees (math question 2)

Next steps

- Research industry trends in potential cities
- Look into closing offices in Seattle to save on fixed costs
- Hire new market managers in new city

Exhibit A

Monthly Marketing Statistics

- Monthly Marketing Charge to Realtors: $500
- Cost per Postcard mailed: $0.50
- Response Rate: 0.10%
- % of responses that turn into Sales: 50%
- Average Home Price: $400,000

Exhibit B

City	Current Market Share	Market Share of Top 3 Companies	# of offices	Expected Market Growth (5-yr CAGR)	Average Home Price
Seattle	40%	65%	10	10%	$400,000
Portland, Oregon	0%	52%	0	15%	$435,000
Vancouver, BC	0%	84%	0	20%	$455,000

Dark Sky Co.

Quant: **5** Industry: **Aerospace**
Structure: **5** Framework: **Growth Strat.**

By: Sean Burrow (Kellogg Class of '11), Edited By: Eugene Kim (Kellogg Class of '15)

Case Question

- Our client, Dark Sky, is a small manufacturer of unmanned (i.e. remotely piloted) data collection aircraft. Dark Sky produces the Assessor, an aircraft originally designed for unmanned weather exploration. In 2006, the United States military began purchasing Assessors for use in Intelligence, Surveillance and Reconnaissance (ISR) missions. The Assessor is profitable, but sales have stagnated and the client wishes to grow.
  - *What are some steps Dark Sky could take to achieve growth?*

Case tracker

- **Industry:** Industrial Goods – Aerospace and Defense
- **Case Format:** Growth Strategy
- **Concepts Tested:**
  - Marketing Strategy
  - Creativity

Guide to interviewer

- This case intentionally uses terminology that may not be familiar to the typical MBA student. This is meant to challenge the interviewee to dismiss superfluous information and to focus on the business problem.
- After asking the initial question, engage in a qualitative discussion regarding organic and inorganic growth opportunities.
- Knowledge of the Aerospace and Defense industry is not necessary – creativity is encouraged.

Clarifying answers and case guide

Clarifying answers to provide if asked

Customer / Price:
- Dark Sky's only customer is the U.S. Military.
- Dark Sky has a Cost-Plus-Fixed-Fee contract with the U.S. Military for Assessor sales:
  - The contract has been extended in the past and is up for renegotiation; the Military has agreed to a marginal fee (i.e. price) increase to account for inflation
  - Contracts for new aircraft will be structured similarly

Company:
- The firm has additional capacity and is positioned to strengthen any division of the workforce, if required (e.g. sales force, manufacturing, R&D)

Product:
- Dark Sky designs a unique aircraft that is launched from a catapult device; the aircraft can be launched from ships at sea or from harsh terrain (e.g. desert, mountains).
- Dark Sky only sells the Assessor, but has designed prototypes specifically for military operations.

Competition:
- There are approximately 20 competitors that manufacture unmanned aircraft.
- Though too small to purchase a competitor, Dark Sky has been considered an acquisition target. Dark Sky's lack of growth in recent years concerns potential buyers.

Interviewer Guide to case and handouts

This case is meant to stimulate the growth conversation and is designed to funnel the interviewee toward a new product launch.

Exhibit 1 – Provide following growth discussion

- The military started purchasing the Assessor in 2006. The price of the aircraft has remained constant at $100,000 per unit. Throughout the past decade, The Assessor has been Dark Sky's only source of revenue.

Exhibit 2 – Provide following Exhibit 1 calculations

- Dark Sky has developed several aircraft prototypes designed specifically for military missions. The company has the capability to continue producing the Assessor and to introduce one new aircraft.
  - SeaBird is specially designed for maritime (i.e. Naval) operations and can be sold to the Navy for $220,000 per aircraft.
  - SandBird is specially designed for desolate land-based operations and can be sold to the Army for $210,000 per aircraft.
  - JointBird is designed as a compromise for Army and Navy operations and can be sold to either service for $180,000 per aircraft.
  - The Military has agreed to a 10% Assessor price increase.

Exhibit 3 – ONLY PROVIDE IF ASKED

- The introduction of a new aircraft will have a negative impact on Assessor sales.

- *Continue to next page for further detail of the analysis to be performed*

Key elements to analyze

Current Revenues & Growth Strategy

- **Exhibit 1**: a) How many units were sold in 2014? b) What was the growth rate from 2006 to 2010?
- What are some steps to achieve growth (original question)

Notes to interviewer

- **Exhibit 1** should be treated as a math warm up. **Price = 100K/Unit**
- **Organic Growth** – the interviewee should consider internal options to could stimulate growth. Some potential examples include:
  - **Increase penetration** – negotiate additional Assessor sales to the military.
  - **Product development** – develop new products that may appeal to the military (e.g. new aircraft, training services, aircraft accessories / add-ons).
  - **New market entry** – sell the Assessor in international markets or additional domestic markets (e.g. Border Patrol, police, news channels)
  - **Diversification** – develop a new product to serve a new market.
  - **Increase / Reduce prices** (based on elasticity of demand)
- **External growth** – the interviewee should consider growth options using external resources. Some potential examples include:
  - Joint Venture – contract with a firm to increase market accessibility or to develop a new product beyond the capability of Dark Sky.
  - Merger / Acquisition – acquire a new firm to add additional capacity and/or product mix. Because Dark Sky is relatively small in the Defense industry, consider becoming an acquisition target.

Opportunity Assessment

- **Exhibit 2**: To maximize short-term growth, which aircraft should Dark Sky produce?

Notes to interviewer

- **Exhibit 2**: To maximize growth, Dark Sky should focus on maximizing revenue.

- To calculate the revenue for each scenario, the interviewee should add Assessor sales to the sales of the new product.
  - Assessor sales are based on:
    - 50 units sold with no new product launch
    - Cannibalization forecast specific to each new product launch
    - $110,000 per aircraft
  - New product sales can be easily calculated using shortcuts. For example:
    - SeaBird: $220k * 100 = $22m… then half of this
    - SandBird: $210k * 100 = $21m… then half of it and add (10% of $21m)
    - JointBird: Add to get 90… then $180k*100 = $18m, subtract (10% of $18m)

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Math Solutions

Math Exhibit 1

- How many units were sold in 2014?
  - **Answer:** 50 units or $5,000k ÷ $100k/unit = 50 units

- What was the growth rate from 2006 to 2010?
  - **Answer:** 900% o ($5,000k - $500k) ÷ ($500k) x 100 = 900%

Math Exhibit 2

- To maximize short-term growth, which aircraft should Dark Sky produce?
- Answer: **JointBird**
  - Assessor Sales (Units, Revenue):
    - No new product = 50 aircraft, **$5,500,000**
    - With SeaBird = 50 + (50 * (-40%)) = 50 - 20 = 30 aircraft, **$3,300,000**
    - With SandBird = 50 + (50 * (-70%)) = 50 - 35 = 15 aircraft, **$1,650,000**
    - With JointBird = 50 + (50 * (-90%)) = 50 - 45 = 5 aircraft, **$550,000**
  - New Product Revenue:
    - SeaBird = 50 * $220,000 = **$11,000,000**
    - SandBird = 60 * $210,000 = **$12,600,000**
    - JointBird = (38 + 52) * $180,000 = 90 * $180,000 = **$16,200,000**
  - Total Revenue:
    - Assessor Only = $5,500,000
    - Assessor and SeaBird = $3,300,000 + $11,000,000 = **$14,300,000**
    - Assessor and SandBird = $1,650,000 + $12,600,000 = **$14,250,000**
    - Assessor and JointBird = $550,000 + $16,200,000 **= $16,750,000**

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Solution and recommendations

Solution & Recommendations

- Based on 2015 forecasted revenue alone, Dark Sky should introduce the JointBird to the U.S. Military in order to boost short-term growth. However, there are several connected issues that Dark Sky should consider to include profitability, long-term revenue forecasts, competitive response, etc.

Bonus/Guide to an Excellent Case

- An excellent interviewee will note:
  - How quickly could Dark Sky start manufacturing a third model (i.e. can Dark Sky produce SandBird this year, and be producing SandBird and SeaBird the following year)? If so, what are the revenue implications?
  - If Dark Sky produces JointBird, is $550,000 in Assessor revenue worth the associated cost to produce the aircraft? Should resources be allocated to another project?
  - How profitable are the four aircraft models in comparison? Note: Because Dark Sky has a Cost-Plus-Fixed-Fee contract, profitability for each aircraft is likely equivalent. For this reason, Dark Sky should focus on maximizing the number of aircraft sold. • How much and how long is the payback period for the investment in manufacturing each type aircraft?
  - Potential benefits of have two customer bases for new product (Navy and Army).

Exhibit #1

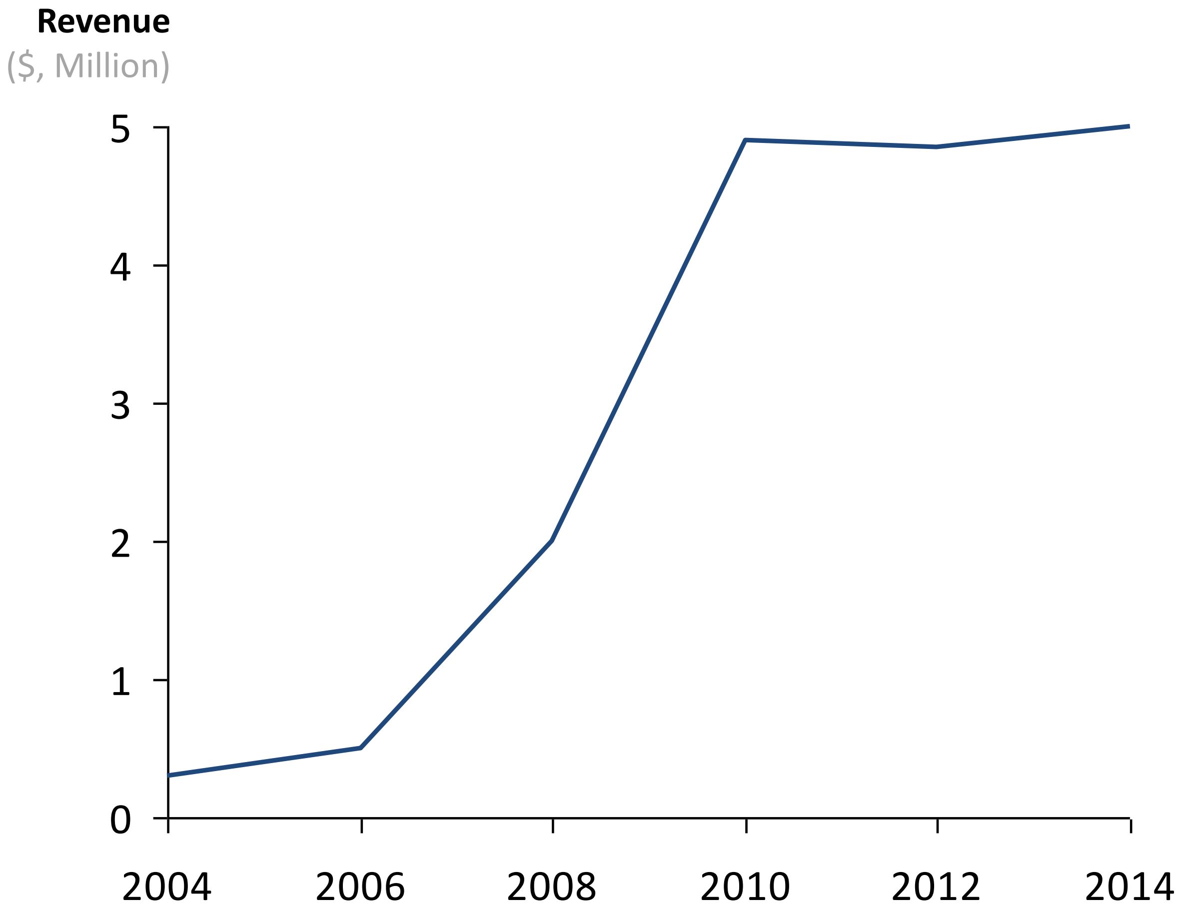

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Exhibit #2

New Product Sales Forecast, 2015

	New Product Sales (# of aircrafts)		
New Product Offering	**Navy**	**Army**	**Price Per Aircraft**
SeaBird	50	--	$220,000
SandBird	--	60	$210,000
JointBird	38	52	$180,000

Exhibit #3

Impact of New Product on Assessor Sales

New Product Offering	New Product Sales (# of aircrafts)		Assessor unit sales lost due to cannibalization
	Navy	Army	
SeaBird	50	--	40%
SandBird	--	60	70%
JointBird	38	52	90%

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Healthy Foods Co.

Quant: **5** Industry: **CPG**
Structure: **6** Framework: **Growth Strat.**

By: Milija Medic, Edited By: Mauricio Atri (Kellogg Class of '12)

Case Question

- Our client is Healthy Foods Co, a wholesaler serving a variety of clients with Food products. The client is profitable but they want you to help them find revenue growth opportunities from their current business.
- *How can we help Healthy Foods Co. drive their revenue growth?*

Case tracker

- **Industry:** CPG
- **Case Format:** Growth Strategies
- **Concepts Tested:**
  - Creativity
  - Marketing Strategy
  - Customer Strategy

Guide to interviewer

- This case is a interviewee led case that tests growth opportunities identification, and share of wallet analysis.
- It tests conceptualization skills as the interviewee needs to formulate prioritization criteria. The case is mainly qualitative.

Clarifying answers and case guide

Clarifying answers to provide

- **Customers**
  - The client serves various customer categories (shown **in Exhibit 1**).
  - Customer sensitivities are (highest to lowest):
    - price
    - convenient delivery
    - help with location planning
    - help with menu
    - web site development
    - inventory
    - help with management optimization
- **Competition**
  - The client is one of the market leaders and is not losing the market share

Guide to case / Guide to handouts

- **Exhibit 1:** Hand out when interviewee asks about customers or revenue by customer type. Interviewee should notice that independent restaurants are the largest customer category and revenue source, and that there is a number of other customer types of similar revenue contributions comprising the rest.
- **Exhibit 2:** Hand out when interviewee identifies share of wallet as a relevant parameter, in search of revenue growth from existing customer types. Interviewee should generate a key insight that Healthy Foods Co's share of wallet is already large for the customers who bring in the largest revenues. The opportunity for growth therefore is in the smaller revenue-generating customers.
- **Exhibit 3:** Hand out when interviewee recognizes that in order to find the smaller customer types with highest revenue growth potential, (s)he needs the plot of the size of the wallet vs. the current client's share of wallet for that customer. The customers with large wallets, where the client has small share of wallet, are at the moment the best candidates to achieve increase in revenue from. Interviewee should identify hospitals and hotels as the customers with largest potential for revenue growth.

Key elements to analyze

Topic 1 being tested	Topic 2 being tested	Topic 3 being tested
▪ Identify the main customer types and their current contributions to the client's revenues, using **Exhibit 1**	▪ Share of wallet analysis, using **Exhibit 2**	▪ Wallet size vs. share of wallet

Notes to interviewer	Notes to interviewer	Notes to interviewer
▪ The interviewee will probably explore opportunities for growth in the independent restaurant category. If they inquire about customer satisfaction and sensitivities, provide information from the "clarifying information" section, and emphasize that **the needs of this segment are already met**. ▪ The interviewee should inquire about the share of wallet in the customer categories to get a better idea on where the growth opportunities lie.	▪ The interviewee should recognize that share of wallet in the highest-revenue-generating customer categories is already high, and that the client is already a key provider for a lot of them. ▪ Ask the interviewees to list all options to increase revenue and the reasons behind. ▪ Help interviewee to reach that the growth opportunity in the smaller revenue-generating customers, where client's share of wallet is smaller. Now the interviewee should formulate the criteria to prioritize among the smaller revenue-generating customer types: the bigger their wallet and the smaller client's share of wallet, the better.	▪ The bigger their wallet and the smaller client's share of wallet, the larger the revenue growth opportunity for the client. ▪ Using **Exhibit 3**, the interviewee should identify the hospitals and the hotels as the most promising candidates for revenue growth given their large wallets and small client's share of wallet. The interviewee should identify the strongest sensitivities these clients would have and suggest ways to increase client's share of wallet there.

Solution and recommendations

Solution & Recommendations

- In the current business, the largest growth opportunities lie in customer segments:
    - hospitals and hotels.
- The interviewee should suggest ways to better serve those customers and increase client's share of wallet there, capturing significant new revenues due to the large size of those clients' wallets.

Bonus/Guide to an Excellent Case

- An excellent interviewee should identify share of wallet as an important parameter, quickly recognize that there is little opportunity for growth in the largest-revenue-generating customers, and come up with the size of wallet vs. share of wallet plot as a good prioritization tool for identifying promising customer categories for the client's revenue growth.

Exhibit #1: Total Market Revenues by Customer Type

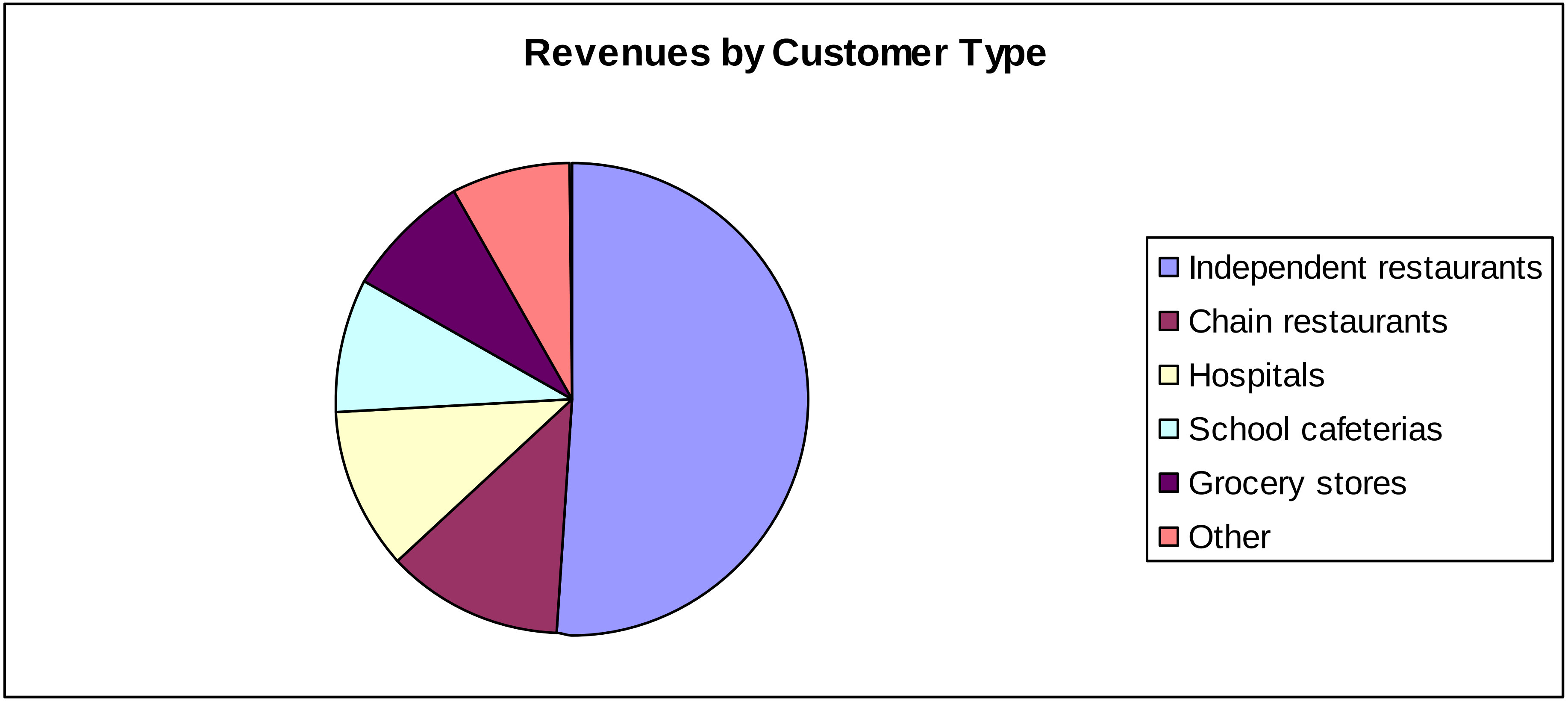

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Exhibit #2: Client's Share of Wallet

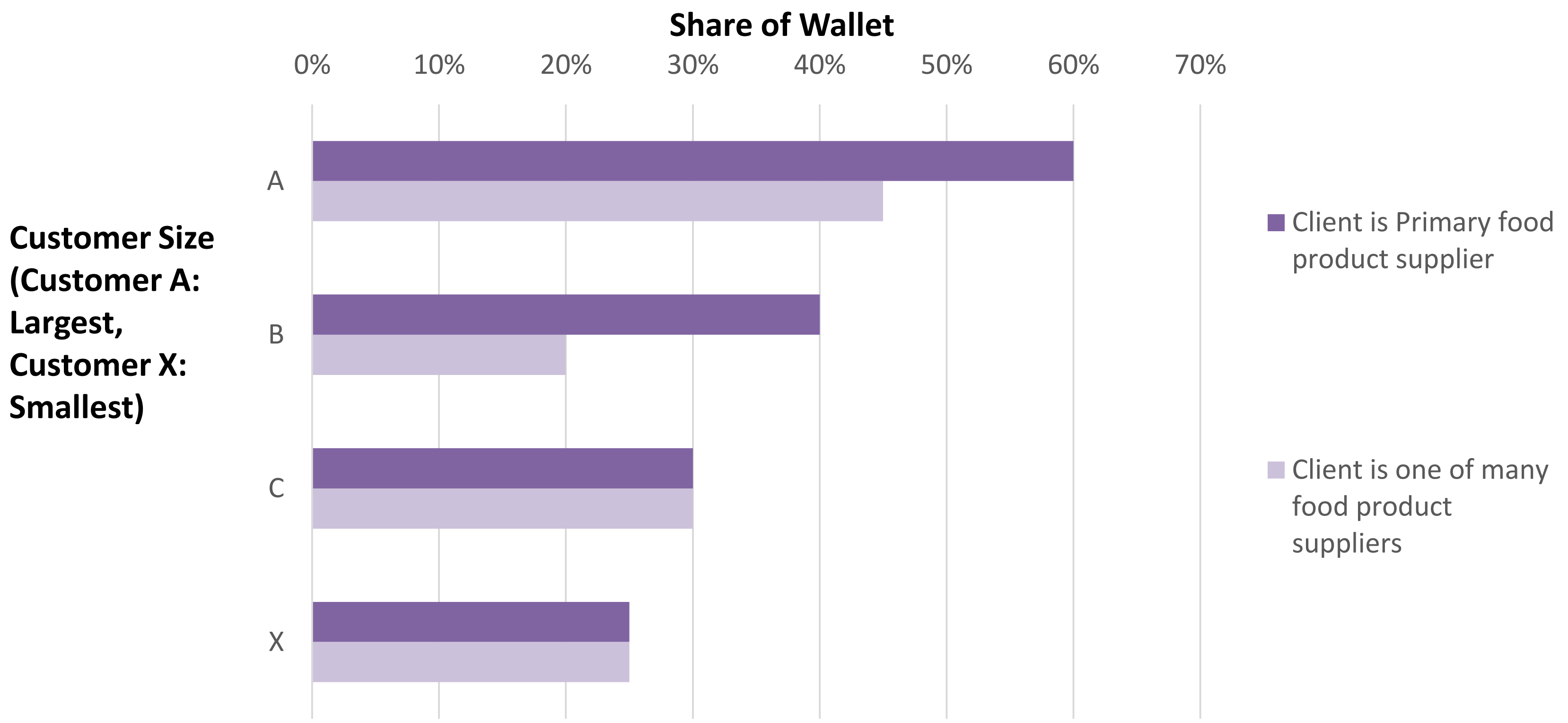
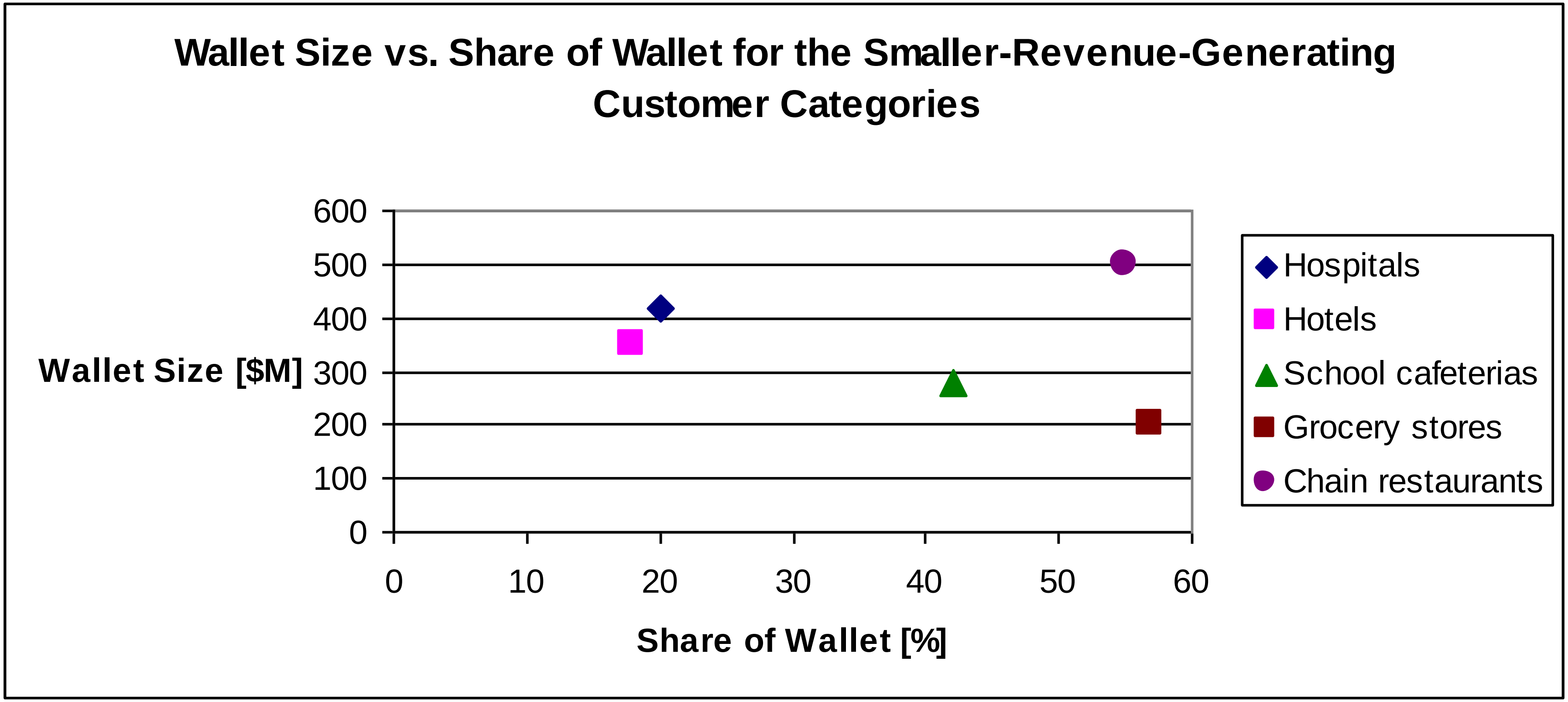


Exhibit #3: Wallet Size vs. Share of Wallet



Plastic World

Quant: **3** Industry: **PE**
Structure: **4** Framework: **M&A**

By: Milija Medic, Edited By: Peter Manoogian (Kellogg Class of '12)

Case Question

- Our client is a private equity firm interested in PlasticWorld, a plastic packaging manufacturer.
- *PlasticWorld's owners are requesting $25M. The offer is final. Should our client buy?*

Case tracker

- **Industry:** Financial Services
- **Case Format:** M&A
- **Concepts Tested:**
  - Organizational changes
  - Market share
  - Customer strategy

Guide to interviewer

- **The case primarily tests the ability to gain insight from quantitative data , value a company and find potential improvements… As such, it is a little bit more data-driven than the average case.**
- The interviewee should focus on the company value – the recommendation regarding the offer depends on it – and on feasibility of identified profit-improving changes.
- The interviewee should be able to come up with the key improvements if (s)he invests some effort in understanding the price drop and its relationship to the sales force incentives. S(he) should also come up with innovation-related costs from the pressure from the customers and how to push back.

Clarifying answers and case guide

Clarifying answers to provide

PlasticWorld Characteristics

- Makes plastic packaging for beverages, cosmetics, household and automotive chemicals
- Products are top quality, they have 350 sets of molds, with different materials, finish, colors, always innovating
- Overall product mix has not changed in recent years
- The sales force is "the best in breed", they hold market share, and they are compensated on market share
- Two years ago they invested further in equipment for product innovation

Customers

- PlasticWorlds' customers exhibit strong loyalty
- They are experiencing increasing pressures in their industries to innovate the plastic packaging

Guide to handouts

Begin by handing out exhibit #1 after stating the case question.

Exhibit 1 – Hand out after introducing case

- What observations can be made from this P&L statement?
- Interviewee should calculate the profit margin (-6%), notice that sales volume is growing but revenues are dropping, and infer that the cause may be pricing (*more detail on next page)*
- To check if it's an industry-wide or company-specific drop in profitability, *they should request competition profitability data*

Exhibit 2 – Hand out if the candidate requests competition data

- Note that it's a company-specific problem
- Push the interviewee to postulate what would be a realistic profit margin goal for PlasticWorld based on this industry profitability data (*more detail on next page*)

Exhibit 3 – Hand out after discussion of Exhibit 2

- Sensitivity analysis indicates that the company would be worth the offered $25M if the profit margin was brought from –6% to 0%
- Interviewee should investigate the profitability drop and the low prices further and suggest options to get PlasticWorld's profitability in line with the industry, and their feasibility

Key elements to analyze

Sales Force Incentives

- Using Exhibit 1, What could be the reasons behind what is in the data?

Profit Margin Improvement Feasibility

- Use Exhibit 2 to conclude it's a client-specific problem, use Exhibit 3 to discuss company's value if the profit margin is increased to the industry average.

Notes to interviewer

- Exhibit 1 – PlasticWorld has experienced a steady drop in revenues while the sales volume has been growing.
- There are three major points to identify: 1) the profit margin is dropping and negative; 2) given the unchanged product mix and increasing sales volume, the drop in revenues is caused by a reduction in prices; 3) depreciation change – it was equipment investment.
- The interviewee should find, asking independently or with your help, that sales force is compensated based on market share. This gives the sales force incentive to drop the prices.
- Interviewee should ask about the product quality and customer loyalty to discard price competition as the reason to drop prices. The products are high-quality and customers are loyal, so most of them would buy even at a higher price.

Notes to interviewer

- Exhibit 2 - the candidate should identify the profitability problem is client-specific, all competitors are profitable.
- Exhibit 3 – the observation from the graph is that the company would be worth the $25M if PlasticWorld increased profit margin from –6% to 0%. If the profit margin reached the industry average, the company would be worth $40M.
- Now the question is how easily can the profitability be increased above zero (making the company worth more than the $25M). The sales force incentive change is easy to make.
- Looking for other high-impact improvements, the dense product line and constant innovation is the next largest candidate. Eliminate some molds to cut costs, mindful of innovation pressures in PW's clients' industries.

Solution and recommendations

Solution & Recommendations

- Our client should accept the $25M offer and boost the profitability (and value) of PlasticWorld.
- The client should engage in the following easy-to-implement changes:
  - Compensate sales force based on company earnings instead of market share.
  - Simplify the product line - eliminate some of the 350 molds to cut costs while leveraging the superior sales force to maintain client satisfaction.
  - Examine the industry best practices to find other areas for improvement.

Bonus/Guide to an Excellent Case

- An excellent interviewee will quickly identify the pricing as the issue behind the revenue decrease and lay out potential causes for the price drop, finding the sales force incentive.
- Additionally, a strong interviewee will immediately notice that the company would be worth more than $25M if its profit margin was at the level of industry average.
- A framework comprehensive enough to find the product line size problem would be a plus.

Exhibit 1: PlasticWorld P&L statement in the past three years

	2009	2008	2007
Sales ($)	18,824,000	19,180,000	19,650,000
Volume (units)	36,200,000	34,250,000	32,750,000
COGS ($)	9,050,000	8,900,000	8,650,000
SG&A ($)	7,500,000	7,200,000	7,300,000
Depreciation ($)	3,450,000	3,450,000	2,250,000
EBIT ($)	-1,176,000	-370,000	1,450,000

Exhibit 2: PlasticWorld and Industry Peers Profit Margins

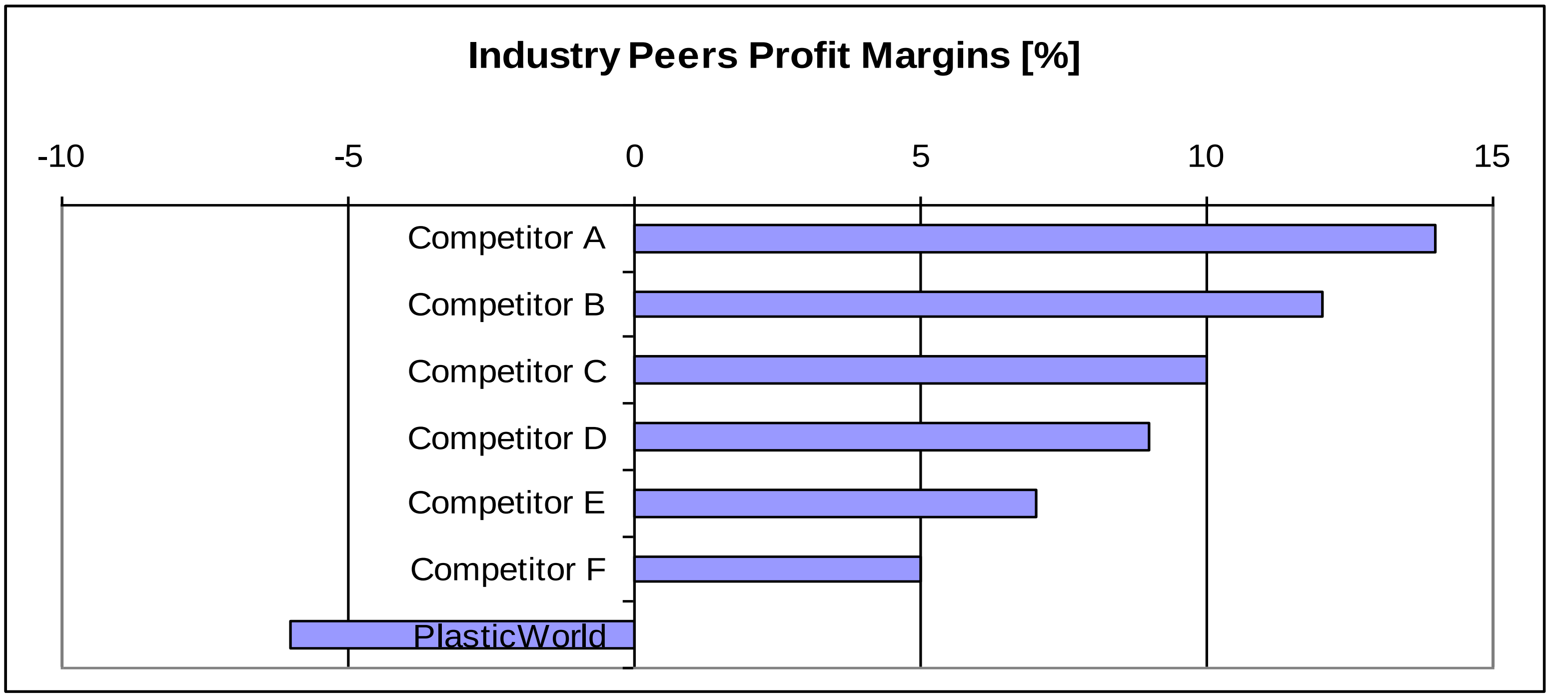
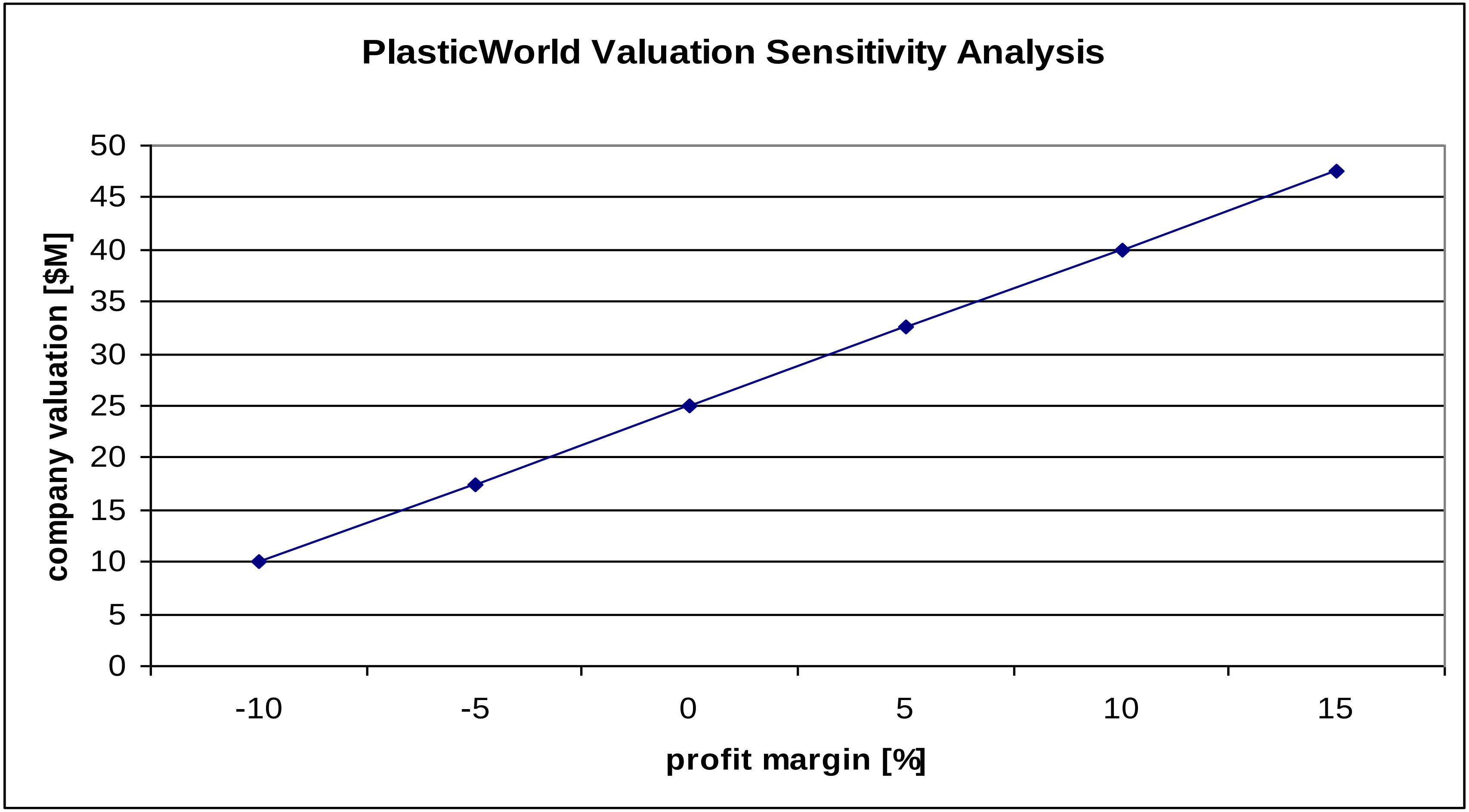


Exhibit 3: PlasticWorld Valuation by Profit Margin



GoNet Internet Service Provider

Quant: **8** Industry: **Telecom**

Structure: **4** Framework: **Market Entry**

By: Adam Borchert and Joep Knijn (Tuck Class of '04), Edited By: Mauricio Atri (Kellogg Class of '12)

Case Question

- Our client, GoNet, is a US-based Internet Service Provider (ISP) that is considering entering the European market. They are currently the dominant player in the US with two revenue streams: a subscription access fee and by taking a percentage of all e-commerce transactions from subscribers.
- Examining the European market, GoNet has found that the market is highly fragmented and ripe for entry. You are going into a meeting with the CEO and have been asked to perform some quick "back of the envelope" calculations to determine the potential profitability of entering Europe.

Case tracker

- **Industry:** Technology
- **Case format:** Market entry
- **Concepts being tested:**
  - Market share
  - Profitability

Guide to interviewer

- This is a very quantitative case that requires the interviewee to run the numbers on European profitability.
- The candidate will need to ask for additional information to solve the problem. After getting the initial calculations right, there will be a number of market changes that the interviewee will have to react to.
- After the quantitative portion is completed, there are some open-ended questions for the candidate to answer.

Clarifying answers and case guide

Clarifying answers to provide

(Provide this information on request)

Competitive dynamics

- Highly fragmented industry
- No information about market leaders or trends

European industry overview

- GoNet plans to capture a base of 10 million subscribers
- Subscriptions will cost $20/month
- The average GoNet subscriber purchases $1,800 of goods on the internet annually
- GoNet receives 3% commission
- Fixed costs are $1 billion annually
- Variable costs are $110/subscriber annually

Guide to case

Part 1 – Quantitative discussion

- This should be the meat of the case and should be completed before discussing any general or qualitative responses.

Part 2 – Qualitative discussion

- After navigating the math, ask the candidate the following questions:
  - 1) How could we reduce the fixed costs of investment?
  - 2) Would there be any reason to continue with the investment even if it looks like it will lose money?
  - 3) Are there are any other risks/benefits that GoNet should consider?
  - 4) How would you sum up the situation and what is your recommendation?

Math questions (1 of 2)

Math question

1) Please determine the annual net income (before taxes) in Europe, given the current revenue model and set of assumptions. What is the annual gross mark-up, in percentage?

2) GoNet just found out that a new entrant is charging $10/month and capturing market share. Can we lower our fee to $10/month?

Math solution

1) Revenues each year will be $2.4B for subscription (10 million subscribers X $20/month X 12 months) and commissions will be $540M (10 million subscribes X $1,800/year X 3% commission) for a total of $2.94B.

- Fixed costs are $1B and variable costs are $1.1B (10 million subscribers X $110/year) for a total of $2.1B each year. Profits are $840M and the annual profit margin is ~29% ($840M/$2.94B)

2) Annual revenues drop to $1.2B (10 million subscribers X $10/month X 12 months) from subscriptions, while commissions remain constant at $540M. Total revenues are $1.74B. Because total costs remain $2.1B, we lose $0.36B by halving subscription charges, making the answer "No."

- At this point, ask the interviewee what the elasticity of demand is in this market and the implications for GoNet. The market should be highly elastic, meaning that GoNet will not win over enough subscribers at $20/month.

Math information

- 10 million subscribers
- $20 month subscription fee
- $1,800/year of online spending @ 3% commission
- Fixed costs: $1 billion
- Variable cost: $110/year per subscriber

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Math questions (2 of 2)

Math question

3) With high market elasticity, GoNet will not be able to charge more than $10/month. How much would each subscriber have to buy on the Internet to keep profits at the same level as $20/month subscription fees?

4) How much would each subscriber have to buy on the Internet to enable us to break even?

5) Given that we cannot charge more or realistically increase shopping significantly, how many subscribers would we need in order to maintain the same level of expected profits (at $10/month)?

Math solution

3) To keep profits at $840B, we know that costs remain at $2.1B so revenue will need to be $2.94B. Subscription revenue will be $1.2B, so commissions need to be $1.74B. There are 10 million subscribers, so each subscriber need to bring in $174/year of commission. At 3%, they will need to buy $5,800/year in goods ($174/3%).

- Ask the candidate if this realistic. The answer should be "No".

4) To breakeven, we will need commission to be $900M over 10 million subscribers. That is $90/year per subscriber ($900M/10M), which means $3,000/year in goods purchased online ($90/3%). The candidate should identify that this is also unrealistic, representing more than a 50% increase from last year.

5) To find the answer here, we need to find incremental revenue per subscriber. Each subscriber brings in $174/year ($10/month X 12 months + $1800/year X 3%) at a cost of $110/year for a profit of $64/year. These profits must cover the fixed costs of $1B/year, so we must bring in 15.625 million customers ($1B/$64)

- Note: many people forget the variable costs during the completion of this case.

Solution and recommendations

Solution & Recommendations

1) Some potential ways (not exhaustive) to reduce fixed cost: outsourcing capacity, leasing networks, working in specific geographies, etc.

2) GoNet may still be interested in this move as a way to break into Internet retailing and expanding its subscriber base. Based on the math though, this should not be an attractive option long-term either.

3) Very open ended and reliant on candidate's creativity.

4) This is very open-ended and should be evaluated based on the candidate's argument, not answer. Based on initial estimates, this is a very attractive market to enter, but with price pressures and high elasticity the market is far less attractive. If we are to undertake this initiative, GoNet needs to find ways to convert a much higher number of customers or differentiate its product, which both require market research. There is also potential to reduce costs or establish this foothold as a loss leader, but these require strong arguments from the candidate.

Bonus/Guide to an Excellent Case

- This case tests two things – the interviewee's comfort with numbers and ambiguity. An excellent case interview will result in an intuitive grasp on what is being asked quickly and solid execution on the quantitative portion of the case.
- Ultimately, the best interviewees will make a very strong argument using the facts provided and support the decision to invest/not invest with a strong business sense about the costs and implications of the project.
- Creative solutions beyond those listed are possible and encouraged, though should be done within the framework of the information available.

Orrington Office Supplies (OOS)

Quant: **6** Industry: **CPG**
Structure: **7** Framework: **Profitability**

By: Andy Grieve (Kellogg Class of '01), Edited By: Peter Manoogian (Kellogg Class of '12)

Case Question

- Our client, OOS is a leading manufacturer of office products in 1992, with sales of $275M in 1991. They have strong brands, invest heavily in marketing / advertising, and have grown through product line extensions and 4 key acquisitions.
- OOS is organized into 5 autonomous divisions, but shares manufacturing and marketing functions. Shared costs (45% of total) are allocated on a % of sales method. There are three plants running at a current capacity utilization of 50%.
- Analysts predict OOS is a potential acquisition target given its strong balance sheet but weakening earnings. They are publicly traded and have little long-term debt. As a potential investor, how would you improve its profitability.

Case tracker

- **Industry:** Consumer Products
- **Case format:** Improving profitability
- **Concepts being tested:**
  - Capacity expansion /contraction

Guide to interviewer

- This case combines public math with key qualitative insights. At its core, this is a case about rapidly declining profitability and finding ways (i.e. plant consolidation) to improve its future performance.
- The interviewee should recognize that this is a performance improvement case and will look for ways to improve profitability. They will have to use the information provided up front to determine that capacity contraction is the prime means to improve profitability.
- Because there are many potential avenues to explore, the interviewer may need to nudge along the interviewee.

Clarifying answers and case guide

Clarifying answers to provide

Industry trends

- U.S. Office supplies market grew at 5% CAGR historically. In 1990 and 1991, the market declined at 5%/yr.
- Superstore channel is becoming increasingly critical
  - Gained 10 share pts in past 2 yrs
  - Typically discount products 30% to small retailers/dealers
- Superstores are aggressively substituting private label products for traditional brand names

Client Characteristics

- Broader product line than competitors (12.5K SKUs vs. 4-5K for competitors)
- Distribution: 75% wholesalers, 15% superstores, 10% end customers
- Highest selling product is a high-end branded stapler
- Staples, Inc. is OOS's largest customer

Guide to case / Guide to handouts

A sample case structure would include the following:

1) Examination of OOS's recent performance to deep-dive into declining profits.
2) Discussion of potential for plant consolidation.
3) A profitability analysis of plant consolidation.

Exhibit 1– Hand out after interviewee asks about profitability

Exhibit 2– Hand out after interviewee concludes that plant consolidation is a worthy area for a "deep-dive." This should be evident from the case introduction, but provide hints if necessary.

Exhibit 3– Following the discussion of plant closures, the interviewee should ask about the cost structures about the various plants.

- If interviewee asks about revenues, gently suggest to calculate on a per SKU basis (*e.g.,* total sales / total SKUs = $22K / SKU).

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Key elements to analyze

Profitability

- Using Exhibit 1, have a discussion about why the slopes for sales and profits differ as time elapses

Capacity utilization

- Using Exhibit 2, qualitatively discuss the potential options for plant consolidation.

Plant closures

- Using Exhibit 3, crunch the numbers on the profitability of a possible plant closure?

Notes to interviewer

- Exhibit 1 - interviewee should not only be able to interpret the data on this slide, but also come up with two insights:

  1) the fact profits have been declining more steeply than sales reflects the fixed-cost nature of this business, and

  2) the reason that sales did not grow at a faster clip than profitability during the 1980s likely reflects a strategy to grow through acquisitions, which prevented OOS from seeing the gains through economies of scale that one would normally expect in a business such as this

Notes to interviewer

- Interviewee should recognize the Chihuahua plant is close to having capacity to produce OOS's 12.5K SKUs. Either OOS can close that plant and move all production to the US, or it could close the US plants, discontinue 500 SKUs and move production to Chihuahua.
- Insightful interviewees will note that Chihuahua is the most feasible strategy, but will ask to see fixed and variable cost data; if so, then produce Exhibit 3.

Notes to interviewer

- They should have identified that the Chihuahua plant is the most feasible, but there are some key considerations.
- **Key questions to ask:**

  How would this change revenues? (currently $275M / year)

  How would this change production costs? What are they now?

  How would this change pre-tax profits (currently $25M /year?)

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Calculations

Math questions

1. How would consolidating to Chihuahua change revenues? (currently $275M / year)
2. How would this change production costs? What are they now?
3. How would this change pre-tax profits? (currently $25M /year)

Calculations

1. Revenues: Each SKU earns annual revenues of $22K ($275M divided by 12,500 SKUs) therefore, eliminating 500 SKUs will decrease annual revenue by $11M, or 4%

2. Prod. costs:

Each plant currently has the following annual costs:

Chihuahua: $20M + $18M = $38.0M

Michigan: $15M + $39.5M = $54.5M

New Jersey: $18M + $25.5M = $43.5M

$136M

Each plant has the following variable cost per sku:

Chihuahua: $18M / 4.5K SKUs = $4K per sku

Michigan: $39.5M / 5K SKUs = $7.9K per sku

New Jersey: $25.5M / 3K SKUs = $8.5K per sku

Consolidating revenues to Chihuahua will reduce annual costs by 50% to:

Chihuahua: $20M + ($4K * 12K SKUs) = $20M + $48M = $68.0M

3. Profits: We have reduced costs by $68M and lowered revenues by $11M, thus increasing profits by $57M, to a total of $82M, which more than triples them.

Solution and recommendations

Solution & Recommendations

- Overall, our client should eliminate 500 SKUs and consolidate all production to the Chihuahua plant to raise annual profits from $25M to $82M.
- The client should also consider several qualitative issues:
  - Implementation Timeframe: Will not be done tomorrow.
  - Relationships with Union: If organized labor is part of our production employee pool in the two plants that we are going to close, we will need to address that situation.
  - Changes in Distribution and Warehousing: We will need a carefully-developed transition plan.
  - Purchasing: We will need to transition to a strong central purchasing department, rather than smaller local ones.
  - Culture: Communicating the change properly is key, and we will need to ensure that morale does not take a nosedive.

Bonus/Guide to an Excellent Case

- Excellent interviewees need to recognize what macroeconomic issues are beyond the scope of the client's control and then quickly dive into the plant consolidation, then analyze the cost structures
- Additionally, common sense and basic familiarity with manufacturing operations should guide the successful interviewee to some or all of the qualitative issues provided

Exhibit 1: OOS Sales / profit trend

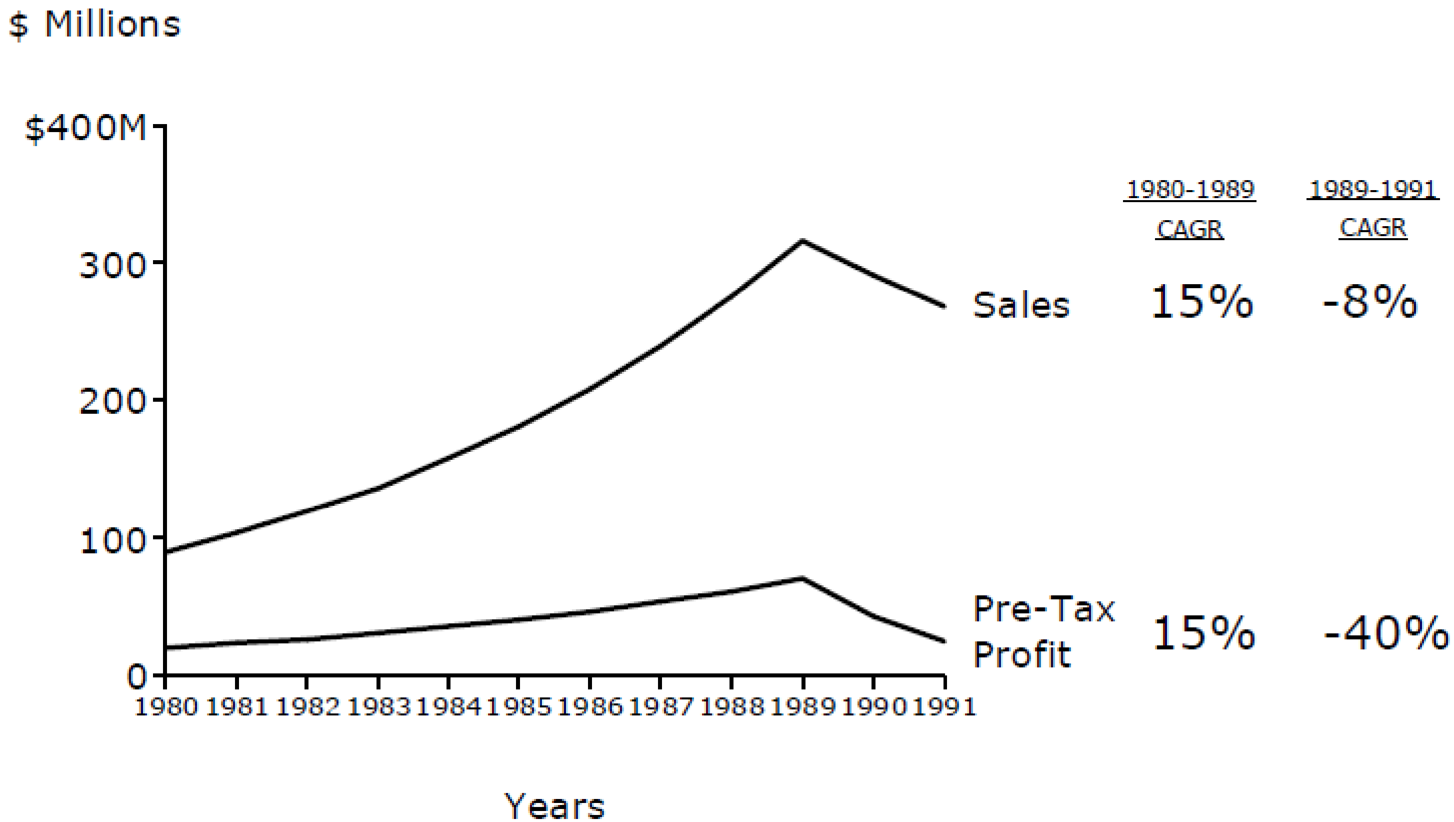

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Exhibit 2: Overview of OOS production plants

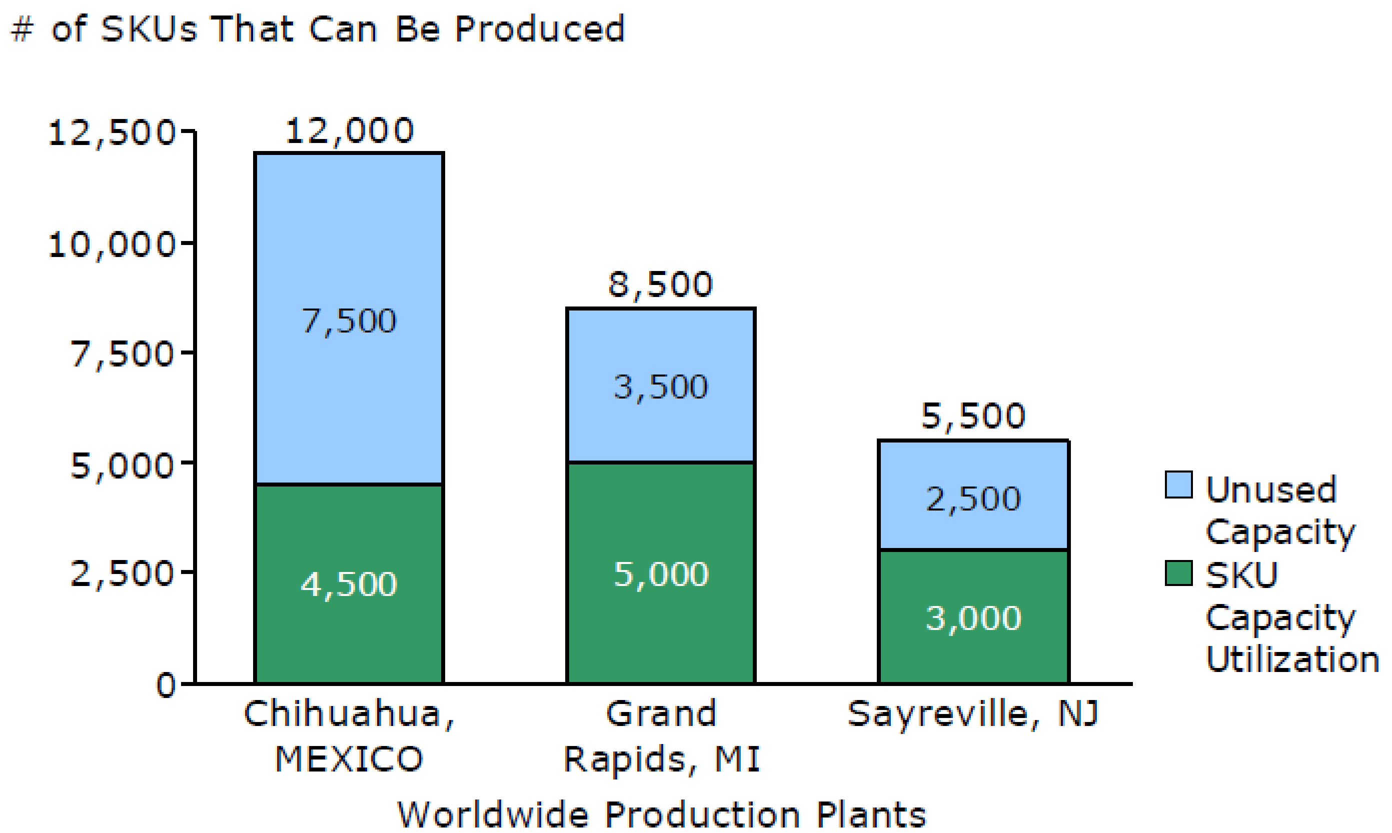

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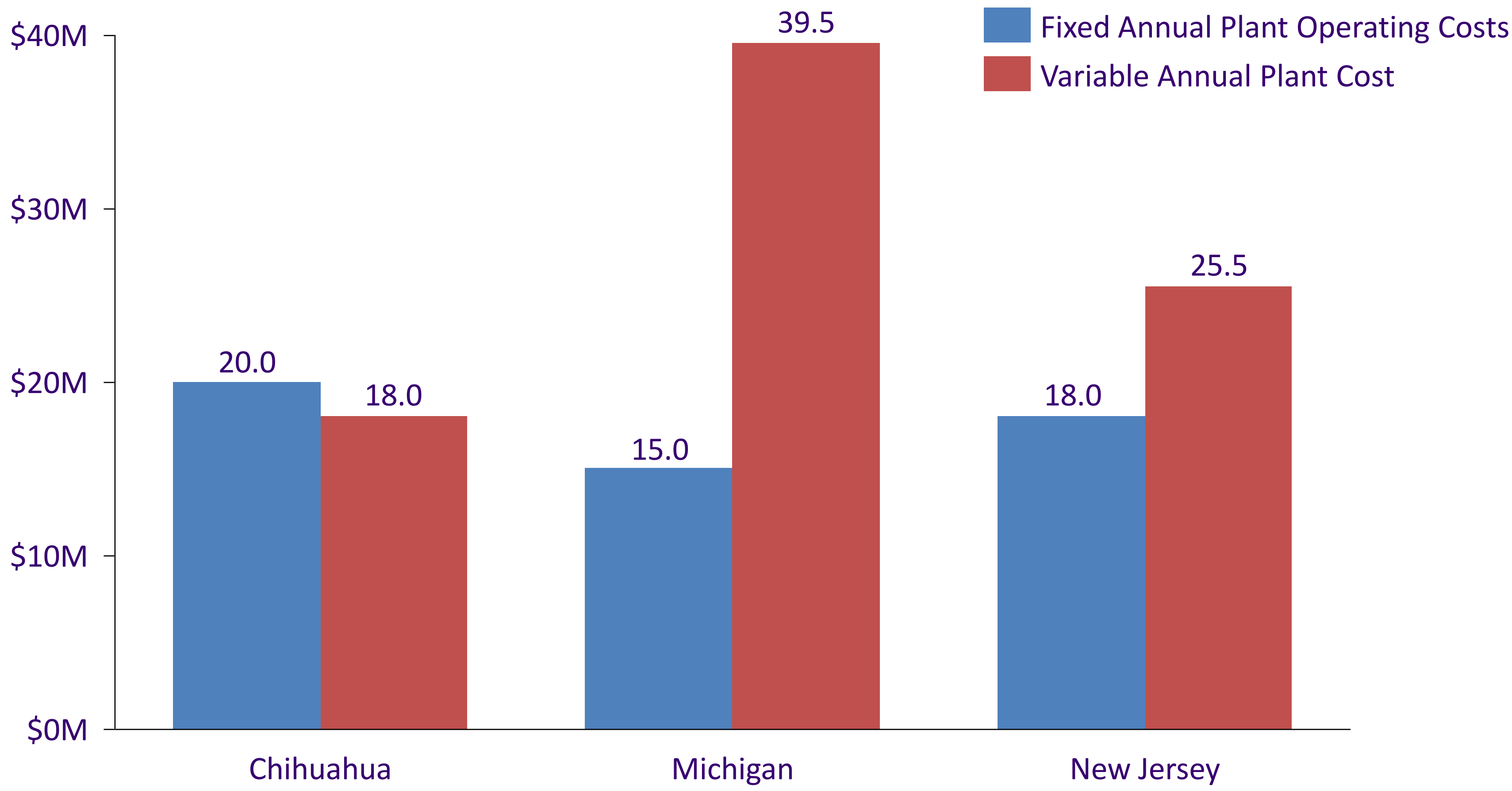
Exhibit 3: Plant operating costs



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Winter Olympics Bidding

Quant: **8** Industry: **Media**
Structure: **4** Framework: **Opportunity Assessment**

By: Chris Dupre (Kellogg Class of '03), Edited By: Uri Kalir (Kellogg Class of '12)

Case Question

- Our client, a major US television network, is trying to figure out how much to bid for the exclusive right to broadcast the 2018 Winter Olympics Games in the U.S.
- The Winter Olympics are a huge deal and will require a significant amount of capital to secure the rights, so our client has brought us in to help them figure out the right bid amount after considering all relevant factors.

Case tracker

- **Industry:** Media & Entertainment
- **Case format:** Opportunity Assessment
- **Concepts being tested:**
  - Basic NPV
  - Breakeven analysis

Guide to interviewer

- This is a very quantitative case that requires the interviewee to run the numbers on an Olympics bid. The candidate will have to decide potential ad revenue/cost information, as well as the NPV, to determine bid size.
- The candidate will need to ask for additional information that is necessary to solve the problem, rather than relying on the interviewer to dispense it. After getting the initial calculations right, there are a lot of implications that may change the level of the bid.
- Especially for less finance-minded interviewees, you may have to help nudge candidates through the math.

Clarifying answers and case guide

Clarifying answers to provide

Revenues
- No subscription revenue, but can keep 100% of advertising revenue
- Ad rates are $400K/30 second ad for prime time (M-F 7-11 PM, all weekend) and $200K/ad for non-prime time
- Market research has shown that you can include no more than 10 minutes of advertising per hour.

Costs
- $482M of total production costs
- Opportunity cost: $1M/hour
- Time value of money: 4 year lag for receipt of revenue

Guide to case

Part 1 – Quantitative discussion
- Candidate should determine that this is a cost-benefit / NPV analysis.
- Candidate should identify potential revenue streams from hosting the Olympics, i.e. ad revenue, product placements, etc.
- Then, the candidate will have to figure out if this is a good investment. They should identify 3 costs (production costs, opportunity costs, and time value of money). By factoring in these costs, the candidate will find out if the Olympics are worth the investment.
- Some of the numbers and assumptions here are difficult, so nudge the candidate along if necessary.

Exhibit 1 – Provide Winter Olympics schedule if asked
- Give to candidate once he/she identifies ad revenues

Part 2 – Qualitative discussion
- After finding the NPV of $200M, ask the candidate about intangible factors, benefits, and risks. Some critical factors:
  - Might give network access to new viewers
  - There is prestige associated with hosting this event
  - We can use the air time to promote other programming
  - Opportunities for product tie-ins, supplemental revenue
- After finishing the discussion, ask the candidate for a recommendation.

Math questions

Math question

1) Calculate the revenue from broadcasting the Winter Olympics.

2) Factoring in costs, is this a good investment? Find the NPV.

Math solution

1) Total revenues should be equal to $928M for the project.

- Primetime: Weekdays (M-F): 10 weekdays x 4 hrs/day x 10 min/hr x 2 slots/min x $400,000/ad = $320M
- Non-prime: Weekdays (M-F): 10 weekdays x 6 hrs/day x 10 min/hr x 2 slots/min x $200K/ad = $240M
- Weekend: 4 days x 10 hrs/day x 10 min/hr x 2 slots/min x 400K/ad = $320M
- Opening/Closing: 2 days x 3 hrs/day x 10 min/hr x 2 slots/min x 400K/ad=$48M

2) Total profit should be equal to $300M.

- Profit: Revenues $928M - $482M of total costs - $146M of opportunity cost (2 days x 3 hours x $1M/hr + 14 days x 10 hours x $1M/hr) = $300M

3) NPV should be equal to $200M.

- Discount rate: 1.10^4 = 1.4641 (ask candidate to round to 1.50)
- $300M/1.5 = $200M

Math information

Revenues
- $400K/ad for prime time (M-F 7-11 PM, all weekend) and $200K/ad for non-prime time
- 10 minutes/hour of advertisements

Costs
- $482M of production costs
- Opportunity: $1M/hr
- WACC: 10%

Solution and recommendations

Solution & Recommendations

- While the NPV of the project is $200M, the fact that there are other intangibles (new viewers, plugging our programs, and prestige) the bid should just be $200M.
- While there is no one correct answer, most answers should be in the range of $200M. If there is significant fluctuation from $200M, the candidate will have to provide in-depth justifications and make a concrete argument.

Bonus/Guide to an Excellent Case

- This case tests the interviewee's comfort with numbers and understanding of how intangible factors may influence financial value. The bid process requires another level of understanding around game theory and what dynamics will ultimately determine the value of the bid beyond NPV.
- Ultimately, the best interviewees will make a very strong argument using the facts provided and support their bid and explain why they moved their bid from the NPV figure.
- There is also a lot of room for creativity for the interviewee to discuss other factors, including supplemental streams of revenue, intangible factors, and things to consider during the bid process.

Exhibit #1

Winter Olympics Schedule

Day 1 Opening Ceremonies (Friday)	Day 2-15	Day 16 Closing Ceremonies (Saturday)
8-11pm	Weekday: 9am-12pm, 2-5pm, 7-11pm Weekend: 11am-9pm	8-11pm

Vindaloo Corporation

Quant: **8** Industry: **CPG**
Structure: **4** Framework: **New Product/ Market Entry**

By: Ben Walter (Kellogg Class of '03), Edited By: Ameed Mallick (Kellogg Class of '12)

Case Question

- Our client, Vindaloo Corporation, is a small biotechnology company that has developed a new seed for sugar beets, which produces twice as much sugar as the seeds that are currently in use. Currently 100 beets produce 100 lbs of sugar or 1lb/beet while the new seeds will produce 200 lbs of sugar, or 2 lbs/beet.
- *Vindaloo now wants to sell the company, how would you think about pricing Vindaloo?*

Case tracker

- **Industry:** Consumer products
- **Case format:** Developing a new product
- **Concepts being tested:**
  - Basic NPV
  - Marketing Strategy
  - Operations

Guide to interviewer

- This is a valuation case and, as such, has a lot of number crunching. To calculate the NPV, the interviewee will have to size its impact up and down the value chain and determine its value using assumptions about market penetration and growth rates.
- There are also several important qualitative insights for the candidate to make, the main one of which is that the new technology will halve the land rather than doubling production, which would cause an immediate worldwide sugar glut and rapidly falling prices.

Clarifying answers and case guide

Clarifying answers to provide if Asked

Industry Characteristics/Market Economics

- The market has grown at GDP over the past few years and is predicted to grow at 2% annually.
- Sugar is a mature commodity, in other words, there is enough supply to meet demand. The wholesale market is $2 billion worldwide per year.
- Farmland that is not used for sugar can be repurposed to grow cabbage, which is currently 1/5 as profitable as sugar.

Competitive Dynamics

- We can assume a 100% market penetration, since there are no competing products, and the efficacy of the product is proven.
- There is no imminent threat of competition and a patent would protect the investment for a number of years.

Interviewer Guide to Case

A sample case structure would include the following:

1) Start with an understanding of the sugar industry and market economics
2) Analyze the product benefits and potential impacts for farmers
3) Identify the channel structure and assess the opportunities to minimize costs within the value chain
4) Calculate NPV of cost savings to value the company

Calculations

Math question 1 – Cost Savings from Farming

- *What are the cost savings/increase in profits from farming with the new seeds?*
  - If interviewee has not already asked about what else farmers can do with the land, point out that since the market is saturated, there is no need for additional corn, farmers will instead use the land to grow cabbage.
  - Remind interviewee that cabbage is 1/5 as profitable as sugar.

Math solution 1 – 10%

- **Solution - Farming**
  - The product allows farmers to grow the same amount of sugar on half of the land. So we can assume that farmers will keep half of their land for sugar and repurpose the rest of the land for growing cabbage. Previously, one acre of land produced "X" profits of sugar - now half an acre can produce profits of "X" while the other half produces profits of ".1X" of profits from cabbage. Recall that **cabbage is a fifth (20%) as profitable as sugar <u>currently</u>** – accounting for the 2x yield from the new sugar beets, **cabbage would only be 10% as profitable as the <u>"new" sugar</u>**. Since profits per acre go from X to 1.1X, there is a 10% increase in profits from farming.
- **Common mistakes:**
  - Candidates who think that farmers will just use the same amount of land and produce twice as much sugar have not thought the question through. Sugar is a mature commodity and if everyone produced twice as much sugar, there would be far more supply than demand, causing global prices to crash. Additionally, some candidates will try to calculate the costs savings of the entire value chain here (make sure to remind them in the debrief to answer the question that is asked.)

Calculations (cont.)

Math question 2 – Value Chain

- *What do you think the value chain process looks like for Vindaloo?*
    - Hand interviewee Exhibit 1 and have them walk through their initial thoughts.
- *What are the cost savings from Trucking, Refining, and Distribution using the new seeds?*

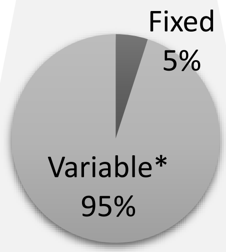
Math solution 2

- **Solution - Trucking**
    - Variable trucking costs, which represent 95% of the total cost structure, will decrease by 50%, leading to an overall costs savings of 95% x 50% = 47.5%.
- **Solution - Refining**
    - Refining costs have two components. Initially the costs will drop by 50% because only half as many sugar beets need to be refined. However, the variable cost/beat increases by 25% for the new sugar beets. In step the costs go from “X” to “.5X” to “.625X”, an overall cost savings of 37.5%.
- **Solution – Distribution**
    - There are no cost savings in distribution.

Exhibit 1: Vindaloo Value Chain

Vindaloo Value Chain Processes

	Farming	Trucking	Refining	Distribution
Percent of total cost	40%	10%	30%	20%
Cost changes with new seeds	10% increase with new seeds	Variable cost is directly related to weight	25% additional cost/beet with new seeds	No change



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Calculations (cont.)

Math question 3 – Total cost savings

- *What are the total cost savings in the value chain?*

Math solution 3 – 20%

Step	A – Cost Portion	B – Cost Savings	Weighted Cost Savings (A x B)
Farming	40%	10%	4%
Trucking	10%	47.5%	4.75%
Refining	30%	37.5%	11.25%
Distribution	20%	0%	0%
Total	100%		20%

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Calculations (cont.)

Math question - NPV

- *How would you price Vindaloo to potential buyers?*
  - Remind the interviewee that the market size is $2 billion; the growth rate is 2%; assume a 12% discount rate
  - If the interviewee cannot recall the perpetuity formula, provide it for them
    - Value = annual cash savings / (discount rate – growth rate)

Math solution - $4 Billion

- **Solution – Net present value of cost savings**
- Our client's product will save 20% a year in sugar costs - multiplied by the $2 billion market size, that cost savings comes out to $400 million per year.
- Therefore the company can be valued at:
  - Value = $400M / (12% - 2%)

    = $4 Billion

Solution and recommendations

Solution & Recommendations

- This product will only allow our client's clients (sugar growers) to produce sugar more efficiently. It won't cause the sugar to taste any better or cause consumers to demand more of it. Therefore the product cannot be expected to grow revenue, but it will reduce costs. The value of Vindaloo Corporation is directly related to cost savings.
- After running the NPV analysis, Vindaloo Corporation should be valued at $4B.
- The interviewee should also identify a number of risks and potential benefits along the way (i.e. adoption rates given the required change to farmland and likely capex for equipment, competitive response, other uses for sugar in adjacent or completely separate markets, other uses for newly acquired farmland, potential buyers, government intervention, etc.) before making their final recommendation.

Bonus/Guide to an Excellent Case

- This is a quantitatively heavy case. A excellent interviewee can quickly identify the important drivers of cost and can crunch the numbers easily and with little error. Additionally, they will organize the data in a tabular form for ease of calculation and presentation.
- Additionally, an good interviewee will synthesize each relevant cost savings, the final valuation, and next steps/risks as part of their final presentation.

DigiBooks Inc.

Interviewer-Led Case

Quant: **4** Industry: **Tech**
Structure: **7** Framework: **New Product/ Market Entry**

By: Shobhit Chugh (Kellogg Class of ’11), Edited By: Adam Louras (Kellogg Class of ’11)

Case Question

- Our client, DigiBooks, is a manufacturer and seller of electronic book readers (tablets). DigiBooks also distributes e-books for the tablets through their website. The tablet is only compatible with books sold through the DigiBooks site.
- DigiBooks is planning the launch of its tablets in a country where no electronic book readers are currently sold. Only 1% of the population has ever used an electronic book readers , though 50% is aware of the concept. The Chief Marketing Officer of DigiBooks has come to you to help determine:
  - *How should DigiBooks launch and market DigiBook tablets in this new country?*

Case tracker

- **Industry:** Tech/Telecom
- **Case Format:** Developing a new product
- **Concepts Tested:**
  - Marketing Strategy
  - Customer strategy
  - Creativity

Guide to interviewer

- The case primarily tests the understanding of marketing concepts, specifically a new product launch.
- The case is written in McKinsey style format; the interviewer is expected to guide the interviewer step by step through each question.
- Begin by laying out the situation and case question, allow the interviewee to layout their structure, and then jump immediately to question 1. The interviewer is expected to drive this case rather than the interviewee.

Clarifying answers and case guide

Clarifying answers to provide if Asked

Industry Definitions

- *Electronic book readers*: Is a software, hardware and network platform that utilizes wireless connectivity to enable users to shop for, download, browse, and read e-books, newspapers, magazines, blogs, and other digital media.

Client Characteristics

- *DigiBook's Tablet*: Uses an e-ink electronic paper display that features 16 shades of grey. This allows for a 12 hour long battery life and easy readability.
- *Locations:* DigiBook has never sold a product outside of the US.

Competitive Dynamics

- No competitors in the e-book or tablet space plan to enter this country

Market Characteristics

- Total population of the country 76MM, high literacy level

Interviewer Guide to case and handouts

Case Structure – Interviewee's structure should cover the key areas needed to explore in order to determine how DigiBooks should launch and market the tablets in this country.

- The interviewee should take a few minutes to sketch out a framework for analysis of the marketing plan
- Key elements expected to be included in this framework are:
  - **Segmentation, targeting and positioning**: Are there particular segments in the population that will be ideal customers for us?
  - **Product:** What key capabilities are people looking for? Can we use our existing products or do we need to develop a new one for this country?
  - **Price:** What price should the tablets and books be sold at? What is customers willingness to pay? Should we price the tablet at a low price so as to capture most of the market, and make margin on e-books?
  - **Promotion:** How should the tablets be marketed? What promotion mechanisms should be used?
  - **Place/Distribution**: Should the tablets be sold through retail channels, internet or other alternative means?
  - **Selection of e-books**: Is a wide selection of books available for this country?

Prompts 1-3 – After the interviewee has laid our their structure, begin by asking the question in Prompt 1. Once each prompt has been sufficiently covered, move to the next prompt. After all prompts are complete, ask the interviewee to summarize their findings. NOTE: Prompt 2 allows for creativity, so use your judgment when evaluating.

Key elements to analyze

Prompt #1: Cust. Strategy (Exhibit 1)

- Through research, we found several segments. (Hand out **Exhibit 1**). We are only able to target one segment with our product.
- *Using a 3-year projection, which segment should DigiBook target?*

Prompt #2: MKT Strategy

- DigiBooks is now considering how it should sell its e-book readers: through retail stores or through the internet.
- *How would you go about evaluating this decision?*

Prompt #3: MKT Strategy (Exhibit 2)

- Based on revised market estimates, we decided to price the e-reader at $100 and target the Occasional Reader segment.
- *Using this information and **Exhibit 2**, can you estimate the profit potential of each of these sales channels? Which should we choose?*
- What segment would you recommend to your client?

Notes on Exhibit 1

- If unclear, the interviewee should answer based on Revenue Potential (i.e. Ignore probability of purchase) assuming all tablet sales happen immediately (Ignore TVM).
- The missing data is that the average price of an e-book is $10, for each of the segments, and that e-books and tablets have the same margin
- Using **Exhibit 1**, interviewee should calculate:
  - SR Revenue = [(15 books x $10 X 3 Years) + ($200 x 1 tablet)] x 8M People = $5.2B
  - OR Revenue = [(10 books x $10 x 3 Years) + ($125 x 1 tablet)] x 20M People = $8.5B
  - RR Revenue = [(5 books x $10 x 3 Years) + ($175 x 1 tablet)] x 10M People = $3.25B
- **ANSWER: Segment to be targeted = occasional readers (OR) with a Revenue Potential of $8.5B**

Notes on Prompt #2

- **Retail Channel Sample Responses:**
  - CONS:
    - Lower margin due to value chain expansion
    - Will take time and money to set up and adds training costs
  - PROS:
    - Should encourage Trial of the product
    - Retailers can help with joint marketing campaigns
    - Retailers can help with customer service, returns
- **Internet channel Sample Reponses:**
  - PROS: Likely cheaper to establish, will result in higher margins
  - CONS: Hard to encourage trial

Notes on Exhibit 2

- If unclear, the interviewee should answer this with a 1-year Profitability calculation for each of the Sales Channels and back out the Upfront Investment. They should ignore all other costs.
- There is no missing data; however, the Market Size of 20M people in the OR segment is needed from **Exhibit 1** and the price per e-book of $10.
- Using **Exhibit 2**, interviewee should calculate:
  - *Retail Profit* = [(10 Books x $10/book x 50%GM) + ($100/tablet x 30%GM)] x (20M People x 50% reach X 40% Penetration) = $320M - $20M II = **$300M**
  - *Internet Profit* = [(10 Books x $10/book x 50%GM) + ($100/tablet x 60%GM)] x (10M People x 10% Penetration) = $110M - $10M II = **$100M**
- **ANSWER: Sales Channel to Use = Retail with a profit of $300M**

Solution and recommendations

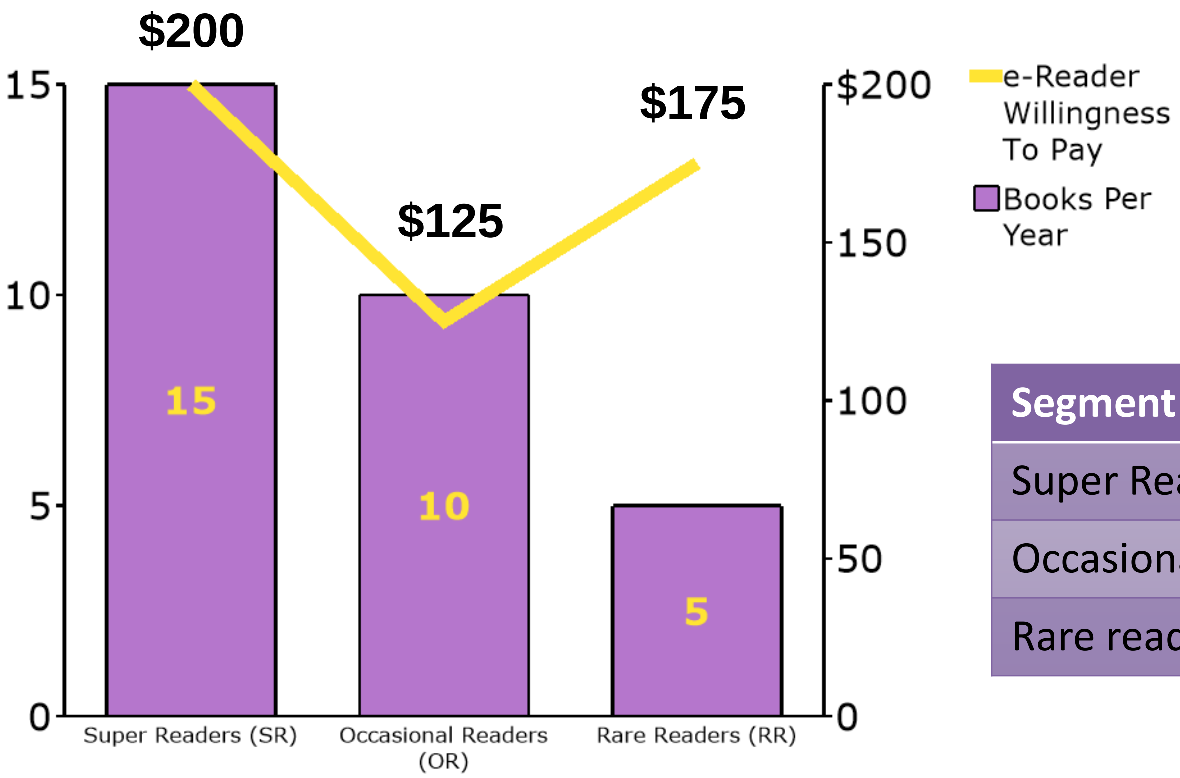
Solution & Recommendations

- Overall, DigiBooks should launch the e-book reader for the Occasional Reader segment through the Retail Sales Channel.
- Based on our calculations, we expect to earn a $300MM annual return
- **Other items to consider:**
  - What advertising mechanisms do we use in this case?
  - Do we setup a manufacturing facility in the country or do we source the products from our current manufacturing facilities?
  - Are there any prospects of competitors entering the market?

Bonus/Guide to an Excellent Case

- An better interviewee notices key nuances in the case such as: Time Value of Money impacts on Exhibit 1 and Probability of Purchase or Penetration on Exhibit 1
- An excellent interviewee will detail various elements of marketing strategy of a new product launch
- A key element of this case is being able to do relatively complex calculations at a fast pace. Laying out the tables appropriately for this case is essential to success

Exhibit #1: Market segments



Segment	Size
Super Readers (SR)	8M
Occasional Readers (OR)	20M
Rare readers (RR)	10M

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Exhibit #2: Channel decisions

Channel	Reach as a % of Total potential market	E book Gross Margin %	E-reader Gross Margin %	Penetration	Overheads
Retail	50%	50%	30%	40%	$20M
Internet	50%	50%	60%	10%	$10M

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Health Coaches

Quant: **8** Industry: **Healthcare**
Structure: **6** Framework: **New Product/ Market Entry**

By: David Wellner (Kellogg Class of '11), Edited By: Craig DePriester (Kellogg Class of '12)

Case Question

- Our client is a large national health care payer (health insurance company, think Aetna) exploring the launch of a new disease management ("DM") program to better serve its 5 million members. The idea is to hire and train a team of "Health Coaches" to specialize in a single disease area (e.g., heart disease, diabetes, etc). Each Coach will manage a portfolio of patients to reduce the costs of overall health expenditures (e.g., reminders to take drugs, provide limited medical advice, suggested diet, etc). Studies show that once a month contact with each patient reduces health spending by 5%, on average.
- *Should our client launch the program? If so, what steps should it take?*

Case tracker

- **Industry:** Healthcare
- **Case Format:** Developing a new product/Service
- **Concepts Tested:**
  - Customer strategy
  - Break-even analysis

Guide to interviewer

- The case tests the interviewee's ability to probe and develop a customer segmentation, digest a relatively complex chart, isolate the most critical information and determine profitability
- The data provided by both exhibits should be requested; try not to show the exhibits until need for the data is demonstrated
- Strong interviewees should use common sense to make reasonable assumptions before you provide required inputs

Clarifying answers and handout guide

Clarifying answers to provide

Competitive dynamics (not core to case)

- With spiraling health care costs, the industry is under pressure to innovate new products that will control spending
- Assume client is first to market
- Past attempts to purely automate DM have yielded minimal savings

Health Coaches

- All activity conducted remotely via phone/email
- Typical profile is registered nurse that wants to work from home
- It's difficult to actually reach patients, so Coaches can contact 8 members per day (assume 25 days per month)
- Annual costs per Coach: $60K salary +20% other (training, benefits, laptop, etc)
  - There are no other program costs

Guide to handouts

Before showing exhibits, interviewee should convey the essence of the case:
Are the costs associated with the DM program justified by the savings?

Sample set-up:

Program Savings	Program Costs	Risks
– Customer segmentation by disease area and cost per member	– Salary and other – Portfolio size/capacity (members/coach)	– Do assumptions hold? – Competitive response – Regulatory, liabilities

Exhibit 1 – Hand out when interviewee establishes need for understanding client's membership segmentation and/or exposure to disease areas. If he/she is not headed there alone, you can ask "how would you segment the client's members?"

- "What can we get out of this chart? Please let me know if you have questions"
- Definitions (if needed): Group are employee sponsored plans (e.g. ,if you work for McKinsey, you are in a group plan), Individual are non-groups (e.g., private contractors, unemployed, etc). 65+ (see asterisk below chart).
- "Which segment is likely to generate the greatest <u>per member</u> costs.? Why?"
- "Which disease area should we look at first?"

Exhibit 2 – Hand out when interviewee asks for medical cost data. Try to avoid handing out exhibit 2 until exhibit 1 has been discussed *(hint: if interviewee leads with profitability, steer him/her to first think about the customer segmentation)*

- "What can we do with this information?"

Key elements to analyze

Segmentation and disease focus

Using **Exhibit 1**, discuss which segments and disease areas are most important to explore

Program profitability

Leveraging all data (Both Exhibits), interviewee should determine if Health Coaches are profitable in each of the three segments

Notes to interviewer

Interviewee should choose to focus on the 65+ segment

- 65+ (Medicare) patients are the sickest, followed by Individual
- Group members are the healthiest (younger, working)
- Sicker patients are likely to drive higher costs, which will make them riper candidates for the DM program (i.e., the 5% cost reduction will have a bigger impact)

Interviewee should choose to focus on diabetics (Assume all are Type 2 for the purposes of this case)

- Diabetics make up the largest portion of sick members
- As a chronic disease primarily brought on by behavior, T2 diabetics are most likely to benefit from DM program

Number of 65+ diabetics:

$$\frac{20\%}{segment\ \%}\ x\ \frac{40\%}{\%\ diabetic}\ x\ \frac{5MM}{members} = \frac{\mathbf{400,000}}{\mathbf{65+\ diabetics}}$$

Notes to interviewer

Cost per Coach: $\underbrace{\$60{,}000 \quad + \quad 20\% = \quad \$72{,}000}_{\text{Base Salary + other = per coach per year}}$

Size of Portfolio: $\frac{8}{contacts\ per\ day} + \frac{25}{days\ per\ month} = \frac{\mathbf{200}}{\mathbf{max.\ patient\ portfolio}}$

Savings for one portfolio of 65+ diabetics:

$$\frac{\$300}{avg.\ PMPM}\ x\ \frac{4}{diabetic\ factor}\ x\ \frac{5\%}{avg.\ savings} = 60\ x\ \frac{12}{mos.}\ x\ \frac{200}{patient\ portfolio} = \frac{\mathbf{\$144,000}}{\mathbf{savings\ per\ Coach\ per\ yr.}}$$

Overall savings: $\frac{\$144K}{savings} - \frac{\$72K}{costs} = \frac{\$72K}{profit\ per\ Coach}\ x\ \frac{2{,}000}{Health\ Coaches} = \frac{\mathbf{\$144\ MM}}{\mathbf{profit\ per\ year}}$

Conclusion:

- Profit is $72K per Health Coach, 2x cost of a Coach
- Based on PMPM diabetic cost data, Individual segment is break-even (50% less savings), Group segment is a loss

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Solution and recommendations

Solution & Recommendations

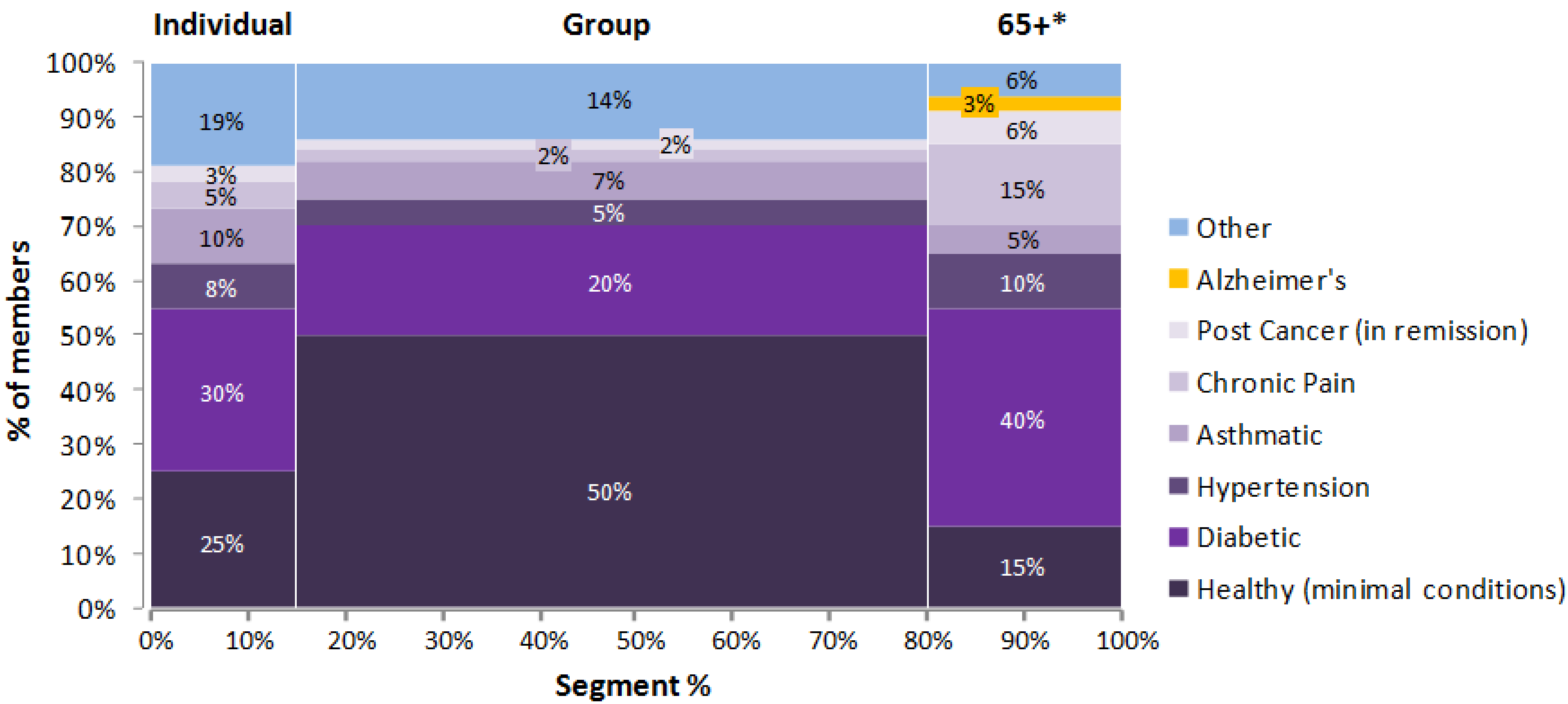
With 3-4 minutes remaining, give interviewee a moment to prepare a recommendation. Here is a strong sample:

- Client should launch the Health Coaching program, and first focus on diabetes for the 65+ Medicare segment
- The client should take the following steps:
  - Launch a pilot program to prove out assumptions (e.g., 5% cost reduction, Coach portfolio capacity, etc)
  - First expand to entire 65+ diabetes segment ($144M per year savings per coach, a 2x return on each Health Coach)
  - Consider introducing to Individual diabetes segment despite break-even (customer retention, moral rationale, etc)

Follow-up questions (if time permits)

- There are 650K Group diabetics left "uncoached." Is there a way to make the segment profitable? Ideas include:
  - More efficient DM program (e.g., Coaching at work, bi-monthly contact, automated correspondence, etc)
  - Seek additional revenue sources (e.g., Employers might be willing to pay a fee, government support)
  - Since 5% is the average savings, program can target members who will respond with savings well above 5%
- As first to the market, client plans to expand Health Coach program externally. Who should they target?
  - It's tempting to suggest that the client should market to 65+ Medicare patients with diabetes, since this is where the program yields the greatest savings. While it's good that we have lowered the cost of older diabetics, client should keep in mind that more diabetic members will increase overall health care costs, considerably – (still almost 4x after savings)
  - An instinctive interviewee might suggest an alternative: Client should sell its Health Coach service to other payers. But how would you price that? What are the challenges (e.g., regulatory, info sharing, etc)

Exhibit #1: Client's member segmentation by health condition



* Members 65 years of age and above. Known as "Medicare Advantage", premiums funded by government

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Exhibit #2: Average cost data (Per Member Per Month)

Segment	Average PMPM	Average Diabetic
Individual	$150	4x (Avg. PMPM)
Group	$100	
65+	$300	

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High Q Plastics

Quant: **8** Industry: **Industrials**
Structure: **5** Framework: **Profitability**

By: Erin Brooks (Kellogg Class of ‘11), Edited By: Uri Kalir (Kellogg Class of ‘12)

Case Question

- Our client, High Q Plastics, is an automotive parts supplier in the U.S. They primarily manufacture and sell plastic injection-molded parts, such as grills, door handles, decorative trim etc., to automotive customers.
- The client has two primary revenue sources: large automotive OEMs, and aftermarket. The client has recently seen declining profits, primarily due to increased price competition from new overseas competitors in China. Annual profits have declined from $50M to $20M over the past few years.
- *What is the reason behind declining profitability? How can High Q improve profits? Can they reach $100M in profits by 2014?*

Case tracker

- **Industry:** Industrial Goods
- **Case Format:** Improving Profitability; Cost Reduction
- **Concepts Tested:**
  - Competitive Analysis
  - Creativity
  - Operations

Guide to interviewer

- This case is interviewer led. It contains three portions:
  1. Structuring a framework that helps to identify declining profitability
  2. Brainstorming ideas to improve profits, on both the revenue and cost sides
  3. Calculating whether or not the client can achieve $100M in profits in 2014, given the exhibits and trends
- An effective interviewee should demonstrate clear and MECE approach at dissecting profitability, structured brainstorming in improving profits (e.g., brainstorming in buckets) and effectively using exhibits to outline the correct approach to calculating 2014 profits.

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Clarifying answers and case guide

Clarifying answers to provide	Questions and Hand-out Guide
Industry Characteristics/Market Economics – Automotive sales overall still growing steadily, driven by emerging markets – Automotive manufacturing is leaving the U.S. **Client Characteristics** – Client is currently one of the leaders in this category – Client has U.S.-based manufacturing – Revenues have been slowly declining over last 5 years – Client's products are of a higher quality than most Chinese competitors' products **Competitive Dynamics** – Automotive OEM customers are looking to reduce cost, driving increased price competition among parts suppliers	1. What key questions would you ask an industry expert in order to better understand the reasons behind High Q's declining profits? 2. The CEO of High Q wants to know if$100M in annual profits is achievable by 2014. What would you need to know in order to determine this? What data would you ask for? 3. What ways can you think of to increase revenues? What ways can you think of to reduce costs? 4. Our client is planning on implementing lean manufacturing across all 4 of its U.S. plants, in order to provide cost savings and increase profits. *Hand out exhibit 1.* • The client is expecting to produce 80% of 2010 volumes in 2014. They are also planning on reducing prices by 10% due to increased competition. • Lean manufacturing implementation across all plants will provide an additional 20% savings in raw material, and 30% savings in labor. • What is the change in profits the High Q CEO can expect from 2010 to 2014, based on this information? 5. High Q 's CEO has also asked us to take a look at competitive dynamics among the automotive OEMs, in order to predict any increase in profits from increased sales. Hand out exhibits 2 and 3. • Based on the information given, what do you expect High Q will see in additional profits due to Toyota's predicted 30% increase in market share in truck and SUVs? 6. Please summarize your findings to the CEO, including any other potential opportunities to increase High Q's profits over the next few years.

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Solution and recommendations

Solution & Recommendations

1. The interviewee should examine the following MECE questions about the competitive dynamics of the industry:
   a) **Industry:** What is the sales volume trend? What is the % of demand and growth of OEM vs. aftermarket segment? Is one of these segments more profitable than the other?
   b) **Competitors**: Who are they? What is their relative market share? What are their prices vs. our clients'? What is their cost structure vs. our clients'? Do they have a technology or quality competitive advantage relative to our client?
   c) **Revenue:** How have our clients' prices changed in recent years? Have they declined across all customers and products?
   d) **Costs**: What trends is our client seeing in their cost structure? Increasing labor or material costs?
2. In order to understand if $100M in profits by 2014 is achievable, you would need to know the annual qty of units sold, the selling price, and the clients' fixed and variable costs. Profit = Q*(P-VC) – FC
3. The interviewee should come up with 2-3 ways each for cost reduction and increasing revenues:
   a) **Reduce Cost**: find alternative material sources, invest in process automation to reduce labor, consolidate multiple manufacturing sites to reduce SG&A costs, relocate close to customers to reduce transportation costs.
   b) **Increase Revenue:** segment customers to determine sensitivity to price, increase marketing in aftermarket segment, negotiate long-term contracts with OEM customers.

Solution and recommendations (2)

Solution & Recommendations

4. The interviewee should use the information provided in **Exhibit 1** to calculate the following profitability for each plant in 2014, and walk the interviewer through the calculation steps. It is important to first note that revenues, labor, and material will decrease by 20% due to the reduced quantity output from each plant, plus the additional 20% savings in material and 30% in labor. Revenue will decrease by an additional 10%, in a cost cutting maneuver. Overhead costs will not change.

*all figures are in $ million USD.				
	Plant A	**Plant B**	**Plant C**	**Plant D**
Revenues	72.0	72.0	72.0	72.0
Labor	11.2	22.4	33.6	16.8
Material	35.2	25.6	12.8	22.4
Overhead	20.0	15.0	15.0	30.0
Net Profits	5.6	9.0	10.6	2.8
Total 2014 Profits				28.0
Additional Profits				**8.0**

From this calculation, the interviewee should reference back to question 2. Even with the lean manufacturing implementation, High Q is still a long way from the CEO's goal of $100M in annual profits, and this is therefore not a realistic target. A strong interviewee should note the importance of aligning a client's expectations.

Solution and recommendations (3)

Solution & Recommendations

5. The interviewee should be able to use the information provided in the Exhibits to calculate the following revenue growth ("Sales" figures below are in units/vehicles). Rounded answers ($13 or $14M) are fine, given that interviewee has already demonstrated math proficiency.

	2010	2014
U.S. Auto Market	16,000,000	
U.S. Truck & SUV Sales	3,200,000	
Toyota Truck & SUV Sales	320,000	1,280,000
High Q's Toyota Qty. Sold	224,000	896,000
High Q's Toyota Revenues	$ 4,480,000	$ 17,920,000
Additional Revenue		**$ 13,440,000**

5. The interviewee should concisely summarize the overall goal of the case (to increase High Q's declining profitability due to new, low-cost competition), and main findings from each question, and a recommendation (yes, High Q should implement the lean manufacturing initiative, while recognizing that this initiative alone will not hit the CEO's total profit goal in 2014). The interviewee should also generate a list of additional opportunities that were not explored in the case, including:
   a) Consolidation of the 4 manufacturing plants (especially Plant D, with its high overhead costs)
   b) Pursue growth in the aftermarket segment of their business
   c) Diversify their business into plastic injection-molded parts for other industries (outside of automotive), with less price competition

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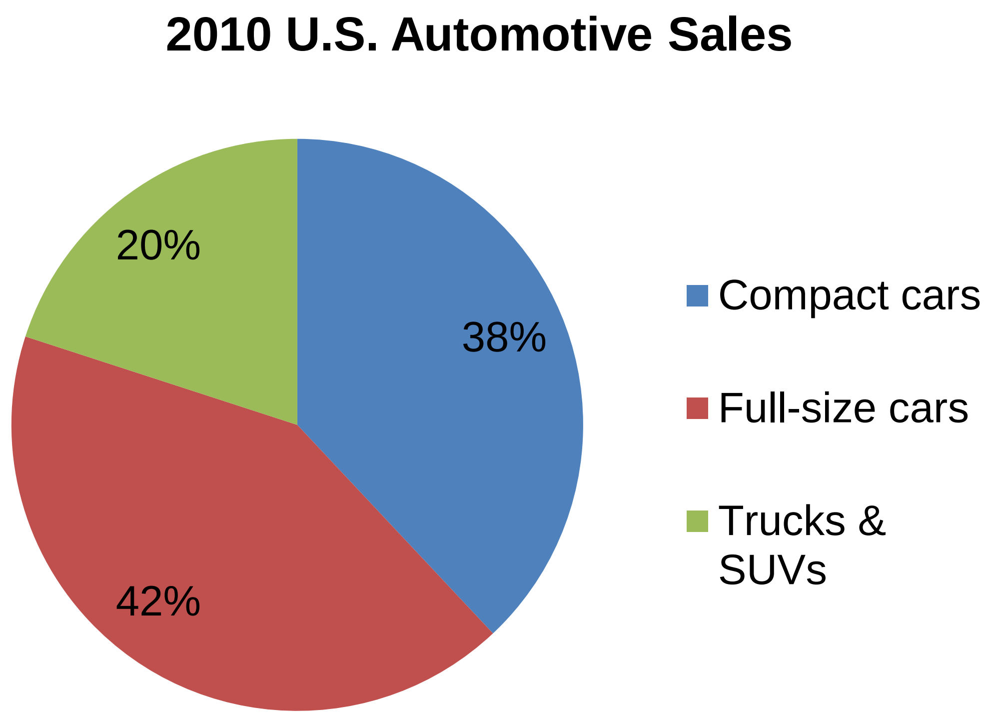
Exhibit #1: High Q's 2010 Financials, By Facility

*all figures are in $ million USD.				
	Plant A	**Plant B**	**Plant C**	**Plant D**
Revenues	100	100	100	100
Labor	20	40	60	30
Material	55	40	20	35
Overhead	20	15	15	30
Net Profits	5	5	5	5

Exhibit #2: 2010 U.S. Automotive Market



***Additional Information**

2010 U.S. Automotive Sales = 16 Million vehicles

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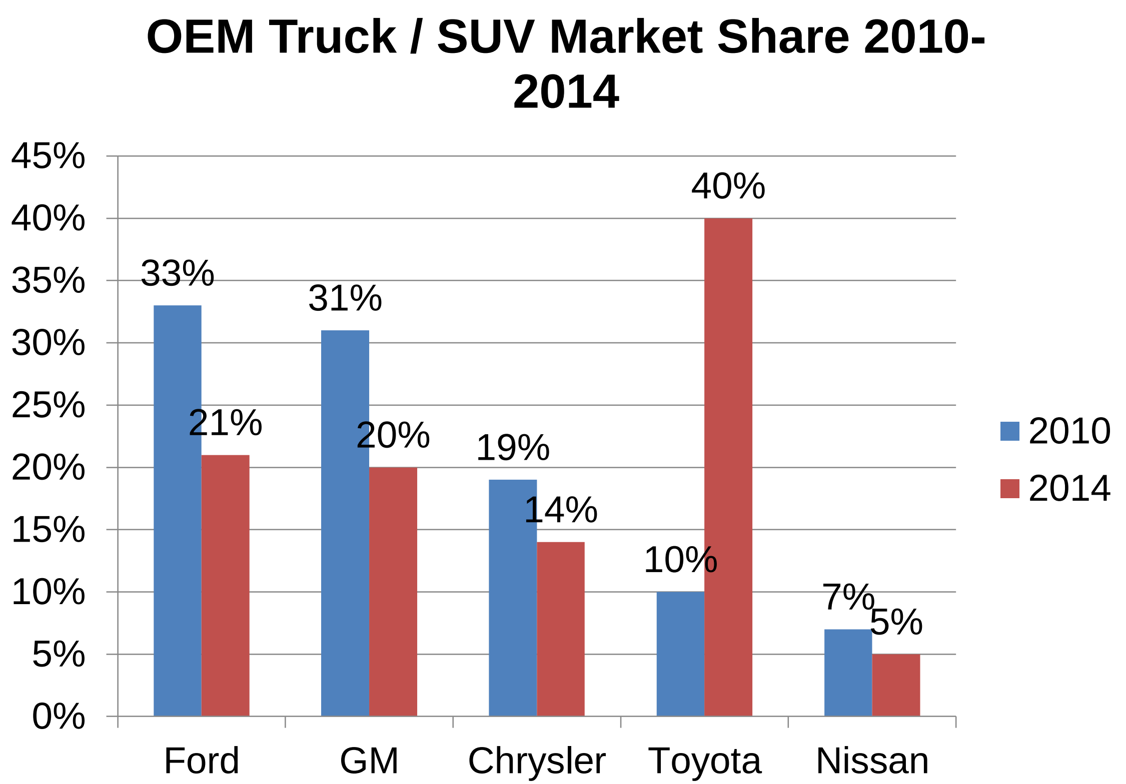
Exhibit #3: U.S. Automotive OEM Market



***Additional Information**

High Q supplies 70% of Toyota's business

Avg. Price of High Q products sold to Toyota = $20

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Zoo Co.

Quant: **7** Industry: **Fin. Services**

Structure: **5** Framework: **M&A**

By: Aneri Jambusaria (Kellogg Class of '11), Edited By: Ron Mantel (Kellogg Class of '15), Matthew Heintz (Kellogg Class of '16)

Case Question

- Our client is a zoo that is thinking about acquiring a famous zebra from an African preserve.
- It's a huge investment, but they believe the new zebra would be a great contribution to their animal community. You have been engaged to help decide whether this is a good idea. What would you consider when trying to help your client make this decision?

Case tracker

- **Industry:** Financial Services
- **Case Format:** M&A
- **Concepts Tested:**
  - Investments
  - Break-even Analysis
  - Basic NPV

Guide to interviewer

- Even though the client is a Zoo, we're undertaking a similar process to what is done when underwriting an insurance policy. The case evaluates basic concepts, but involves many calculations and use of financial and assessment techniques.
- Key case objectives:
  1. Investment Valuation – Walk through the valuation process for an asset
  2. Breakeven Analysis – Determine the revenue increase needed for a positive NPV
  3. Risk Assessment – Should the zoo should use an insurance contract to hedge downside risk?
- Rounding numbers is generally okay but should not be done to the extreme as it will alter the results

Zoo Co.: Clarifying answers and case guide

Clarifying answers to provide

- Data to provide when asked
  - 300K people visit the zoo annually
  - Admission is $15 per person
  - Benefits from zebra acquisition could lead to increased attendance. Another zoo that acquired a similar zebra had an 8% increase
- Costs from zebra acquisition
  - Immediate costs: acquisition fees, transportation costs, and new facilities.
  - Food, health costs and additional trainers are part of annual maintenance costs
  - Acquisition cost: $235K
  - New facilities: $850K
  - Transportation: $110K
  - Annual maintenance: $90K
  - Discount rate = 20% Assume that immediate cost are paid today, and annual costs and benefits are realized beginning next year and sustained into perpetuity, even though the Zebra will not live on to perpetuity

Guide to case / Guide to handouts

- The interviewee should think about performing a break-even and a sensitivity analysis. Afterwards, they need to think about performing a risk assessment (*only when you reach this point should you deliver exhibit 1*)
- They should start by asking about the benefits and costs associated with zebra acquisition (Left)– Share with interviewee after probing questions are received
- Using the data on the left to calculate benefit to zoo from acquisition
  - Determine whether or not this zebra purchase makes financial sense for the zoo, using the NPV value
- Using the cost and benefit data provided, the interviewee should calculate the NPV of the acquisition
- *Assume that attendance benefits are realized immediately and maintained thereafter*
  - Annual benefits = (300K)*($15)*(0.08) = $360K
  - Upfront costs = $235K + $850K + $110K = $1.195M
  - Annual costs = $90K
  - NPV = -$1,195K+(($360K - $90K)/0.20) = $155K
- Continue by asking questions in next page

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Zoo Co.: Key elements to analyze

Break-even analysis

- Zoo Co. is concerned about using the other zoo's attendance benefits as a proxy. They think that attendance could increase by less than 8%. What analysis could you perform to address their concerns? What is the breakeven attendance increase required?

Risk assessment

- Since the zoo is very risk-averse, they're interested in hedging some of their downside risk. An insurance company has offered to provide the Zoo with a constant revenue to increase revenue to $250,000 per year if attendance increases are less than or equal to 5% (if revenue is $135K, the insurance will give the Zoo, $115K). In exchange, the insurance company wants the zoo to pay 1% of the zoo's total annual revenues as a premium. What might you do to determine if this was a good deal?

Notes to interviewer

- The interviewee should determine that a sensitivity / breakeven analysis of the NPV calculation with lower attendance increases will help confirm that the project still makes sense
- See calculations page

Notes to interviewer

- The interviewee should recognize that additional information is needed, and that a market research study could aid in this process
- Hand out Exhibit 1 after the interviewee identifies this notion
- The interviewee should use the market research to determine the probable attendance increase

Zoo Co.: Calculations

Math questions
1. What is the breakeven attendance increase required? 2. Do you think the insurance company is providing a good deal to the zoo?

Calculations

1. Break-even: = -$1,195,000+((revenue-$90,000)/0.20)

   ($1,195,000)x .20 = revenue-$90,000

   revenue = $239,000 + $90,000 = $329,000 (*required additional revenue to break even)

   $329,000 = (300,000) x (15) x (% increase)

   % increase = ($329,000 / $4.5M) = 7.3%

After handing over exhibit 1

2. Annual cost to zoo: 1% of total zoo revenues = (0.001)*($4,752,000) = $47,520

   Annual expected benefit to zoo = ($250,000 - $225,000)*(0.40) + ($250,000 – 135,000)*(0.20) = $33,000

   *Costs > Benefits, so this is **not** a good deal*

Zoo Co.: Solution and recommendations

Solution & Recommendations

- It is unlikely that the zebra acquisition is a good idea for the zoo to undertake given the information provided. At other zoos, attendance has gone up substantially due to a new zebra; however, based upon our market research, it seems less likely that we can breakeven on the investment through increased attendance. We have received an insurance contract to help mitigate some of the downside risk; however, it is too expensive to create value.
- In order to make the investment more palatable, we may consider negotiating with the insurance company to either increase the revenue benefits provided or decrease the premium cost.

Bonus/Guide to an Excellent Case

Excellent cases will:

- Identify that we can use another zoo's attendance increases as a proxy for estimating our own attendance increases
- Notice in Exhibit 1 that it is unlikely that attendance will increase sufficiently enough for the zoo to break even
- Notice that the insurance company's premiums and benefits are both impacted by attendance increases; so if attendance increases are always greater than 5%, the zoo will be paying even more but getting no benefit
- Notice that the insurance company's contract is essentially an option; so a different structure to the contract may be more suitable for the zoo

Exhibit 1: Market research findings

Exhibit 1: Market Research Findings

Possible Attendance Increases	Annual Revenue	Probability
3% Increase	$135,000	20%
5% Increase	$225,000	40%
7% Increase	$315,000	30%
9% Increase	$405,000	10%
Expected Additional Annual Revenue	**$252,000**	
Plus: Current Annual Revenue	$4,500,000	
Expected Total Annual Revenue	**$4,752,000**	

Interviewer-Led Case

Thompson Healthcare

Quant: **8** Industry: **Healthcare**

Structure: **9** Framework: **Cost Reduction**

By: Aaron Mowery (Kellogg Class of '13)

Case Question

- Our client is Thompson Healthcare, a health insurance firm located in the Midwest.
- Customers pay Thompson a fixed monthly premium per person covered under the plan. In exchange, Thompson pays for all health services that each member requires (e.g., physician care, prescription medications, hospitalization).
- In recent years, Thompson's financial and competitive position has begun to erode, and the CEO has retained our firm to help them determine what is causing the problem and how to fix it.

Case tracker

- **Industry:** Healthcare
- **Case format:** Cost reduction
- **Concepts being tested:**
  - Cost management
  - Sales channel strategy
  - Economic value analysis

Guide to interviewer

Read to the Interviewee before beginning:
This case is based on a real McKinsey study, and has been formatted as a McKinsey-style structured case.

Before asking you any questions about the case, I will give you the background that you will need.

There are a number of issues that I would like to cover with you today; please do not be surprised if I seem to change topics abruptly.

Clarifying answers and case guide

Clarifying answers to provide

Client Characteristics

- Thompson Healthcare is a mutual insurance company, meaning all of its profits are returned to members in the form of lower premiums the following year. As such, Thompson does not seek to maximize profit – it seeks to minimize cost.
- Thompson's prices reflect underwriting of risk and the underlying cost to serve a customer

Competitive Dynamics

- Market share is steady, despite presence of major national health insurance company in the market (United Healthcare - UHC).
- UHC has a 30% market share.
- UHC typically expects to earn a 5% profit margin.

Local industry Characteristics/Economics

- The national average rate of medical cost inflation is 10% over the past five years.
- Thompson has seen medical cost inflation of 12% over the past five years.
- UHC has seen medical cost inflation of 10% over the past five years.

Guide to case / Guide to handouts

- State the information to the left after reading the initial prompt, the interviewee should be able to develop a variant of the following question:

  How can Thompson Healthcare reduce its total cost to serve its policy holders?

- Ideally, the interviewee should be able to break down the question into two parts:
  1. Managing medical costs
  2. Managing administrative costs

- This case is formatted as a McKinsey-style structured case. You should ask the interviewee the questions on pages 3-7 of this case directly and move on to the next page when the interviewee has answered the question sufficiently.

Key elements to analyze

1

Problem structure

What factors would you consider in order to understand Thompson's eroding financial position?

Note to interviewer

- The interviewee should lay out a structure for analyzing the case.
- The interviewee could have determined that revenue is not relevant to this case based on information given in the initial prompt on page 1 and 2, so the interviewee should focus on cost.
- Costs in this case break out into fixed costs and variable costs:
  - Variable costs (medical costs – claims made by policyholders)
  - Fixed costs (administrative costs – e.g., marketing & sales, underwriting, finance, HR)
- Specifically, we will need to understand how these costs have changed in recent years.

Key elements to analyze

2

Initial hypothesis

Medical costs are the largest component of Thompson's costs. However, Thompson's medical costs are increasing faster than the national average. What are some potential reasons why this is taking place? What potential opportunities could you explore to reverse this trend?

Note to interviewer

- Medical cost = (Number of claims) * (Cost per claim)
- Potential answers include:
  - Deductibles are low, leading members to see doctors for minor medical issues -> increase deductibles to make members more conscious of costs
  - Thompson pays more for procedures than average -> conduct benchmarking study to determine what competitors charge for various procedures
  - Thompson insures an older population than average -> increase marketing efforts toward younger customers
  - Thompson insures a sicker population than average -> enhance wellness programs

Key elements to analyze

3

Second hypothesis

In addition to medical costs, administrative costs for Thompson are also higher than average. The biggest driver of this phenomenon is a high cost of sales. Thompson's policies are sold through independent agents. All independent agents work with a "General Agency" which acts as a sales support organization. How much does Thompson pay in commissions each year? What are some potential approaches Thompson could take to reduce its cost of sales? What potential strategic issues exist with these approaches?

Note to interviewer

Additional information to provide after interviewee explains how they would calculate commission expense

- Commission (10% of annual premiums) is paid to the General Agency, which passes a share to the independent agent. Total commission paid is, on average, $25 per agent, per month.
- Interviewee should identify the need for # of agents. Give the number 500,000 if asked.
- Total commission expense = $25 * 500,000 * 12 = **$150,000,000**

- Potential approaches to reduce cost of sales:
  - Reduce commission percentage
  - Cap commission to a certain level per year
  - Change commissions structure from percent of premium to flat fee (percent of premium increases at the rate of medical cost inflation every year)

- Potential risks with these approaches:
  - Agents could shift business from Thompson to another carrier that pays higher commission
  - Agents would lose incentive to sell if their commission is capped

Key elements to analyze

4

Next level of analysis

The team has decided to pay a flat commission directly to agents, and to pay the General Agencies a separate fee for the support services they provide to agents. If the total commission paid to both parties is set at $20 per member per month, what share should be given to the General Agencies?

(If interviewee is unsure of "what share" means, explain they should find the maximum amount that should be allocated to the General Agencies.)

Note to interviewer

Additional information

- General Agencies perform three activities: training, application processing, and performance management.
- If Thompson were to perform these activities internally, they would cost:
    - Training: $6,000,000
    - Application processing: $9,000,000
    - Performance management: $15,000,000

Potential approach

- The total cost of the activities that General agencies perform is $30,000,000 (=$6,000,000 + $9,000,000 + $15,000,000).
- There are 500,000 members and 12 months in a year.
- The maximum amount of money Thompson should be willing to pay the General Agencies for the activities performed is the per member, per month cost of these activities ($30,000,000 / (500,000 * 12) = $5

Wrap-up

5

Final recommendations

Taking into account what you've learned thus far as well as your own additional hypotheses, what initiatives would you recommend to the CEO at this point?

Note to interviewer

- Our client should take action to reduce both medical costs and administrative costs.
- At this point, the interviewee should synthesize the findings from the interview into several clear initiatives, for example:
  - Enhance marketing efforts to attract more young customers and bring down the average claims per member.
  - Conduct a benchmarking study to determine opportunities for reductions in payments for medical services.
  - Change the commission structure to flat fee per member per month. This achieves the goal of reducing commission expense, while at the same time keeping an agent's incentive to sell more business.
- Strong interviewees will demonstrate the ability to analyze issues using a clear structure and will draw out the implications of their analysis. The quantitative calculations in this case are elementary, but the process to get to them is somewhat more complicated.

Syzygy Supercomputers

Quant: **3** Industry: **Tech**
Structure: **7** Framework: **Profitability**

By: Edwin Van Dusen, Brian Fox and David Welch (Kellogg Class of ‘04), Edited By: Uri Kalir (Kellogg Class of ‘12)

Case Question

- Syzygy Supercomputers is a large international fully-integrated computers and communications company with annual revenues of approximately $20 billion U.S. In the past several years, the company has seen a steady decline in profits.
- The CEO has asked us to look into this problem. How can Syzygy Supercomputers get back on track?

Case tracker

- **Industry:**
  Tech & Telecom
- **Case format:** Improving profitability
- **Concepts being tested:**
  - Competitive analysis
  - Operations

Guide to interviewer

- This case is about a tech company undergoing a decline in profitability, despite a strong competitive position. Syzygy has been overinvesting in R&D relative to its returns and performance has suffered as a result.
- The interviewee is expected to go through these general steps while presenting a solution:
  1. Confirm profitability issues and ask to see historical revenue and cost information.
  2. Ask to see market position and related data.
  3. Realize that this case is going to be decided based on information regarding the products.
  4. Identify the main issue affecting profitability – the company’s R&D spending

Clarifying answers and case guide

Clarifying answers to provide if Asked

General Information on Syzygy

- Only the information that has already been given. Other information currently unavailable.

Competitive Dynamics

- There are several players in the market, but everything has remained stable from a competitive standpoint.

Profitability drivers

- COGS, SG&A, and other profitability factors are on-par with Syzygy's competitors (except for R&D, about which the candidate should ask specifically).

Interviewer Guide to Case

A sample case structure would include the following:

1) Examination of historical performance to deep-dive declining profits.
2) Discussion of market dynamics and competitive positioning.
3) Deep-dive into drivers and profitability , ultimately leading to a discussion of SG&A

Necessary Information that should be given only when <u>specifically</u> asked for by interviewee:

- Historical costs, revenues and profits – exhibit 1
  - Note that the interviewee should be asking for historical trends in the company's profitability. If they are asking only for current profitability, interviewer should point them in the direction of historical trends
- Market data – exhibit 2 followed by exhibit 3
  - Interviewer should give the interviewee a few seconds to understand slide 2 and then handout slide 3. Interviewer should ask interviewee which product in slide 3 is which (on slide 2).
- R&D spending data – exhibit 4 and exhibit 5
  - The candidate will naturally ask about potential drivers of profitability (S&GA expense, COGS, etc.).
  - These exhibits should only be given once the candidate has identified R&D as a driver of Syzygy's profitability.

Key elements to analyze

Interpreting Exhibit 3

- The X axis represents absolute market share (AMS), which correlates with the height of Syzygy's rectangles in exhibit 2.
- The Y axis represents relative market share (RMS), calculated as Syzygy's market share divided by the market share of the closest competitor. If Syzygy is the market leader, this number is greater than 1. If Syzygy is not the market leader, its market share divided by the market leader's share will be lower than 1. This correlates with the the ratio of the height of Syzygy's rectangles to that of competitors' rectangles for each product in exhibit 2.
- The diameter of the bubbles is driven by Syzygy's total revenues in that category, comprised of its market share in the category multiplied by the category's size.

Notes on Exhibits 2 & 3

- Correctly interpreting slides 2 and 3 will lead the candidate to correctly identify the products on slide 3:
    - Product #1 is custom applications
    - Product #2 is supercomputers
    - Product #3 is telecom equipment
    - Product #4 is satellites
    - Product #5 is operating software

Notes on Exhibits 4 & 5

- The key insight in exhibit 4 is that Syzygy is the only major competitor in this industry whose R&D spending is below the "normative band"
- We would expect each company's degree of technical leadership to go up as it invests in R&D, but Syzygy, with slightly more R&D spending than Cray Research and Sonic Wave, enjoys less of a perception of technical leadership from its customers
- Exhibit 5 builds on this point. The key insight is the absolute expense (not percentage) Syzygy is spending on R&D. Correct analysis will show that Syzygy is spending money on features that do not generate customers' "willingness to pay". Syzygy is spending money to develop features that consumers are not willing to pay for.

Solution and recommendations

Solution & Recommendations

- The candidate should be able to produce one of the following insights:
  - Cut R&D to eliminate spending on unnecessary customer features.
  - Keep R&D spending the same, but switch the work to developing features that consumers will be willing to pay for at a level that is higher than the R&D expense itself.
- A second-order insight from the case is that Syzygy should exit the operating software business (product #5 in this case) since its small market share will continue to erode as a result of economies of scale, network economics and the experience curve all working against it.

Bonus/Guide to an Excellent Case

- An excellent interviewee will –
  - Take a few seconds to fully understand each of the complex graphs he/she is given before giving an answer.
  - Immediately ask about R&D spending and not go through COGS or SG&A first (this is a hi-tech company, so R&D spending should be looked-at before other drivers of profitability).
  - Conclude their recommendation by not only stating that Syzygy should exit the operating software business, but also focus on the categories in which it is the market leader in order to get some or all of those economies to work for it and against its competition.

Exhibit 1: Syzygy's Historical Costs, Revenues and Profits

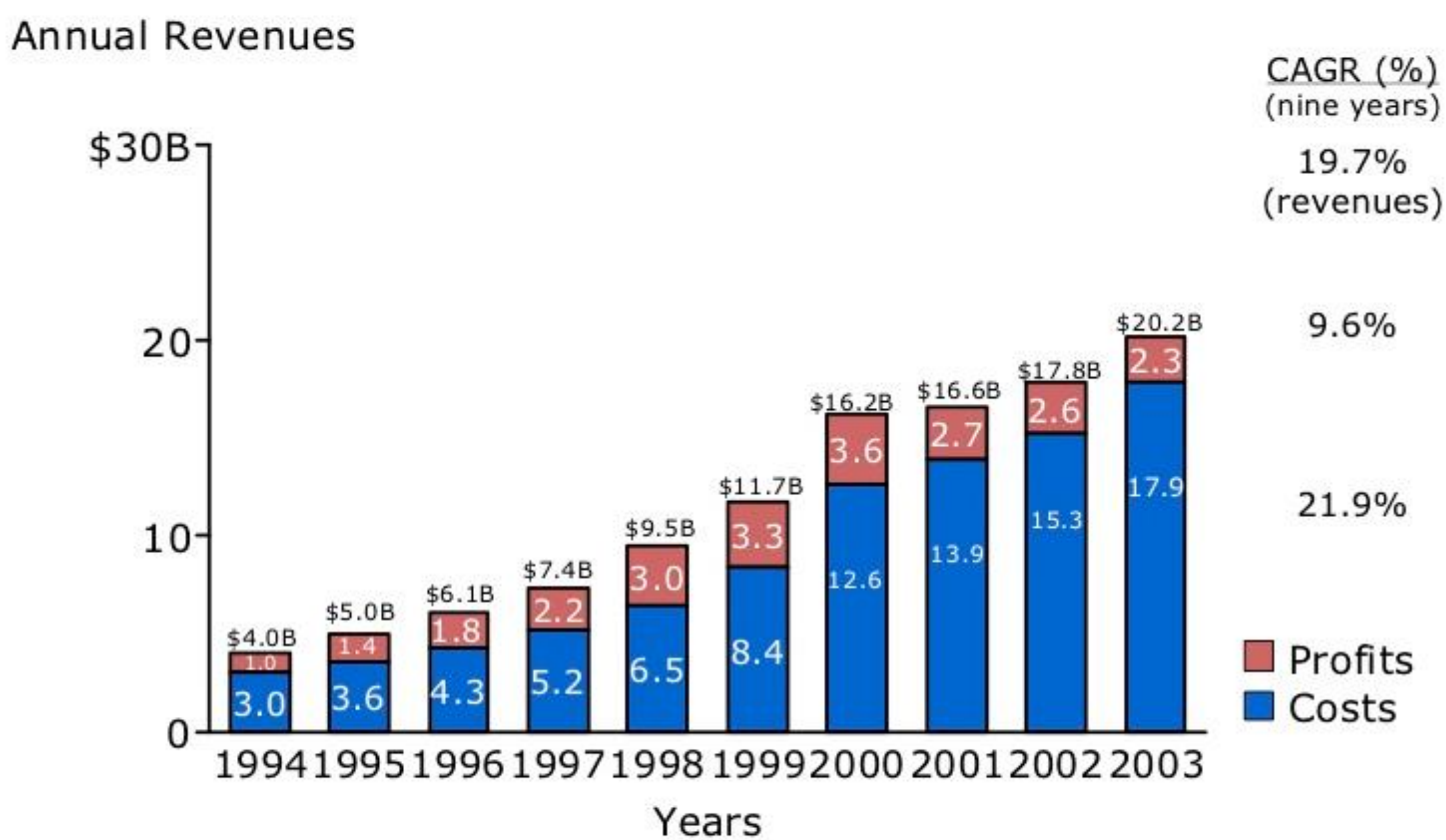

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Exhibit 2: Worldwide Telecom Computing Market (Today)

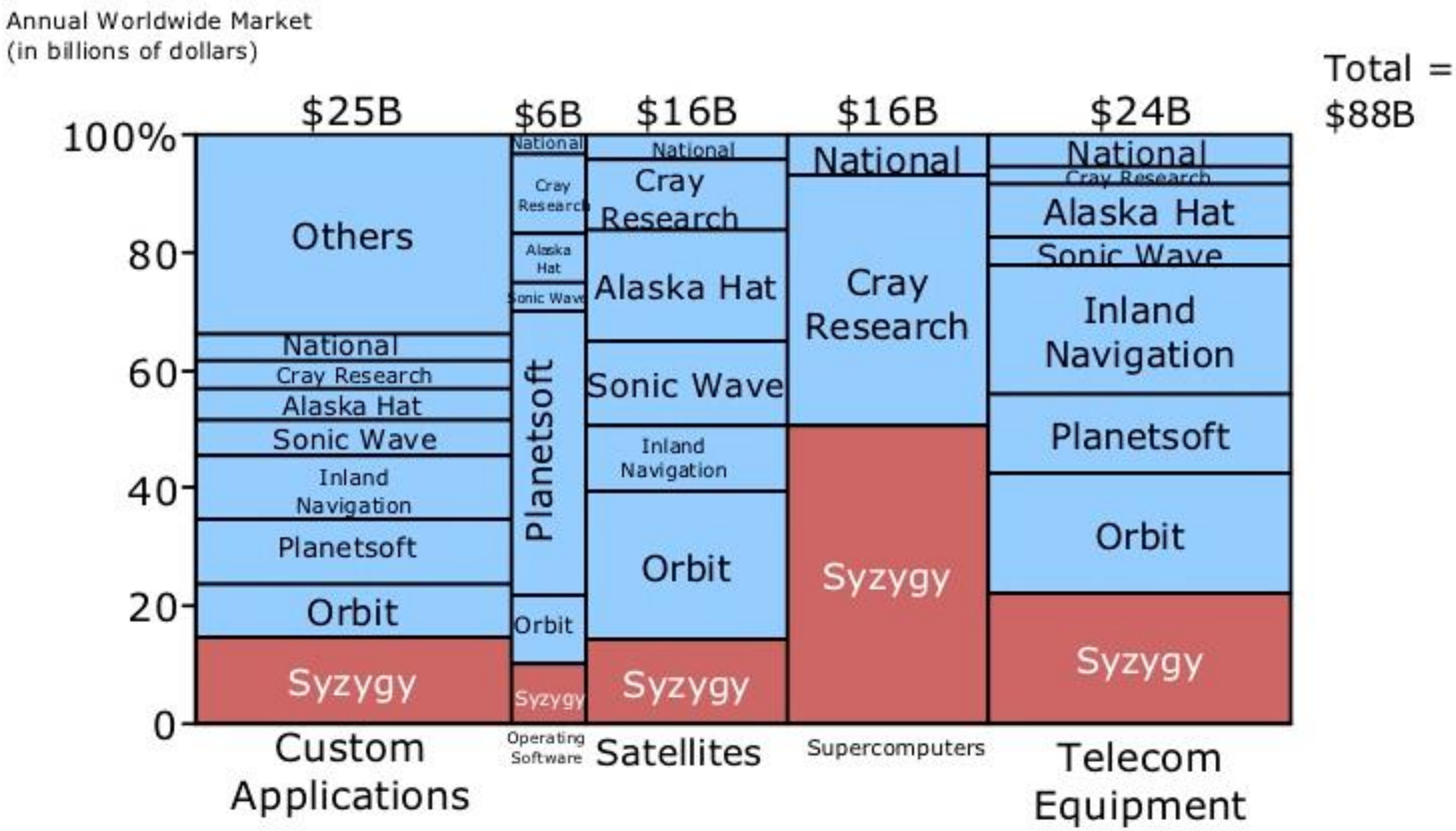

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Exhibit #3: Syzygy's Absolute vs. Relative Market Share

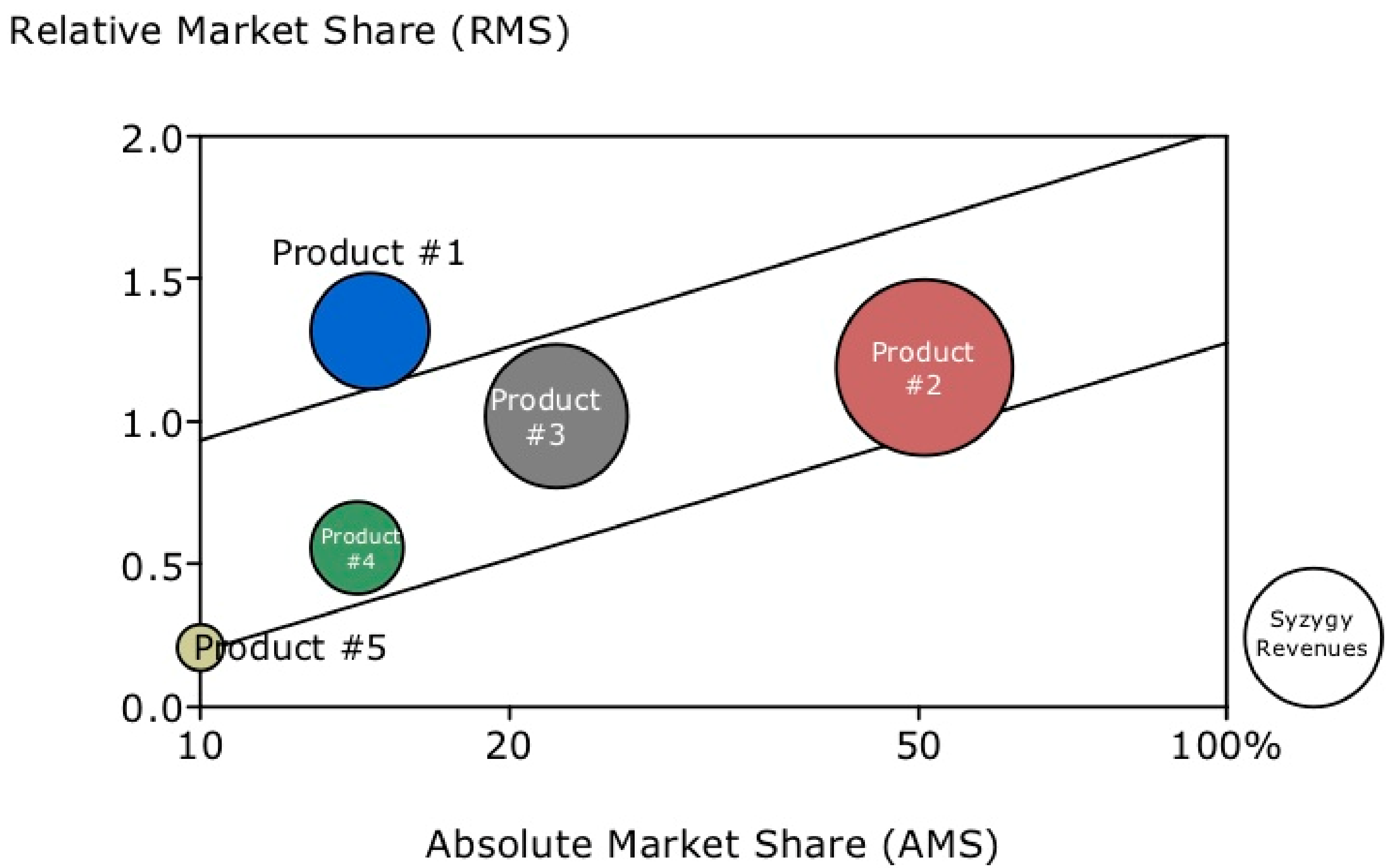

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Exhibit #4: Companies' R&D vs. Degree of Technical Leadership

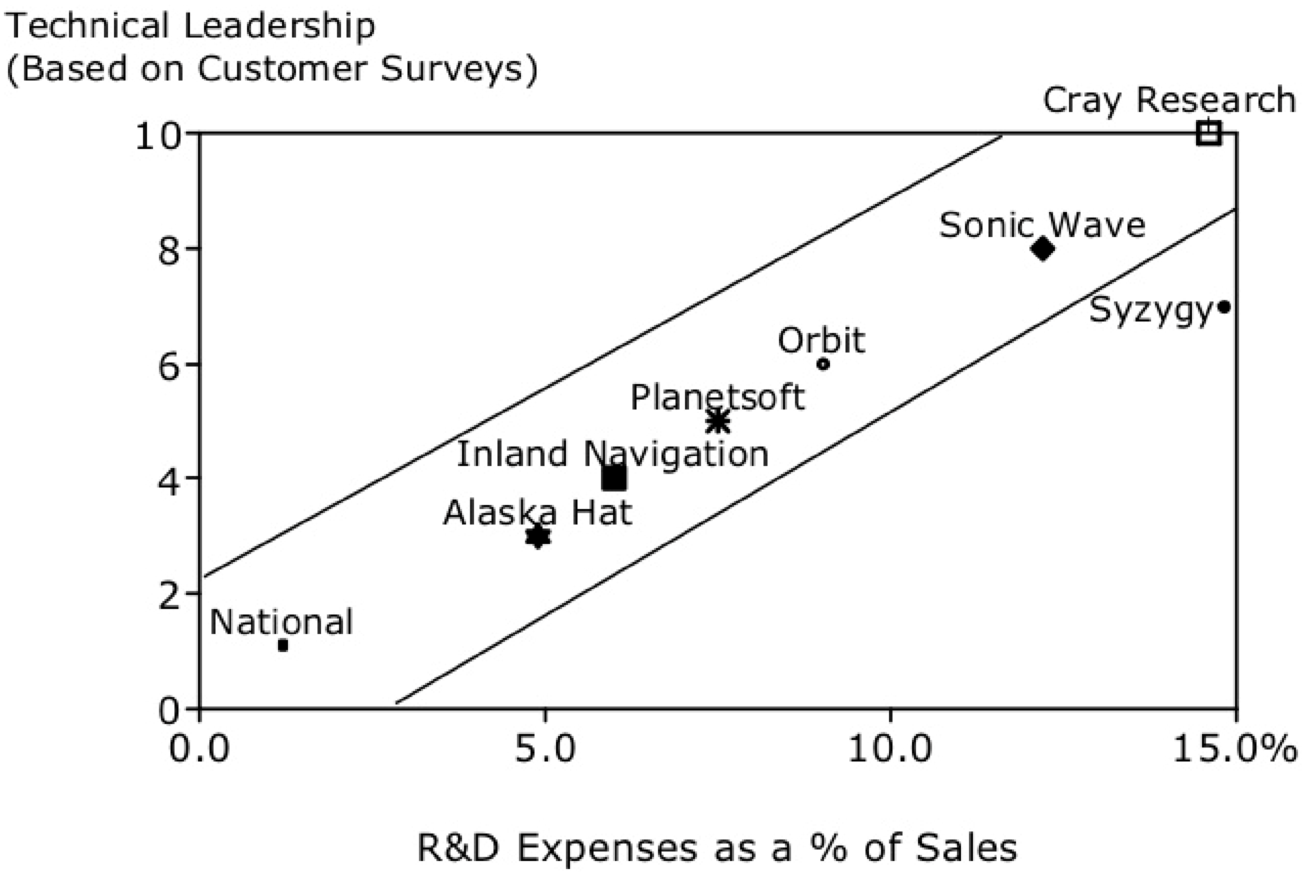

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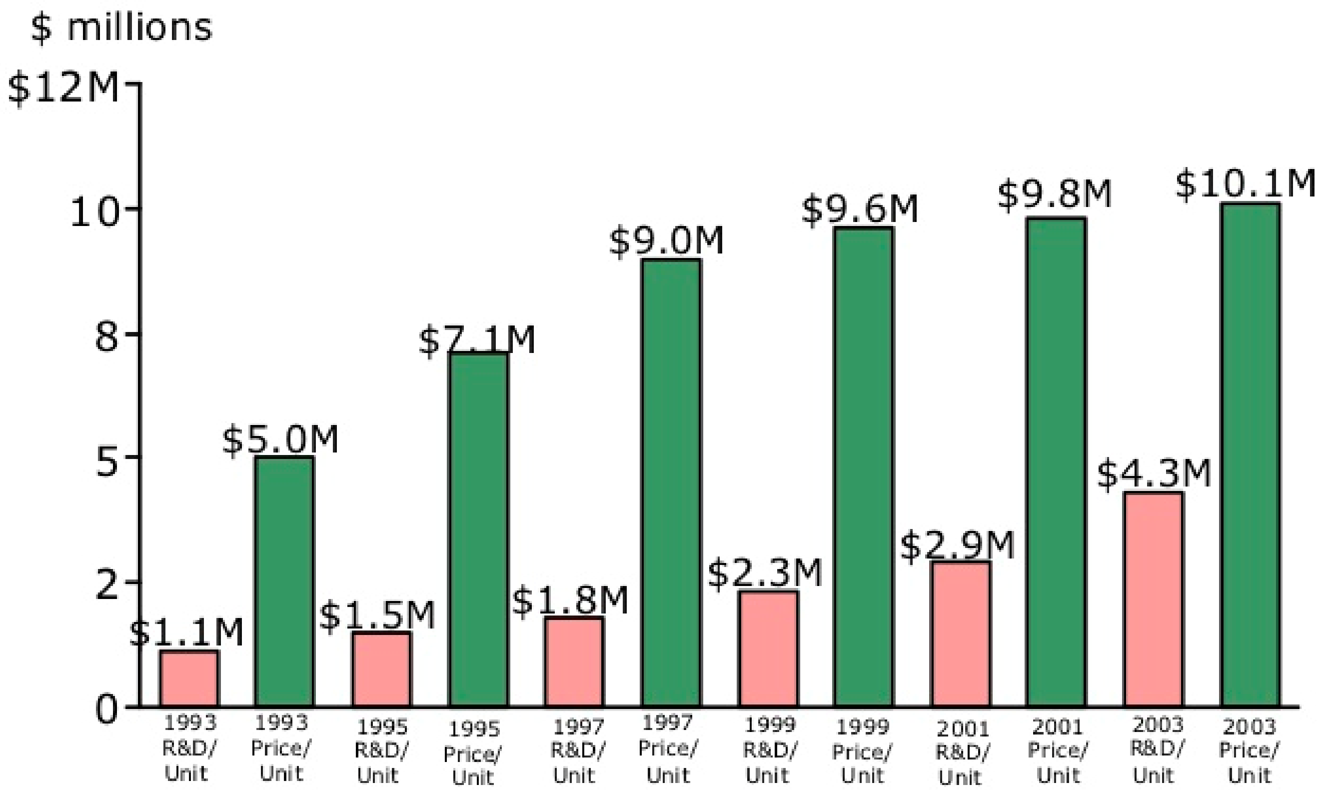
Exhibit #5: Syzygy's R&D Expenses and Selling Prices for Supercomputers



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Rock Energy

Quant: **7** Industry: **Energy**
Structure: **5** Framework: **Opportunity Assessment**

By: Mauricio Atri (Kellogg Class of '12); Edited by: Ron Mantel (Kellogg Class of '15)

Case Question

- Rock Energy, an Oil & Gas company, is evaluating the purchase of one of three oil fields in Latin America. After Rock Energy has decided which oil field to purchase, it will outsource all drilling related activities. You have been brought in to identify the best investment for Rock Energy.
- *How would you evaluate the three oil fields, and which oil field should Rock Energy purchase?*

Case tracker

- **Industry:** Energy
- **Case Format:** Opportunity Assessment
- **Concepts Tested:**
  - Investments
  - Creativity

Guide to interviewer

- Main steps the interviewee should take:
  - You will likely see something similar to the Revenue/Cost framework where the interviewee assess the investment opportunity for each field; provide Exhibit #1 once they are ready to approach Revenues/Costs (after initial questions)
  - With the info from Exhibit #1, interviewee is expected to calculate Revenues and Costs (interviewee should identifying that they need to ask for price of oil and cost to secure initial rights)
  - The price and barrels extracted by day will allow the interviewee to estimate the total revenue and profit by well.
  - After calculating profit, the interviewee should consider other factors, risks that could affect the decision investment

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Clarifying answers and case guide

Clarifying answers to provide

Industry Characteristics/Market Economics

- The rights being offered to Rock Energy gives them the right to drill during year 1, and produce oil for 20 years. Assume that no oil is produced until the beginning of year 2.
- Rock Energy can get the drilling operator to deploy a maximum of 10 rigs in each of the regions
- The cost of the rig day includes crew, consumables and services
- Any amount of oil being extracted will be sold at the spot market price of the moment
- For simplicity assume that the oil wells will produce the same amount of oil for the next 20 years with no maintenance costs
- The rights to extract oil cost $40M in each region

Guide to case / Guide to handouts

Part 1 – Hand out exhibit #1 once the interviewee is at the point in their framework where they will analyze Revenue & Costs

- This handout should lead the interviewee to understand that each region will have different geological characteristics which will affect the drilling time, production, revenues and costs for Rock Energy

Part 2 – Profitability

- Provide the price of oil **($50/bbl)** if the interviewee does proactively ask for it when trying to calculate profitability; ask the interviewee to work out the profitability for each field, and not only by well.
- The answer will be a function of the investment, variable costs, and quantity of oil extracted by field. This last variable will depend on the number of wells drilled in one year.

Part3 – Conclusion and other issues

- Rock Energy should choose to buy the rights for **Region 2** because it will offer the best profits, but there are other factors that could impact the decision to invest:
    - Insurance costs; political stability of the region; labor contracts and unions; volatility of oil prices; oil quality differences

Math question and solution

Math question

- What are the first profits during the first year of production (i.e. 1st year spent on drilling, and production begins in 2nd year)

Math solution

- **Time to complete a well** = (Depth/Penetration Rate): Region 1 = 60, Region 2 = 90, Region 3 = 180
- **Production per well by region =** Daily production * 360 days: Region 1 = 36K, Region 2=72K, Region 3= 108K
- **Cost per well** = Days to complete well*Cost per rig day. **Yearly Revenue per well** = Price * # barrels per year. **Number of wells per year =** 360/(Time to complete a well) * number of rigs. Profit Margin = (Profit per well)/(cost per well). **Total Revenue** =(Yearly Revenue) *(Number of wells per year). **Total Cost =** (Cost per well)*(number of wells)+(Rights to extract oil). **Profit =** Total Rev – Total Cost.

Concept	**Region 1**	**Region 2**	**Region 3**
Investment Cost (Rights to extract oil)	$ 40,000,000	$ 40,000,000	$ 40,000,000
Cost per well	$ 300,000	$ 900,000	$ 3,600,000
Yearly Revenue per well	$ 1,800,000	$ 3,600,000	$ 5,400,000
Profit per well	$ 1,500,000	$ 2,700,000	$ 1,800,000
Profit margin per well	500%	300%	50%
Number of wells per year	(360/60)=6x10 Rigs=60	40	20
Total Revenue	$ 108,000,000	$ 144,000,000	$ 108,000,000
Total Cost	$ 58,000,000	$ 76,000,000	$ 112,000,000
Profit	**$ 50,000,000.00**	**$ 68,000,000.00**	**$ (4,000,000.00)**

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Solution and recommendations

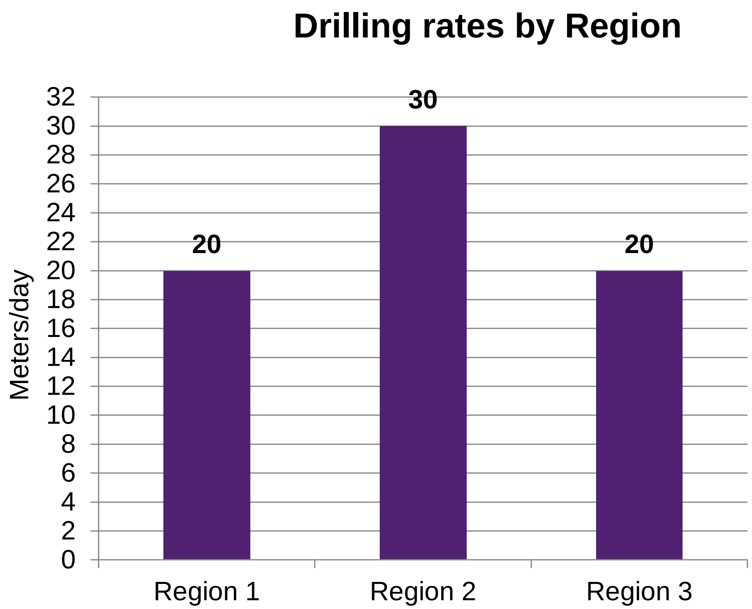
Solution & Recommendations

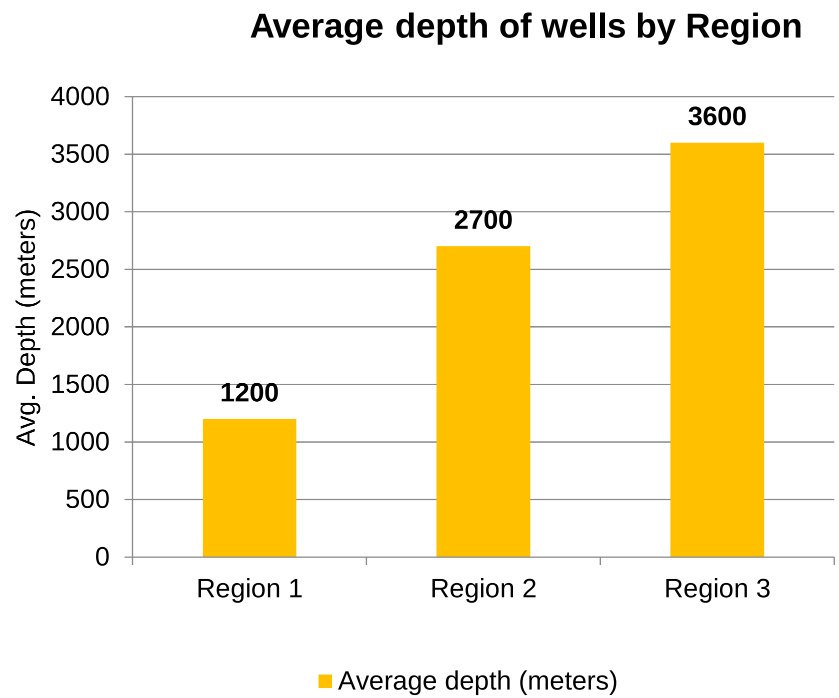
- Rock Energy should invest in buying the rights for Region 2
- It is important to recognize that even though the profit margin for Region 1 is significantly higher on a per well basis, the return of the investment depends on the total number of wells that you can drill in the first year and the upfront cost for the rights to extract oil in that Region
- Additionally, the interviewee should be able to identify other qualitative aspects of the investment that might affect the decision to invest in a certain Region

Bonus/Guide to an Excellent Case

- An excellent answer would mention and briefly summarize the impact of including an expected value analysis, which would assign different probabilities of extracting the expected barrels per day

Exhibit #1: Oil Field profiles, 2010





	Region 1	Region 2	Region 3
Max number of Rigs that would operate concurrently	10	10	10
Average well production (barrels per day)	100	200	300
Cost per rig day ($US)	$5,000	$10,000	$20,000

*Note: Wells are continuously dug during year 1 (assume 360 days), and oil is extracted beginning of year 2. Wells are dug by "Rigs". Once a Well has been completed, the Rig moves on to dig another well.

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Chic Cosmetology University

Quant: **7** Industry: **Education**
Structure: **8** Framework: **Opportunity Assessment**

By: Peter Manoogian (Kellogg Class of '12)

Case Question

- Our client is a for-profit, specialty college named Chic Cosmetology University (CCU). Founded in 2005, CCU is a program for high school graduates seeking their professional cosmetology license. CCU is currently the market leader for cosmetology education with campuses in ten major metropolitan areas in the US.
- *CCU has capital to invest in a new campus and is considering Chicagoland as a location – should they do it?*
- *(If interviewee asks about OTHER objectives or defining success for opening the new location):* The client considers a successful launch as achieving positive operating profit for the new campus two years after opening

Case tracker

- **Industry:** Education
- **Case Format:** Opportunity Assessment
- **Concepts Tested:**
  - Break-Even Analysis
  - Marketing Strategy
  - Market Share
  - Investments

Guide to interviewer

- This case involves some number crunching but is more structurally focused. It is critical to ensure that the interviewee lands on the figures presented (or is course corrected toward them) in order to proceed with the later parts of the case.
- The interviewee should be able to develop a variant of the following question:

  Will CCU be able to enroll enough students to offset the initial investment and achieve positive profit?
- Key case steps:
  1. Evaluate CCU revenue and cost structures
  2. Project CCU's market share
  3. Estimate CCU Chicago enrollments
  4. Identify qualitative issues to consider

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Clarifying answers and case guide

Clarifying answers to provide

Client Characteristics

- Enrolled students take classes at a physical campus for one school year to earn degree (FY begins on 9/1)
- CCU boasts the best campuses in the industry with state of the art equipment
- Strong job placement due to CCU's relationships with top salons in local areas
- CCU and industry enrollments growing at 5% per year

Competitive Dynamics

- 2-3 other large specialty colleges, some of which are in the same geographies as CCU
- Community colleges beginning to offer cosmetology degrees at lower prices
- All ten CCU campuses have been present for at least three full school years
- All competitor campuses have also been present for similar lengths of time

Industry Characteristics/Economics

- H.S. Diploma and cosmetology degree required to enter the field
- 98% of cosmetologists are women

Guide to case / Guide to handouts

Share **Exhibit 1** with interviewee after probing questions are received about CCUs revenues and costs . Interviewee should be able to compute the following:

- Average revenue per enrollment = $15K (revenue / total enrollments)
- Total annual fixed cost per campus = $4.8M ($48M / 10)
- Total variable cost per student = $8K ($80M / 10K)
- Gross profit per student = $7K ($15K - $8K)

After that, the interviewee should begin to tackle the overall opportunity in the area as well as how many enrollments CCU could reasonably expect to obtain in year 1

Share **Exhibit 2** with interviewee after some of the qualitative aspects of CCU's targeting and marketing strategy are covered. Additionally, the interviewee should have asked about competitor information or made some attempt to assess what share of the market they should expect in Chicago.

- See "Market Share" section in next slide for further information on **Exhibit 2**

Key elements to analyze

Break-even analysis

- How many students will CCU need to break-even in year 1?

Notes to interviewer

- Interviewee should ask about the investment cost of building a new campus in Chicagoland
- After asking, tell interviewee that the total cost is $4.5M in initial building costs to renovate its chosen site. These costs can be amortized evenly over a three year period.
- Assume fixed costs remain flat per year

Interviewee should calculate

- Total fixed costs per year = $6.3M ($4.8M + $1.5M from amortization).
- Gross profit per student = $7K
- Break-even number of enrollments per year = 900 ($63M / $7K)

Marketing strategy

- What types of schools / students do you think CCU targets?

Notes to interviewer

Possible responses (schools):

- Public schools (private HS more likely to have grads go to 4yr univ)
- HS's in middle-class cities (may be an affordability issue w/lo income)
- Closest to the campus (geography)

Possible responses (students)

- Women HS graduates
- Not attending 4yr college
- Interested in cosmetology

After a few of the above criteria are noted, share:

- CCU has identified 1,000 targeted high schools in the Chicagoland area
- Within these HS, CCU's market research estimates that on average 6 students per HS have "potential" for CCU enrollment

Market share

- What is the highest share we could expect CCU Chicago to capture in Y1?

Notes to interviewer

- Show **Exhibit 2** to interviewee
- Interviewee should recognize:
  - Campuses w/competitors present tend to have a lower share (10%) than those w/out (15%)
  - However, presence of >1 competitor does not have an increased negative impact on market share (Boston has 8% share w/only one competitor)
  - Interviewee should assume a projected 10% market share for a Chicago campus (one competitor)
- **Also share the following :** 80% of enrolled students directly from high school, the other 20% of students come from the "Adult" market

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Calculations

Math questions
1. What is the breakeven number of students required for CCU Chicago? 2. How many students should CCU Chicago expect to enroll in year 1, at the most? 3. (If time permits) = Suppose CCU finds a lot with a one time construction cost of $300K with the same amortization schedule. Should they enter Chicago now?

Calculations
1. Break-even: (Estimated campus fixed cost + Yearly amortization) / gross profit per student ($4.8M + $1.5M) / $7K = 900 students **2. Students: Total potential students x maximum projected market share** Total potential students = Potential (HS) + Potential (Adult) = 7,500 students Potential (HS) = 6 / HS X 1,000 targeted HS = 6,000 students Potential (Adult) = 6,000 students * 25% = 1,500 students Total potential students (year 1) = 7,500 students x 10% share = 750 students Total potential students (year 2) = 750 students x 1.05 (growth) = 788 students **3. Break-even: (Estimated campus fixed cost + new yearly amortization) / gross profit per student** ($4.8M + $0.1M) / $7K = 700 students

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Solution and recommendations

Solution & Recommendations

- Overall, our client should NOT enter the Chicago market under the current cost structure. Even with a 10% market share assumption in year 1, the Chicago campus will enroll only 750 students, this is 150 fewer than the 900 required to break-even.
- The client should also consider several qualitative issues:
  - — Consider offering scholarships to increase the number of potential students and/or conversion rate of potential students
  - — Consider other cities beyond Chicagoland that currently do not have a CCU presence, or add a second campus to a city such as NYC that has high market share and potentially low capacity
  - — Perform market research in other cities to understand if there is a greater potential per target high school to increase ROI
  - — Consider ways to reduce fixed costs (*e.g.,* transporting equipment / materials from campuses that are not at capacity)

Bonus/Guide to an Excellent Case

- Excellent interviewees will recognize that the 10% market share is for campuses that have been in place for at least three years , therefore Chicago is unlikely to achieve that share in year 1 or 2; this rules out the feasibility of the follow-up question that suggests the possibility of reducing the one-time investment from $4.5M to $300K.
- Additionally, a strong interviewee will identify several of the qualitative issues listed above as ways in which CCU could proceed

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Exhibit 1: 2010 CCU Financials

CCU Financials as of 8/31/2010 ('000s)	
Student enrollments (all campuses)	10
Revenue from enrollments	$150,000
Total fixed campus costs	$48,000
Buildings and equipment	$32,000
Recruiting, general, and administrative	$16,000
Total variable campus costs	$80,000
Instructors	$40,000
Student supplies	$40,000
Operating profit	$22,000

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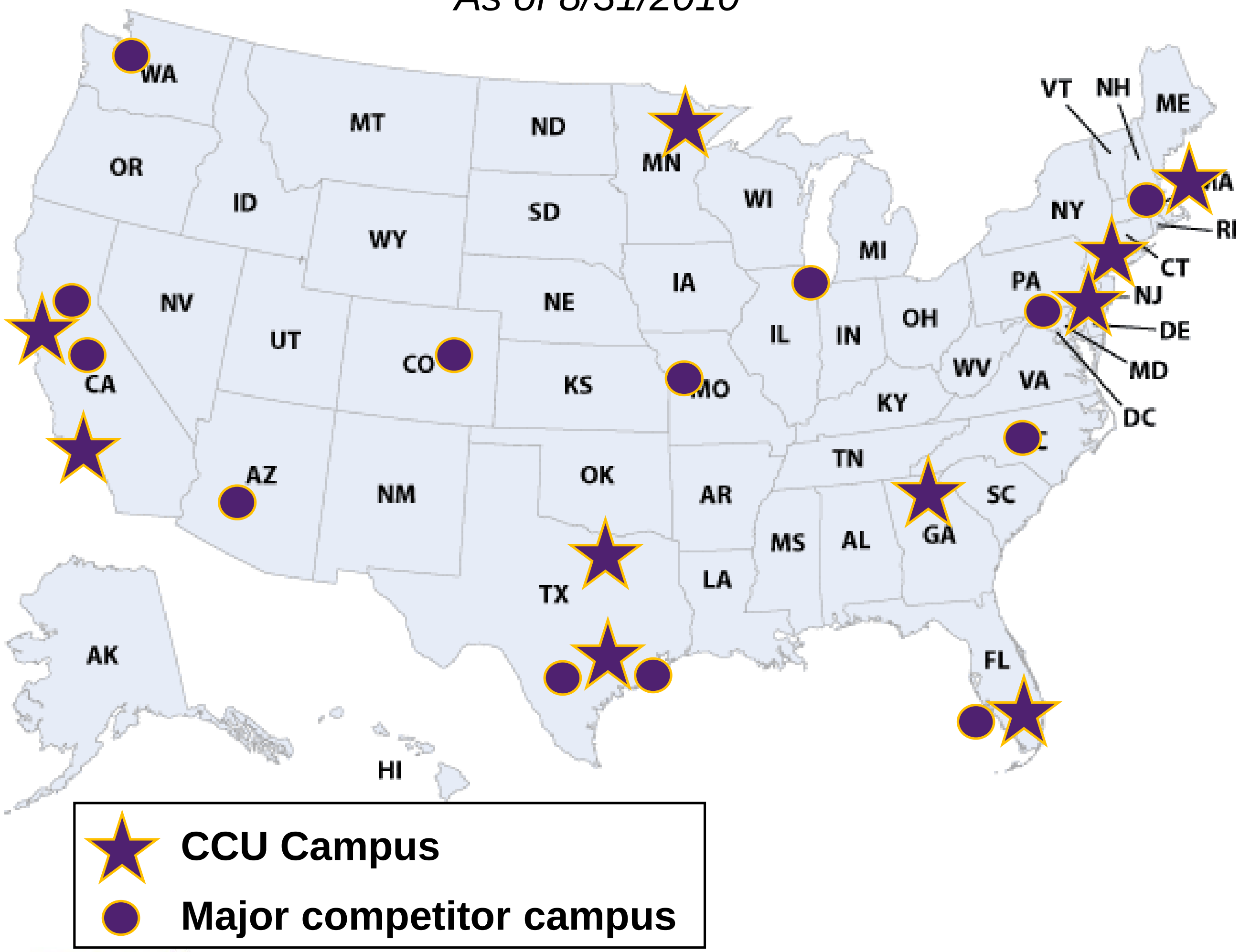
Exhibit 2: CCU and major competitor locations

As of 8/31/2010



Campus	2010 share*
San Fran	8%
LA	14%
Minneapolis	15%
Dallas	14%
Houston	10%
Atlanta	16%
Miami	12%
Philly	12%
New York City	16%
Boston	8%

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* Measured as share of total "potential" students, as defined by CCU

Tacotle Co.

Quant: **6** Industry: **Restaurant**
Structure: **5** Framework: **Profitability**

By: Ryan Sullivan (Kellogg '16)

Case Question

Your client is Tacotle Co., a leading national fast casual restaurant with $420M in revenue in 2014. Over the five years proceeding 2014, Tacotle has experienced steady revenue growth and industry leading profitability. For the first time in its 15 year history, Tacotle has experienced three straight quarters of EBITDA erosion. Tacotle's CEO has hired you to explore what is causing profits to drop and what can be done to reverse the tide.

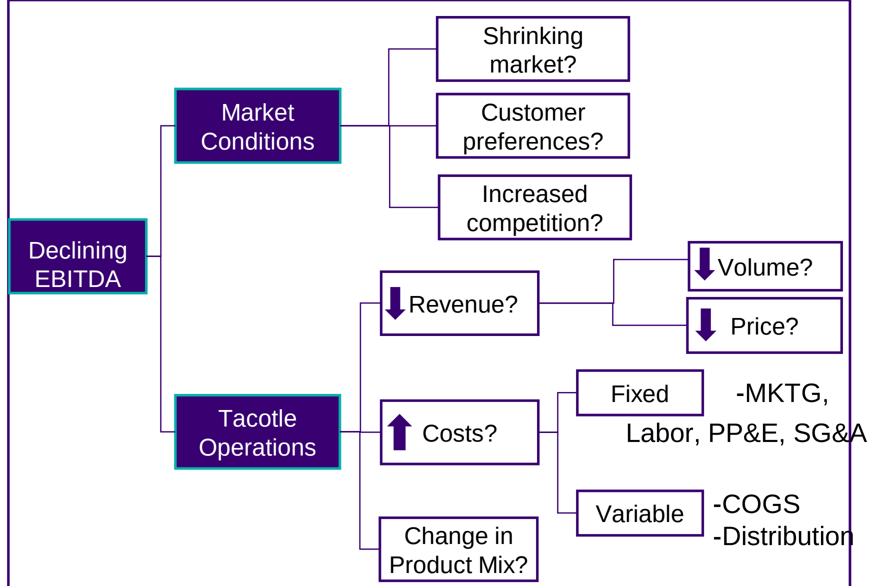
Clarifying answers to provide

- **This case is designed to be <u>interviewee</u> led**
- Case Goal: Profitability (no specific milestones, looking for positive annual profit growth in the short term)
- If asked about market conditions, defer until after the framework presentation
- Ensure interviewee understands what EBITDA is

Candidate reflections / initial hypothesis should include

After framework review, Candidate should:
- Understand that the problem could originate from market conditions or company operations
- Discuss the basis profitability framework with some focus on anticipated fixed and variable cost drivers for Tacotle

A model framework should include the following



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Guide to Interviewer

This information is provided for interviewer use only to help guide this interviewee-led case interview.

Situation

- Tacotle is an industry leading national fast casual restaurant that specializes in selling tacos and burritos
- At the end of 2013 Tacotle implemented a new menu after analysing the results from a customer satisfaction survey (Exhibits D and E)
- This menu change increased the selection of toppings and level of customization available to customers and improved the quality of all toppings
- The following were the effects on Tacotle following the implementation the menu changes:
    - Tacotle raised prices anticipating the increased costs (COGS) associated with the menu change
    - The increased prices led to an immediate spike in revenue for 1Q14 (Exhibits A and B)
    - COGS nearly doubled, though, leading to an EBITDA margin decrease (Exhibit A and C)
    - Customer satisfaction decreased overall driven by increased wait times and decreased menu item consistency (Exhibit E)
    - Although there was an initial spike in revenue, EBITDA remained flat due to the offset of decreased EBITDA margin (Exhibit A)
        - This spike was driven solely by the price increase (Calculation Section)
        - Total units sold actually decreased (Calculation Section)
    - Over the last three quarters of 2014, revenue and EBITDA both decreased as number of units sold decreased driven primarily by customer dissatisfaction (Exhibit A)

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Market Conditions

Market Growth and Maturity

If asked about the market's growth and maturity:
- Market is growing at the same rate as GDP
- Mature market

Competition

If asked about any changes in the competitive nature of the market:
- No major competitors have entered or exited
- No new substitutes introduced
- Tacotle currently has a 30% market share (by revenue) which it has maintained

Customer Preferences

When asked about customers:
- Customers are beginning to stress the importance of ingredient quality and order customization

Candidate insights – Growth and Maturity

The profitability issue is not one that is market wide. The problem seems to be specific to Tacotle

Candidate insights – Competition

There are no major competition related factors that are driving the decreased profitability. The issue is most likely related to a change within Tacotle

Candidate insights – Customer

The change in customer preferences doesn't seem like it is directly driving decreased profits but it may have influenced decisions made within Tacotle

Summary - Market Conditions

- The interviewee should at some point want to discuss the market to verify that the decreased profits aren't due to conditions affecting all companies in the market. After a quick conversation regarding the market, the interviewee should look at operations within Tacotle.

Profitability and Revenue

Profitability

- Provide **Exhibit A** once the interviewee requests information regarding Tacotle revenue or profitability
- Ensure that the interviewee is clear what EBITDA is
- What are potential drivers of:
  - Revenue spike? (Increase in price or units sold)
  - EBITDA erosion? (Increase in cost, decrease in rev.)
  - EBITDA % decline? (Decrease in margin)

Revenue/Quantitative Proof

- Once interviewee has hypothesized potential drivers of increased revenue, provide **Exhibit B**
- After interviewee has stated that price increased, interviewee should recognize that a change in price could lead to a change in quantity. Interviewee should ask "How did quantity of units sold change in 2014?" – provide **Exhibit C**

(See next page for quantitative solution)

Candidate insights – Profitability

- Spike in revenue in Q1 '14 with relatively flat EBITDA and large decrease in EBITDA %. Followed by steady revenue decline
- Good response will hypothesize what could cause this, with the conclusion that either prices and/or purchases increased with costs increasing **more** than the additional revenue
- A good interviewee will take a deep dive into the profitability framework looking to determine why:

  1) Revenue spiked then declined over the following quarters
  2) Profitability (EBITDA) did not follow revenue

Candidate insights – Revenue

Exhibit B

- A good interviewee will quickly identify that Tacotle increased the average price of their orders.
- It should initially be ambiguous whether units sold increased or decreased. A good interviewee will not rush to a conclusion

Exhibit C

- Interviewee should evaluate the entire slide then attempt to answer the question posed regarding units sold in 2014
- Interviewee should refer back to the exhibit and notice that COGS nearly doubled from 2013 to 2014

Revenue Calculation

<table>
<tr><th colspan="2">How did total number of orders sold change from 2013 to 2014?</th></tr>
<tr><td>Units sold in 2013:

Units sold = Revenue / (Avg. price per unit)

2013 Revenue = $377M (Round to 380M) (From Ex. C)

2013 Avg. price per unit = $4.05 (Round to $4) (From Ex. B)

Units sold = $380M / $4 = 95 M units sold</td><td>Units sold in 2014:

Units sold = Revenue / (Avg. price per unit)

2013 Revenue = $420M (From Ex. C)

2013 Avg. price per unit = $5.25 (Don’t round) (From Ex. B)

Units sold = $420M / $5.25 = 80 M units sold</td></tr>
<tr><td colspan="2">Conclusion:
1) Although revenue increased sharply, the total number of orders decreased.
2) As revenue continued to decline over the last three quarters of 2014, prices remained the same. Therefore, a decrease in the quantity sold is responsible for the eroding revenues and EBITDA

A good interviewee should have follow up questions to the above conclusions:
• Why did Tacotle increase prices?
• Why did units sold continue to decrease throughout 2014?

Provide the interviewee with Exhibit D</td></tr>
</table>

Costs and Operations

Costs

Ask the interviewee to list cost drivers specific to the industry

If the interviewee does not refer back to **Exhibit C**, guide him/her to revisit the Income Statement for a breakdown of costs

Candidate insights – Costs

- A good interviewee will be creative and will be able to list at least 5 industry specific cost drivers broken down by fixed and variable costs
- Interviewee should conclude that COGS (in the fast casual industry) is mainly comprised of ingredients

Exhibit C

- COGS nearly doubled
- All other costs flat
- COGS increase is the root cause of EBITDA erosion
- Why did COGS increase?

Operations (Exhibit D)

Ensure that before moving into "operations" the interviewee has analysed **Exhibits A,B and C** and has received **Exhibit D.**
Interviewee should provide hypothesises for all observations discussed in both exhibits

Candidate insights – Operations (Exhibit D)

- Graph illustrates Tacotle's performance against customer preferences
- Tacotle lags with regards to quality but is on par or exceeding expectations for all other categories
- Interviewee should conclude that Tacotle did something that was aimed to increase quality which most likely caused COGS and revenue to increase

Additional Information

After interviewee has speculated on potential operational changes Tacotle could have implemented, inform them that Tacotle introduced a new menu focused on allowing the consumer to customize their orders more and higher quality and selection of ingredients
***** Provide Exhibit E*****

Operations

Operations (Exhibit E)

- Once presented with **Exhibit E** interviewee should review and elaborate on the differences between Exhibits E and D
- If asked for, the average time to serve a customer increased from ~1 minute to ~3.5 minutes.

Candidate insights – Operations (Exhibit E)

- Interviewee should recognize that Exhibit E is the same survey as Exhibit D but for the next year (post menu upgrade)
- Interviewee should also recognize that the order of attributes has changed
- “Speed of Service” is now Tacotle’s weakest attribute
    - This is due to the new menu which added complexity to food preparation
- “Consistency of Service” has also dropped below customer expectations due to the added complexity of food preparation
- Although Tacotle has met expectations with regard to “Quality”, the decline of ratings in “Speed of Service” and “Consistency of Service” have more than cancelled it out, resulting in a net decrease in customer satisfaction
- The menu change was not effective

Suggested conclusion

Conclusion

Recommendation: Scale back the menu changes that were implemented during 2014.
Reasons:

1) The menu change led to a significant increase in COGS which decreased EBITDA %
2) The menu change led to overall customer dissatisfaction, degrading brand equity
3) The customer dissatisfaction lead to decreasing unit sales (quarter over quarter) which is driving the EBITDA erosion

Risks

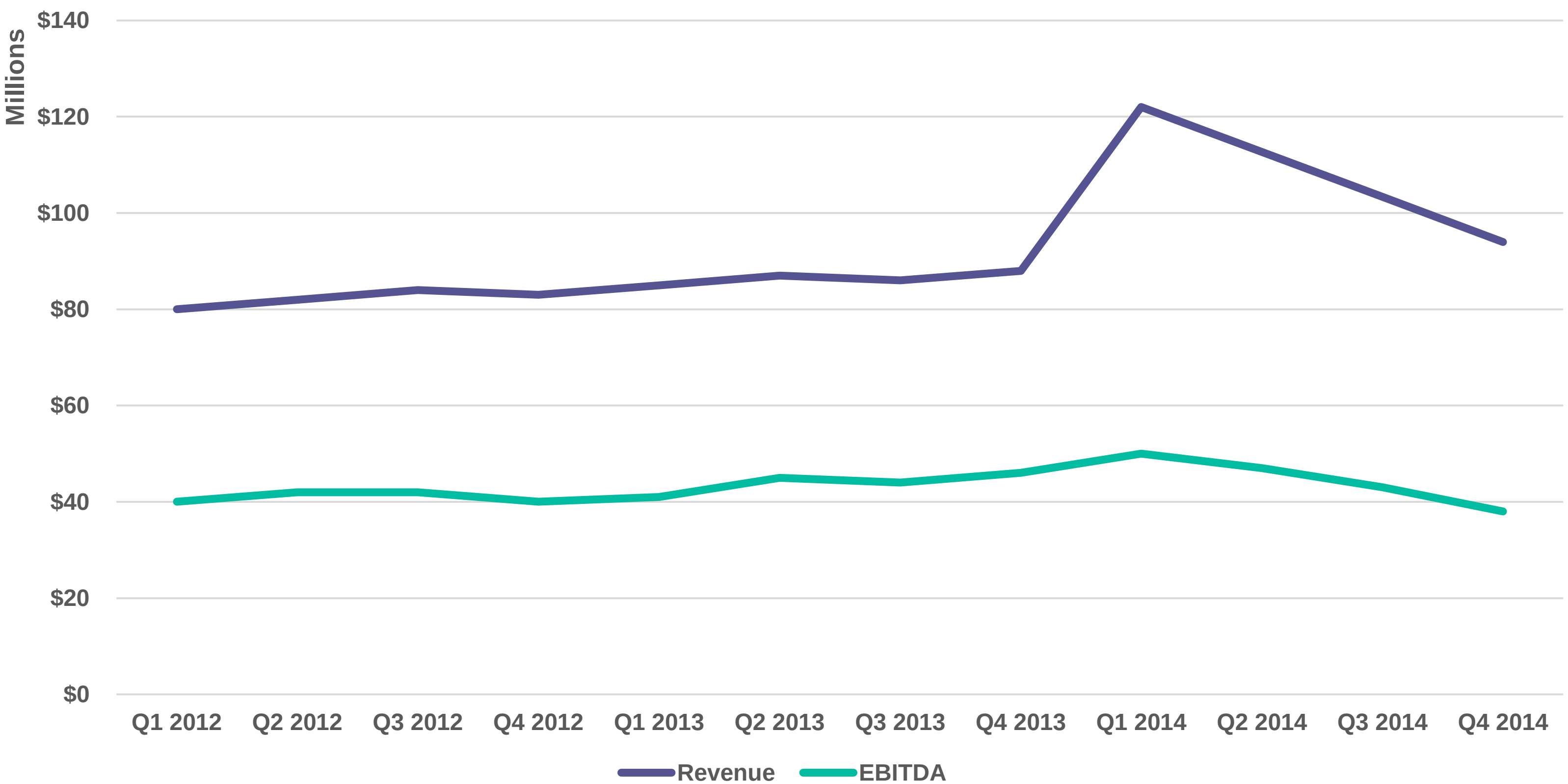
- Scaling back the menu too much could lead to decrease in customer satisfaction for “Quality”
- Implementing a scale back could disrupt relationships with suppliers and could require divesting assets that were purchased for the initial menu change at a loss
- A scale back that does not focus on margin improvement could lead to smaller revenues and profits, effectively downsizing the company.

Next steps

- Perform more detailed and focused customer surveys to gage what Tacotle customers expect from the chain
- Perform a scale back on the menu size that focuses on cost cutting balanced with customer needs
- Follow-on menu changes should be implemented on a smaller/trial basis at a small number of individual restaurants

Exhibit A

Tacotle Co. quarterly revenue and EBITDA



EBITDA %	44%	45%	44%	46%	45%	45%	44%	46%	39%	40%	39%	40%

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Exhibit B

Tacotle Co. avg. revenue per order

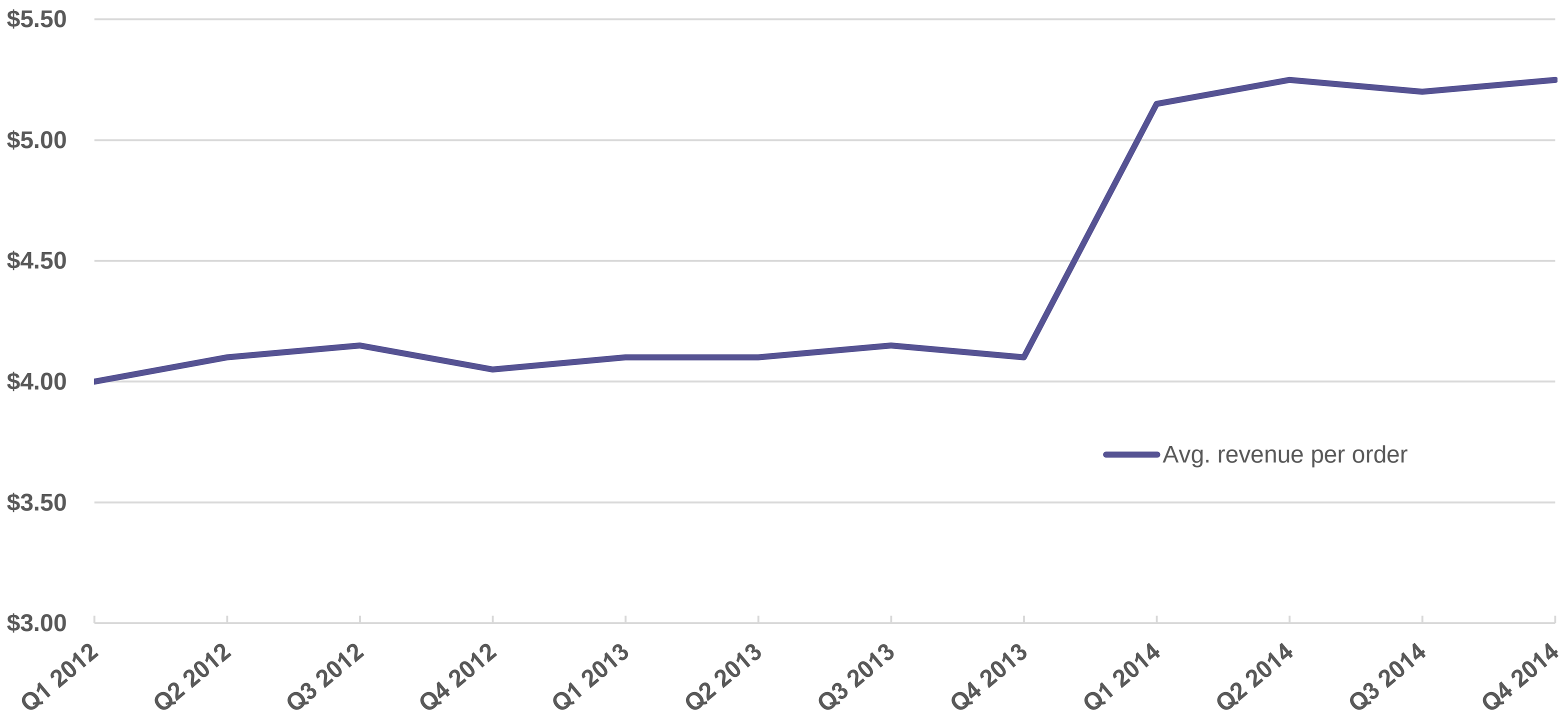

Exhibit C

Tacotle Co. income statement

	2012	2013	2014
Revenue ($M)	$364.0	$377.0	$420.0
Expenses ($M)			
COGS	$51.0	$54.0	$96.0
Wages	$96.0	$99.0	$101.0
Corp SG&A	$11.0	$10.0	$10.0
Fixed Overhead	$43.0	$44.0	$44.0
EBITDA ($M)	$163.0	$170.0	$169.0

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Exhibit D

Results of 2013 Tacotle Co. customer survey

On a scale of 0-5, how important are the following characteristics when dining at fast casual restaurants?

On a scale of 0-5, how well does Tacotle Co. perform against the following characteristics?

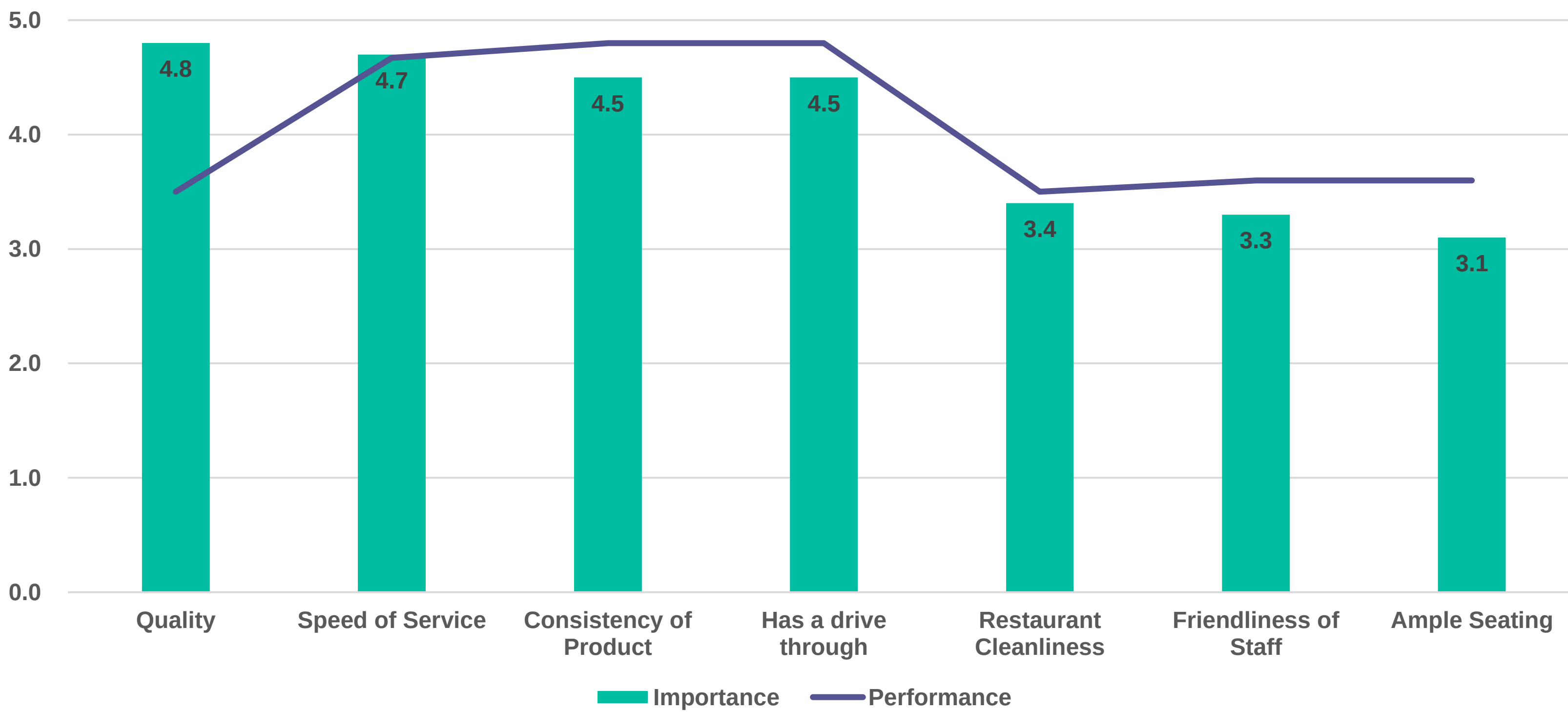

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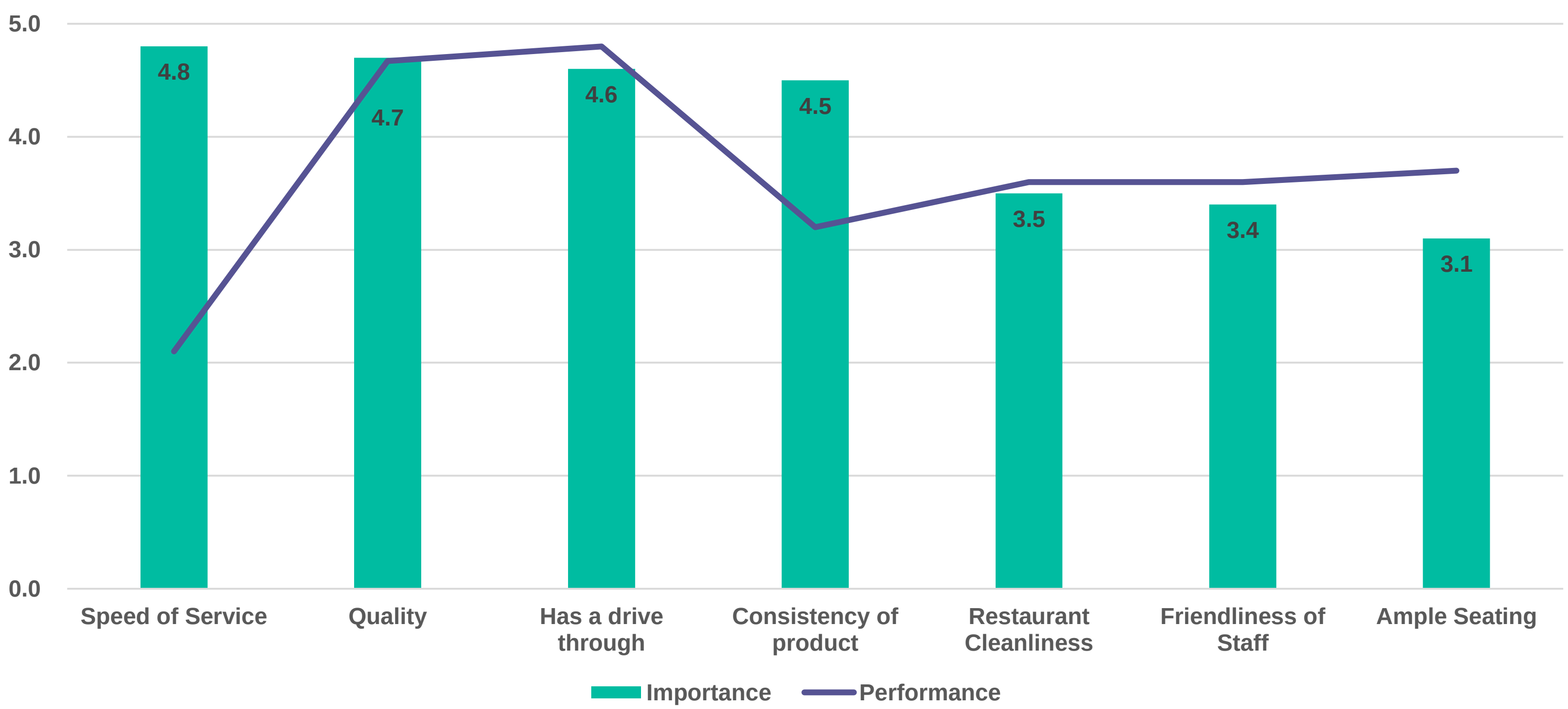
Exhibit E

Results of 2014 Tacotle Co. customer survey

On a scale of 0-5, how important are the following characteristics when dining at fast casual restaurants?

On a scale of 0-5, how well does Tacotle Co. perform against the following characteristics?



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Wine & Co.

Interviewer-Led Case

Quant: **7** Industry: **CPG**
Structure: **5** Framework: **Opportunity Assessment**

By: Anil Goteti (Kellogg Class of '11), Edited By: Mauricio Atri (Kellogg Class of '12)

Case Question

- Wine & Co. is a niche wine manufacturer in the San Francisco Bay area. Wine & Co. recently acquired 12 acres of land outside San Francisco. The company wants to investigate opportunities to best use the land and needs a recommendation from you.

Case tracker

- **Industry:** CPG
- **Case Format:** Opportunity Assessment
- **Concepts Tested:**
  - Marketing strategy
  - Basic NPV

Guide to interviewer

- The case tests the interviewee's ability to:
  a. Structure the problem and brainstorm
  b. Determine valuation and discounting
  c. Recommend a marketing strategy
  d. Synthesize the answers.
- This case is a McKinsey style case and has to be asked in a question and answer format. The interviewer should ask each question given below and wait for the interviewee to respond. If the interviewee is stuck, direction should be provided based on the information given below. The interviewee should be able to drive the case while at the same time seek direction based on the question asked.

Clarifying answers and case guide

Clarifying answers to provide

- **Question 1.** Some interviewees ask which geographical regions the company serves, the type of wines they manufacture and if they have other types of products (like other liquors or wine tasting tours in Napa valley). The following information can be provided if asked. a) They only manufacture red wines. b) The company serves only the local market (the San Francisco Bay area). c) The company does not sell any other products. d) The company is currently very healthy and does not face any problems.
- **Question 2.** Profit Margins on Merlot are 10% while the margins on Bordeaux are 15%.
- **Question 3.** a) Discount rate is 12% (provide only when asked). Many people forget the time value of money and add profits across years without discounting. b) Assume the costs are only incurred when the revenues are realized after aging (no costs until year 6 for Merlot and no costs until year 12 for Bordeaux). c) If people are struggling with the division or approximations, suggest the "Rule of 72" (If r is the discount rate, 72/r is the number of years it takes to double your money)
- **Question 4.** Customer segments that are currently served by Wine & Co.- niche wine enthusiasts.

Guide to case / Guide to handouts

- Question 1. What are the different ways in which Wine & Co. can use the land?
- Question 2. Wine & Co. has decided to use the land to manufacture wine. Each acre of land produces 1000 kg of grapes annually. Wine & Co. has an option to manufacture Merlot or Bordeaux. The two wines use different grapes and the grapes have varying yields. While the Merlot grapes yield 2litres/kg, the Bordeaux grapes yield 1litre/kg. Wine & Co. can charge $20 per liter of Merlot and can charge $40 per liter of Bordeaux. Which wine yields more profits annually?
- Question 3. Aging has an effect on the revenues and profitability. Merlot has to be stored for 6 years while Bordeaux has to be stored for 12 years before revenues can be generated. Which wine would you choose for manufacturing?
- Question 4. Wine & Co. has decided to manufacture Merlot. How should they market this product in the San Francisco Bay area?
- Please summarize your recommendations to the CEO of Wine & Co.

Key elements to analyze

Topic 1 being tested

- What are the different ways in which Wine & Co.wines can use the land?

Topic 2 being tested

- Which wine yields more profits annually?

Notes to interviewer

- The interviewee should create a framework and structure the problem. The interviewee should suggest options including manufacturing the wine, creating adjacent products (like wine tasting tours), using the land for other uses (commercial real estate/selling the land for a profit/other opportunity costs). A good candidate would provide a detailed structure (eg. profitability framework for manufacturing feasibility with customization of the framework - yield of grapes, cost per liter of wine, etc.) and outline the risks or considerations involved in some of these options (like usability of land for manufacturing or company competency in pursuing in other opportunities unrelated to wine manufacturing).

Notes to interviewer

- A good candidate would ask for the profit margins/costs without being prompted. Look for organization and structure when the candidate evaluates the annual profits for each wine (a good candidate would use a table like structure when doing the math). The revenues would be $480,000 for both wines annually but the margins would be higher for Bordeaux ($72,000 for Bordeaux vs. $48,000 for Merlot). After the candidate arrives at the profits, look for interpretation. A good candidate would recommend using Bordeaux while at the same time consider other factors (competency in manufacturing either of the wines, customer demand in the bay area, sensitivity to product yields, customer reservation price, etc.). A creative candidate might suggest that we compare the age of the two wines (and hence will impact when the profits might actually start)

Math for Topic 2

		Value	Comments	
A	Acres of Land	12	Given	
B	kg of grapes produced/acre	1000	Given	
C	kg of grapes produced total	12000	=A*B	
		Merlot	**Bordeaux**	**Comments**
D	Yield (Litre/kg)	2	1	Given
E	Total Yield (Litre)	24000	12000	=C*D
F	Price / Litre	$20	$40	Given
G	**Total Revenue**	**$480,000**	**$480,000**	**=E*F**
H	Profit Margin	10%	15%	Given
I	**Total Profit**	**$48,000**	**$72,000**	**=G*H**

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Key elements to analyze

Topic 3 being tested

- Which wine would you choose for manufacturing?

Notes to interviewer

- Candidate should identify that the cash flows for Merlot would be $48,000 annually starting year 6. Cash flows for Bordeaux would start in year 12 ($72,000 annually). A good candidate would then consider the time value of money and discount the two perpetuities to the same year for an apples-to-apples comparison. Merlot: Annual Cash flow starting year 6: $48,000 Perpetuity value of cash flow (value in year 6) = $48,000/0.12 = $400,000 Bordeaux: Annual cash flow starting year 12: $72,000 Perpetuity value of cash flow (value in year 12) = $72,000/0.12 = $600,000 Value of perpetuity in year 6 = $600,000 / (1.12^6) = $300,000 (Rule of 72). Provide help here if the candidate is struggling with the division. Look for the candidate's approach than the exact number. Since value of pursuing Merlot ($400,000) is higher than value of pursuing Bordeaux ($300,000), the company should manufacture Merlot. A good candidate would interpret the result and suggest we take into account other factors like inventory costs, sensitivity to discount rate, etc.

Topic 4 being tested

- How should they market this product in the San Francisco Bay area?

Notes to interviewer

- Candidate should ask for the customer segments that the company might sell to and suggest appropriate marketing channels/strategies to consider. Look for a MECE structure here. Suggestions should include retail strategies, direct to consumer strategies (like wine clubs, wine tasting), traditional media and print advertising and online advertising.

Math for Topic 3

			Merlot	Bordeaux	Comments
	A	Annual Profit	$ 48,000	$ 72,000	See Q. 2
	B	Years to maturity	6	12	Given
	C	Discount Rate	12%	12%	Given
	D	Merlot NPV once ripe - at year 6	$ 400,000		=A/C
	E	Bordeaux NPV once ripe - at year 12		$ 600,000	=A/C
Method 1	F	Bordeaux NPV at year 6 (using discount rate)		$ 300,000	=E/(1.12)^6
Method 1	G	Comparison at year 6	$ 400,000	$ 300,000	=D and F
Method 2	I	Merlot NPV at year 12 (using discount rate)	$ 800,000	$ 600,000	=D*(1.12)^6
Method 2	J	Comparable comparison at year 12	$ 800,000	$ 600,000	=I and E

Alternative method using "Rule of 72" instead of (1.12)^6	**Value**	**Comments**
Discount Rate	12%	Given
Years to double value = 72/Discount rate	6	=72/12
Bordeaux: changing from year 12 to year 6 = halving the value of year 12 Merlot: changing from year 6 to year 12 = doubling the value of year 6		

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Solution and recommendations

Solution & Recommendations

- A good candidate would recommend a solution (manufacturing Merlot) but would detail out the risks/next steps associated with the recommendation. Next steps may involve market research, land usability testing, evaluation of opportunity costs. Risks have been outlined above already.

Bonus/Guide to an Excellent Case

- An excellent answer should include:

  a) Identification of opportunity costs, particularly of not selling/leasing the land, which might be more profitable considering the current value of land in the Bay Area and/or Napa

  b) Considering industry specific issues like aging of wine

  c) Considering time value of money/perpetuity of cash flow

  d) Considering risks like customer demand, land usability

  e) Potential benefits of diversifying the acreage and producing multiple types of grapes (compensate for shifts in consumer demand, broader appeal to local market, etc.)

A+ Airline Co.

Quant: **8** Industry: **Airline**
Structure: **8** Framework: **Opportunity Assessment**

By: Adam J. Louras (Kellogg Class of '11); Edited by: Deepika Singh (Kellogg Class'16)

Case Question

- Our client is A+Airline Co., the third largest airline in the United States by passengers carried. This week, we have been flying on our primary competitor, Gamma airline, and we noticed something interesting; they stopped accepting cash for in-flight food and beverage services and they now only accept major credit cards.
- *The CEO of A+Airline Co. wants to know, why did Gamma Airline switch from a Cash & Card system to a credit card only system, and should we follow them?*

Case tracker

- **Industry:** Airline
- **Case format:** Opportunity Assessment
- **Concepts being tested:**
  - Basic NPV
  - Operations
  - Market Sizing
  - Customer Strategy

Guide to interviewer

- This case will force an interviewee to rely on logic, business acumen, and structure
- Commonly, the interviewee will ask a lot of questions about historical costs, revenues, etc. **This is not the correct approach to this question.**
- The savvy interviewer will realize that this is a BEFORE vs. AFTER comparison of switching from a CASH & CARD system to a CARD ONLY system. Therefore, the questions asked should focus on the DELTA, or the cash changes that occur when the switch is made.

Clarifying answers and case guide

Clarifying answers to provide if Asked

Industry Characteristics/Market Economics

- *Card Use*: Roughly 99% of all consumers purchase their airline tickets using a credit card, i.e. all consumers on an airplane have a credit card available to them.

Client Characteristics

- *Items Sold*: Only food and alcoholic beverage items are sold on A+Airline flights
- *Locations:* This is a US Domestic decision only. Ignore international.

Competitive Dynamics

- Gamma is the only airline that has made the switch; however all other airlines are evaluating the switch.
- For the purposes of this case, Gamma and A+Airline should be considered to be exactly the same in all regards.

Interviewer Guide to case and handouts

Case Structure – Interviewee's structure should be a BEFORE vs. AFTER comparison of the switch from CASH & CARD to CARD only and should include:

- *Revenue Changes:* Loss of Cash Only customers vs. Increase in Credit Card customers
- *Cost Changes:* Benefit of Cash Management Cost Removed vs. Incremental Cost (Fee) of Credit Card
- *Cash Flow Changes:* Interest and Time Value of Money (TVM), and Working Capital impacts due to an increase in collection speed

Exhibit 1 – After Interviewee walks through structure, they will likely ask questions about consumer purchase behavior on airplanes. Once you feel that they have identified the need to do a market sizing, hand out Exhibit 1.

- *Ask the interviewee to determine the Total Market Size in ($) for food and beverage purchases on an average flight*
    - *The interviewee should calculate the CURRENT allocation of purchases (Cash Vs. Card) for an average flight.*
    - *The interviewee should correctly identify that some of the current "Cash" customers will not convert to Card.* ***Tell them we will lose 1/3.***

Exhibit 2 – The interviewee should recognize that there might be a cost savings due to the change. Most interviewees know that there is a Credit Card processing fee but do not realize that there are many costs associated with cash management. Ask them about the types of costs A+Airline might face under both processes before handing out the exhibit. When asked, explain that **the total, per flight, savings from eliminating overhead due to Cash Management Operations is $35/flight**

Key elements to analyze

Changes in Revenue

- Interviewee will likely begin with the correct assumption that revenue will be lost due to unhappy, cash-only passengers
- Once asked about how many are lost, hand out **Exhibit 1** to do a market sizing

Changes in Costs

- Interviewee should make mention of Cost changes due to the shift to a Card Only strategy.
- Ask the interviewee to detail the types of costs that might be involved before handing out **Exhibit 2**

TVM & Working Capital

- **Exhibit 2** also shows that there is a 30 day time benefit to collecting payment via Credit Card vs. Cash
- ***Prompt 1****: Ask the interviewee to qualitatively explain the impact this time savings will have*

Notes on Exhibit 1

- Using Exhibit 1, interviewee should calculate:

1. *Total Number of Passengers per Plane*

	Seats	Occupants	Business	Leasure
First Class	50	50	50	0
Economy	150	120	60	60
Total	**200**	**170**	**110**	**60**

2. *Total Number that Purchase & Total Spend ($)*

	# that Purchase	Total Purchase $
Business	45	$450
Leasure	15	$75
Total	**60**	**$525**

3. *Cash vs. Card Spend + LOSS*

	Cash	Card	Total
Inflight $	$105	$420	$525

Lose 1/3 of Cash Customers

	#	$	New Total
Business	3	($30)	$420
Leisure	1	($5)	$70
Total	**4**	**($35)**	$490

Notes on Exhibit 2

- Exhibit 2 shows the current operations for Cash Management and Card Management
- The interviewee should notice the following information:
  - Cash Management & Card Management both have 2% fees associated, so this is a "wash" in terms of savings.
  - Cash Management requires additional overhead, 7 total employees per airport, that could be eliminated for further savings.
- When asked, explain that the total, per flight, savings from eliminating overhead due to Cash Management Operations is **$35/flight**
- **Interviewee should notice that the $35 savings offsets the $35 loss in Revenue. A good candidate will notice that savings go straight to the bottom line whereas revenue doesn't.**

Qualitative Assessment

- The interviewee should qualitatively mention that there are benefits to eliminating the longer cash management process:
  - *Time Value of Money*: A+Airline will receive their money 30 days sooner, and this money could be used to:
    - Invest in interest earning accounts or growth projects
    - Pay off suppliers early and take advantage of discounts
    - Pay down lines of credit faster
  - *Working Capital Improvement:* $50 per flight in change can be eliminated, thus freeing up cash flow. Additionally, there will be a reduction in loss of cash due to theft and damage
  - *Happier Customers:* The majority of customers will be able to place and receive their order faster on the plane which will also increase sales

Solution and recommendations

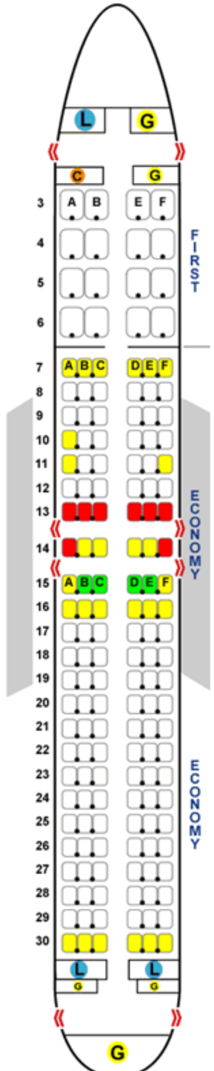
Solution & Recommendations

- Overall, our client, A+Airline, should switch to a Credit Card only system for in-flight food & beverage because:
  - *Quantitative Benefits*: We calculated that there would be a loss of 3 business customers and 1 economy customer per flight which amounted to a Revenue loss of $35. We also found that we could save $35 in overhead expenses by eliminating the Cash Management process. In sum, the decision to switch is in favor because the savings are to the bottom line and the revenue losses are top line.
  - *Qualitative Benefits:* We also found that we will receive payment 30 days sooner by only accepting credit cards. This improves our cash flow and could allow us to earn interest, pay down creditors, or invest in projects. Additionally, by reducing cash losses and eliminating "Change" tied up on airplanes, we can improve our Working Capital and also put this money to work for us. Finally, it appears as though customers, in general, might actually be happier because the speed of transactions on the airplane will improve.

Bonus/Guide to an Excellent Case

- An excellent interviewee will note:
  - Due to the increased transaction speed, probability of purchase for both Business and Economy passengers in the AFTER state should go up due to a reduction in frustration. The people on the back of the airplane often abandon a purchase if it takes too long to place an order. Making change takes a lot of time!
  - Average purchase amount should also increase. There is a proven psychological phenomenon that shows how consumers who do not carry cash purchase less when a cash option is offered because they feel guilty using their card. A card-only option eliminates this guilt and consumers don't mind using the card.
  - Being creative when listing the change of costs as: Wifi cost (connect with banks and verify transaction), Fraud cost (increased chance of fraud to happen after implementing card only payment).

Exhibit #1: An Average A+Airline Flight



A+Airline Boeing 737-800 Vers. 2 (738)

Total Seats	**200**

	% of Seats	Load Factor	% Business	% Leisure
First Class	25.0%	100%	100%	0%
Economy	75.0%	80%	50%	50%

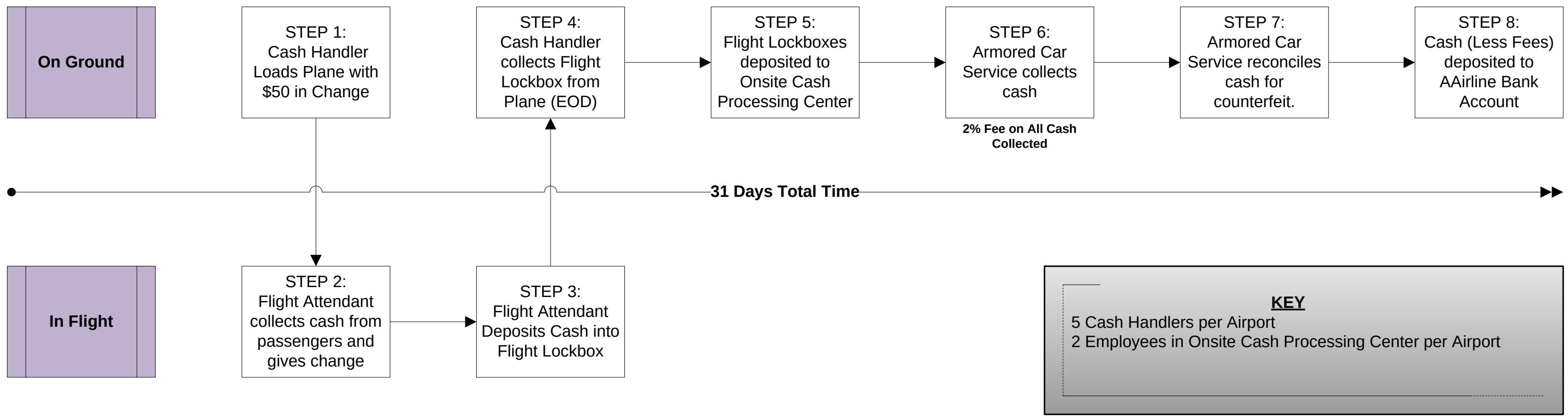
	% that Purchase	Avg. Spend ($)
Business	41.0%	$10
Leisure	25.0%	$5

*Note: First Class Passengers Receive Free Food & Beverage

	% of In-flight Purchases
Cash	20%
Card	80%

Exhibit #2: A+Airline Cash & Card Operations

AAirline Cash Management Process



AAirline Credit Card Process

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Bell Computer Inc.

Quant: **8** Industry: **Tech**

Structure: **10** Framework: **Profitability**

By: Adam J. Louras (Kellogg Class of '11); Revised by Matthew English (Kellogg Class of '16)

Case Question

- Our client, Bell Computer Inc., is the second largest PC manufacturer, by unit sales, in the United States. Over the past 5 years, Bell has been gaining market share and growing revenue, but at the same time, their net income is eroding.
- The founder of Bell has returned to the company and taken over as CEO. He has hired us to determine:
  - Why have our profit margins declined?
  - What can we do to improve our profitability and reach our "Full Potential"?

Case tracker

- **Industry:** Tech/Telecom
- **Case Format:** Improving profitability + Reducing Costs
- **Concepts Tested:**
  - Marketing Strategy
  - Competitive Analysis
  - Supply/value chain

Guide to interviewer

- This case is primarily about product mix changes in the PC industry combined with Average Selling Price (ASP) Declines resulting in lower overall revenues for the industry. Competitors that did not keep up with cost reductions are faced with tighter margins
- The interviewee should recognize that this is a "Profit Equation" style question and use a version of the following equation in their "Framework":
  - Profit/Unit = Price/Unit – Variable Cost/Unit – Fixed Costs/Unit
- Various terms from the PC industry are used throughout the case and it is not expected that the interviewee knows these terms. Help as needed.

Clarifying answers and case guide

Clarifying answers to provide if Asked

Industry Definitions

- *ASP*: ASP or Average Selling Price is the term used for the average price sold by the company for a computer. Multiplying units sold by ASP will give you total revenue.
- *Client Segment*: PCs designed for, and sold to, retail consumers either direct or through a retailer like Best Buy.

Client Characteristics

- *Items Sold*: Assume that only hardware is sold as shown in Exhibit 1. Interviewee could suggest selling additional items such as printers, software, warranty service, etc. to improve profit
- *Locations:* This is a US Domestic decision only. Ignore international.
- "Full Potential" profitability can be interpreted as market-leading

Competitive Dynamics

- All competitors face the same ASPs and sell comparable products.

Interviewer Guide to case and handouts

Case Structure – Interviewee's structure should be structured as a comparison of Bell Computer's financials from Before, i.e. 2005, and After, i.e. 2010. The interviewee should note the "Profit Equation" and they should make the following inferences from the question setup:

- *Revenues are going up and Market Share is Increasing* AND *Net Income is going down*
- *Thus: Prices (ASPs) are being reduced to buy market share. This is causing more units to be sold, but, with Net Income going down, it is clear that **costs have not reduced to keep up with the reduction in ASPs.***

Exhibit 1-3 – After Interviewee walks through structure, they should ask questions about the components of Net Income, i.e. Revenue and Costs.

- *Have a conversation with the Interviewee to force them to talk through the essential components of the Profit Equation that are needed to answer the question.*
- *Let the Interviewee drive the case. When you feel that they have asked enough information about the following topics, give them the exhibit that shows this information:*
  - *Sales Units* → *Exhibit 1*
  - *Prices* → *Exhibit 2*
  - *Costs* → *Exhibit 3*

Answer – The interviewee cannot solve this case without all three exhibits. Once they have given you sufficient reason to hand them each exhibit, they should drive through the case to answer both questions.

Key elements to analyze

Marketing Strategy

- Using Exhibits 1-3, the interviewee should be able to determine that margins are falling due to product mix shifting and price declines, focusing on laptops

Notes to interviewer

- The Interviewee should be able to answer the question, “Why have our profit margins declined?” with the following rationale:
  - Exhibit 1: Shift in Consumer preference towards Laptops & Netbooks
  - Exhibit 2: Declining ASPs for Laptops and Low ASPs for Netbooks
  - Exhibit 3: Cost position has remained unchanged
- The interviewee could answer the question qualitatively by interpreting Exhibits 1-3. To make this case more quantitatively focused, ask the interviewee to calculate various metrics for 2005 and 2010.
- The interviewee should be able to calculate the negative margin impact of the falling price of laptops – see following page for calculations

Competitive Analysis + Supply Chain

- Using Exhibit 3, the interviewee should identify a “Full Potential” improvement for Bell to improve its laptop margins by copying the strategy of its direct competitors.

Notes to interviewer

- The interviewee should be able to answer the question, “What can we do to improve our profitability and reach our “Full Potential”?” with the following COST REDUCTION strategy:
  - Copy Haysus' strategy for part procurement to reduce the build cost of PCs
  - Copy Racer's strategy for Direct Labor to reduce the labor cost of producing PCs
  - Copy HC's strategy for G&A to reduce the total company overhead
- The interviewee could answer the question qualitatively by interpreting Exhibit 3. To make this case more quantitatively focused, ask the interviewee to calculate various metrics for “Full Potential”.
- The interviewee should be able to calculate Bell’s “Full Potential” margin benefit in the laptops segment – see following page for calculations

Math Solutions

Math Part I

	BELL FY2005	BELL FY2010
	Laptop PCs	Laptop PCs
Units Sold (K)	10.0	30.0
ASP	$2,000.0	$750.0
Cost per unit	800.0	800.0
Contribution/Unit	*$1,200.0*	*($50.0)*
Revenue ($M)	$20.0	$22.5
Total Cost ($M)	8.0	24.0
NI ($M)	*$12.0*	*($1.5)*
Profit Margin	*60.0%*	*(6.7%)*

Net income from Laptops has therefore decreased by $13.5M as a result of the price drop

Math Part II

	BELL Full Potential
	Laptop PCs
Units Sold (K)	30.0
ASP	$750.0
Cost per unit	350.0
Contribution/Unit	*$400.0*
Revenue ($M)	$22.5
Total Cost ($M)	10.5
NI ($M)	*$12.0*
Profit Margin	*53.3%*

Lowest possible cost per unit, based on achieving:

- Parts in line with Haysus ($200)
- Labour in line with Racer ($50)
- G&A in line with HC ($50)
- Marketing as-is ($50)

Results:

	Laptop PCs
Profit ($M) Improved	**$13.5**
Cost Per Box Reduced	$450.0

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Solution and recommendations

Solution & Recommendations

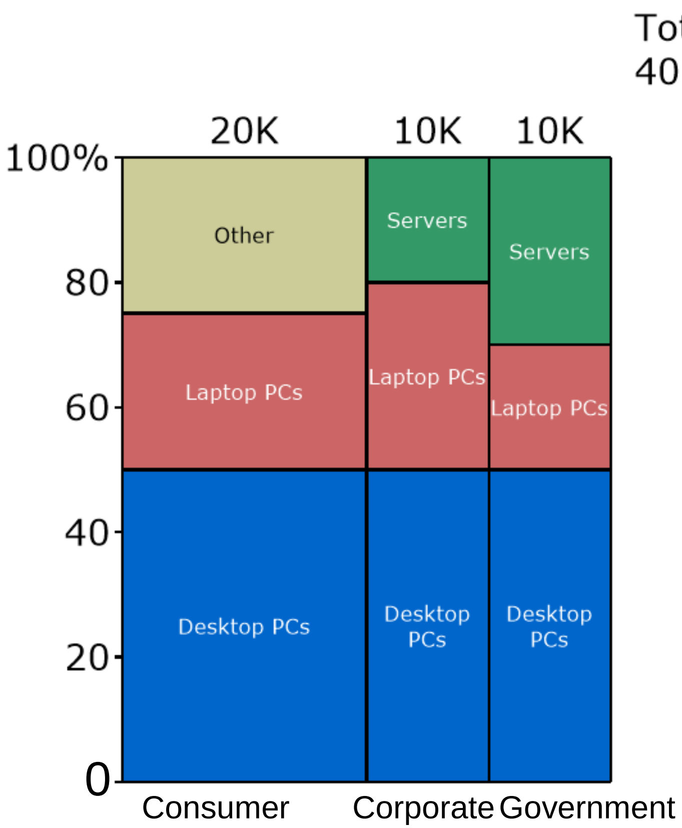
- Bell Computer Inc. and the PC industry have faced five years of Average Price declines in the Laptop product segment. At the same time, "Client" or retail consumers have shifted their preferences towards Laptops and a new product segment called Netbooks. Because Bell Computer has not reduced its costs over this same timeframe, profit margins and net income have deteriorated despite increases in revenue.
- In order for Bell Computer Inc. to return to profitability, they must reduce their cost per unit sold. The best approach we identified was through an analysis of our competitors. Using our competitors line-item costs as a benchmark, we could potentially reduce our cost per box by $450. This amounts to a total Net Income improvement for laptops of roughly $13.5M.

Bonus/Guide to an Excellent Case

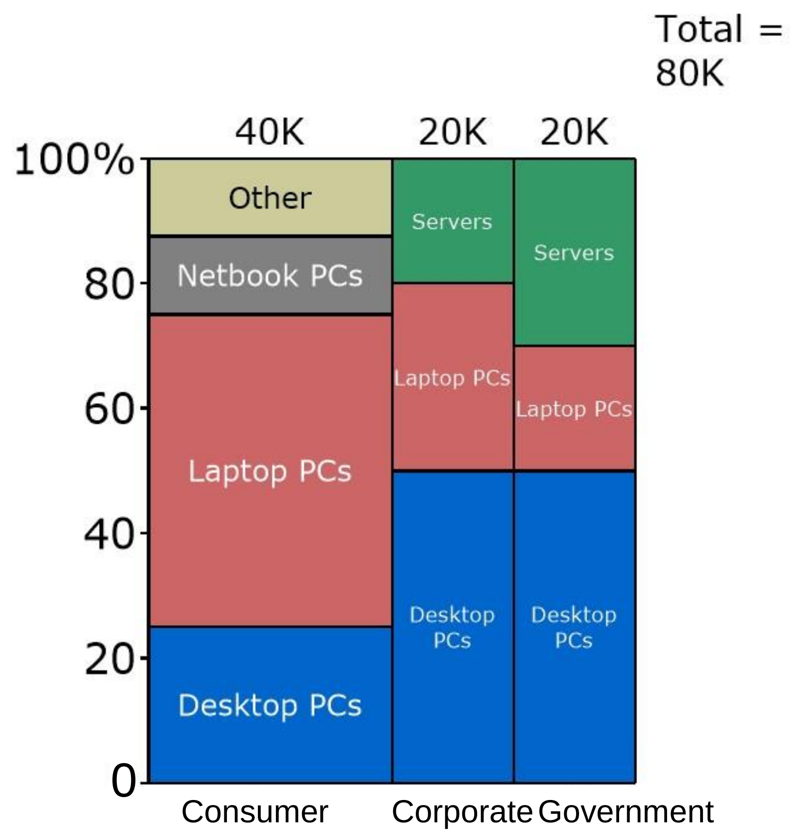
- An excellent interviewee will note:
  - Additional ways to improve net income by selling complimentary, high margin products such as:
    - Printers
    - Software
    - Parts upgrades
    - Warranties
  - Additional ways to cut costs, such as:
    - SKU Rationalization (Reducing the number of product models)

Exhibit 1: Product Mix breakdown by Business Segment for 2005 and 2010

PC Units(K) Sold in 2005



PC Units(K) Sold in 2010



*Note: Netbook PCs did not exist in 2005; “Other” products include Pocket PCs and Calculators

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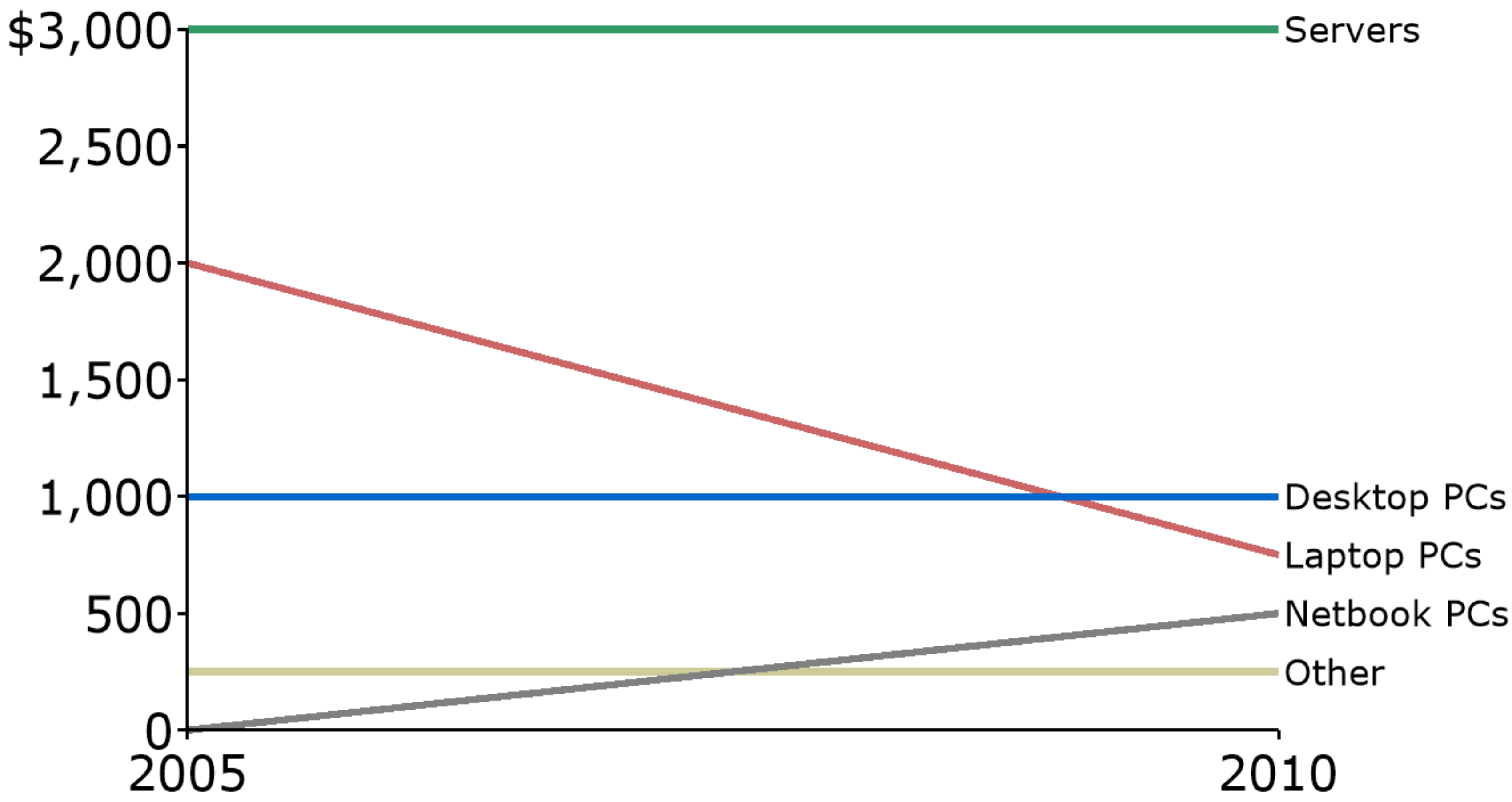
Exhibit #2: ASPs by Business Segment 2005 and 2010



*Note: Netbook PCs did not exist in 2005

Montoya Soup

Quant: **8** Industry: **CPG**

Structure: **5** Framework: **Profitability**

By: Nico Montoya (Kellogg '16)

Case Question

In F14, Montoya Soup Co., a Business Unit of Izzy's Healthy Foods, grew revenue and increased the contribution margins on their Traditional and Light Soups. However, a spike in fixed costs caused them to see a dip in profitability. To offset this effect in F15, they launched a line of premium soups in an attempt to increase volume and generate economies of sale. Though they felt the new launch was a success, their profitability dropped again in F15. They have hired you to diagnose the problem and propose a solution for F16.

Clarifying answers to provide

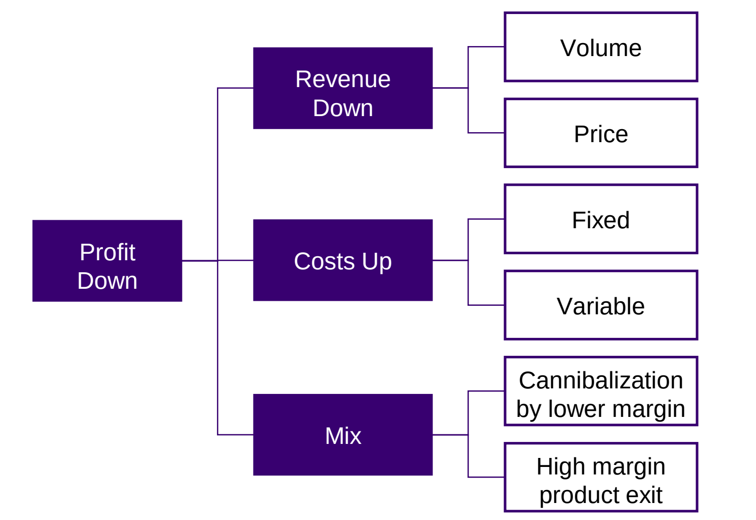
Traditional, Light, and Premium are the only product lines in Montoya Soup Co.'s product portfolio.

Montoya sells cases to buyers at grocery retailers who mark up the units inside to sell to consumers

Candidate reflections / initial hypothesis should include

The prompt hints that revenue is up and fixed costs haven't increased in 2015, so the candidate should be thinking about variable costs right away. That said, this is a portfolio pricing strategy case disguised as a cost reduction case and a strong candidate might recognize that possibility.

A model framework should include the following



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Deep dive – Why did profitability decline?

Revenue

Provide Exhibit A

If asked: growth was driven by premium line. There was some cannibalization of traditional and light lines (provide Exhibit B).

Q: What trends do you see with regard to top line growth?

Costs

Provide Exhibit A

If asked: input prices **are the same as F14 for the traditional and light lines** . No additional wastage. No change in formulation

Q: What happened with fixed costs in F15? Variable costs?

Q: What could have driven up our variable costs?

Product Mix

Provide Exhibit A

Q: How can profitability be down if revenue is up, fixed costs are flat, and the cost of our inputs have not changed?

Q: What information do you need to look into fixing the product mix to optimize profitability

Candidate insights

Revenue grew significantly in F15, much faster than in any other year in recent history

Revenue outpaced volume, meaning that not only did revenue grow, but it grew even though average price increased

Candidate insights

Fixed costs were flat at $1.3bn in F15 (Gross Margin - Contribution Margin = Fixed Costs), so profit decline was driven by an increase in variable costs.

Increase in variable costs could have come from pricier mix of inputs, same inputs but increase in input prices, more waste in manufacturing, or change in demand mix for more expensive products. (Provide Exhibit B.)

Candidate insights

If revenue is up, input costs are flat (assuming **no change in formulation or wastage**), and profitability is down, then the issue must be with cannibalization of higher margin products by lower margin ones.

Candidate should want to look at the product lines' prices, COGS, elasticity, and cannibalization rates.

Deep dive – How do we fix profitability?

Cost Reduction

Provide Exhibit B and C when appropriate

If asked: Competitors aren't playing in the "premium" space, only in "value" and "super-premium"

Q: How much profit do we make per case of Premium? Traditional? Light?

Pricing (Cannibalization and Elasticity)

Provide Exhibit B and C when appropriate

If we both raise prices **and** change packaging, we will lose enormous distribution

Q: What is the optimum price for profitability?

Stakeholder Value Proposition

Provide Exhibit D

Q: What are the long-run effects on customers for changing packaging? For reducing meat/vegetable costs? For increasing prices?

Q: What about for the end consumer?

Candidate insights

$10 contribution margin on Traditional and Light, $6 contribution margin on Premium (price – sum of variable costs)

Largest opp. for v. cost reduction would be in packaging, meat, and veg., but reducing these might erode value proposition of a premium product

Math on next page

Candidate insights

Candidate should infer from Exhibit B that Premium cannibalized Traditional substantially.

Math on next page

Candidate insights

Candidate should see that customer are willing to pay for a pricier product, but that reducing variable costs (and thereby reducing quality) is not a viable long run strategy and will hurt the brand

Math Solutions

Logic behind the math

Below are the calculations the candidate would have to make if they calculated every single scenario. It seems like a lot, but keep in mind that the margins on Traditional and Light are $10, so candidates can simply add a zero to the cannibalized volume number to get cannibalized profit.

The candidate should feel free to elect not to even calculate the first two scenarios if they are deemed strategically unwise long-term decisions.

Net profit from premium will be the profit from Premium (**bold)** minus and profit lost from cannibalizing Traditional and Light (**bold**)

	Unit Margin	Vol	Profit (Margin* Vol)	Trad Vol. Cannibalization	Trad Margin	Trad Profit Lost	Light Volume Cannibalization	Light Margin	Light Profit Lost	Net Profit from Premium
Last Year	$6	40	$240	-20	$10	($200)	-5	$10	($50)	($10)
If we change packaging	$9	32	$288	-24	$10	($240)	-5	$10	($50)	($2)
If we reduce meat and vegetable costs	$9	40	$360	-20	$10	($200)	-5	$10	($50)	$110
If we raise price to 33	$9	20	$180	-2	$10	($20)	0	$10	$0	$160

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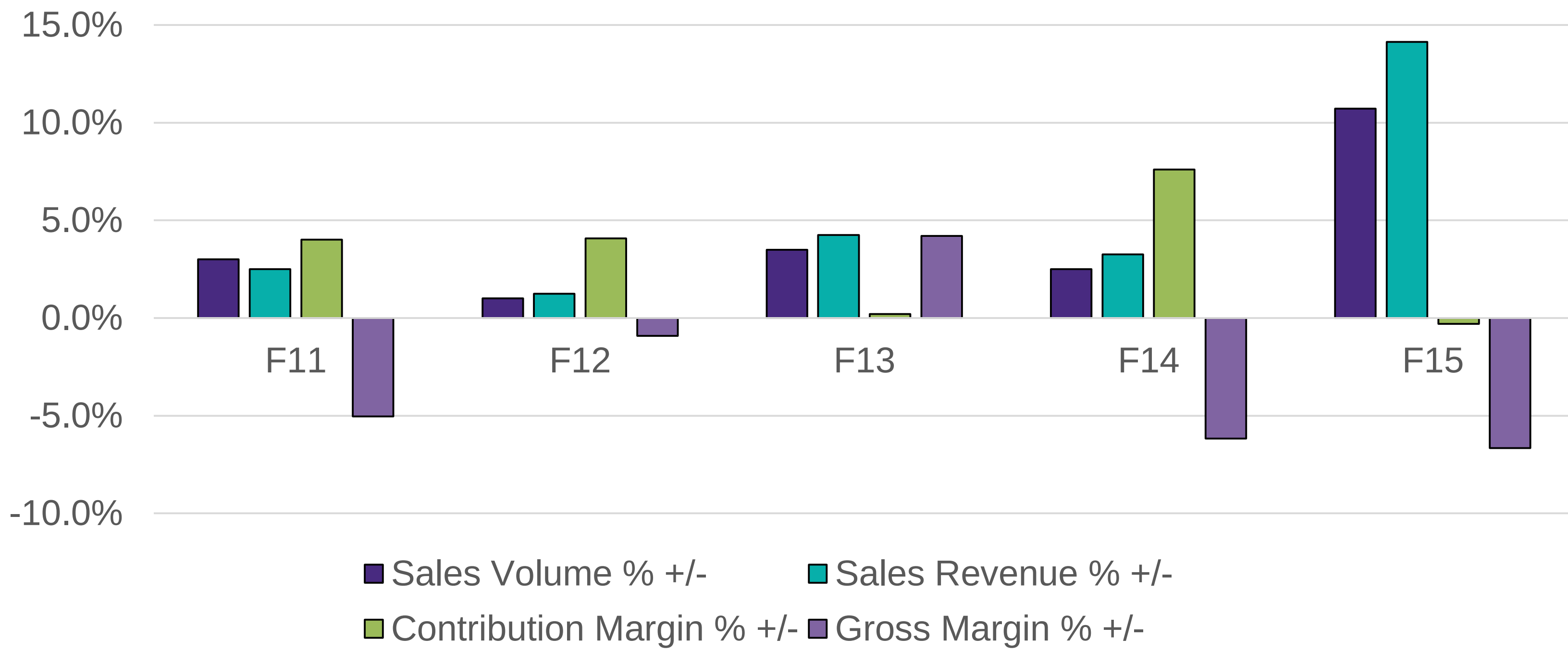
Exhibit A: Performance metrics



	F10	F11	F12	F13	F14	F15
Sales Volume (millions of cases)	126.5	130.4	131.7	136.5	140.0	155.0
Sales Revenue (millions)	$3,282	$3,366	$3,409	$3,560	$3,680	$4,200
Contribution Margin (millions)	$1,165	$1,212	$1,261	$1,264	$1,360	$1,356
Gross Margin (millions)	$65.2	$61.9	$61.4	$63.9	$60.0	$56.0

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Exhibit B: Product lines

"Our research showed that many of our consumers were willing to pay more for a product with more meat and vegetable bounty in a carton (instead of a can). After testing several price points, we decided a lower margin and higher volume would help us reach the economies of scale we wanted to see. Consumers loved the product and thought it was a great bargain!"

	Trad.	Light	Prem.
Wholesale Price	$28	$24	$30
F14 Vol. (m cases)	80	60	-
F15 Vol. (m cases)	60	55	40

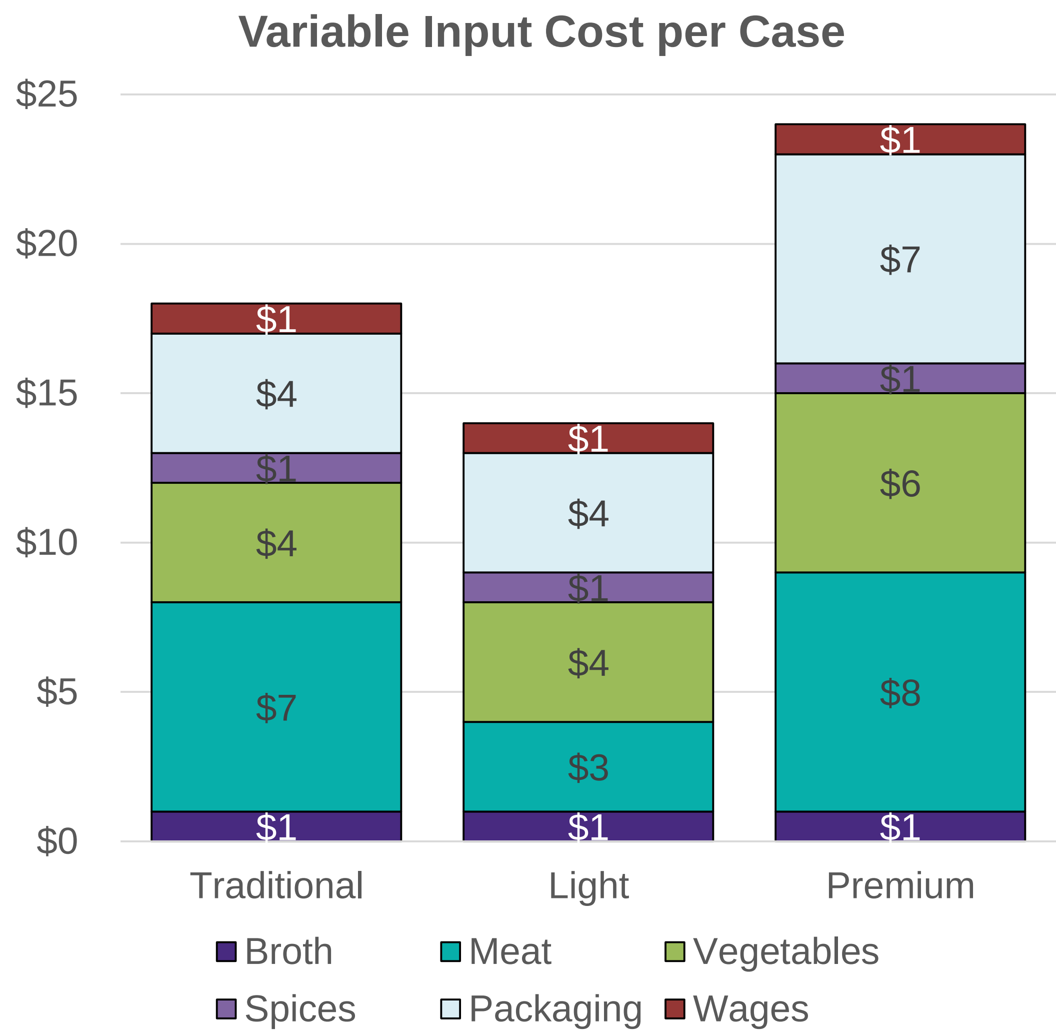

Exhibit C: Demand analysis

Cost Reduction Effect on Demand

"We looked into moving premium out of cartons and into cans. On the plus side, it would gain us $3 of margin per case, but on the con side it would decrease demand by 20% and cannibalization of our Traditional line would spike to 75%"

"We could decrease our meat and vegetable bounty to be on par with Traditional. That would buy us $3 of margin points and consumers shouldn't know the difference, in the short run at least."

Price Elasticity and Cannibalization

	Last Year	Increase Price
Premium Price	$30	$33
Premium Demand (m cases)	40	20
Traditional cannibalization rate	50%	10%
Light cannibalization rate	12.5%	0%

Exhibit D: Stakeholder input

Customer Feedback

- *"We really loved the new Premium Montoya Soup offering, it brought a* new consumer *to the shelf-stable soup category when all of the other players were introducing products that just stole from their competitors."*

- *"We're planning to give more shelf space to Montoya Soup in F16 after their successful premium launch this year. Our guests really loved the new packaging format and the higher meat and vegetable content. Product* trial *wasn't extremely high, but we saw a lot of* repeat *purchases from the people who were buying."*

Consumer Focus Group Excerpts

- *"I'm trying to eat healthier, and I'm really nervous about* canned *products with their BPA lining. As soon as Montoya came out with their new* carton *soup I switched right away from their Traditional line and I'm never going back!"*

- *"I definitely think their* brand *is rising with me, the old stuff was mostly broth, this new stuff is a huge bargain and it actually has actual stuff in it."*

- *"Glad to see that when everyone else is trying to* rip you off, *Montoya is making Soup that actually tastes like something I would make at home."*

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Suggested conclusion

Conclusion

Profits have declined due to the introduction of a margin-dilutive product line that cannibalized higher margin products. Recommendation: Increase price of product line to $33 per case to maximize profitability (Gross profit would more than quadruple)

- *Increases margins (though volume will drop)*
- *Reduces cannibalization substantially*
- *Alternative cost-reduction measures hurt value proposition and will cause long-run issues with brand equity*

Risks

- *Pricing measures didn't consider competitive response (could competitor come in with a lower priced premium soup and force us out of the category?)*
- *Raising prices could upset some buyers and lose distribution*
- *Opportunity Cost: Could be better long-term strategy to keep prices low and start phasing out of old lines, ramping up premium*

Next steps

- *Perform due diligence on long-term consumer preference forecast*
- *Launch advertising campaign to make sure we can justify higher prices and defend from competitors*
- *Look to reduce high fixed costs so we can protect against potentially price-aggressive competitors or increased commodity prices*

Interviewer-Led Case

After School Programming

Quant: **?** Industry: **Non-Profit**

Structure: **?** Framework: **Growth**

By: David Morse (Kellogg Class of ’11), Edited By: Merih Ocbazghi (Kellogg Class of ’16), Ameed Mallick (Kellogg Class of ‘12)

Case Question

- It is 2015, and our client offers after school programming focused on supporting at-risk youth through high school, enabling them to enter and succeed in college.
- The client is trying to identify the best approach to meet its growth target. The client’s goals for expansion are to most efficiently serve students at 7 new sites, while raising their national profile. We have been hired to help them vet potential sites to maximize their social and financial impact.

Case tracker

- **Industry:** Other (Non-Profit)
- **Case Format:** Growth Strategies
- **Concepts Tested:**
  - Organizational
  - Capacity Expansion
  - Customer Strategy
  - Marketing Strategy

Guide to interviewer

- This case should be delivered McKinsey-style, i.e. following presentation of the framework, the interviewer should guide the interviewee from question to question. The secret to this case is thoroughly understanding the client’s business and goals. Interviewers should encourage the interviewee to take time to understand the client’s business model and to be sure they thoroughly understand the questions being asked.
- This case focuses on understanding not only the financial objectives but also the other objectives/impact that a client wishes to achieve and these should impact the analysis and recommendations to be delivered.

Clarifying answers and case guide

Clarifying answers to provide if asked

The following information can be provided if the interviewee asks, but should not be volunteered:

—**'**At-risk' youth are those who, due to behavior or grades, are at risk of dropping out of high school or have already done so
—The client operates local centers attached to high schools with full time staff
—The client offers tutoring and test prep support to the youth with whom it works, as well as connecting youth to internships and career opportunities
—All centers are Massachusetts or southern New Hampshire
—The client operates 8 sites with 2,500 youth served
—School districts and state agencies reimburse the client for activities
—The client has a high national profile and has received calls from high school systems in Florida and California offering to pay for the client to establish centers in their districts; the client has declined these offers to date

Interviewer Guide to case and handouts

Question 1: what are the client's options for locating and for opening new sites, and what are some considerations the client should consider in selecting among these options?

Question 2: let's look at the financial considerations, particularly at the effect of additional sites on central costs. The client allocates central office costs to each wholly owned site on a uniform basis, i.e. total central office costs / 8 = allocation per site. The client wants to understand how expanding sites will affect the per wholly owned site allocation of central costs. For this analysis, assume that central costs don't vary depending on the method selected for expansion. **(Show Exhibit 1)**

Question 3: from a mission perspective, our client thinks that serving areas with a high density of at-risk youth will best deliver its mission as well as raise its national profile. As such, it would like to determine which geographic areas show the most promise for mission fulfillment. They provided some data from representative school districts for an initial analysis: **(Show Exhibit 2)**

Question 4: earlier, you listed some additional factors that might help the client screen new locations. What do you think are the pros and cons of these additional factors in each geographic area? How might this influence the client's choice of target geographies?

Question 5: let's wrap up with a summary of your findings and a recommendation to the client.

Answer – The interviewee cannot solve this case without understanding the client's business and goals

Key elements to analyze (1)

Question 1: Organizational Changes

- **Question 1:** what are the client's options for locating and for opening new sites, and what are some considerations the client should consider in selecting among these options?

Notes to interviewer

- The interviewee should quickly focus on geographic options for sites:
  - Adjacencies to existing sites (middle schools, neighboring high schools)
  - New sites in existing states, separate from existing sites
  - New states neighboring existing states
  - New states that have contacted the client
- The three primary methods for opening new sites are:
  - Partnerships
  - Branching / licensing
  - Wholly-owned sites
- The interviewee should go back to their original question, and hopefully their framework, to remember that the client wants to vet potential sites for mission and financial impact. Based on this, they should come up with two sets of criteria, which might include:
  - Mission related:
    - Number of at risk youth
    - Presence of other youth service organizations
    - Potential to work with high schools
    - Knowledge of target market
  - Finance / operations related:
    - Potential to attract funding
    - Ability to leverage relationships and engage in political advocacy
    - Ability to leverage existing infrastructure
    - Ability to recruit talent

Key elements to analyze (2)

Question 2: Capacity Expansion

- **Question 2:** let's look at the financial considerations, particularly at the effect of additional sites on central costs. (Show Exhibit 1)

Question 3: Customer Strategy

- **Question 3:** our client thinks that serving areas with a high density of at-risk youth will best deliver its mission as well as raise its national profile (Show Exhibit 2)

Notes to interviewer

- A good interviewee will quickly point out that the 74% increase in costs is less than the 88% increase in the number of sites, and that central office cost allocation per site should decrease. Interviewees should quantify the impacts of growth on costs per site.
- *Solution on "Math Solution" page*

Notes to interviewer

- Note 1: Worcester, MA neighbors an existing site for the client. Nashua, NH does not have a site.
- Note 2: This is a tough problem to solve. Work actively with interviewees to get to the answer. Assume that class sizes, dropout rates and GPA averages are uniform across grades.
- Note 3: Mention that high school is 4 years i.e. There are 4 classes in school at any given time.
- *Solution on "Math Solution" page*

Key elements to analyze (3)

Question 4: Marketing Strategy

- **Question 4:** What do you think are the pros and cons of these additional factors in each geographic area? How might this influence the client's choice of target geographies?

Notes to interviewer

- Good interviewees will draw a table matching geographic options against the screening criteria they listed in question one, then will give a quick summary of the pros and cons of each criteria in each geography. The interviewer can help the interviewee set the chart up but should let the interviewee take the lead on walking through the analysis. This question is highly qualitative and intended to test the interviewees' judgment and communication skills.

- Here is an illustrative Chart

<table>
<tr><th></th><th>Neighboring site</th><th>New site in existing state</th><th>Neighboring state</th><th>New state</th></tr>
<tr><td>Mission fit</td><td colspan="2">Pro: knowledge of local youth; relationships with policy makers and school admins
Con: might not spread model</td><td colspan="2">Pro: would spread model
Con: need new relationships, regulations could differ and affect operations</td></tr>
<tr><td>Financial fit</td><td colspan="2">Pro: model already approved for funding, ability to move staff / hire easily
Con: might hit funding limits</td><td colspan="2">Pro: access to new sources of funding, higher national profile
Con: districts / states might not fund model</td></tr>
</table>

Math Solutions (1)

ANSWER: Question 2/Exhibit 1

	Current	Additional costs
Staff	$750K	$600K
IT	$110K	$80K
Office expenses	$115K	No change
Training and support	$25K	$55K
Total central office costs	$1,000K	$735
Cost per site	$1,000K / 8 = $125K	=$1,735K / 15 = $115.67K

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Math Solutions (2)

ANSWER: Question 3/ Exhibit 2

Column	A	B	C	D	E
	Average Enrollment, HS	Annual % Change in at risk youth, 2015	# high schools	HS completion rate	2014 % of enrolled students with GPA of D or lower
Worcester, MA	1000	-10%	3	70%	30%
Nashua, NH	800	-5%	2	75%	25%
Barrington, CT	800	10%	1	75%	20%
San Mateo, CA	1300	1%	4	85%	20%

Column	F	G	H	I	J	K
Formula	A*C	F*(1-D)	(F-G)*E	G+H	I*(1+B)	J/F
	Total Enrollment	Dropouts in 2014	Low GPA Students	Total at Risk, 2014	Total at Risk, 2015	Total % of Students at Risk, 2015
Worcester, MA	3000	900	630	1530	1377	46%
Nashua, NH	1600	400	300	700	665	42%
Barrington, CT	800	200	120	320	352	44%
San Mateo, CA	5200	780	884	1664	1681	32%

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Solution and recommendations

Solution & Recommendations

- The case is designed to indicate that the client should focus on existing states, and perhaps on neighboring states. The client should not consider expanding outside its existing geographic foot print in New England.
- The interviewee should note that the client benefits financially from scale, but that a financial analysis does not indicate a geographic area for expansion. From a mission perspective, existing and neighboring geographies provide the highest density of at-risk youth. New geographies in existing states are also promising from a mission perspective. Thinking further about non-financial benefits from scale, as should be done in question 4, should also indicates that growing within existing states or in neighboring states poses fewer risks for the client.

Exhibit 1: Addt'l central costs from expansion

	Current	Additional costs
Staff	$750K	$600K
IT	$110K	$80K
Office expenses	$115K	No change
Training and support	$25K	$55K
Total central office costs		
Cost per site		

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Exhibit 2: Representative data on at-risk youth

	Average Enrollment, HS	Annual % Change in at risk youth, 2015	# high schools	HS completion rate, class of 2014	2014, % of enrolled students with GPA of D or lower
Worcester, MA	1000	-10%	3	70%	30%
Nashua, NH	800	-5%	2	75%	25%
Barrington, CT	800	10%	1	75%	20%
San Mateo, CA	1300	1%	4	85%	20%

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CONTENTS

Industry Research Overview

A tailored approach to industry research can help you prepare

- Provides insight into industry-wide trends and revenue/cost drivers
  - Allows you to make a more nuanced framework or tack on an additional piece of industry-specific analysis
  - May point you toward sources of issues in cases
  - Can be helpful in Q&A with your interviewers about their own work
- Spend your limited time well
  - No need for extensive research on industries in which you already have significant prior experience or knowledge
  - Read high-level industry summaries (such as those on the following pages) to gauge whether anything is completely new to you
  - Consider reading in-depth guides for industries that
    - Are completely new to you
    - You seek to specialize in
    - You know will come up in interviews (e.g., due to industry focus of firm)

List of Industry Overviews

This section includes brief overviews of 19 industries that are likely to come up in interviews

- Industrial Goods
- Energy
- Airlines
- Automotive
- Online Services and Storage
- Computer Software
- Hardware and Digital Devices
- Semiconductor
- Pharmaceuticals
- Medical Devices
- Hospital Facilities
- Healthcare Payers
- Banking and Financial Services
- Media and Entertainment
- Telecom
- Retail
- Household Durables
- Household Non-durables
- Restaurant
- Non-alcoholic Beverages
- Beer, Wine and Distilled Spirits
- Mining and Precious Metals
- Utilities

Industrial Goods

Overview

- Large and diverse industry that provides products/services primarily used to produce other goods
- Main sectors
  - Electrical Equipment and Components
  - Industrial Automation/Heavy Machinery
  - Construction and Engineering
  - Aerospace & Defense
- Key Players include: GE, Siemens, Cummins, Boeing, Lockheed Martin, Northrop Grumman, Eaton, Honeywell, Raytheon, 3M, Caterpillar, Emerson Electric, Fluor, Tyco, Waste Management, Bosch Rexroth

Trends

- Tighter consumer spending has led to reduced production and stagnant growth for the industry
- Industry has seen increasing consolidation over the past few years; Most sub-segments are Oligopoly
- Emerging markets are key for growth as they are quickly developing and increasing production capacity for a variety of goods
- Local assembly is common since components are easier to ship than finished goods

Drivers

Revenue

- New Product Innovation
- Product quality and reliability including after-sales service
- Specialized products for various customer segments

Cost

- Raw materials including oil, natural gas, metals,
- Human capital costs including engineers, labor/manufacturing force and sales force
- R&D

Energy

Overview

Major E&P players like BP, ExxonMobil, Pertrobras, Aramco are involved in both upstream and downstream.

Upstream Steps:

1. Exploration: Finding oil, including geological exploration, research, and purchasing/leasing land. Offshore is leased from gov't through auctions
2. Drilling. Companies drill exploratory wells to determine size; if satisfactory, add'l wells are developed. Overheating can cause explosions ("blowouts").
3. Well Completion. Post drilling, engineers put cement in the walls

Steps 1-3 are often contracted out from E&P firms to firms like TransOcean. Delays are very expensive ($500k a day), and may be charged to contractors; but E&P firms make decisions

Downstream Steps: Production → Refining → Marketing

Liability for spills is extremely costly ($1-4k per barrel spilled, 205M gallons est. spilled)

Trends

New Legislation Post –BP oil spill the industry is likely to experience major changes.

- A hodgepodge of oversight agencies granted exceptions to rules, as government agencies needed to both foster and police the industry
- A mix of companies is in charge of each rig, and their interests are not always in sync (see **delays** under overview, eg for maintenance)

Foreign countries maintain their own oil standards

State-owned oil companies like Saudi Aramco and Petrobras are sitting on enormous oil reserves, but cannot exploit it as efficiently as public companies

New players in China (supported by government) is entering the OEM and shipping industry

Drivers

Revenue Drivers

Outside Factors: economic environment (GDP growth), supply, consumption and demand level, oil and gas inventories.

Prices of oil, gas, and refined products are the most watched factor in energy.

Key measures: Supply and demand of oil and natural gas, rig count, rig utilization rates, rig dayrates and daily margins

Drilling companies: provide the rigs and operate them, either on a project or long-term contract basis, with **rates charged by the day (popular among offshore drilling), foot drilled, or all-inclusive basis**.

Wide range of services, including: pressure pumping, wireline, directional drilling and measurement while drilling (MWD), and marine support

Cost Drivers

Upstream - exploration and production expenditures; Midstream – transportation, and storage costs; Downstream – refining and marketing costs.

OPEC: influences global price.

Airlines

Overview

- Airlines provide air transport services for passengers and freight
- The industry was deregulated in 1978 free from government control of fares, routes, merger and acquisitions. This helped to completely transform air travel from a luxury to a mass-market service

INDUSTRY STRUCTURE:
Major Airlines: revenues > $1B
National Airlines: revenues $100 M - $1B
Regional Airlines: revenues < $100M
- Airlines is a low-margin industry

COMPETITION
- Price Competition: airlines compete to provide the lowest fares to the passengers
- To attract leisure travelers they advertise huge discounts
- Niche players like JetBlue, Southwest, and Spirit have entered

Trends

MERGERS
The industry has seen a lot of consolidation in recent years. There are 3 major US carriers, down from 6 a few years ago (eg, United/Continental Delta/Northwest)

BANKRUPTCY:
Mergers primarily happened as the due to several airlines filing for **bankruptcy and going out of business**
There has been a barrage of bankruptcies in the industry. More than **20 airlines** have filed for bankruptcy in the last decade

Potential problems of declining revenue:
- Inefficient network: look at route profitability and see if some of the routes could be eliminated
- Poor use of fixed capacity: increase volumes to tackle this issue

Drivers

Revenue Drivers
Airlines have been really creative to add several revenue streams to their business
- Passenger fares
- Mail and cargo charges
- Meals / alcohol in flights
- In flight entertainment
- Extra baggage/seat prices

Customers are broadly categorized as:
- Leisure: highly price sensitive
- Business: not price sensitive, hard to reach

Cost Drivers
Airline industry is **capital and labor intensive**
Fuel: Fuel costs are highly volatile and can range anywhere from 25% - 40% of the total cost for an airline
Labor: costs in 2009 was 26% of the total cost. Labor is unionized, and pilots have few substitutes
- Includes pilots, attendants, ground services, dispatchers, maintenance, customer service

Equipment: is around 10% of the total cost
- Some airlines lease fleets rather than buy

Automotive

Overview

The automotive industry is engaged in the design, production, marketing, sale, and servicing of motor vehicles.

New light vehicle sales in the US expected at **11.7 million for 2010**. **Volume increase is forecasted** in 2011, to 13.5 million.
Heavy capital commitments required to keep pace with product development and model changeovers.
Demand is naturally affected by economic environment.
Auto parts manufacturers highly fragmented: produce original parts and accessories for new vehicles, replacement parts, and accessories for older vehicles, or both

Labor is often unionized and wields power.

<u>Competition</u>
Extremely competitive. The US is the world's most competitive auto market.
Detroit Three losing market share: GM, Ford, and Chrysler. The top three foreign companies have a combined US market share of 41.5%: Toyota, Honda, and Nissan.

Trends

US share of global market shrinking: In 2009, China overtook the US as the largest market for new vehicles. US accounted for **16.3% of global demand**.
Demand in developing markets, including the BRIC economies, is projected to outstrip that of the world's mature markets.
US and global sales to advance. Production in NA was up 70% in the first quarter of 2010. Europe may lag.
Companies in China, Russia, India to make **acquisitions in the US.**
Alternative fuel and hybrid vehicles – All automakers are developing the technology: ethanol, methanol, natural gas, and electricity derived from batteries or solar power.
Auto parts – online procurement has changed the business, with increased transparency pressuring selling prices for commodity items.
Bankruptcy: GM, Chrysler, GMAC (auto lender) and suppliers filed for bankruptcy and some for bailouts in 08/09
Distribution: Main channel is – dealership model**.** Rapid consolidation in recent years.

Drivers

Revenue Drivers
Factors affecting new car sales: changes in style, engineering, safety, quality, cost and availability of gasoline and insurance.
Price increases are limited. Rising competition in NA and Europe has restricted manufacturers' pricing power.
Demand, sales rise during sustained economic growth and plentiful employment.
Tactics to stimulate demand: discounts and cash rebates, (dealers' discounts,) financing at lower interest rates, eliminating options on a model to offer a low-priced alternative.

Cost Drivers
Capital expenditures of 2010: GM $6.0 billion, Ford $4.5-5 billion, Toyota $8.1 billion.
Costs breakdown: plants, raw materials, design, production, labor, distribution, marketing, and customer service.
Suppliers: number shrinking, due to globalization, reduced volume from US automakers, high material and labor costs.
Oil prices and raw material prices
Cost cutting tactics: higher unit production volume, savings on parts and labor, improved manufacturing efficiencies.

Online Services and Storage

Overview

The online industry consists of companies that provide virtual-environment services and products, including data search, cloud data storage, social networking, big data analytics, music and video streaming, e-Stores (fashion, media, etc.), news and gaming.

INDUSTRY STRUCTURE:
Total Revenues: ~$1.8Trillion
Industry Leader in Revenues:
Google ($29.3 Billion)

COMPETITION

- Innovation: companies try to differentiate themselves by investing heavily in innovation, or "the next big thing", such as YouTube, Facebook or eBay, most of which are monopolies in their own specific market.
- In the consumer world, major players include online services companies such as Google or DropBox, e-Retailers such as Amazon and Gilt, entertainment providers such as NetFlix and Hulu, and social networks such as Facebook and Twitter. In the business arena, companies such as IBM, McKinsey, Accenture and other professional services companies are taking the lead.

Trends

CLOUD COMPUTING:
A wide variety of service providers are battling over the right to provide consumers with free cloud based services, most notably storage (DropBox, Google Drive, Amazon Cloud Drive), productivity (Google Docs, Microsoft Office Live), CRM (Salesforce) and professional services (Quickbase, Bill.com).

BIG DATA:
The huge amount of information out there serves not only as an opportunity for companies to study, analyze and predict market trends, but also as an essential tool for survival.

CYBER SECURITY:
Both in the private sector, where many have already entrusted the web with their most intimate information, including bank accounts, emails or work, and in the more global aspect, cyber warfare, spying and intelligence gathering have all increased the need for highly developed cyber security services, to protect both corporate secrets and peoples' lives.

Drivers

Revenue Drivers
In the consumer market, most services are given for free, where most revenues come from advertising and data collection. Some services/products are given for a subscription fee, and some (usually e-retailers) usually come from direct sales. In the business sector, the ability to provide expertise to increase value for clients, where many companies are quickly transitioning themselves from conventional services firms into "one-stop-shop" firms, mostly among consulting companies, accounting firms and technology firms, allow such companies to charge service fees.

Customer base is very broad, i.e. not limited solely to ultra-techy consumers, but also to sophisticated business people, organizations and consumers with low-to-intermediate level of technical experience.

Cost Drivers
The online industry relies heavily on innovation (a large portion of which comes from M&As of startup companies), customer relations and IT infrastructure. Conventional costs such as physical stores, fragmented inventory space and manpower are very low.

Computer Software

Overview	Trends	Drivers

Overview

The software industry includes businesses for development, maintenance and publication of software, including productivity suites, games, mobile apps, hardware-specific software (both firmware and custom made software) and operating systems (including mobile platforms).

INDUSTRY STRUCTURE:
Total Revenues: $303Billion (in 2010)
Industry Leader in Revenues:
Microsoft $69Billion (in 2010)

COMPETITION

- Software companies compete not only with other software companies, but also with other technology-based services providers, by focusing on specific clients – whether by creating simple and cheap mobile apps for clients on the go, or niche expertise-based products for sophisticated clients.
- Major players include very large companies such as Microsoft, IBM, Oracle, Symantec and Adobe, which focus on the working environment, and of smaller companies such as Electronic Arts, which focus on gaming across multiple platforms.

Trends

DIGITAL TRANSFORMATION:
For the last few years, there is an apparent slowdown in growth in the software industry, where gains are achieved through operational performance rather than technological innovation, and growth is accomplished through mergers rather than organic development. Due to convenience issues, piracy and security risks related to software-based ecosystems, the tech world is moving towards online services and mobility. Other than switching to other, software developers are also either focus on smaller & simpler versions for the consumer market (mobile apps) or on much more sophisticated software for the business market, mostly for CRM, IT systems, database and online services.

MICROSOFT RISE AGAIN(?):
Despite overwhelming criticism regarding its lack of innovation and inability to create value in the longer term, Microsoft managed to retain its dominance in the productivity software market with its Office cash-cow, while introducing the much anticipated Windows 8 OS, which draws positive attention.

Drivers

Revenue Drivers
The industry experienced very few changes in such respect, as revenues are based mostly online and retail sales, service and client support fees, annual subscriptions and licensing fees.

The customer base has changed in the past couple of years: regular consumers are interested more in simple friendly software rather than sophisticated do-it-all software, and businesses are worried that constant innovation will harm their competitiveness if they commit to the wrong software, and are interested more in “renting” a dynamic software rather than buying a product that requires high implementation costs. Therefore, the software industry focuses on the 2 “extremes”: the relatively low-tech customers and ultra-sophisticated ones.

Cost Drivers
The biggest cost software companies traditionally faced was related to the development of the products. In the past, the huge allure of the software industry was its relatively low operational costs once the product has been developed, and such costs have shrunk even more in the last few years due to online distribution. However, piracy has plagued most of the software industry and increased the cost of protecting the companies’ intellectual property.

Hardware and Digital Devices

Overview	Trends	Drivers
The Computer Hardware industry consists of companies engaged in assembling and manufacturing computers, computer hardware and computer peripherals, including storage devices, keyboards, printers, monitors, mouse and other pointing devices, Webcams and PC cameras. **INDUSTRY STRUCTURE:** **Total Revenues**: $842.1 Billion **Industry Leader in Revenues**: Apple ($156.5 Billion) **COMPETITION** •Price/Feature Competition: companies try to differentiate either by selling at low prices and relying on complementary products, or by increasing consumer benefit through innovation and features. •Major players include manufacturers such as Apple and Samsung, but also Google, which does not manufacture but has tremendous influence over the industry due to its Android mobile operating system and its collaboration with manufacturers such as LG.	**MOBILE COMPUTING:** During the last decade, we experienced a major shift from desktop computing to computing-on-the-go, mainly due to growing popularity of smartphones and the emergence of tablet computers (see below). Cloud computing reduced the need for physical storage, while constant improvement in speed and reliability of mobile internet connectivity allow consumers to communicate, work and play anytime and anywhere. The recent growth also led to increased revenue by component manufacturers (ARM, Broadcom, Samsung) and demand for online services. Tablets and smartphones are estimated to have cannibalized more than 20% of the computer industry. **TABLET WARS:** Despite continuous dominance by the iPad (50.4% market share), industry behemoths such as Microsoft (Surface), Google (Nexus), Amazon (Kindle) fiercely compete over the tablet industry, though most profits do not come from units sold but from complementary products (such as apps and cases).	**Revenue Drivers** Companies seek to add revenue streams to their business • App and digital content stores for Smartphones and Tablets • Advertising through mobile apps • Collaboration with peripheral product manufacturers (such as keyboards, casing, headphones and audio systems) and with mobile telecommunications companies. Customer base is very broad, not limited solely to ultra-techy consumers, but also to sophisticated business people and consumers with low-to-intermediate level of technical experience **Cost Drivers** The hardware industry relies heavily on component manufacturers, which are exposed to variance in material prices), environmental regulation, and cost of labor (as most manufacturing is done in developing countries). Hardware companies are also required to invest heavily in R&D.

Semiconductor

Overview	Trends	Drivers
Industry: The research, development, production, and marketing of semi-conductors **Products:** Industry is made up of four product categories: 1. **Memory** – Memory chips are temporary storehouses of data and pass information to and from computer 2. **Microprocessors** – central processing unit that contain the basic logic to perform tasks 3. **Commodity Integrated Circuit** – "standard chips" – produced in large batches for routine processing purposes 4. **Complex SOC** – "System on a Chip" – integrated chip with entire system's capability on it **Key Ratios/Terms:** **Moore's Law** – number of transistors on a chip doubling every two years **"Fabless" Chip Makers –** semi-conductor companies that carry out design and marketing, but outsource the actual manufacturing **R&D/Sales** – research and development expenses as a percent of sales – want high % **Yield** – # of operational devices out of all mfg.	**Growth:** • Semi-conductor industry is highly cyclical • Companies face constant highs and lows for demand of their product • Growth trends track closely with demand for personal computers, cell phones, and other electronic equipment **Trends:** Traditionally, semi-conductor companies have controlled the entire production process, but in order to be lean, efficient, and effective, they are moving away from that model: • Successful companies must be smaller, faster, and cheaper • Chip makers are beginning to delegate manufacturing to foundry companies (whose sole business is manufacturing) • Noticeable increases in specialized designers and chip testers **Competition:** • "Fabless" companies overcome barriers to entry related to large capital requirements • Foundries gaining supplier power because of cutting-edge equipment and production skills • Intense rivalries between companies	**Revenue:** Revenue = Price of chip x quantity sold • Due to Moore's law and the competitive nature of the industry, it is not uncommon for the price of a new chip can fall by as much as 50% in a short time period • By nature of the process, there is a long lead time with product releases, so it may take years before a company sees revenue for certain products **Costs:** • Semi-conductor companies live and die by their ability to be cost efficient • Constant pressure from market and customers to develop better, cheaper products in a short time frame • As noted above, each product has a long lead time, so a company will incur costs for a long time before that product generates any revenue • As noted in "Trends", historically complete process companies have outsourced some of the production process in order to be more lean and cost efficient

Pharmaceuticals

Overview	Trends	Drivers
• Historically among the world's most profitable industries • Total domestic expenditures for prescription drugs were roughly $234.1B in 2008, and is increasing • Worldwide sales are expected to increase 5-8% per year (similar figures in the US), and reach $1.1 trillion in sales by 2014 • In 2009, the US and Europe markets made up approximately 39% and 32% of the world wide market followed by Asia, Africa, and Australia (12.7%), Japan (11.3%), and Latin America (5.7%) • Typically high economic, regulatory and legal barriers to entry	• The growth of the industry has been supported by an aging population (in developed markets), lengthening of the life expectancy, and rising incidence of chronic diseases • Emerging markets are leading industry growth; CAGR is expected to be 14-17% through 2014 • Patent expirations are expected to peak in 2011-2012; resulting revenue loss has forced many companies to downsize to maintain high levels of profitability • Large pharma companies are increasingly relying on purchasing or partnering with young / niche firms to create growth • Uncertainties introduced by PPACA ("Obamacare") and lagging drug approval times by FDA is expected to slow growth • Insurers are getting increasingly more stringent on which medications they will reimburse	Revenue • New products – premium-priced breakthrough therapies that open new markets • Patent protection – commercial life of a branded drug is approximately 10 years • OTC – some pharmas are introducing OTC versions to combat generics when patents expire Cost • R&D – costs higher than any other industry; can take 10+ years for new drug development • Sales and Marketing – US companies spend approximately $20B/year on promotions

Medical Devices

Overview	Trends	Drivers
<u>Industry Definition:</u> any healthcare product that achieves its intended purpose *not through* chemical action or being metabolized **<u>Products:</u>** devices range in complexity from tongue depressors to multi-million $ imaging equipment. - Most common are surgical appliances/supplies, surgical & medical instruments, electro-medical equipment, in-vitro diagnostic substances, irradiation apparatus (typically x-ray), dental & ophthalmic (eye) goods **<u>Key Stats:</u>** US industry includes about 11,000 companies with combined annual revenue of over $150 billion. Globally, the industry generates annual revenue over $400 billion. Major markets include the US, Japan, Germany, France, and Italy. - Industry is concentrated: 50 largest companies account for ~60% of revenue **<u>Major Companies:</u>** include Baxter International, Boston Scientific, Johnson & Johnson, Medtronic, GE & St. Jude	**<u>Growth:</u>** industry revenue is projected to grow on average 6.6%/yr. from 2012 to 2017 **<u>Trends:</u>** - Uncertainties introduced by PPACA ("Obamacare") and lagging device approval times by FDA is expected to slow growth - PPACA contains med device tax -will cost the industry $20 billion over the next decade - Increased government regulation around the globe threatening growth - Recent difficulties in retaining qualified manpower to design and produce devices - Aging population and increased access to care should help stem some of losses from forces mentioned above - Growing attention to healthcare in developing markets **<u>Competition:</u>** increasingly sophisticated pharmacologic products, growth in preventive medicine **<u>Barriers to entry</u>:** high for small players; economies of scale and access to capital are critical to negotiate complex regulatory and approval processes	**<u>Revenue Drivers:</u>** - expanding emphasis on healthcare in developing countries - standardization of regulatory requirements across countries - Growth in elderly population means increased demand for devices - Improved patient longevity due to higher quality healthcare - Innovation in product development due to strong scientific progress **<u>Cost Drivers</u>** - Research and development - Regulatory approval and compliance process - Federal and local taxes - Sales and marketing operations

Hospital Facilities

Overview	Trends	Drivers
Acute care hospitals – 5,815 in 2008. Non profit entities account for 82% of this segment. Total revenues in 2008: $608 billion. Revenue CAGR (04-08) – 5.4% **Rehabilitation hospitals** (both stand-alone units & those attached to a larger facility) – 203 in 2008 **Psychiatric hospitals** – 447 in 2008; Avg. length of stay has remained stable at 9-10 days **Specialized hospitals** – orthopedics (25); obstetrics & gynecology (13); chronic disease (4); eye, ear, nose, and throat (6); & tuberculosis and other respiratory diseases **Nursing homes** – 15,531 in 2008, occupancy rate ~84% **Assisted-living facilities**, and home healthcare services.	**Patient Protection and Affordable Care Act (PPACA)** ("ObamaCare") reforms aspects of the private health insurance industry and public health insurance programs, increases insurance coverage of pre-existing conditions, expands access to insurance to over 30 million Americans, and increases projected national medical spending while lowering projected Medicare spending. **Shortage of Physicians and Nursing staff** : As the population ages the shortage of primary care physicians would aggravate **Highly regulated** by the government which is a key buyer for the hospital industry **Gov't:** account for 47% of healthcare spend **Healthcare reform** will extend healthcare insurance coverage to approximately 32 million of the previously uninsured by 2019 **Consolidation: T**o reduce costs, nonprofit chains or individual nonprofit hospitals being acquired and/or entering into JV arrangements with the for-profit chains	**Sources of Revenue:** **Inpatient admissions**: Has remained flat at ~118 admissions/1000 population **Procedures**: Decrease in admissions result of a shift towards procedures performed on an outpatient basis rather than in hospital **Reimbursement rates**: Controlled by gov't **Demand Drivers:** Increase in **unemployment** → **loss** of employer-based health coverage **Decline** in the rate of elective procedures **Shift** towards procedures performed in outpatient facility or physicians' offices that don't require an overnight hospital stay **New medical technologies** reduce or eliminate the need for hospitalization Increasing influence of **third-party payers**, **Ageing** population **Cost Drivers** Labor Costs (Doctors, Nurses, Admins) Uncompensated Care: high % bills not billed to insurance is written off as bad debt Taxes: non-profits are exempt from some taxes

Healthcare Payors

Overview

WHAT PAYORS DO:
- Underwrite (assume risk of, assign premiums for) health insurance policies
- Provide admin services for self-funded plans (e.g. employers providing benefits with own funds)
- Help manage individuals' care

KEY INDUSTRY STATISTICS:
- **Revenues/Profits:** $707.4B / 28.3B (4%)
- **CAGR '07-'12 / '12-'17:** 2.8% / 5.1%
- **Number of businesses:** 927

PRIMARY PLAN OFFERINGS:
- **Fee-for-service:** Provider paid on one-off basis; patient choice not restricted
- **Health maintenance org:** Payer and provider integrated and pre-paid; cheaper, but patient choice limited
- **Preferred provider org:** Mix of FFS, HMO
- **High deductible:** Lower premiums but higher out-of-pocket obligation; patient has incentive to use services efficiently
- **Pharmacy benefits**

Trends

HEALTHCARE REFORM

Directly pressures payors' bottom lines by:
- Eliminating coverage caps, denials based on pre-existing conditions, etc.
- Increasing medical loss ratios (% premium dollars payers must spend on healthcare, with remainder going to admin and profit)
- Increasing gov. scrutiny of premium hikes
- Forcing payors onto exchanges for individuals; more price competition, less G&A scale than with employer groups

However, the law will bolster top-line growth by growing the insured population

COMPETITION
- The top four payors have ~35% share; the rest of the market is fairly fragmented
- Slow but steady consolidation expected to continue given profitability issues

MACROECONOMIC ENVIRONMENT
- Recession precluding payors from increasing premiums in line with healthcare cost inflation

Drivers

REVENUE DRIVERS

Payor revenues are largely dependent on external factors:
- Total health-related expenditures
- Number of physician visits
- Number of employed individuals
- Age of population
- Regulation and legislation

Payors also attempt to steal market share from one another by differentiating on:
- Steeper discounts on provider charges
- Broader network coverage
- Lower administrative fees
- Add-on services (e.g. case management)
- Attractiveness to individual consumers (once exchanges go live in 2014)

COST DRIVERS
- Purchases of medical and Rx services/ products) comprise ~72% of costs; influenced by utilization and cost inflation.
- Relative to other sectors of healthcare, the health insurance industry is neither capital nor labor intensive.

Banking and Financial Services

Overview	Trends	Drivers
Diversified Financial Services firms: large financial conglomerates (e.g. JP Morgan Chase & Co.) which combine insurance, securities, and lending businesses **Consumer finance firms**: primarily lend money to consumers: mostly through small to midsized loans ($1,000 to $75,000). The main products include home equity loans, credit card loans, etc **PE/VC firms**: invest in and help manage or guide businesses with hopes of company growth resulting in profits from a later sale (Additional Types under **Drivers**) **Interest Rates** are at zero, meaning banks will make no money by investing in government bonds. This is the federal reserve encouraging banks to lend money Customer deposits in banks are FDIC insured up to $250,000, meaning the government will make you whole if the bank loses that money	As a result of recent financial crisis, **regulations have increased** (controlled by Treasury Department, The Federal Reserve, House and Senate bills) The US government intervened in 2007-09 to lend money to banks, insurers, and other key players to keep the financial system afloat. **Consolidation of banks** Trend towards large "financial supermarkets" like Citi may be reversing, as many large banks sold off divisions for needed cash during the downturn Post- financial crisis, many financial institutions have stopped **proprietary trading**, or placing bets with their own assets. The Dodd-Frank act, which has not been fully implemented, includes **new and consolidated federal regulatory agencies**, stricter **capital requirements** for banks, and regulates the trading of certain **derivatives**.	**Revenue Drivers** **Commercial Banks** earn money by reinvesting customer deposits in higher-yielding funds or lending at higher rates and charging transaction fees **Investment Banks** charge fees for advising corporate and governmental clients on mergers, acquisitions, restructuring, and debt and equity issuances **Insurance Companies** earn money by taking in monthly premiums from customers, who receive a payout if an event occurs **Credit Card Companies** (Visa / Discover) earn fees from customers and merchants by handling the complex processing necessary. AMEX does the same, but also lends the customer money. **Cost Drivers** **Research** (whether to buy/sell securities, or suggest a specific merger) **Salary and benefits, supplies, insurance.** **Losses on investments** like loan defaults **Risks**, such as a sudden demand from many customers to redeem their money

Kellogg School of Management Consulting Club

Media and Entertainment

Overview

- Media and entertainment companies create, license and / or distribute content (TV shows, movies, music, news, video games, books, magazines, radio shows, advertising, etc.)
- The industry has long been known for conglomeration; developing and acquiring multiple brands and multiple distribution channels for their dissemination

INDUSTRY STRUCTURE:

Total: Global revenues of $1.5 T
Consumer / End-User Spend: $1 T
Advertising Spend: $500 B

- The leading 10 companies in the industry account for one third of revenue
- This includes some cable, telecom, hardware, software and internet spend which is hard to split from "content"
- Other national or regional conglomerates and digital startups comprise remaining revenue

Trends

MACROECONOMICS:

Consumer and advertising spending on M&E is tied to economic growth, though some segments (cable, internet access) are resistant to downturns and / or more impacted by secular trends. Annual growth slowed in 2008 and the industry retracted by 2.4% in 2009. Growth has rebounded to ~4.5% since then.

DIGITAL:

The biggest long-term issue for industry players is how to put content online. The internet poses a number of challenges:

- Lowered barriers to entry for creating / distributing, increasing competition
- Increased piracy due to high-speed connections and illegal download sites
- Consumer expectations of lower priced / free content, available on-demand
- New intermediaries and lack of standards (Google search, iOS vs. Android app platforms, new ad formats)
- Limitless advertising inventory and less consumer attention, reducing ad prices
- Distribution and standing out harder given huge libraries (Amazon books, iTunes)

Drivers

Revenue Drivers

Depending on the company's focus, the below revenue mix differs. There has been a lot of experimentation in adapting these business models to digital age:

- **Consumer / end-user**: More of a focus on subscriptions, multi-device access and free or "freemium" with micro-transactions
- **Advertising**: More of a focus on direct response and tying ad exposure to purchases or clicks, also use of web usage data to micro-target, raising privacy issues
- **Licensing / distribution:** More focus on retransmission fees TV networks charge to cable cos. and revenue shares with online marketplaces

Cost Drivers

The M&E industry is **labor intensive** in terms of costs for "creative" talent and sales staffs, which can comprise 40% - 50% of costs for a company or project (one movie). **Marketing** also represents a large portion of costs, given the competition for consumer attention. Capital investments in digital technologies represent a newer but growing area of cost

Telecom

Overview	Trends	Drivers

Industry:
Made up of companies that allow people to connect all over the world through a complex networks of phones, mobile phones, and internet-linked PCs.
 	
Products:
This is not a comprehensive list, but it does provide examples of products from the Telecom industry:
• Telephone
• Fiber optics
• High-speed internet
• Radio
• Satellite communications
• Cell phone networks
 	
Key Ratios:
Churn Rate –rate at which customers leave for a competitor. Telecom industry has highest churn rate of any industry.
Average Revenue Per User (ARPU) – understand purchase level for each user
Broadband – high-speed internet access tech
Telecommunications Act – stimulate competition in the industry
	Growth:
	• Growth in this industry comes from services delivered over mobile networks
	
	Trends:
	• Deregulation and innovation changed the competitive landscape of this industry
	• Telecom companies are beginning to expand out of telecom and into enter other industry spaces
	  ◦ An example of this is Comcast entering the media and entertainment industry
	• The reverse is also true where outside industry companies are expanding into the telecom industry, e.g. Google Fiber
	Competition:
	• The telecom industry requires large capital investments upfront, which creates a potential barrier to entry for new entrants
	• No significant supplier power due to large quantity of equipment suppliers
	• Growing buyer power due to access to substitutes and the telecom becoming a commodity
	• Deregulation and receptiveness of the market has made this industry incredibly competitive
		Revenue:
		Revenue = subscription fee x # of subscribers
		
		• Subscription fee structure will vary by service offering and telecom company
		  ◦ Companies will try to maximize their revenue through the structure of their fee arrangement
		  ◦ Must be very conscious of industry pressures related to fee structure
		• Bundling services is a common practice in the industry in order to maximize revenue
		• Another opportunity for telecom companies to make revenue is to provide network connectivity to other telecom companies
		
		Costs:
		• Fierce competition in an essentially commodity market has led to cost competition between companies
		• Efficient billing systems are a way for companies to decrease cost and improve margins
		• Expanding a company's network and service offering are large cost drivers
		• Smaller players may have to pay for connectivity which will increase their costs

Retail

Overview

- Retail trade makes up $3.8 trillion in sales (second largest US industry)
- Retail industry is comprised of the following sub-industries:
  - General merchandise
  - Apparel
  - Consumer electronics
  - Home improvement
  - Office supplies
  - Drug retail
  - Automotive retail
  - Specialty
  - Food retail
  - Hypermarkets/super-centers

Trends

- The industry has generally been negatively impacted by the economy (discount retailers have done best)
- Due to frequent price promotions, lower profit margins are common in the industry
- Retailers are expanding their share of private label brands
- Many specialty retailers are selling services to differentiate themselves from rivals
  - Best Buy – Geek Squad, Staples – Copy Centers, Pet Smart – Grooming and Training
- Online sales are increasing faster than traditional retail sales (currently 3-4% of retail industry revenue)

Drivers

<u>Revenue</u>

- Promotions – retailers drive traffic through price reductions and in-store displays
- Consumer spending/confidence – retail industry is leading indicator for economic conditions (discount retailers generally do better in bad times than specialty retailers)

<u>Cost</u>

- Inventory management – critical to minimize cost, increase response times and increase profitability
- Real Estate – number of stores and location decisions are important given high fixed costs

Household Non-Durables

Overview	Trends	Drivers
Industry Definition: Manufactured products with useful life < 3 years **Products** • Household – soap, detergent, cleaning, paper towels, pet care… (US Revenue ~$100B per year) • Personal care: hair care, cosmetics, fragrances, skin care, oral care…(US Revenue ~$250B per year) **Major Companies:** P&G, Colgate-Palmolive, Ecolab, Henkel KGaA, SC Johnson, Nestle, Georgia Pacific, Kimberly Clark, International Paper, Estee Lauder, J&J, L'Oreal, Unilever **Competition:** Markets tends to be concentrated • Scale, shelf placement at retail critical and promotions critical • Small companies compete through product specialization or targeting local markets	**Growth:** Category is expected to grow at a low to moderate pace; most growth from emerging economies **Trends:** • Industry concentration • Power of key customers (Wal-Mart) • Focus on export growth to tap into middle class in emerging economies • Brand rationalization/optimization • Private label gaining share and improving in quality • Pressure for environmental sustainability, compliance and product safety • Increase cost and scarcity of raw materials • Growing demand for organic / environmentally friendly products • R&D– more advanced compounds / multi-use products	**Revenue** • Household products cash flow generally even throughout the year • Personal care products are seasonal with loading in first half of year • New product innovation • Marketing/Promotions • Brand equity / loyalty- insulates against switching & price wars **Costs** • Capital intensive significant investment to improve efficiency • Significant spends on marketing. sales and R&D • Raw materials costs significant as much as 50% of revenues • Futures contracts to protect cost of inputs • Environmental and other regulatory compliance in production / waste disposal

Household Durables

Overview	Trends	Drivers
Industry Definition: highly durable goods useful for at least 3 years **Products**: industry if often classified into two segments: • Electronics (Brown Goods) – TVs, A/V, computers, cameras, tools (>$500B globally) • Appliances (White Goods) – Refrigerators, AC, microwaves (~$160B globally) • Home furnishings/furniture are also often considered durables (~$400 globally) **Major Companies:** GE, Sony, Samsung, LG, Apple, Whirlpool, Panasonic, Xerox, Cannon, Philips, Furniture Bands International, IKEA **Competition:** A/V competes with PCs and games for in-home entertainment	**Growth:** Despite recession, demand surging as emerging markets (India, China, Mexico…) buy basic goods due to emerging middle class real estate expansion and access to credit **Trends:** • Slowing housing market in the US has directly impacted purchases • Raw material costs for appliances (oil and precious metals) increasing • US manufacturers losing market share to foreign producers • Demand for products that work with smart grid technology • Shift from brick and mortar to internet purchases • Scrutiny re: "dumping" products in competitor markets • Recent scandals re: working conditions in factories	**Revenue** • Cash flow partly seasonal (holidays, real-estate purchases) • Long purchase cycle means goods sold on higher margin • Demand often tied to fluctuations in real-estate market • International competition putting downward pressure on price • Planned obsolescence • Stiff competition and discounting **Costs** • Often carry large inventories • Capital intensive manufacturing and R&D processes • Compliance with regulation re: production and waste disposal • Currency translations and tariffs impact profit • Supplier network and sourcing • Distribution network and shipping

Restaurant

Overview

- Restaurant industry makes up $604 billion in sales
- Restaurant industry is comprised of the following sub-industries:
  - Quick-service restaurants (QSR)
  - Full-service restaurants
- One of the largest private sector employers (~13M jobs)
- Many QSRs operate as franchises

Trends

- Growth and profits have been hurt by soaring food and energy prices
- Explosive growth overseas, especially in QSR industry, due to strong economic growth and growing middle class in emerging markets
- Health and wellness concerns continue to pose problems for QSRs and have resulted in healthier menu options
- Newer “fast casual” restaurants like Chipotle and Panera threaten to steal market share from both QSR and full-service restaurants
- In general, restaurants have been negatively impacted by the economy and reduce consumer spending

Drivers

<u>Revenue</u>

- Food and beverages (usually the higher margin products)
- Merchandise
- Catering
- Franchising fees
- Licensing

<u>Cost</u>

- Labor – largest cost for restaurant operators
- Raw materials – accounts for roughly a third of sales
- Real Estate – number of restaurants and location decisions
- Other – product innovation, consumer research

Non-Alcoholic Beverages

Overview

Non-alcoholic beverages: (NA) industry is highly concentrated: 89% of US retail sales are a few companies: Coca-Cola, PepsiCo, and Cadbury Schweppes PLC (Dr. Pepper & 7UP)

Main NA beverage categories: 1) Carbonated soft-drinks 2) Bottled water (fastest growth) 3) Juice drinks 4) Sports drinks

Trends

Growth in soda is flat. Bottled water's growth will continue well into the future because of increasing demand for natural, organic products.
More manufacturers work with consumers to understand their packaging preferences

Hispanics, followed by Asian-Americans are fastest growing segments.

The low-carbohydrate trend is virtually nonexistent outside of the United States and the United Kingdom
Many US consumers believe that the "better-for-you" substitutes do not taste as good as the traditional brands, and a large majority of them remain committed to traditional high-carb, high-sugar foods.

Competition
Energy drinks is a **growing and competitive** segment. These drinks turn into fashion among youngsters.
Barriers to entry – not high for small players, however economies of scale and brand are important issues

Drivers

Revenue Drivers:
Increasing market share:
new segments (incl. international, especially emerging markets)
new products (incl. acquisitions of niche lines)
expanding distribution channels (cooperating with Wal-Mart Stores, etc)
Squeeze existing users more (premium labels, complementary products such as Coke and chips)
Innovation in product and merchandising strategies, such as the use of mobile internet and online shopping

Cost Drivers
Packaging – the cost of plastic increases over the years
Taxes - on inputs (eg sugar) and vice taxes (falls on end users – reduces demand)
Wages within the industry are noticeably higher than the national average

Beer, Wine & Distilled Spirits

Overview	Trends	Drivers
<u>Beer/Malt Beverages:</u> major products are malt beverages, primarily beer. Major companies: Anheuser-Busch InBev (Belgium), SABMiller (UK), Heineken (Netherlands), MolsonCoors & Boston Beer (US) - Top sellers: Budweiser, Bud Light, Heineken, Corona, Skol, Stella Artois **<u>Wine:</u>** make wine and brandies from grapes. Major companies: Constellation Brands, E&J Gallo, & Jackson Family (US), Veuve Clicquot Ponsard (France), Gruppo Italiano Vini (Italy) Viña Concha y Toro (Chile) - Red & white containing ≤14% ABV (60% of market); Brandy, & other wines (15%); Dessert wine, coolers, & effervescents (~10%) **<u>Distilled:</u>** distill, blend, or mix liquors. Major companies: Brown-Forman (US), Diageo (UK), Kweichow Moutai (China), & Pernod-Richard (France) - Major products: whiskey & bourbon (10% industry revenues); cordials &liqueurs (10%); gin (5%). Other products include vodka, specialty liquors & bottled cocktails	**<u>Growth:</u>** **Beer –** forecast to grow at 3% CAGR between 2012-2016 **Wine –** forecast to grow at 2% CAGR between 2012-2016 **Distilled -** forecast to grow at 3% CAGR between 2012-2016 **<u>Tends:</u>** **Beer –** Consolidation: 8 largest brewers account for ~90% of industry revenue; success of small, independent craft brewers have influenced larger brewers; growing popularity for seasonal brews **Wine –** reliance on restaurant sales ties performance to food service sector, increasing demand from baby boom generation, agritourism (winery visits) **Distilled –** mixed fruity drinks increasingly popular, flavored malt beverages evolving, rise in grain prices **<u>Competition:</u>** Beer, Wine, Distilled compete against each other. Energy drinks **<u>Barriers to entry</u>:** not high for small players, however economies of scale and brand are important issues	**<u>Revenue Drivers</u>:** **Increasing market share:** **new segments** (incl. international, especially emerging markets) **new products** (incl. acquisitions of niche lines, increasing variety of products) **expanding distribution channels** (cooperating with Wal-Mart Stores, increasing importance of convenience stores) **Squeeze existing consumers** more (premium labels, other occasions for use) **Innovation in product development, packaging and merchandising strategies**, such as new flavored malt beverage varieties, use of mobile internet, sports and other event promotion **<u>Cost Drivers</u>** **Packaging & Other raw input costs** – continue to rise over time **Shipping –** heavy products and rising gas prices **Taxes & Regulation** – complex three tier distribution system and heavy federal/state taxation

Mining and Precious Metals

Overview	Trends	Drivers
<u>Industry:</u> Includes the constructing and operating mines as well as building and operating production facilities. **<u>Products:</u>** Products include a wide variety of precious metals including gold, silver, copper, diamonds, and lead. Gold is the most popular precious metal for investors. **<u>Industry Structure:</u>** • Industry is <u>not</u> vertically integrated **<u>Three types of firms</u>** 1. Exploration – explore and prove gold exists 2. Development – develop mines on sites that have proven that the precious metal exists 3. Production – full-fledged mining companies **<u>Key Ratios/Terms:</u>** **Mine Production Rates** – quantity produced **Scrap Recovery** – supply of metals from sources other than mines, e.g. old jewelry **Future Sales by Producers** – indicates producers expectations on future gold prices **Bullion** – refined metal that is high quality	**<u>Growth:</u>** Growth of each precious metal will be unique compared to other precious metals **<u>Gold</u>** • Growth for gold is inversely related to the stock market (i.e. it has a negative beta), so the gold market experienced large growth during the recent recession, but has decreased since the recovery of the market **<u>Trends:</u>** • Most gold that is mined today is used for jewelry as opposed to currency or other possible uses for gold and other precious metals • Technology has greatly changed the mining industry making it more efficient **<u>Competition:</u>** • High capital requirements creates a deterrent to entry to potential new entrants • Government regulations are main consideration for supply concerns • Substitutes are other precious metals • Do not compete on price, but do compete for land with other companies	**<u>Revenue:</u>** Revenue = output x the selling price of gold • Prices are determined by market forces • Output varies by demand and market price • Low operating costs allow a mine to have higher/more stable outputs at lower market price points and therefore increase revenue • E.g. if it costs a company \$250/ounce to produce, then they will not produce until the price for gold increases over \$250/ounce **<u>Costs:</u>** Main costs of production: **Location** – Understand cost in certain areas and risk due to political unrest **Ore Quality** – Oxide ores are better because it is easier to extract the precious metals **Mine Type** – Most underground mines are more expensive than open pit mines • Company's must manage costs in order to maintain good financial health and production levels in the face of volatile gold prices • Producers usually publish their cost of production in their annual report

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Utilities

Overview

Industry:
Generate, manage, and provide electrical power to the general population

Historically the industry was run by monopolies, but is now disintegrating into the following four supplier segments:

Supplier Segments:
Generators – Create electrical power
Energy Network Operators – Sell access to their networks to retail service providers
Energy Traders and Marketers – buy and sell energy futures and derivatives. Help secure electricity at a stable, predictable price
Energy Service Providers and Retailers – sells energy to end user

Key Ratios/Terms:
Power Purchase Agreements (PPA) – contract between power producer and its customers
Megawatt Hour – basic industrial unit for pricing electricity
Load – amount of electricity delivered
Federal Energy Regulatory Commission (FERC) – oversees rates and service standards

Trends

Growth:
- Consumption of electricity expected grow rapidly as the world becomes increasingly "electrified"
- Energy Information Administration (EIA) projects that 40% more electric generating capacity will be needed by 2020 to meet growing demand
- Short term direction of the market still remains a risky bet

Trends:
Utility companies are undergoing major changes due to:
- Regulatory changes
- Demand fluctuations
- Price volatility
- New competition

The once stable industry has become much more unstable and risky

Competition:
- High barriers to entry due to large capital requirements and significant regulation barriers
- Fierce rivalry between competitors because product is a commodity

Drivers

Revenue:
Revenue = $ per megawatt per hour x utilization

- Wholesale electricity prices are no longer set by regulatory agencies
    - This heightens the risk of uncontrollable price increases
- Forwards and future options provide energy buyers (not at the consumer level) the tools to help hedge against large volatility in price

- Utilization will vary by utility company and their market strategy
- See the "Growth" section for more information on short term and long term utilization projections

Costs:
- There are high fixed costs upfront in order to build new generation plants
- A lot of capital is required to enter the market
- Marginal costs are relatively low, i.e. it is not costly to offer one more kilowatt-hour to one more person
- Economies of scale are a very effective way to reduce costs in this industry

Additional Industry Research Resources

Several sources may help you further research specific industry topics

- For a basic overview
  - Industry overviews provided on consulting firm websites
- For more in-depth background on industry context and trends
  - Vault industry guides (note: these are lengthy!)
  - Investopedia – http://www.investopedia.com/features/industryhandbook/
- For in-depth information on revenue and cost drivers
  - Standard & Poor's NetAdvantage guides, which include guidance on how to effectively analyze and value companies
- For up to date information on industry developments
  - WSJ (can be accessed for free on CMC website's Factiva link)

All of these resources are public or can be accessed via CMC's Research Guide portal

KCC Case Book 2014

November 21, 2014

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Kellogg Case Book – 2014 Edition

- *If you have question or concerns please write to Ryan Mann at: rmann2015@kellogg.northwesten.edu*

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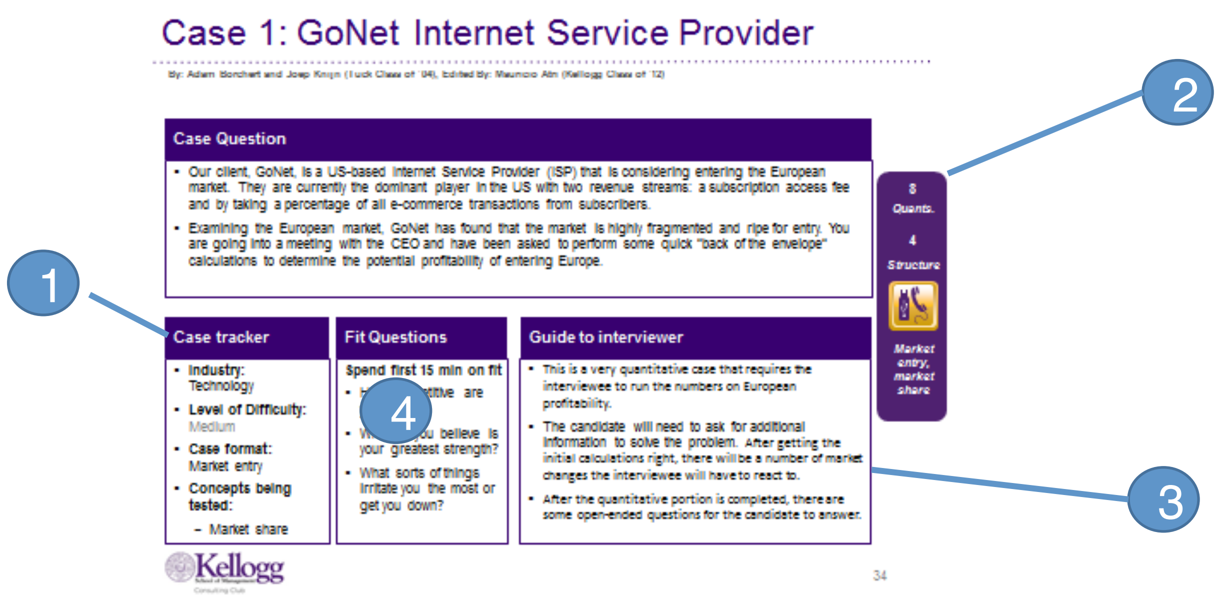
CONTENTS

The title page for each case contains details that will inform case selection

Using the case book

Overview of case title page



1	**Case tracker:**	**Provides overview on case including industry, format, and concepts tested**
2	**Status bar:**	**Includes ratings for quant intensity and structure (1 = low, 10 = highest), as well as industry logo, case format, and concepts tested**
3	**Guide to interviewer:**	**Contains the overview of the case and allows users to determine whether they should <u>give</u> the case based on its attributes**
4	**Fit questions:**	**Contains 3 fit questions to begin the interview. After fit, then ask the case question**

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The "Clarifying answers" page contains supplemental information and a suggested guide to the case's flow

Overview of clarifying answers and case guide page

Clarifying answers and case guide

1

2

Clarifying answers to provide	Guide to case
(Provide this information on request) Competitive dynamics – Highly fragmented industry – No information about market leaders or trends European industry overview – GoNet plans to capture a base of 10 million subscribers – Subscriptions will cost $20/month – The average GoNet subscriber purchases $1,800 of goods on the internet annually – GoNet receives 3% commission – Fixed costs are $1 billion annually – Variable costs are $110/subscriber annually	Part 1 – Quantitative discussion – This should be the meat of the case and should be completed before discussing any general or qualitative responses. Part 2 – Qualitative discussion – After navigating the math, ask the candidate the following questions: – 1) How could we reduce the fixed costs of investment? – 2) Would there be any reason to continue with the investment even if it looks like it will lose money? – 3) Are there are any other risks/benefits that GoNet should consider? – 4) How would you sum up the situation and what is your recommendation?

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1 **Clarifying answers:** **Contains information that is less crucial to the main solution path. This is for supplementary information such as: "we do not know the competitive dynamics" or "the market has been growing at GDP."**

2 **Guide to case:** **Lays out the ideal structure for the case and includes hints on how to walk through the interview/handouts, as well as when to show them to the interviewee.**

The “Key elements to analyze” page contains the analysis of the key case concepts

Overview of key elements to analyze page

Key elements to analyze

Market sizing
- How big is the apple market in Maine?
- Does this seem potentially large enough to continue investigating this product?

Cost savings
- What are the cost savings from using the chemical?
- The chemical allows the farmer to harvest 10 days sooner

Revenue increase
- How much additional revenue will farmers be able to generate?
- What is the total profitability increase (including cost savings?

Note to interviewer
- When asked, provide the following:
  - Maine has 200 orchards
  - Avg. annual orchard revenue is $30K/acre
  - Avg. orchard has 100 acres of land
  - Only one apple harvest per year
- Interviewee should calculate the market size based on info provided: ($30K/acre x 200 orchards x 100 acres/orchard = $600M)
- This is a significant market and warrants further investigation.

Notes to interviewer
- When asked to quantify the improvements, provide the following:
  - It costs $1.5K/night to maintain crops for 100 acre orchard
  - With the chemical, farmers are able to harvest crop 10 days sooner
- Interviewee should calculate cost savings per year using this information:
  - ($1.5K/day x 10 days / 100 acres = $150/acre/year)

Qualitative Assessment
- When asked to quantify additional revenue, provide the following:
  - Our client’s product improves the consistency of red apples and improves the yield by 10%
  - The sweetness factor is estimated to improve the juice yield by 5%
  - 25% of revenue comes from whole apple sales, 75% from juice sales
- Improved yield: ($30K/acre x 25% x 10% = $750/acre/ year)
- Improved sweetness: ($30K/acre x 75% x 5% = $1,125/acre/year)
- Total improvement (with cost reduction) = $2,025/acre/year

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1 **Concept box:** **Includes the key question or objective associated with a main case concept tested. The interviewee should naturally move to asking or addressing the information in this box, but you may need to provide a little “push” at times.**

2 **Notes to interviewer:** **Contains additional information that you may provide to the interviewee during an investigation of the particular case concept. This information is CRITICAL to the interviewee solving the case both numerically and conceptually.**

Industry logos

The following logos will be located underneath the quant/structure scores on the case title page to indicate the industry being covered

Financial Services	Shipping & Transportation	Retail	Airline	Tech & Telecom	Media & Entertainment	Other	Healthcare
Industrial Goods	Energy	Consumer Products	Travel & Leisure				

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Tips for effective pre- and post-case activities

Before meeting

Interviewer (delivering case)

- Ask the interviewee if they wish to focus on specific:
  - Case formats / concepts
  - Levels of difficulty
  - Industries
- Inform interviewee which case you plan to deliver to confirm they have no prior knowledge of the case
- Spend at least 30 minutes to review the case

Interviewee (receiving case)

- Inform your interviewer if you have specific areas for improvement
- Send the interviewer a list of cases you have already done
- DO NOT read the case ahead of time or discuss the case contents with peers!
- Bring plenty of paper to take notes!

After the case

Interviewer (delivering case)

- Provide detailed feedback (both positive and constructive) to interviewee
- Seek feedback from the interviewee on your case delivery

Interviewee (receiving case)

- Seek feedback from the interviewer on your case performance
- Review the case and log your performance in a "case tracker"
- Provide detailed feedback (both positive and constructive) to interviewer

Additional tips for giving an effective case

While there is no single "right way" to give a case, here are a few suggestions:

Take the interview seriously; pretend that you are a real interviewer

- While your interviewee may be your friend, providing a formal atmosphere will be much more valuable and provide a more realistic interview experience

Learn to be comfortable with silence

- While silence may be uncomfortable, resist the urge to jump in with pointers, hints, or additional information

Solve the case math on your own beforehand

- Not only will you gain practice with the math required, thinking through the approach may help you identify traps your interviewee may fall into

If you are not familiar with the industry, spend a few minutes quickly reviewing of the industry summaries (found in the back of this deck) or Vault.com

Case prep scoring: Provide tangible points that can be practiced and improved

1.- General feedback	Needs improvement	Good	Strong
Quantitative: comfort with complex math; shows math and logically lays out data			
Qualitative: conveys understanding of big picture takeaways; realistic thinking			
Creative: identifies different approaches to solve the problem			
Communication: strong listener, openly shares thought process, good body language			

2.- Case specific Feedback	Needs improvement	Good	Strong
Clearly understands and defines the problem/question; breaks problems into components			
Prioritizes analysis; Identifies critical path to the recommendation and most important issues			
Provides a structured and thoughtful approach to solve the problem (e.g. draw issue tree with critical pieces of analysis)			
Summarizes key findings through the solution of the case and translates them into insights or important takeaways			
Pragmatic/ realistic solution that answers the initial question with supporting evidence			
Assesses risks and consequences for the recommendation; identifies key next steps to further prove the solution			

Evaluation criteria (1/2)

Case skills and driving the case
Problem definition: Clearly understands and defines the problem/ question; summarizes the *essence* of the issue
Problem breakdown: Breaks problem into most important components
Structure: Uses a structured and thoughtful approach to solve the problem (e.g. draw issue tree with critical pieces of analysis)
Prioritization: Identifies critical path to the recommendation and most important issues/components
Information: Identifies and addresses key pieces of information and assumptions needed to solve the problem
Solution oriented: Formulates hypothesis when needed and maintains focus on the recommendation
80-20 approach: Deep dives into identified critical issues to develop a recommendation (80% of solution with 20% of analysis)
Recommendation: Ends up with a pragmatic/ realistic solution that answers the initial question; supported with the analysis

Communication skills
Structure: Shares thinking process throughout the case and aligns his communications with the structure of the case
Focus: Highlights key insights, important findings and critical issues
Questions: Ask clear questions related to the case process and solution
Engagement: Engages with the interviewer during the solution of the case
Support: Clearly supports any conclusion or important claim with relevant arguments
Business language: Feels comfortable discussing the case with business terminology
Body language: Communicates naturally and uses body language to support the communication process

Evaluation criteria (2/2)

Polish and interpersonal skills	Business sense and high level thinking
Self confidence: Shows confidence when solving and attacking the case without sounding arrogant	Creativity: Identifies or uses different approaches to solve the problem. Out of the box thinking; uses creative methods and arrives at creative solutions
Quantitative skills: Feels comfortable handling complex calculations and analytics; shows clear calculations and data framing	Synthesis: Summarizes key findings through the solution of the case and translates them into insights or important take-aways
Analysis: Deep dives in identified critical issues or components and comes up with a solution for each issue	Concepts: Clearly understands and uses the key business concepts to solve the case
Interpersonal skills: Drive a conversation and acts naturally	"So what" thinking: Clearly addresses and articulates what each analysis, conclusion or recommendation means to the case, solution or the client
Balance: Good balance of quantitative and qualitative analysis during the solution	Testing: Frequently tests assumptions and conclusions with reality checks or other quick analysis
	Assessment: Assesses risks and consequences for the recommendations; identifies key next steps to further prove the solution
	Business sense: Uses common sense and realistic thinking to get to pragmatic recommendations; has the ability to think from different perspectives (e.g. client, competitor, consumer, etc.)

CONTENTS

Broad Range of Business Concepts Evaluated

Each case will follow a specific format and cover multiple business concepts

Sample Business Concepts	
Quantitative focus	**Qualitative focus**
Accounting	Customer strategy
Basic NPV	Competitive analysis
Break-even analysis	Creativity
Capacity expansion/Contraction	Operations
Elasticity	Marketing strategy
Investments	Organizational changes
Macroeconomics	Pricing strategy
Market share	Supply/value chain
Market sizing	Vertical integration
Microeconomics	Brain teaser (rare)

Case Topics Vary

The following represent the most common case topics on which a case interview may be based (ranked in descending order of frequency)

Format	Focus
Profit improvement	Analyzing causes for recent drop in profits / ways to increase profits
Market entry	Analyzing a firm's opportunity to expand into a new business or segment
Opportunity assessment	Examining the potential purchase / sale of a new or existing business or installation / abandonment of infrastructure
Increasing sales	Identifying ways in which a firm can optimally increase sales
Merger / Acquisition	Evaluating whether a firm should merge or purchase another company
Market sizing	Determining the size, usually in terms of a firm's revenue potential, of a market
Industry analysis	Evaluating an industry's structure and/or desirability
Starting a new business	Similar to entering a new market; then taking an investment point of view
Growth strategies	Determining the optimal ways to grow a company
Developing a new product	Assessing a new product offering
Reducing costs	Identifying internal or external costs that are out of line
Competitive response	Evaluating ways to address a competitor's action (*e.g.*, new product launch)
Turnarounds	Gathering info on why company is failing and then suggesting corrective action

A Typical Case Flow (Standard Case)

5-10 min	20-30 min	5 min
Intro & Fit Interview	**Case Interview**	**Wrap Up/ Q&A**

Case Interview

1 Structure the problem (5 -10 min)	2 Develop Hypothesis (5 -10 min)	3 Deep Dive (15 min)	4 Develop Solution (15 min)	5 Synthesize (5 min)
• Summarize the essence of the problem • Ask clarifying questions • Structure thoughts	• Develop a hypothesis • Prioritize analyses	• Deep dive into priority areas • Make connections between information given throughout case	• Refer back to the initial problem and your hypothesis • Be creative • Ask 'so what?'	• Summarize recommendation for client • Lay out risks and next steps

Structure the Problem

1

Structure the problem → Develop Hypothe-sis → Deep Dive → Develop Solution → Synthesi-ze

- **Get the facts right – ask clarifying questions**
  - Make 100% sure that you understand the objective: e.g. if the objective is to be the market leader, clarify what this means (highest market share, revenue, profit?)
- **Summarize the essence of the problem**
  - Do not just repeat all of the facts back to the interviewer
- **Draw out your approach to solving the problem (i.e. framework)**
  - Try to include at least 2 levels of depth in your framework
  - Customize your framework to the case
  - Be MECE
- **Walk your interviewer through your framework**

Remember: since every case is unique, don't try to force fit standard frameworks!

Develop Hypothesis

Structure the problem → **2 Develop Hypothe-sis** → Deep Dive → Develop Solution → Synthesi-ze

- **Use the info provided to form an initial hypothesis**
  - For example, if the case asks you to determine whether to enter a new market, take a position (e.g., enter), and list out the questions you would need to answer in order to validate your hypothesis
- **Use your hypothesis to prioritize your analyses**
  - What is most important to look into first, second, and third?
- **Engage with the interviewer**

Deep dive into 1 or 2 areas

- **Treat your notes as “slides”**
  - e.g. separate pages for revenue analysis, cost analysis, profit analysis
- **Link various data points together**
  - Look at the case holistically and tie together information provided at various points in the case
- **Structure quantitative data “Excel-style” / in tables**
  - Before doing any calculations, write out your approach to solving the math problem (e.g., write the formula in words)
  - Turn the page around and walk the interviewer through your math structure (similar to how you would walk them through your framework)
  - Don’t start calculating numbers until you’ve received your interviewer’s buy-in that your approach will lead you to the right solution

Develop Solution

Structure the problem → Develop Hypothe-sis → Deep Dive → 4 **Develop Solution** → Synthesi-ze

- **Be sure to ask the 'so what' questions**
  - Don't just state the obvious; explain what each conclusion means for your client
- **Develop creative solutions**
  - Pressure test your solution
  - If you think the goal is not achievable then suggest alternatives
- **Always consider implementation implications, risks and mitigation**
- **Utilize your analysis to make a powerful statement – take a stand, don't hesitate**
- **Always end your case with a succinct recommendation**

A good solution is:

1. **Best among alternatives**
2. **Practical**
3. **Based on facts**

Synthesize

- **Take a moment to prepare your thoughts**
  - But be prepared for the "elevator test"(interviewer doesn't allow you time to prepare your thoughts)
- **Provide your recommend approach, backed up by facts**
- **List out risks that the client should consider when evaluating your recommendation**
- **Recommend next steps for analysis**

Tip: Highlight or circle main points as you go through the analysis to facilitate a concise summary

CONTENTS

What firms are looking for in a fit interview

- **Gravitas/Confidence** – Are you poised and professional? Can I trust you in front of a client?
- **Eloquence** – Can you speak concisely but accurately about complex issues? Do you communicate with impact?
- **Amicability** – Are you friendly and easy to talk to? Are you a good fit for our culture?
- **Engagement** – Are you excited to be here? Do you have positive energy and presence?
- **Leadership ability** – Can you lead a team through obstacles? What kind of impact can you make?
- **Drive** – Do you take initiative? Do you persist to achieve your goals? What kind of goals do you have?
- **Genuine Interest** – Do you really know what this job entails? Does your story make sense? Do you really know how one firm is different from another?

How to prepare for fit interviews

- **Know your resume inside and out**
  - Your resume is free game – ALL parts of it
  - Be prepared to answer detailed questions about any item on it
  - Have a couple of favorites – you may be given free reign to talk about one or more specific bullets
- **Know your personal stories inside and out**
  - Prepare 2 stories for each attribute (see next slide)
  - Memorize *broader content*, not a word-for-word story
  - Use the STAR-L (Situation, Task, Action, Result, Lesson) framework
  - Emphasize the decisions you made and the impact you personally had
  - The better you tell a story, the more memorable you will be
- **Review lists of typical fit questions and prepare answers**
- **Take advantage of video-taped CMC mock interviews**

How to define your stories (illustrative)

	Attributes					STAR-L				
	Leadership	Team Player	Drive/ Initiative	Intellectual Curiosity	Overcoming adversity	Situation	Task	Action	Results	Learning
Started a non-profit	✓		✓			As a retail banker, I noticed that many customers did not understand basic personal finance	I decided to start a non-profit that teaches financial education to underprivileged adults and teens.	1. I created a mission statement and business plan 2. I recruited volunteers and staff 3. I promoted the non-profit and found a venue for seminars.	We had 81 people in the first event, 200 in the 2nd, and over 500 in the final event. From these students, roughly 30% went on to buy a home	I learned how to successfully raise funds and effectively motivate volunteers/staff. I also got very comfortable presenting in front of large audiences
Built a value-based culture in my company	✓				✓	I owned a company where the overly aggressive sales team was making promises we could not keep to customers	Customers were outraged and I had to not only reprimand multiple sales people, but recreate positive momentum	1. I openly discussed the actions with all my employees and sales staff. 2. I led an initiative to create customer value code	While we experienced an initial dip in sales, annual sales increased by 20% and customer satisfaction metrics were higher than	I learned that I must always develop a value-based culture when building a team

Strong fit stories are clear, show individual impact, and highlight key learnings

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Your Stories Template

	Attributes					STAR-L				
	1.	2.	3.	4.	5.	Situation	Task	Action	Results	Learning
1. Story										
2. Story										
3. etc.										

Research your target firms' most emphasized attributes and fill in purple cells. Prepare 2 stories for each attribute. Each story should highlight 1 or 2 attributes

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General tips for fit interviews

- Use the pronoun "I"…not "We"
- Don't be modest, now is your time to highlight your accomplishments
- Be authentic
- Be energetic and enthusiastic
- Be specific and emphasize your decisions, not the context
- Make good eye contact and watch your posture and body language (fit interviews are your first impression!)
- Know why you really want to do consulting
- Practice, practice, practice

Most frequently asked fit interview questions

- Idle chit chat (What's your favorite class at Kellogg? Why?)
- Tell me about yourself…
- Why are you interested in consulting?
- Why are you interested in working at this firm?
- Why are you interested in this office?
- Can you tell me about [any bullet] on your resume?
- Tell me about a time you exhibited leadership skills/influenced a team/worked through adversity/failed…
- What makes you unique?
- Do you have any questions for me?

Sometimes asked: Goals, Career Questions

- Where do you see yourself in 5/10/20 years?
- Why did you pick your prior job?
- What experiences/skills do you feel are transferrable to consulting?
- What kind of work are you best at?
- Tell me about your most significant project/experience at your last job
- What is your most significant career accomplishment to date?
- What do you think consultants do?
- What motivates you?
- What would you change if you could start your career over?

Sometimes asked: Team Issue Questions

- Give me a specific example that shows you are a good team player…
- How do you manage conflicts in teams? Give me an example…
- Tell me about a time you influenced a group…
- What positive and negative things would your teammates and colleagues have to say about you?
- What was the best constructive criticism you received? How did you respond?
- What types of roles have you played in teams?
- How do you deal with a difficult superior?
- What was your greatest team accomplishment? What role did you have on the outcome?

Sometimes asked: Other Personal Questions

- How would you friends, family and colleagues describe you?
- Why did you choose Kellogg?
- What has been your favorite Kellogg class? Why?
- What has been your most significant experience so far at Kellogg?
- What are you passionate about outside of work?
- What is your GPA?
- What is your GMAT?
- How are your quantitative skills?

CONTENTS

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Case 1: GoNet Internet Service Provider

By: Adam Borchert and Joep Knijn (Tuck Class of '04), Edited By: Mauricio Atri (Kellogg Class of '12)

Case Question

- Our client, GoNet, is a US-based Internet Service Provider (ISP) that is considering entering the European market. They are currently the dominant player in the US with two revenue streams: a subscription access fee and by taking a percentage of all e-commerce transactions from subscribers.
- Examining the European market, GoNet has found that the market is highly fragmented and ripe for entry. You are going into a meeting with the CEO and have been asked to perform some quick "back of the envelope" calculations to determine the potential profitability of entering Europe.

8

Quants.

4

Structure

Market entry, market share

Case tracker

- **Industry:** Technology
- **Level of Difficulty:** Medium
- **Case format:** Market entry
- **Concepts being tested:**
  - Market share
  - Profitability

Fit Questions

Spend first 15 min on fit

- How competitive are you?
- What do you believe is your greatest strength?
- What sorts of things irritate you the most or get you down?

Guide to interviewer

- This is a very quantitative case that requires the interviewee to run the numbers on European profitability.
- The candidate will need to ask for additional information to solve the problem. After getting the initial calculations right, there will be a number of market changes that the interviewee will have to react to.
- After the quantitative portion is completed, there are some open-ended questions for the candidate to answer.

Clarifying answers and case guide

Clarifying answers to provide

(Provide this information on request)

Competitive dynamics

- Highly fragmented industry
- No information about market leaders or trends

European industry overview

- GoNet plans to capture a base of 10 million subscribers
- Subscriptions will cost $20/month
- The average GoNet subscriber purchases $1,800 of goods on the internet annually
- GoNet receives 3% commission
- Fixed costs are $1 billion annually
- Variable costs are $110/subscriber annually

Guide to case

Part 1 – Quantitative discussion

- This should be the meat of the case and should be completed before discussing any general or qualitative responses.

Part 2 – Qualitative discussion

- After navigating the math, ask the candidate the following questions:
  - 1) How could we reduce the fixed costs of investment?
  - 2) Would there be any reason to continue with the investment even if it looks like it will lose money?
  - 3) Are there are any other risks/benefits that GoNet should consider?
  - 4) How would you sum up the situation and what is your recommendation?

Math questions (1 of 2)

Math question

1) Please determine the annual net income (before taxes) in Europe, given the current revenue model and set of assumptions. What is the annual gross mark-up, in percentage?

2) GoNet just found out that a new entrant is charging $10/month and capturing market share. Can we lower our fee to $10/month?

Math solution

1) Revenues each year will be $2.4B for subscription (10 million subscribers X $20/month X 12 months) and commissions will be $540M (10 million subscribes X $1,800/year X 3% commission) for a total of $2.94B.

- Fixed costs are $1B and variable costs are $1.1B (10 million subscribers X $110/year) for a total of $2.1B each year. Profits are $840M and the annual profit margin is ~29% ($840M/$2.94B)

2) Annual revenues drop to $1.2B (10 million subscribers X $10/month X 12 months) from subscriptions, while commissions remain constant at $540M. Total revenues are $1.74B. Because total costs remain $2.1B, we lose $0.36B by halving subscription charges, making the answer "No."

- At this point, ask the interviewee what the elasticity of demand is in this market and the implications for GoNet. The market should be highly elastic, meaning that GoNet will not win over enough subscribers at $20/month.

Math information

- 10 million subscribers
- $20 month subscription fee
- $1,800/year of online spending @ 3% commission
- Fixed costs: $1 billion
- Variable cost: $110/year per subscriber

Math questions (2 of 2)

Math question

3) With high market elasticity, GoNet will not be able to charge more than $10/month. How much would each subscriber have to buy on the Internet to keep profits at the same level as $20/month subscription fees?

4) How much would each subscriber have to buy on the Internet to enable us to break even?

5) Given that we cannot charge more or realistically increase shopping significantly, how many subscribers would we need in order to maintain the same level of expected profits (at $10/month)?

Math solution

3) To keep profits at $840B, we know that costs remain at $2.1B so revenue will need to be $2.94B. Subscription revenue will be $1.2B, so commissions need to be $1.74B. There are 10 million subscribers, so each subscriber need to bring in $174/year of commission. At 3%, they will need to buy $5,800/year in goods ($174/3%).

- Ask the candidate if this realistic. The answer should be "No".

4) To breakeven, we will need commission to be $900M over 10 million subscribers. That is $90/year per subscriber ($900M/10M), which means $3,000/year in goods purchased online ($90/3%). The candidate should identify that this is also unrealistic, representing more than a 50% increase from last year.

5) To find the answer here, we need to find incremental revenue per subscriber. Each subscriber brings in $174/year ($10/month X 12 months + $1800/year X 3%) at a cost of $110/year for a profit of $64/year. These profits must cover the fixed costs of $1B/year, so we must bring in 15.625 million customers ($1B/$64)

- Note: many people forget the variable costs during the completion of this case.

Solution and recommendations

Solution & Recommendations

1) Some potential ways (not exhaustive) to reduce fixed cost: outsourcing capacity, leasing networks, working in specific geographies, etc.

2) GoNet may still be interested in this move as a way to break into Internet retailing and expanding its subscriber base. Based on the math though, this should not be an attractive option long-term either.

3) Very open ended and reliant on candidate's creativity.

4) This is very open-ended and should be evaluated based on the candidate's argument, not answer. Based on initial estimates, this is a very attractive market to enter, but with price pressures and high elasticity the market is far less attractive. If we are to undertake this initiative, GoNet needs to find ways to convert a much higher number of customers or differentiate its product, which both require market research. There is also potential to reduce costs or establish this foothold as a loss leader, but these require strong arguments from the candidate.

Bonus/Guide to an Excellent Case

- This case tests two things – the interviewee's comfort with numbers and ambiguity. An excellent case interview will result in an intuitive grasp on what is being asked quickly and solid execution on the quantitative portion of the case.
- Ultimately, the best interviewees will make a very strong argument using the facts provided and support the decision to invest/not invest with a strong business sense about the costs and implications of the project.
- Creative solutions beyond those listed are possible and encouraged, though should be done within the framework of the information available.

Case 2: Maine Apples

By: Adam Borchert and Joep Knijn (Tuck Class of '04), Edited By: Peter Manoogian (Kellogg Class of '12)

Case Question

- Our client is a Korean conglomerate named Danut that has acquired a small Boston-based biotechnology firm
- The biotech firm acquired has developed a chemical that helps control the ripening of produce. After testing, this chemical appears to work especially well with apples: it allows apple orchards to harvest earlier and it improves the overall quality of the harvest.
- Danut traditionally uses a test market to determine commercialization. Given proximity to Boston and average apple yields, Maine has been chosen.
- Danut would like to know if they should attempt to commercialize this chemical.

8

Quants.

6

Structure

CPG

Mkt. Size
Price Stgy
Invest.

Case tracker

- **Industry:** Consumer Goods
- **Level of Difficulty:** Medium
- **Case format:** Developing a new product
- **Concepts being tested:**
  - Market sizing
  - Investment
  - Pricing Strategy

Fit Questions

Spend first 15 min on fit

- Tell me about a recent positive team experience
- How would you describe your learning ability? In what kinds of situations are you fast or slow to learn?
- Describe the last time you "put your foot in your mouth."

Guide to interviewer

- After hearing the prompt, the interviewee should be able to develop a variant of the following question:
  Is the market size large enough and the estimated profitability high enough for Danut to attempt to commercialize this chemical?
- Key case steps:
  1. Confirm market attractiveness (size)
  2. Evaluate orchard revenue and cost structures
  3. Project farmers margins and pricing for Danut
  4. Identify qualitative issues (Risks) to consider

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Clarifying answers and case guide

Clarifying answers to provide

Product Benefits
- Reduced costs through earlier harvesting
- Improved apple yields
- Improved juice yields (with higher quality apples)

Client Characteristics
- Only concerned about a "test-market" in the state of Maine

Competitive Dynamics
- No other competitive products on the market currently

Local industry Characteristics/Economics
- Growing at the rate of GDP

Guide to case / Guide to handouts

1. **Calculate Market Size (determine attractiveness)**
   - Share market size information with interviewee after probing questions are received
   - Is the market large enough to continue?

2. Evaluate orchard profitability – Share product benefit details – i.e. 10% increase (from calculation page)
- How much incremental profit does our product create for an apple orchard owner?
- Next, the interviewee should determine the profit margins for the farmers given the costs of purchasing the product. Additionally the interviewee should determine a reasonable price for the product

3. Risks & Other Considerations – Guide the interviewee to consider qualitative risks and issues before moving forward with commercialization

Key elements to analyze

Market sizing

- How big is the apple market in Maine?
- Does this seem potentially large enough to continue investigating this product?

Cost savings

- What are the cost savings from using the chemical?
- The chemical allows the farmer to harvest 10 days sooner

Revenue increase

- How much additional revenue will farmers be able to generate?
- What is the total profitability increase (including cost savings)?

Note to interviewer

- When asked, provide the following:
  - Maine has 200 orchards
  - Avg. annual orchard revenue is $30K/acre
  - Avg. orchard has 100 acres of land
  - Only one apple harvest per year
- Interviewee should calculate the market size based on info provided: ($30K/acre x 200 orchards x 100 acres/orchard = **$600M**)
- This is a significant market and warrants further investigation

Notes to interviewer

- When asked to quantify the improvements, provide the following:
  - It costs $1.5K/night to maintain crops for 100 acre orchard
  - With the chemical, farmers are able to harvest crop 10 days sooner
- Interviewee should calculate cost savings per year using this information:
  - ($1.5K/day x 10 days / 100 acres = **$150/acre/year**)

Qualitative Assessment

- When asked to quantify additional revenue, provide the following:
  - Our client's product improves the consistency of red apples and improves the yield by 10%
  - The sweetness factor is estimated to improve the juice yield by 5%
  - 25% of revenue comes from whole apple sales, 75% from juice sales
- Improved yield: ($30K/acre x 25% x 10% = **$750/acre/ year**)
- Improved sweetness: ($30K/acre x 75% x 5% = **$1,125/acre/year**)
- Total improvement (with cost reduction) = **$2,025/acre/year**

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Key elements to analyze (cont.)

Product Profitability

- If our product costs $100K per 200 acre farm, what will the farmer's profit margin be if they buy it at cost?
- What should our client sell the product for? Is a 50% margin realistic?

Note to interviewer

- Farmer's incremental revenue/cost savings = $2,025/acre
- Product costs = $100K/200 acres = $500/acre
- Profit margin = ($2025-$500)/$2025= 75%
- The interviewee should note that this is an **extremely high profit margin** for the farmer and realize that there is a significant opportunity for profits with this product.
  - How much of this benefit can we capture in our pricing?
  - Interviewee should provide a percentage between 25% and 50%. Anything higher than 50% should be questioned due to the novelty of the product and resulting lack of social proof.
- A 50% profit margin for our client would also realize a 50% profit margin for farmers. This is absolutely a realistic price to set, if not a little low.
  - Given the costs provided, will we make a profit? **Yes**
  - Interviewee should calculate profit: ($100,000 / 200 acres = $500/acre). Assuming $1,000 price per acre, gross margin will be **50%.** [($1,000 - $500) / $1,000]

Solution and recommendations

Solution & Recommendations

- Overall, our client should commercialize this chemical and price it at approximately $1,000 per acre to make a 50% margin.
- Ask the interviewee if there are other non-financial risks/benefits that our client should consider.
- A potential answer would note that the client should consider several qualitative issues:
  - Differentiation: What is our positioning?
  - Environmental issues: Is there a risk of backlash and/or boycott from the general public? Could the U.S. government attempt to regulate our product?
  - Operational reality check: Does the company have the resources to do this?
  - Patenting: Is the product already patented? If yes, then when does it expire? If no, then is it possible to patent? If not, then can we patent the manufacturing process?
  - Representativeness of test market: Does it cost less to cover apples in other states?
  - Strategic fit: Is this opportunity too small relative to the size of the client?

Bonus/Guide to an Excellent Case

- Excellent interviewees need to address value-based pricing: the need to quantify added profits that our client's product will make for *its* clients and how much of that money our client can capture.
- Additionally, a strong interviewee will share several qualitative issues listed above to supplement the recommendation to enter the market.

Case 3: Orrington Office Supplies (OOS)

By: Andy Grieve (Kellogg Class of '01), Edited By: Peter Manoogian (Kellogg Class of '12)

Case Question

- Our client, OOS is a leading manufacturer of office products in 1992, with sales of $275M in 1991. They have strong brands, invest heavily in marketing / advertising, and have grown through prod. line extensions and four key acquisitions
- OOS is organized into 5 autonomous divisions, but shares manufacturing and marketing functions. Shared costs (45% of total) are allocated on a % of sales method. There are three plants running at a current capacity utilization is 50%
- Analysts predict OOS is a potential acquisition target given its strong balance sheet but weakening earnings. They are publicly traded and have little long-term debt. As a potential investor, how would you improve its profitability.

Case tracker

- **Industry:** Consumer Products
- **Level of Difficulty:** Medium/Hard
- **Case format:** Improving profitability
- **Concepts being tested:**
  - Capacity expansion / contraction

Fit Questions

Spend first 15 min on fit

- Name a time when you have caved under pressure. How did you recover?
- Describe a time you have disagreed with your supervisor.
- How do you keep abreast of current events?

Guide to interviewer

- This case combines public math with key qualitative insights. At its core, this is a case about rapidly declining profitability and finding ways (i.e. plant consolidation) as a way to improve its future performance.
- The interviewee should recognize that this is a performance improvement case and will look for ways to improve profitability. They will have to use the information provided up front to determine that capacity contraction is the prime means to improve profitability.
- Because there are many potential avenues to explore, the interviewer may need to nudge along the interviewee.

6

Quants.

7

Structure

CPG

Profit Imp.
Cap. Exp.

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Clarifying answers and case guide

Clarifying answers to provide

Industry trends
- U.S. Office supplies market grew at 5% CAGR historically. In 1990 and 1991, the market declined at 5%/yr.
- Superstore channel is becoming increasingly critical
  - Gained 10 share pts in past 2 yrs
  - Typically discount products 30% to small retailers/dealers
- Superstores are aggressively substituting private label products for traditional brand names

Client Characteristics
- Broader product line than competitors (12.5K SKUs vs. 4-5K for competitors)
- Distribution: 75% wholesalers, 15% superstores, 10% end customers
- Most profitable product is a high-end branded stapler
- Staples, Inc. is OOS's largest customer

Guide to case / Guide to handouts

A sample case structure would include the following:

1) Examination of OOS's recent performance to deep-dive declining profits.
2) Discussion of potential for potential for plant consolidation.
3) A profitability analysis of plant consolidation.

Exhibit 1– Hand out after interviewee asks about profitability

Exhibit 2– Hand out after interviewee concludes that plant consolidation is a worthy area for a "deep-dive." This should be evident from the case introduction, but provide hints if necessary.

Exhibit 3– Following the discussion of plant closures, the interviewee should ask about the cost structures about the various plants.
- If interviewee asks about revenues, gently suggest to calculate on a per SKU basis (*e.g., t*otal sales / total SKUs = $22K / SKU).

Key elements to analyze

Profitability

- Using Exhibit 1, have a discussion about why the slopes for sales and profits differ as time elapses

Capacity utilization

- Using Exhibit 2, qualitatively discuss the potential options for plant consolidation.

Plant closures

- Using Exhibit 3, crunch the numbers on the profitability of a possible plant closure?

Notes to interviewer

- Exhibit 1 - interviewee should not only be able to interpret the data on this slide, but also come up with two insights:

  1) the fact profits have been declining more steeply than sales reflects the fixed-cost nature of this business, and

  2) the reason that sales did not grow at a faster clip than profitability during the 1980s likely reflects a strategy to grow through acquisitions, which prevented OOS from seeing the gains through economies of scale that one would normally expect in a business such as this

Notes to interviewer

- Interviewee should recognize the Chihuahua plant is close to having capacity to produce OOS's 12.5K SKUs. Either OOS can close that plant and move all production to the US, or it could close the US plants, discontinue 500 SKUs and move production to Chihuahua.
- Insightful interviewees will note that Chihuahua is the most feasible strategy, but will ask to see fixed and variable cost data; if so, then produce Exhibit 3.

Notes to interviewer

- They should have identified that the Chihuahua plant is the most feasible, but there are some key considerations.
- **Key questions to ask:**

  How would this change revenues? (currently $275M / year)

  How would this change production costs? What are they now?

  How would this change pre-tax profits (currently $25M /year?)

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Calculations

Math questions
1. How would consolidating to Chihuahua change revenues? (currently $275M / year)
2. How would this change production costs? What are they now?
3. How would this change pre-tax profits? (currently $25M /year)

Calculations

1. Revenues: Each SKU earns annual revenues of $22K ($275M divided by 12,500 SKUs) therefore, eliminating 500 SKUs will decrease annual revenue by $11M, or 4%

2. Prod. costs: Each plant currently has the following annual costs, totaling to $136M

Chihuahua: $20M + ($4K * 4.5K SKUs) = $20M + $18M = $38.0M

Michigan: $15M + ($7.9K * 5K SKUs) = $15M + $39.5M = $54.5M

New Jersey: $18M + ($8.5K * 3K SKUs) = $18M + $25.5M = $43.5M

Consolidating revenues to Chihuahua will reduce annual costs by 50% to:

Chihuahua: $20M + ($4K * 12K SKUs) = $20M + $48M = $68.0M

3. Profits: We have reduced costs by $68M and lowered revenues by $11M, thus increasing profits by $57M, to a total of $82M, which more than triples them.

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Solution and recommendations

Solution & Recommendations

- Overall, our client should eliminate 500 SKUs and consolidate all production to the Chihuahua plant to raise annual profits from $25M to $82M.
- The client should also consider several qualitative issues:
  - — Implementation Timeframe: Will not be done tomorrow.
  - — Relationships with Union: If organized labor is part of our production employee pool in the two plants that we are going to close, we will need to address that situation.
  - — Changes in Distribution and Warehousing: We will need a carefully-developed transition plan.
  - — Purchasing: We will need to transition to a strong central purchasing department, rather than smaller local ones.
  - — Culture: Communicating the change properly is key, and we will need to ensure that morale does not take a nosedive.

Bonus/Guide to an Excellent Case

- Excellent interviewees need to recognize what macroeconomic issues are beyond the scope of the client's control and then quickly dive into the plant consolidation, then analyze the cost structures
- Additionally, common sense and basic familiarity with manufacturing operations should guide the successful interviewee to some or all of the qualitative issues provided

Exhibit 1: OOS Sales / profit trend

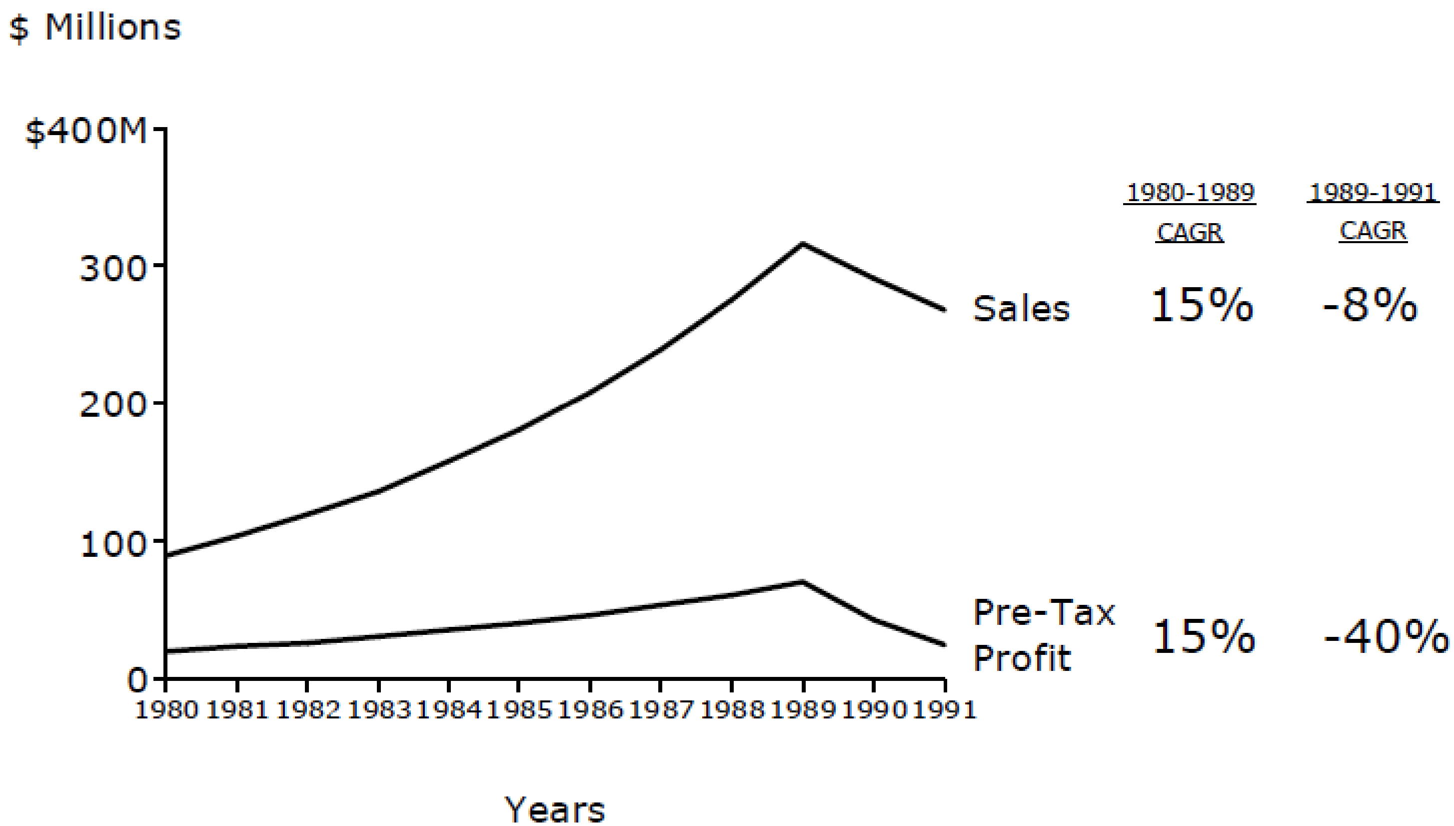

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Exhibit 2: Overview of OOS production plants

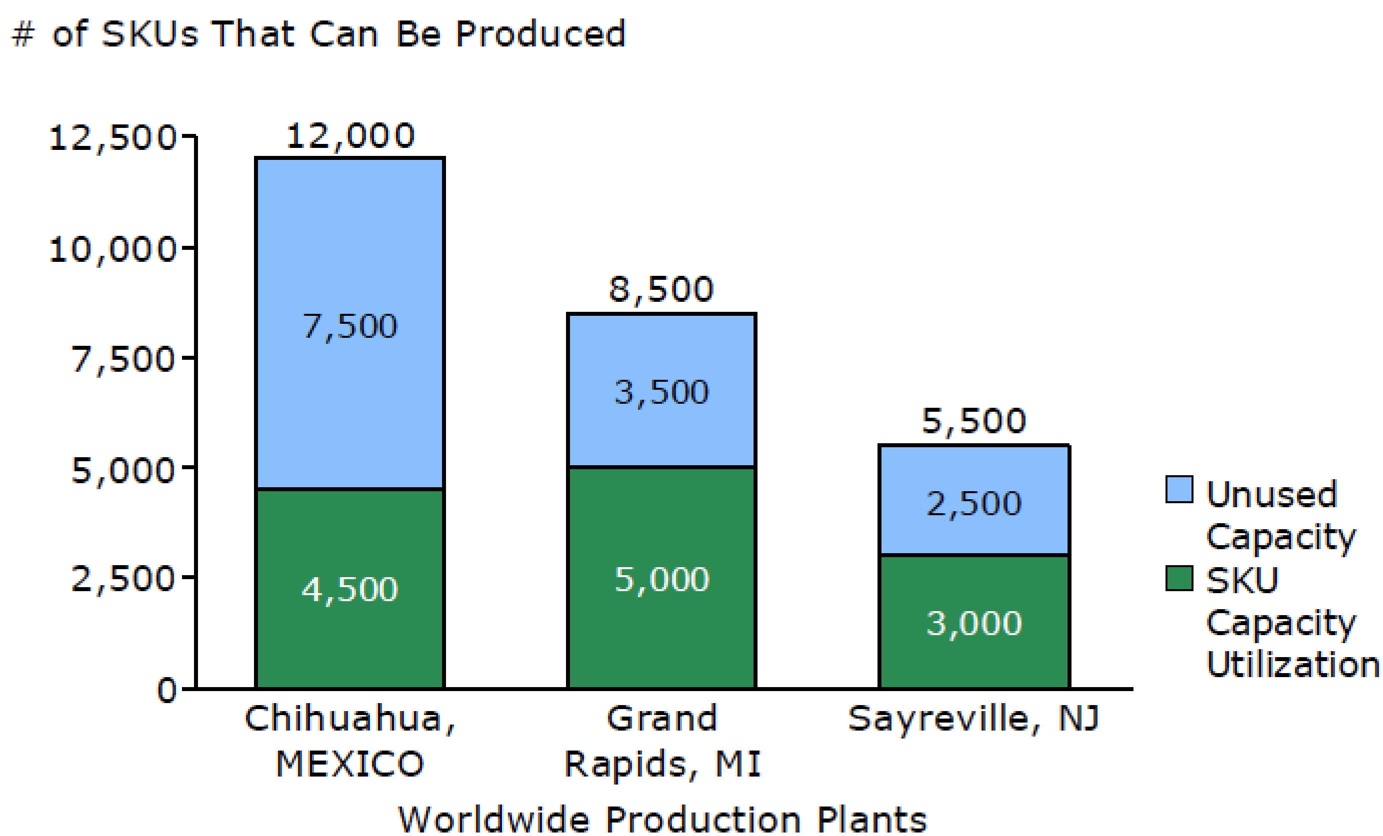

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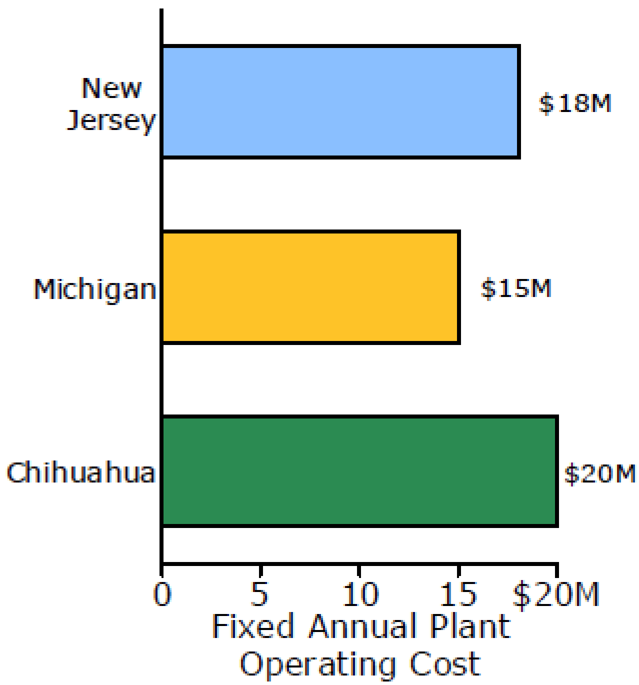
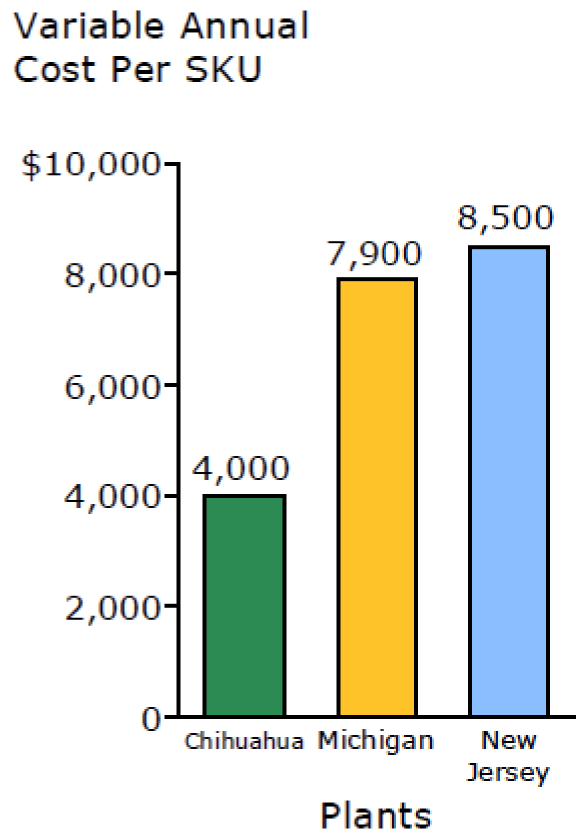
Exhibit 3: Plant operating costs





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Case 4: Syzygy Supercomputers

By: Edwin Van Dusen, Brian Fox and David Welch (Kellogg Class of '04), Edited By: Uri Kalir (Kellogg Class of '12)

Case Question

- Syzygy Supercomputers is a large international fully-integrated computers and communications company with annual revenues of approximately $20 billion U.S.. In the past several years, the company has seen a steady decline in profits.
- The CEO has asked us to look into this problem. How can Syzygy Supercomputers get back on track?

3

Quants.

7

Structure

Profit Imp. Comp. Anl Ops.

Case tracker

- **Industry:** Tech & Telecom
- **Level of Difficulty:** Hard
- **Case format:** Improving profitability
- **Concepts being tested:**
  - Competitive analysis
  - Operations

Fit Questions

Spend first 15 min on fit

- What is the single most important detail in your resume?
- What is the least important detail in your resume?
- Why is the lifestyle of this job right for you?

Guide to interviewer

- This case is about a tech company undergoing a decline in profitability, despite a strong competitive position. Syzygy has been overinvesting in R&D relative to its returns and performance has suffered as a result.
- The interviewee is expected to go through these general steps while presenting a solution:
  1. Confirm profitability issues and ask to see historical revenue and cost information.
  2. Ask to see market position and related data.
  3. Realize that this case is going to be decided based on information regarding the products.
  4. Identify the main issue affecting profitability – the company's R&D spending

Clarifying answers and case guide

Clarifying answers to provide if Asked

General Information on Syzygy

- Only the information that has already been given. Other information currently unavailable.

Competitive Dynamics

- There are several players in the market, but everything has remained stable from a competitive standpoint.

Profitability drivers

- COGS, SG&A, and other profitability factors are on-par with Syzygy's competitors (except for R&D, about which the candidate should ask specifically).

Interviewer Guide to Case

A sample case structure would include the following:

1) Examination of historical performance to deep-dive declining profits.
2) Discussion of market dynamics and competitive positioning.
3) Deep-dive into drivers and profitability , ultimately leading to a discussion of SG&A

Necessary Information that should be given only when <u>specifically</u> asked for by interviewee:

- Historical costs, revenues and profits – exhibit 1
  - Note that the interviewee should be asking for historical trends in the company's profitability. If they are asking only for current profitability, interviewer should point them in the direction of historical trends
- Market data – exhibit 2 followed by exhibit 3
  - Interviewer should give the interviewee a few seconds to understand slide 2 and then handout slide 3. Interviewer should ask interviewee which product in slide 3 is which (on slide 2).
- R&D spending data – exhibit 4 and exhibit 5
  - The candidate will naturally ask about potential drivers of profitability (S&GA expense, COGS, etc.).
  - These exhibits should only be given once the candidate has identified R&D as a driver of Syzygy's profitability.

Key elements to analyze

Interpreting Exhibit 3

- The X axis represents absolute market share (AMS), which correlates with the height of Syzygy's rectangles in exhibit 2.
- The Y axis represents relative market share (RMS), calculated as Syzygy's market share divided by the market share of the closest competitor. If Syzygy is the market leader, this number is greater than 1. If Syzygy is not the market leader, its market share divided by the market leader's share will be lower than 1. This correlates with the the ratio of the height of Syzygy's rectangles to that of competitors' rectangles for each product in exhibit 2.
- The diameter of the bubbles is driven by Syzygy's total revenues in that category, comprised of its market share in the category multiplied by the category's size.

Notes on Exhibits 2 & 3

- Correctly interpreting slides 2 and 3 will lead the candidate to correctly identify the products on slide 3:
  - Product #1 is custom applications
  - Product #2 is supercomputers
  - Product #3 is telecom equipment
  - Product #4 is satellites
  - Product #5 is operating software

Notes on Exhibits 4 & 5

- The key insight in exhibit 4 is that Syzygy is the only major competitor in this industry whose R&D spending is below the "normative band"
- We would expect each company's degree of technical leadership to go up as it invests in R&D, but Syzygy, with slightly more R&D spending than Cray Research and Sonic Wave, enjoys less of a perception of technical leadership from its customers
- Exhibit 5 builds on this point. The key insight is the absolute expense (not percentage) Syzygy is spending on R&D. Correct analysis will show that Syzygy is spending money on features that do not generate customers' "willingness to pay". Syzygy is spending money to develop features that consumers are not willing to pay for.

Solution and recommendations

Solution & Recommendations

- The candidate should be able to produce one of the following insights:
  - Cut R&D to eliminate spending on unnecessary customer features.
  - Keep R&D spending the same, but switch the work to developing features that consumers will be willing to pay for at a level that is higher than the R&D expense itself.
- A second-order insight from the case is that Syzygy should exit the operating software business (product #5 in this case) since it's small market share will continue to erode as a result of economies of scale, network economics and the experience curve all working against it.

Bonus/Guide to an Excellent Case

- An excellent interviewee will –
  - Take a few seconds to fully understand each of the complex graphs he/she is given before giving an answer.
  - Immediately ask about R&D spending and not go through COGS or SG&A first (this is a hi-tech company, so R&D spending should be looked-at before other drivers of profitability).
  - Conclude their recommendation by not only stating that Syzygy should exit the operating software business, but also focus on the categories in which it is the market leader in order to get some or all of those economies to work for it and against its competition.

Exhibit 1: Syzygy's Historical Costs, Revenues and Profits

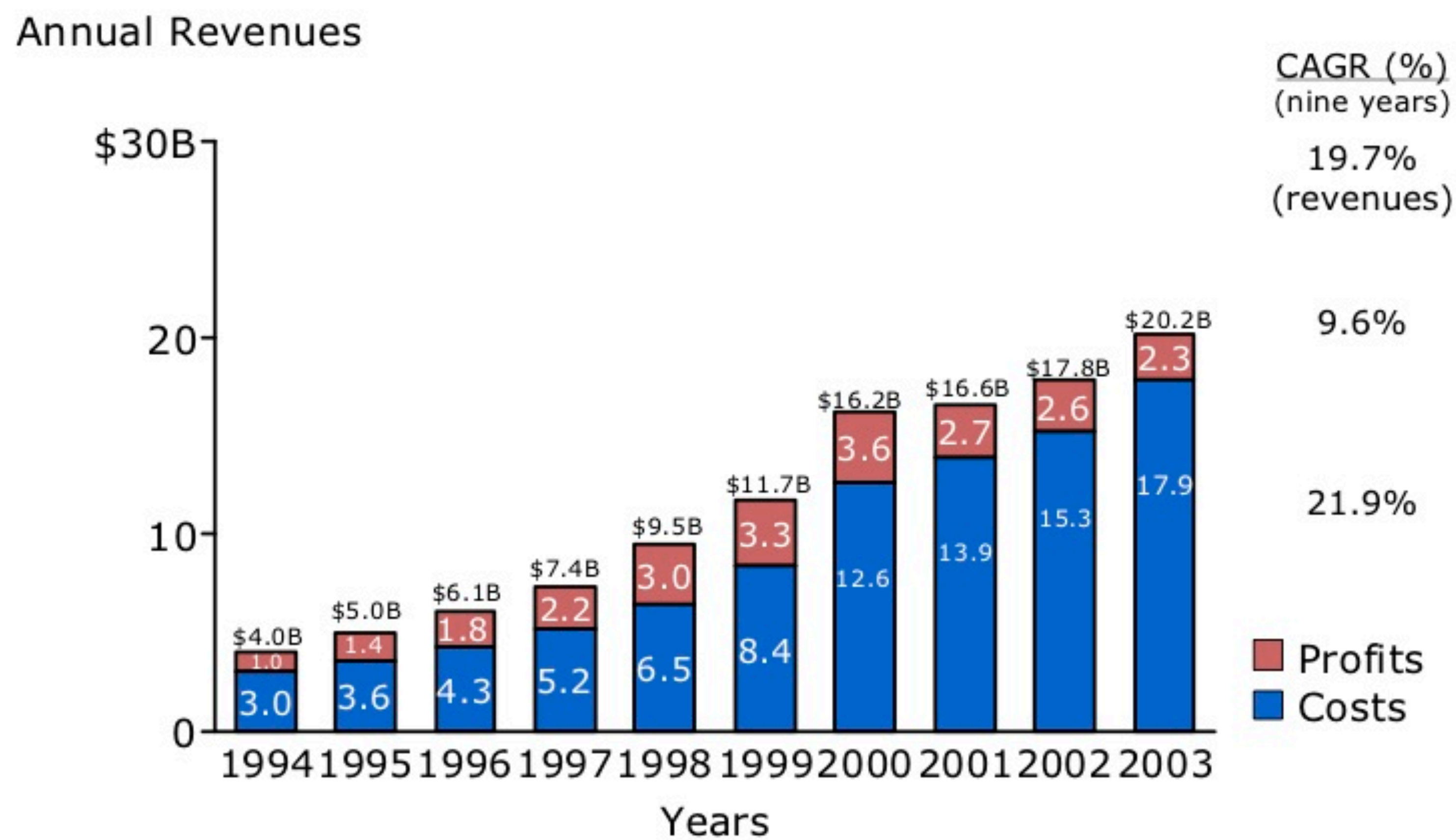

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Exhibit 2: Worldwide Telecom Computing Market (Today)

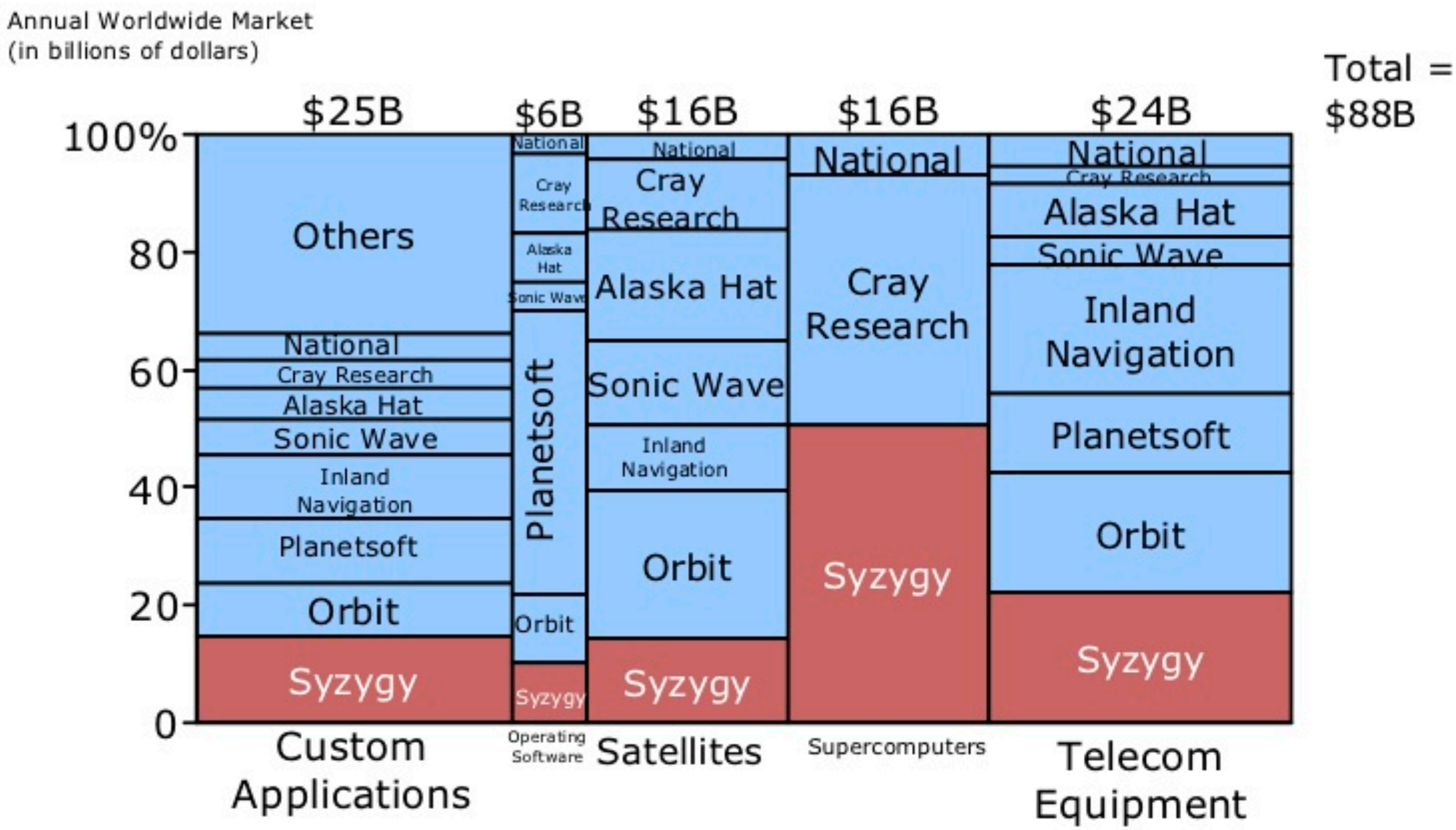

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Exhibit #3: Syzygy's Absolute vs. Relative Market Share

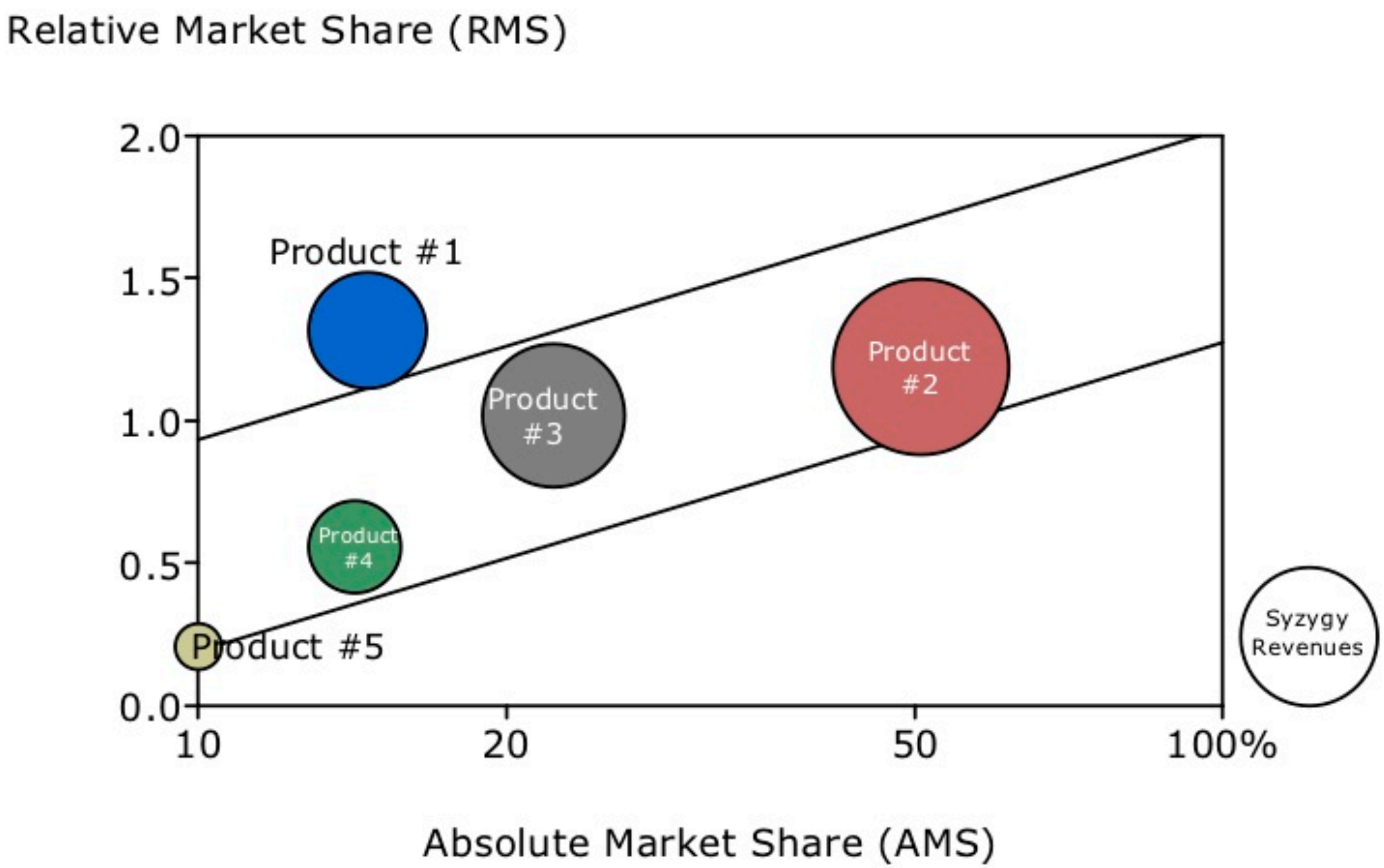

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Exhibit #4: Companies' R&D vs. Degree of Technical Leadership

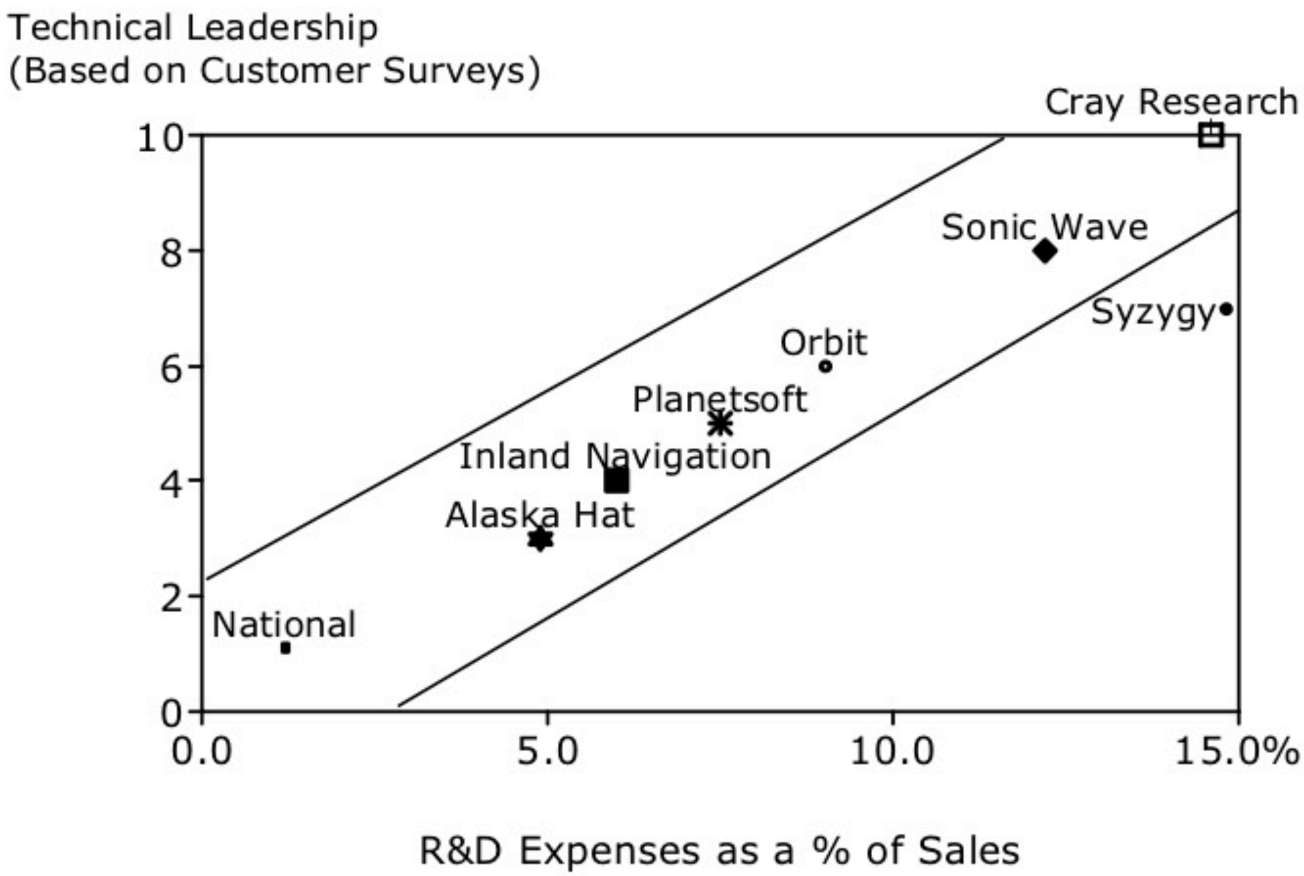

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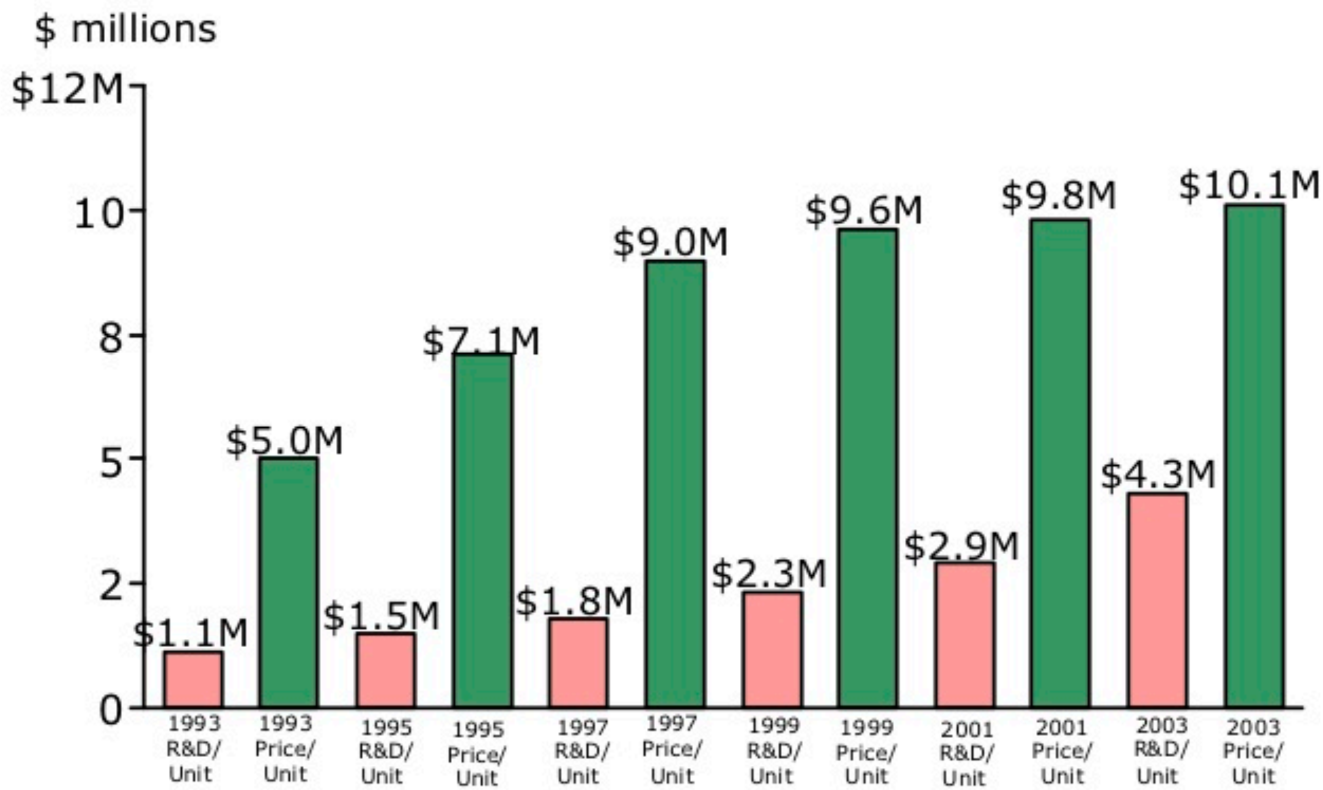
Exhibit #5: Syzygy's R&D Expenses and Selling Prices for Supercomputers



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Case 5: Winter Olympics Bidding

By: Chris Dupre (Kellogg Class of '03), Edited By: Uri Kalir (Kellogg Class of '12)

Case Question

- Our client, a major US television network, is trying to figure out how much to bid for the exclusive right to broadcast the 2018 Winter Olympics Games in the U.S.
- The Winter Olympics are a huge deal and will require a significant amount of capital to secure the rights, so our client has brought us in to help them figure out the right bid amount after considering all relevant factors.

8

Quants.

4

Structure

Basic NPV B/E

Case tracker

- **Industry:** Media & Entertainment
- **Level of Difficulty:** Medium
- **Case format:** Opportunity Assessment
- **Concepts being tested:**
  - Basic NPV
  - Breakeven analysis

Fit Questions

Spend first 15 min on fit

- How would you describe your problem solving skills?
- Do you consider yourself a more visionary or more pragmatic thinker….and why?
- What did you like least about your last job?

Guide to interviewer

- This is a very quantitative case that requires the interviewee to run the numbers on an Olympics bid. The candidate will have to decide potential ad revenue/cost information, as well as the NPV, to determine bid size.
- The candidate will need to ask for additional information that is necessary to solve the problem, rather than relying on the interviewer to dispense it. After getting the initial calculations right, there are a lot of implications that may change the level of the bid.
- Especially for less finance-minded interviewees, you may have to help nudge candidates through the math.

Clarifying answers and case guide

Clarifying answers to provide

Revenues
- No subscription revenue, but can keep 100% of advertising revenue
- Ad rates are $400K/30 second ad for prime time (M-F 7-11 PM, all weekend) and $200K/ad for non-prime time
- Market research has shown that you can include no more than 10 minutes of advertising per hour.

Costs
- $482M of total production costs
- Opportunity cost: $1M/hour
- Time value of money: 4 year lag for receipt of revenue

Guide to case

Part 1 – Quantitative discussion
- Candidate should determine that this is a cost-benefit / NPV analysis.
- Candidate should identify potential revenue streams from hosting the Olympics, i.e. ad revenue, product placements, etc.
- Then, the candidate will have to figure out if this is a good investment. They should identify 3 costs (production costs, opportunity costs, and time value of money). By factoring in these costs, the candidate will find out if the Olympics are worth the investment.
- Some of the numbers and assumptions here are difficult, so nudge the candidate along if necessary.

Exhibit 1 – Provide Winter Olympics schedule if asked
- Give to candidate once he/she identifies ad revenues

Part 2 – Qualitative discussion
- After finding the NPV of $200M, ask the candidate about intangible factors, benefits, and risks. Some critical factors:
  - Might give network access to new viewers
  - There is prestige associated with hosting this event
  - We can use the air time to promote other programming
  - Opportunities for product tie-ins, supplemental revenue
- After finishing the discussion, ask the candidate for a recommendation.

Math questions

Math question

1) Calculate the revenue from broadcasting the Winter Olympics.

2) Factoring in costs, is this a good investment? Find the NPV.

Math solution

1) Total revenues should be equal to $928M for the project.

- Primetime: Weekdays (M-F): 10 weekdays x 4 hrs/day x 10 min/hr x 2 slots/min x $400,000/ad = $320M
- Non-prime: Weekdays (M-F): 10 weekdays x 6 hrs/day x 10 min/hr x 2 slots/min x $200K/ad = $240M
- Weekend: 4 days x 10 hrs/day x 10 min/hr x 2 slots/min x 400K/ad = $320M
- Opening/Closing: 2 days x 3 hrs/day x 10 min/hr x 2 slots/min x 400K/ad=$48M

2) Total profit should be equal to $300M.

- Profit: Revenues $928M - $482M of total costs - $146M of opportunity cost (2 days x 3 hours x $1M/hr + 14 days x 10 hours x $1M/hr) = $300M

3) NPV should be equal to $200M.

- Discount rate: $1.10^4 = 1.4641$ (ask candidate to round to 1.50)
- $300M/1.5 = $200M

Math information

Revenues
- $400K/ad for prime time (M-F 7-11 PM, all weekend) and $200K/ad for non-prime time
- 10 minutes/hour of advertisements

Costs
- $482M of production costs
- Opportunity: $1M/hr
- WACC: 10%

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Solution and recommendations

Solution & Recommendations

- While the NPV of the project is $200M, the fact that there are other intangibles (new viewers, plugging our programs, and prestige) the bid should just be $200M.
- While there is no one correct answer, most answers should be in the range of $200M. If there is significant fluctuation from $200M, the candidate will have to provide in-depth justifications and make a concrete argument.

Bonus/Guide to an Excellent Case

- This case tests the interviewee's comfort with numbers and understanding of how intangible factors may influence financial value. The bid process requires another level of understanding around game theory and what dynamics will ultimately determine the value of the bid beyond NPV.
- Ultimately, the best interviewees will make a very strong argument using the facts provided and support their bid and explain why they moved their bid from the NPV figure.
- There is also a lot of room for creativity for the interviewee to discuss other factors, including supplemental streams of revenue, intangible factors, and things to consider during the bid process.

Exhibit #1

Winter Olympics Schedule

Day 1 Opening Ceremonies (Friday)	Day 2-15	Day 16 Closing Ceremonies (Saturday)
8-11pm	Weekday: 9am-12pm, 2-5pm, 7-11pm Weekend: 11am-9pm	8-11pm

Case 6: Rotisserie Ranch

By: Brian Fox (Kellogg Class of '04), Edited By: Adam Louras (Kellogg Class of '11)

Case Question

- Our client is Rotisserie Ranch, a poultry farming company that specializes in growing chickens for rotisserie roasting. Its main line customer segment is comprised of large grocery chains, who buy its chickens to fresh roast in the meat departments of their grocery stores. Market research has revealed to Rotisserie Ranch that more and more consumers have begun buying flavored rotisserie chickens recently.
- Rotisserie Ranch is thinking of pre-flavoring some of its chickens for grocers. Should Rotisserie Ranch begin selling this new product?

Case tracker

- **Industry:** Consumer Goods
- **Level of Difficulty:** Medium
- **Case format:** Developing a new product
- **Concepts being tested:**
  - Microeconomics
  - Elasticity
  - Customer strategy

Fit Questions

Spend first 15 min on fit

- What are your top 9 weaknesses? (Stress Test – If interviewee gets 9, ask for 9 more until they cannot answer)
- Ok, what are 9 of your strengths?
- Imply that interviewee answered the strengths much faster than the weaknesses and ask, why?

Guide to interviewer

- This case is similar in style to a McKinsey & Company 1st round case in that the *Interviewer* should drive the case.
- The case is primarily tests the ideas behind a new product introduction and forces the interviewee to consider market testing, profitability, etc. before rolling out a new product.
- Because this is a "Market Introduction" case, the interviewee SHOULD ask questions about *competition*.
  - For the purposes of this case, assume that Rotisserie Ranch will only compete against existing Private Label brands at grocery stores.

6

Quants.

5

Structure

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Clarifying answers and case guide

Clarifying answers to provide if Asked

Industry Characteristics/Market Economics

- *Perishability*: Predicting demand for cooked chickens is difficult for grocers; any leftover cooked chickens at the end of the day are thrown out; unthawed chickens cannot be re-frozen

Client Characteristics

- *Competitive Advantage*: Client has patented process for sterilely packaging chicken, so that it will remain fresh for 30 days, making freezing unnecessary
- Client is currently the industry *market share leader* in rotisserie-ready chicken
- Four New "Flavored" Products to be introduced concurrently: Barbecue, lemon herb, tandori and teriyaki

Competitive Dynamics

- No competition in new product market due to patented process

Interviewer Guide to case and handouts

Case Structure – Interviewee's structure should include:

- *Value to customers (grocery chains) – Will they buy it?*
- *Revenue and Cost implications of new venture*
  - Cost increase to client is offset by price increase to grocers
- *Competition*
  - None. Competition freezes chicken so can't be pre-seasoned.

Prompt 1 & 2 – After Interviewee walks through structure, ask them:

- *Do you think that grocery retailers would be interested in pre-seasoned chickens from Rotisserie Ranch?*
  - No correct answer; however, should be logically defended
- *After several interviews, it turns out that the grocers are very interested in Rotisserie Ranch's proposed new product, but first they want to be sure that the Rotisserie Ranch chickens will sell well. How would you make sure?*
  - The correct answer is to run a test market.

Prompt 3 – After discussing Prompt 2, discuss the results of the market test:

- Assumes that the demand function for Rotisserie Ranch chickens is <u>linear</u>.
- Store 1 is comparable to test store A and store 2 to test store B

Key elements to analyze

Value to Grocers

- Do *you think that grocery retailers would be interested in pre-seasoned chickens from Rotisserie Ranch?*

Market Testing

- After several interviews, grocers are interested in Rotisserie Ranch's proposed new product, but first they want to be sure that the chickens will sell well. *How would you make sure?*

Demand Elasticity

- A test market launch for the new Rotisserie Ranch BBQ chicken was administered (Hand out Exhibit 1).
- *Should the grocers carry our product?*

Prompt 1 Sample Answers

- Sample "YES" response:
  - *Labor Cost Reduction*: Meat department workers; don't need to spend time seasoning the chickens.
  - *Economies of Scale*: Seasoning centralization; lower cost.
  - *Product Consistency:* Centrally managed; able to spend more on R&D.
- Sample "No" response:
  - *Loss of Differentiation*: Grocery chains differentiate by value-added .
  - *Attune to Local Needs*: Likely to be better at gauging consumer tastes.
  - *Increases Inventory & SKUs.*

Prompt 2 Answer

- The correct answer is to run a test market for the new products.
  - The candidate may begin going into detail on how this test would be run. Cut him or her off as soon as you are comfortable that they understand that:
    - *A pilot test should be run.*
    - *The pilot needs to have some control or comparison group.*

Notes on Exhibit 1 & 2

- Using Exhibit 1, interviewee should calculate:
  - Retail Margin ($):
    - Store A: 25% x $4 = $1 Per Unit
    - Store B: 25% x $3 = $0.75 Per Unit
  - Gross Profit:
    - Store A: $1 Per Unit x 400 = $400
    - Store B: $0.75 Per Unit x 1000 = $750
- Cannot answer with Exhibit 1 alone, so they should ask for "Control Group" information: Hand out Exhibit 2 when this is asked
- Interviewee should calculate (NOTE: Answer is the same for both chicken types):
  - Variable Margin ($) Rotisserie:
    - Store 1: 30% x $3.33 - $0.20 = $1 /Unit
    - Store 2: 30% x $2.50 - $0.15 = $0.75 /Unit
  - Gross Profit Rotisserie:
    - Store 1: $1 Per Unit x 300 = $300
    - Store 2: $0.75 Per Unit x 800 = $600

Solution and recommendations

Solution & Recommendations

- Overall, our client should launch the Pre-Seasoned BBQ Chicken product and test other products because:
  - *Competitive Necessity*: Consumers are spending more money on seasoned rotisserie chicken than traditional rotisserie chicken and the market is shifting in this direction
  - *Benefit to Grocers*: Assuming test market was representative, Grocers can expect to earn $100 to $150 more gross profit using our client's product relative to their own "Private Label"
    - Cannibalization is not an issue because the variable margins and gross profits are the same on standard and seasoned rotisserie chicken, i.e. shifting from either of these products to our clients is a net benefit
  - *Benefit to Client:* Assuming that the increased price to the Grocers offsets the increased cost of production, our client will make more money due to increased sales of the new chicken

Bonus/Guide to an Excellent Case

- An excellent interviewee will note:
  - The benefit to the Grocers based on a linear interpretation of Demand, i.e. At a $3.50 price point, sales are expected to be 700 units. This give a variable margin of $0.875 /unit and total operating profit of $612.50
  - The benefit to the Grocers as percentages, i.e. Store 1 would gain 33.3% and store 2 would gain 25% to their operating profit by shifting to our client's product.
  - Potential scale benefits to our Client over time as more pre-seasoned chickens are sold
  - Potential labor reductions by grocers as the workload is "Outsourced" down the value chain to our client

Exhibit #1: Market Test of Pre-Seasoned BBQ Chicken

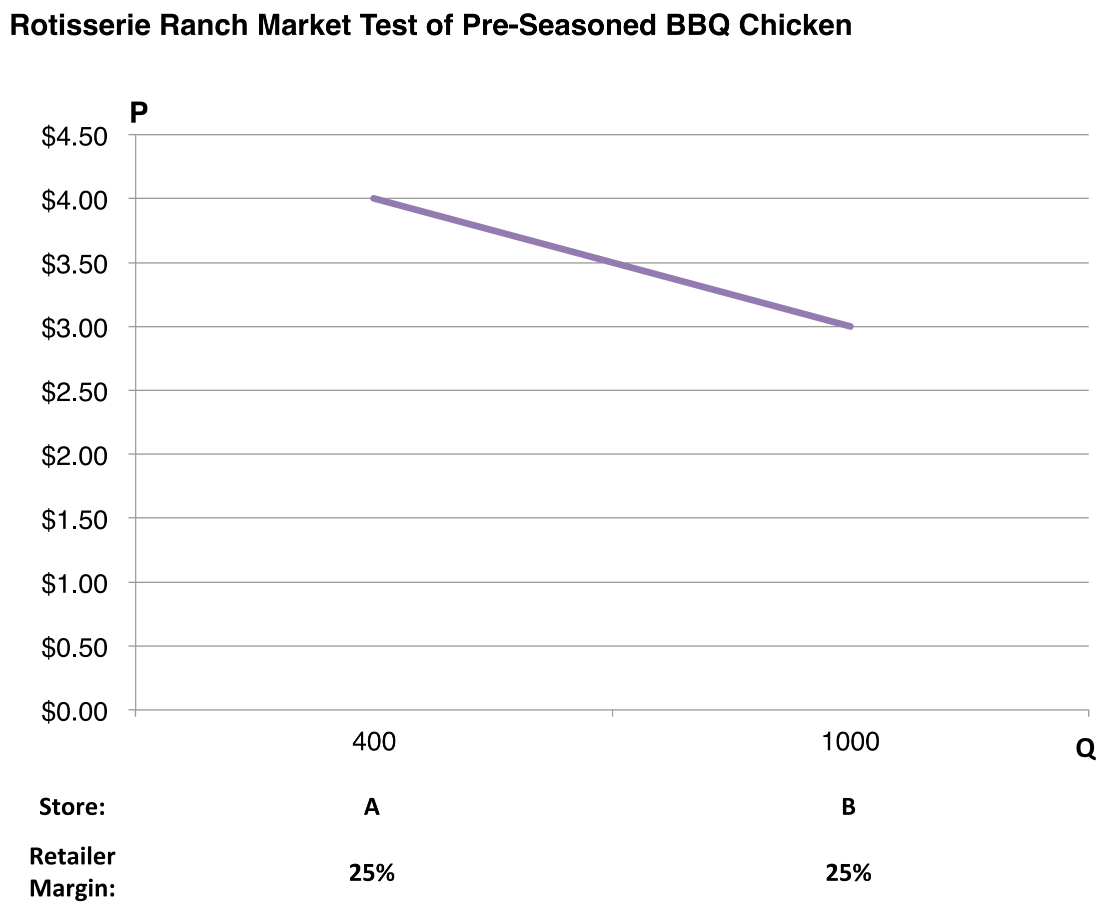

Exhibit #2: Control Group Stores

Standard Rotisserie

	Store 1	Store 2
Chicken Type	*Standard*	*Standard*
Weekly Sales	$1,000	$2,000
Retail Price	$3.33	$2.50
Seasoning Cost	$0.00	$0.00
Retailer Margin	30%	30%

Seasoned Rotisserie

	Store 1	Store 2
Chicken Type	*Store Seasoned*	*Store Seasoned*
Weekly Sales	$1,200	$2,400
Retail Price	$3.99	$2.99
Seasoning Cost	$0.20	$0.15
Retailer Margin	?	?

Case 7: Tarrant Fixtures

By: David Welch (Kellogg Class of '04), Edited By: Adam Louras (Kellogg Class of '11)

Case Question

- Our client, Tarrant Fixtures, is a low-intensity manufacturing company that produces display fixtures for retail clients. The company's financial performance has deteriorated in each of the last three years. Specifically, they are concerned with the company's falling Return on Investment (ROI).
- The CEO has asked us to look into this problem. How can Tarrant Fixtures get back on track?

Case tracker

- **Industry:** Industrial goods
- **Level of Difficulty:** Medium
- **Case format:** Improving profitability
- **Concepts being tested:**
  - Operations
  - Accounting

Fit Questions

Spend first 15 min on fit

- What do you see as the most challenging aspect of this job?
- Tell me about your written communication skills.
- What are a couple of the best and worst decisions you have made in the past year?

Guide to interviewer

- This case is about improving ROI and requires a real understanding of finance to solve. There has been a massive increase in working capital due to inventory build-up from an increase in the number of SKUs.
- This is a short case, designed to be solved in approximately 15-20 minutes. There are no slides.
- The important steps are:
  - Establishing a viable structure (Using ROI formula)
  - Breaking down the problem into component parts
  - Continuing to examine issues until the correct ones are identified.

8

Quants.

7

Structure

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Clarifying answers and case guide

Clarifying answers to provide if asked

Industry Characteristics/Market Economics

- The market has grown 25% in total over the past three years

Client Characteristics

- Client has remained the industry *market share leader* in displays over the past three years and has maintained 25% market share

Competitive Dynamics

- There are several players in the market, but everything has remained stable from a competitive standpoint

Interviewer Guide to Case

A sample case structure would include the following:

1) Start with the definition of ROI and identify the potential areas for problems
2) Identify differences in profits over the last three years
3) Identify capital employed and deep dive increase in working capital

Necessary Information that should be given only when <u>specifically</u> asked :

- Product Types:
  - *Custom displays* (50% of Sales) - Produced only when an order is placed and the payment is received
  - *Standard displays* (50% of Sales) - Manufactured to "open standard" for display sizes/ types and stored in inventory (Built-to-stock)
    - 5 standardized products account for 80% of sales in standardized products; Number of standardized products increased from 5 to 12 over last 3 years
- Past Three Years of Financial Performance:
  - *Total Revenues*: Grew by 25%, from $100M to $125M, equally across both types
  - *Costs of production* (COGS, labor, SG&A, etc.): Remained stable as a percentage of revenue [80%]
  - *CAPEX:* The company has no new investments in Property, Plant, & Equipment
  - *Working Capital*
    - Total Working Capital Employed three years ago = $80M
    - Total Working Capital Employed today = $130M
    - Inventory levels increased by 200% (primarily in finished goods), from $25 million to $75 million

Key elements to analyze

Definition of ROI

- To begin this case correctly, the interviewee must understand the components of ROI
- If the interviewee doesn't know the formula for ROI, the case is dead; however, you should guide the interviewer to help them practice

Net Profits

- The interviewee will likely begin by discussing the "top line" of the ROI equation
- Net Profit is not the cause of the ROI issue as shown from the calculation below

Capital Employed

- The interviewee should examine Capital Employed to find that PP&E is constant as no CAPEX was employed, Inventory is the culprit
- Once identified, follow up with, "What can management do to improve the Inventory Problem?"

Notes to Interviewer

- The formula for ROI:

$$\text{ROI} = \frac{\text{Return}}{\text{Investment}} = \frac{\text{Profits}}{\text{Capital Employed}} = \frac{\text{f(price, quantify, fixed costs, variable costs)}}{\text{f(PPE, working capital)}}$$

Notes to Interviewer

- Net Profit can be calculated based on the information from the prior page as follows:

	Year 1	Year 3
Revenue	100M	125M
Cost of Production $	80M	100M
Net Profit	20M	25M
Cost of Production % of Revenue	80%	80%

- The company's absolute level of profits have increased 25% during the last three years, so this is not the cause of the ROI issue

Notes on Exhibit 1 & 2

- A line-by-by line examination of a typical Working Capital statement will indicate all of the relevant categories of capital for purposes of calculating ROI.
- Based on the data from the prior page, following conclusion may then be drawn:
  - Total Working Capital increased by $50M because Inventory levels increased by $50M
  - PP&E, AR, AP, Cash etc. are all stable
- Potential Causes/fixes for Inventory Increase:
  - Proliferation of standardized product lines
  - Inaccurate demand forecasts resulting in excess safety stock
  - Obsolete inventories of outdated product lines

Solution and recommendations

Solution & Recommendations

- The client's ROI has fallen over the past three years due to a $50M increase in Working Capital caused by a 200% increase in inventory. Inventory has grown because of:
  - The increase in the Total number of standardized product SKUs from 5 to 12
  - Inaccurate demand forecasts resulting in excess safety stock
  - Obsolete inventories of outdated products
- To correct this issue, the client should work to reduce its inventory by:
  - Writing off or working down obsolete inventory (a write-off will cause an immediate hit on profits, so management may be reluctant)
  - Improving demand forecasting to set more realistic safety stock levels
  - Reducing the "Standard" product-line down to the top 5 products (80% of current sales)

Bonus/Guide to an Excellent Case

- An excellent interviewee will:
  - Provide creative, logical reasons for the inventory increase
  - Provide creative, logical solutions to reduce Inventory
  - Detail a cohesive demand forecasting plan that would improve accuracy
  - Provide a plan to limit future product proliferation in the "Standard" product lines

Case 8: Vindaloo Corporation

By: Ben Walter (Kellogg Class of '03), Edited By: Ameed Mallick (Kellogg Class of '12)

Case Question

- Our client, Vindaloo Corporation, is a small biotechnology company that has developed a new seed for sugar beets, which produces twice as much sugar as the seeds that are currently in use. They now want to sell the company, and wonder how much it is worth.

8

Quants.

4

Structure

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Basic NPV
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Opps.

Case tracker

- **Industry:** Consumer products
- **Level of Difficulty:** Medium
- **Case format:** Developing a new product
- **Concepts being tested:**
  - Basic NPV
  - Marketing Strategy
  - Operations

Fit Questions

Spend first 15 min on fit

- What do you read?
- What is the most important issue facing the industry of your last job?
- Describe your methods of diagnosing client's needs.

Guide to interviewer

- This is a valuation case and, as such, has a lot of number crunching. To calculate the NPV, the interviewee will have to size its impact up and down the value chain and determine its value using assumptions about market penetration and growth rates.
- There are also several important qualitative insights for the candidate to make, the main one of which is that the new technology will halve the land rather than doubling production, which would cause an immediate worldwide sugar glut and rapidly falling prices.

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Clarifying answers and case guide

Clarifying answers to provide if Asked

Industry Characteristics/Market Economics

- The market has grown at GDP over the last few years which is predicted to grow at 2% annually.
- Sugar is a mature commodity. The wholesale market is $2 billion worldwide per year.

Competitive Dynamics

- We can assume a 100% market penetration, since there are no competing products, and the efficacy of the product is proven.
- There is no imminent threat of competition and a patent would protect the investment for a number of years.

Interviewer Guide to Case

A sample case structure would include the following:

1) Start with an understanding of the sugar industry and market economics
2) Analyze the product benefits and potential impacts for farmers
3) Identify the channel structure and assess the opportunities to minimize costs within the value chain
4) Calculate NPV of cost savings to value the company

- Beets grown from the new seeds will produce 2x the sugar that traditional seeds yield. For example: Currently 100 beets produce 100 lbs of sugar while the new seeds will produce 200 lbs of sugar, or 2 lbs/beet.
- The elasticity of demand for sugar is 1.
- The value chain can be broken down into four primary processes:
    1. Farming (planting, harvesting, and selling beets), which is 40% of cost
    2. Trucking, which is10% of the cost
    3. Refining, which is 30% of the cost
    4. Distribution, which is 20% of the cost.
- Farmland that is not used for sugar can be repurposed to grow cabbage, which is currently one fifth as profitable as sugar.
- Trucking costs for sugar are 5% fixed and 95% variable, with the variable costs directly related to the weight of what is being trucked.
- Refining costs are all variable, and it will cost 25% more per beet to refine the new beets than it cost to refine the old beets.
- There are no cost savings in distribution from the reduced volume.

Calculations

Math question

- What are the cost savings/increase in profits from farming?

Math solution

- **Solution - Farming**
  - The product allows farmers to grow the same amount of sugar on half of the land. So we can assume that farmers will keep half of their land for sugar and repurpose the rest of the land for growing cabbage. Previously, one acre of land produced "X" profits of sugar - now half an acre can produce profits of "X" while the other half produces profits of ".1X" of profits from cabbage. Recall that **cabbage is a fifth (20%) as profitable as sugar <u>currently</u>** – accounting for the 2x yield from the new sugar beets, **cabbage would only be 10% as profitable as the <u>"new" sugar</u>**. Since profits per acre go from X to 1.1X, there is a 10% increase in profits from farming.
- **Common mistakes:**
  - Candidates who think that farmers will just use the same amount of land and produce twice as much sugar have not thought the question through. Sugar is a mature commodity and if everyone produced twice as much sugar, there would be far more supply than demand, causing global prices to crash. Additionally, some candidates will try to calculate the costs savings of the entire value chain here (make sure to remind them in the debrief to answer the question that is asked.)

Calculations (cont.)

Math question

- What are the cost savings from Trucking, Refining, and Distribution?

Math solution

- **Solution - Trucking**
  - Variable trucking costs, which represent 95% of the total cost structure, will decrease by 50%, leading to an overall costs savings of 95% x 50% = 47.5%.
- **Solution - Refining**
  - Refining costs have two components. Initially the costs will drop by 50% because only half as many sugar beets need to be refined. However, the variable cost/beat increases by 25% for the new sugar beets. In step the costs go from “X” to “.5X” to “.625X”, an overall cost savings of 37.5%.
- **Solution – Distribution**
  - There are no cost savings in distribution.

Calculations (cont.)

Math question

- What are the total cost savings in the value chain?

Math solution

Step	A – Cost Portion	B – Cost Savings	Weighted Cost Savings (A x B)
Farming	40%	10%	4%
Trucking	10%	47.5%	4.75%
Refining	30%	37.5%	11.25%
Distribution	20%	0%	0%
Total	100%		20%

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Calculations (cont.)

Math question

- How valuable is this product?

Math solution

- **Solution – Net present value of cost savings**
- Our client's product will save 20% a year in sugar costs - multiplied by the $2 billion market size, that cost savings comes out to $400 million per year. The final question then, is how valuable is that? Here, it would be valuable for the candidate to know the perpetuity formula, which is:
  - Value = Annual Cash/(r-g)
- We are given the growth rate, g, as 2%. "r" (the discount rate is not given), so it is fine for the candidate to use the standard assumption of 10%. Therefore the company can be valued at:
  - Value = $400M/(10%-2%)

    = $5B

Solution and recommendations

Solution & Recommendations

- This product will only allow our client's clients (sugar growers) to produce sugar more efficiently. It won't cause the sugar to taste any better or cause consumers to demand more of it. Therefore the product cannot be expected to grow revenue, but it will reduce costs. The value of Vindaloo Corporation is directly related to cost savings.
- After running the NPV analysis, Vindaloo Corporation should be valued at $5B.
- The interviewee should also identify a number of risks and potential benefits along the way (i.e. adoption rates given the required change to farmland and likely capex for equipment, competitive response, other uses for sugar in adjacent or completely separate markets, other uses for newly acquired farmland, potential buyers, government intervention, etc.) before making their final recommendation.

Bonus/Guide to an Excellent Case

- This is a quantitatively heavy case. A excellent interviewee can quickly identify the important drivers of cost and can crunch the numbers easily and with little error. Additionally, they will organize the data in a tabular form for ease of calculation and presentation.
- Additionally, an good interviewee will synthesize each relevant cost savings, the final valuation, and next steps/risks as part of their final presentation.

Case 9: Zephyr Beverages

By: Edwin Van Dusen, Brian Fox and David Welch (Kellogg Class of '04), Edited By: Ameed Mallick (Kellogg Class of '12)

Case Question

- Our client, Zephyr Beverages, is a division of a large consumer products company. The division produces fruit juices in three forms, all under the Zephyr name: chilled, juice boxes, and frozen concentrate. Zephyr had sales of $600 million last year, about 3% of the company's overall sales of $20 billion.
- The chilled segment represents $120 million in sales per year. While juice boxes and frozen concentrate have been consistently profitable, chilled juices are only breaking even in good quarters and are losing money in bad quarters. Zephyr has received a proposal from upper management to sell the chilled juices business. We need to help them decide whether or not this is a good idea.

1

Quants.

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Structure

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Capacity

Case tracker

- **Industry:** Consumer Goods
- **Level of Difficulty:** Easy
- **Case format:** Opportunity assessment
- **Concepts being tested:**
  - Competitive analysis
  - Capacity contraction

Fit Questions

Spend first 15 min on fit

- What do you do for fun?
- What did you contribute in your last job that made a difference to the organization?
- Outside of school and work, what is your greatest personal accomplishment?

Guide to interviewer

- This is a relatively short case that requires the candidate to create a holistic structure for solving the problem: what does Zephyr do with an underperforming business? It can divest chilled juices, sell its whole juice division, or remain in all its business. Any of the three possible solutions listed at the end can be argued, but the third solution makes the most economic sense.
- The candidate will need to ask for additional information that is necessary to solve the problem, rather than relying on the interviewer to dispense it all at once.
- This case is not representative of the quantitative rigor of interview cases and therefore we recommend it only be given as a warm-up early in the process.

Clarifying answers and case guide

Clarifying answers to provide if Asked

Industry Characteristics/Market Economics

- It has been growing at GDP (~3%) the last few years and is projected to continue that growth rate.
- The market for chilled juices is dominated by mothers with young kids.
- Brand name is important in this market, as mothers tend to prefer reliable products. However, the brand premium must be in line with other branded products and all branded juices sell in the same price range.
- This is a highly price sensitive market that loves coupons, promotions, etc.

Competitive Dynamics

- This is a highly concentrated market. There has not been a lot of change, technological or otherwise, recently and there are no obvious entrants.

Interviewer Guide to Case

A sample case structure would include the following:

1) Identifying the options: sell chilled juice, sell all juice businesses, continue on with all businesses
2) Qualitative discussion of competitive dynamics
3) Discussion of product selection/components, as well as ways to cut costs

When asked, the interviewer can reveal the following additional information:

- Chilled beverages are a $1 billion worldwide industry
- The two largest players have market shares of 40% and 25%, respectively. Zephyr's market share, 12% makes it third in the industry.
- The two market leaders are able to do more advertising, couponing, promotion, and trade than Zephyr is able to do. We do not know about their profitability, but assume it is positive.

Key elements to analyze

Competitive Dynamics

- Using basic information provided, interviewee should deep dive the competitive dynamics in further detail.

Notes to interviewer

- Relevant info:
  - Bad market position: 12% vs. 40% and 25%
  - Assumed profitability differences
  - Disadvantage on trade promotions
- Interviewee should be able to see that Zephyr is at a serious disadvantage on all fronts as a smaller company that is both less profitable and less engaged in the kinds of trade promotions that key customers covet. The overall conclusion should be that this is a weak competitive position.

Product selection

- Using information about our products vs. our competitors, the interviewee should focus on discussion about how to cut costs.

Notes to interviewer

- Relevant info (when asked):
  - The market leaders produce pure orange juice/blends based on citrus juices. Zephyr uses more elaborate blends, usually with a base of pear or peach juice (60% of inputs) and flavor with cranberries, bananas, mangoes, etc. (the other 40%). Pear and peach juice are a similarly price to orange juice, but the other flavorings cost about twice as much.
  - A plant in California produces all products; chilled, juice boxes and frozen. Each of the three products uses different machinery. It would be difficult to find another use for the plant without a major conversion.
- Additionally, there are currently synergies between chilled, frozen and juice boxes – mothers are slightly more likely to buy products from the same brand
- This indicates that, despite a disadvantage, divesting is not realistic and there may be room for cost reduction based on reformulation to make Zephyr profitable.

Solution and recommendations

Solution & Recommendations

There are three possible solutions, with no right answer. The recommendation should be well-reasoned, comprehensive, and include as much relevant information as possible.

- Sell the chilled juice business. This would, however, affect the juice and frozen concentrate businesses, as there are both advertising and manufacturing synergies.
- Sell all of the juice business. This may be more feasible, as the buyer could capture the synergies, but would not be too likely to turn the business around. The selling price is likely to be low.
- Keep the chilled juice business and rework the ingredients and costs. This is the most feasible option, as evidenced by the success of the competitors. We are probably developing extra features in our ingredient mix that the market does not want and is not willing to pay for. Eliminating or scaling back those features will probably allow us to cut costs without affecting revenue.

Bonus/Guide to an Excellent Case

- Prospects who do well on this case will have to be comfortable with ambiguity and with a lack of perfect information. They will quickly grasp the issues and delve into the underlying qualitative discussions, coming up with a lot of additional risks/potential benefits for each option.
- Creative solutions beyond those listed are possible and encouraged, though should be done within the framework of the information available.

Case 10: A+ Airline Co.

By: Adam J. Louras (Kellogg Class of '11)

Case Question

- Our client is A+Airline Co., the third largest airline in the United States by passengers carried. This week, we have been flying on our primary competitor, Gamma airline, and we noticed something interesting; they stopped accepting cash for in-flight food and beverage services and they now only accept major credit cards.
- *The CEO of A+Airline Co. wants to know, why did Gamma Airline switch from a Cash & Card system to a credit card only system, and should we follow them?*

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Quants.

8

Structure

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Case tracker

- **Industry:** Airline
- **Level of Difficulty:** Hard
- **Case format:** Opportunity Assessment
- **Concepts being tested:**
  - Basic NPV
  - Operations
  - Market Sizing
  - Customer Strategy

Fit Questions

Spend first 15 min on fit

- Tell me about a time when you had to adjust a project schedule because you didn't have all the resources that you needed
- Describe a situation in which you had to change your communication style to influence stakeholders from different groups

Guide to interviewer

- This case will force an interviewee to rely on logic, business acumen, and structure
- Commonly, the interviewee will ask a lot of questions about historical costs, revenues, etc. **This is not the correct approach to this question.**
- The savvy interviewer will realize that this is a BEFORE vs. AFTER comparison of switching from a CASH & CARD system to a CARD ONLY system. Therefore, the questions asked should focus on the DELTA, or the cash changes that occur when the switch is made.

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Clarifying answers and case guide

Clarifying answers to provide if Asked

Industry Characteristics/Market Economics

- *Card Use*: Roughly 99% of all consumers purchase their airline tickets using a credit card, i.e. all consumers on an airplane have a credit card available to them.

Client Characteristics

- *Items Sold*: Only food and alcoholic beverage items are sold on A+Airline flights
- *Locations:* This is a US Domestic decision only. Ignore international.

Competitive Dynamics

- Gamma is the only airline that has made the switch; however all other airlines are evaluating the switch.
- For the purposes of this case, Gamma and A+Airline should be considered to be exactly the same in all regards.

Interviewer Guide to case and handouts

Case Structure – Interviewee's structure should be a BEFORE vs. AFTER comparison of the switch from CASH & CARD to CARD only and should include:

- *Revenue Changes:* Loss of Cash Only customers vs. Increase in Credit Card customers
- *Cost Changes:* Benefit of Cash Management Cost Removed vs. Incremental Cost (Fee) of Credit Card
- *Cash Flow Changes:* Interest and Time Value of Money (TVM), and Working Capital impacts due to an increase in collection speed

Exhibit 1 – After Interviewee walks through structure, they will likely ask questions about consumer purchase behavior on airplanes. Once you feel that they have identified the need to do a market sizing, hand out Exhibit 1. (**DO NOT ALLOW ROUNDING**)

- *Ask the interviewee to determine the Total Market Size in ($) for food and beverage purchases on an average flight*
    - *The interviewee should calculate the CURRENT allocation of purchases (Cash Vs. Card) for an average flight.*
    - *The interviewee should correctly identify that some of the current "Cash" customers will not convert to Card.* ***Tell them we will lose 1/3.***

Exhibit 2 – The interviewee should recognize that there might be a cost savings due to the change. Most interviewees know that there is a Credit Card processing fee but do not realize that there are many costs associated with cash management. Ask them about the types of costs A+Airline might face under both processes before handing out the exhibit. When asked, explain that **the total, per flight, savings from eliminating overhead due to Cash Management Operations is $35/flight**

Key elements to analyze

Changes in Revenue

- Interviewee will likely begin with the correct assumption that revenue will be lost due to unhappy, cash-only passengers
- Once asked about how many are lost, hand out **Exhibit 1** to do a market sizing

Changes in Costs

- Interviewee should make mention of Cost changes due to the shift to a Card Only strategy.
- Ask the interviewee to detail the types of costs that might be involved before handing out **Exhibit 2**

TVM & Working Capital

- **Exhibit 2** also shows that there is a 30 day time benefit to collecting payment via Credit Card vs. Cash
- ***Prompt 1****: Ask the interviewee to qualitatively explain the impact this time savings will have*

Notes on Exhibit 1

- Using Exhibit 1, interviewee should calculate:
  1. *Total Number of Passengers per Plane*

	Seats	Occupants	Business	Leasure
First Class	50	50	50	0
Economy	150	120	60	60
Total	**200**	**170**	**110**	**60**

  2. *Total Number that Purchase & Total Spend ($)*

	# that Purchase	Total Purchase $
Business	45	$450
Leasure	15	$75
Total	**60**	**$525**

  3. *Cash vs. Card Spend + LOSS*

	Cash	Card	Total
Inflight $	$105	$420	$525

Lose 1/3 of Cash Customers	#	$	New Total
Business	3	($30)	$420
Leisure	1	($5)	$70
Total	**4**	**($35)**	$490

Notes on Exhibit 2

- Exhibit 2 shows the current operations for Cash Management and Card Management at A+Airline.
- The interviewee should notice the following information:
  - Cash Management & Card Management both have 2% fees associated, so this is a "wash" in terms of savings.
  - Cash Management requires additional overhead, 7 total employees per airport, that could be eliminated for further savings.
- When asked, explain that the total, per flight, savings from eliminating overhead due to Cash Management Operations is **$35/flight**
- **Interviewee should notice that the $35 savings offsets the $35 loss in Revenue** (Slightly more because this impacts bottom line, but ignore margin)

Qualitative Assessment

- The interviewee should qualitatively mention that there are benefits to eliminating the longer cash management process:
  - *Time Value of Money*: A+Airline will receive their money 30 days sooner, and this money could be used to:
    - Invest in interest earning accounts or growth projects
    - Pay off suppliers early and take advantage of discounts
    - Pay down lines of credit faster
  - *Working Capital Improvement:* $50 per flight in change can be eliminated, thus freeing up cash flow. Additionally, there will be a reduction in loss of cash due to theft and damage
  - *Happier Customers:* The majority of customers will be able to place and receive their order faster on the plane which will also increase sales

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Solution and recommendations

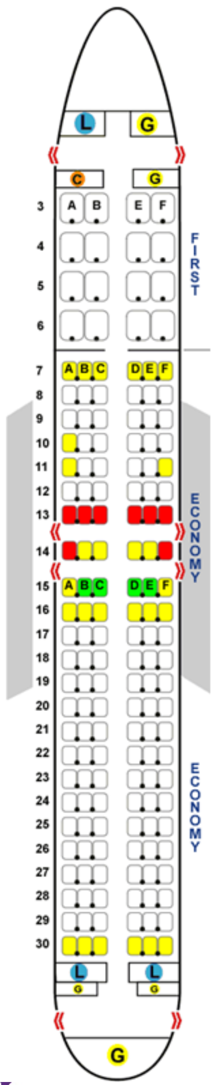
Solution & Recommendations

- Overall, our client, A+Airline, should switch to a Credit Card only system for in-flight food & beverage because:
  - *Quantitative Benefits*: We calculated that there would be a loss of 3 business customers and 1 economy customer per flight which amounted to a Revenue loss of $35. We also found that we could save $35 in overhead expenses by eliminating the Cash Management process. In sum, the decision to switch is in favor because the savings are to the bottom line and the revenue losses are top line.
  - *Qualitative Benefits:* We also found that we will receive payment 30 days sooner by only accepting credit cards. This improves our cash flow and could allow us to earn interest, pay down creditors, or invest in projects. Additionally, by reducing cash losses and eliminating "Change" tied up on airplanes, we can improve our Working Capital and also put this money to work for us. Finally, it appears as though customers, in general, might actually be happier because the speed of transactions on the airplane will improve.

Bonus/Guide to an Excellent Case

- An excellent interviewee will note:
  - Due to the increased transaction speed, probability of purchase for both Business and Economy passengers in the AFTER state should go up due to a reduction in frustration. The people on the back of the airplane often abandon a purchase if it takes too long to place an order. Making change takes a lot of time!
  - Average purchase amount should also increase. There is a proven psychological phenomenon that shows how consumers who do not carry cash purchase less when a cash option is offered because they feel guilty using their card. A card-only option eliminates this guilt and consumers don't mind using the card.
  - Being creative when listing the change of costs as: Wifi cost (connect with banks and verify transaction), Fraud cost (increased chance of fraud to happen after implementing card only payment).

Exhibit #1: An Average A+Airline Flight



A+Airline Boeing 737-800 Vers. 2 (738)

Total Seats 200

	% of Seats	Load Factor	% Business	% Leisure
First Class	25.0%	100%	100%	0%
Economy	75.0%	80%	50%	50%

	% that Purchase	Avg. Spend ($)
Business	75.0%	$10
Leisure	25.0%	$5

*Note: First Class Passengers Receive Free Food & Beverage

	% of In-flight Purchases
Cash	20%
Card	80%

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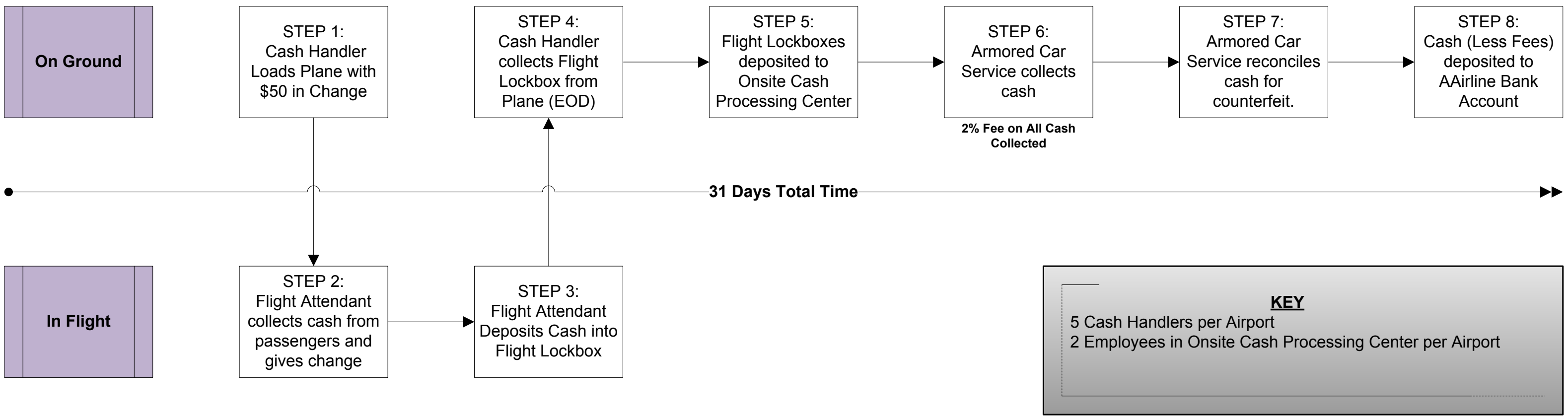
Exhibit #2: A+Airline Cash & Card Operations

AAirline Cash Management Process



AAirline Credit Card Process

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Case 11: Bell Computer Inc.

By: Adam J. Louras (Kellogg Class of '11)

Case Question

- Our client, Bell Computer Inc., is the second largest PC manufacturer, by unit sales, in the United States. Over the past 5 years, Bell has been gaining market share and growing revenue, but at the same time, their net income is eroding.
- The founder of Bell has returned to the company and taken over as CEO. He has hired us to determine:
  - Why have our profit margins declined?
  - What can we do to improve our profitability and reach our "Full Potential"?

Case tracker

- **Industry:** Tech/Telecom
- **Level of Difficulty:** Hard
- **Case Format:** Improving profitability + Reducing Costs
- **Concepts Tested:**
  - Marketing Strategy
  - Competitive Analysis
  - Supply/value chain

Fit Questions

Spend first 15 min on fit

- What skills can you bring to this position?
- Give me an example of a business problem your company faced and tell me how you solved it.
- What other types of jobs are you considering? Why and how did you choose the companies? How do they compare to consulting?

Guide to interviewer

- This case is primarily about product mix changes in the PC industry combined with Average Selling Price (ASP) Declines resulting in lower overall revenues for the industry. Competitors that did not keep up with cost reductions are faced with tighter margins
- The interviewee should recognize that this is a "Profit Equation" style question and use a version of the following equation in their "Framework":
  - Profit/Unit = Price/Unit – Variable Cost/Unit – Fixed Costs/Unit
- Various terms from the PC industry are used throughout the case and it is not expected that the interviewee knows these terms. Help as needed.

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Clarifying answers and case guide

Clarifying answers to provide if Asked

Industry Definitions

- *ASP*: ASP or Average Selling Price is the term used for the average price sold by the company for a computer. Multiplying units sold by ASP will give you total revenue.
- *Client Segment*: PCs designed for, and sold to, retail consumers either direct or through a retailer like Best Buy.

Client Characteristics

- *Items Sold*: Assume that only hardware is sold as shown in Exhibit 1. Interviewee could suggest selling additional items such as printers, software, warranty service, etc. to improve profit
- *Locations:* This is a US Domestic decision only. Ignore international.

Competitive Dynamics

- All competitors face the same ASPs and sell comparable products.

Interviewer Guide to case and handouts

Case Structure – Interviewee's structure should be structured as a comparison of Bell Computer's financials from Before, i.e. 2005, and After, i.e. 2010. The interviewee should note the "Profit Equation" and they should make the following inferences from the question setup:

- *Revenues are going up and Market Share is Increasing* AND *Net Income is going down*
- *Thus: Prices (ASPs) are being reduced to buy market share. This is causing more units to be sold, but, with Net Income going down, it is clear that **costs have not reduced to keep up with the reduction in ASPs.***

Exhibit 1-3 – After Interviewee walks through structure, they should ask questions about the components of Net Income, i.e. Revenue and Costs.

- *Have a conversation with the Interviewee to force them to talk through the essential components of the Profit Equation that are needed to answer the question.*
- *Let the Interviewee drive the case. When you feel that they have asked enough information about the following topics, give them the exhibit that shows this information:*
  - *Sales Units* → *Exhibit 1*
  - *Prices* → *Exhibit 2*
  - *Costs* → *Exhibit 3*

Answer – The interviewee cannot solve this case without all three exhibits. Once they have given you sufficient reason to hand them each exhibit, they should drive through the case to answer both questions.

Key elements to analyze

Marketing Strategy

- Using Exhibits 1-3, the interviewee should be able to determine that margins are falling due to product mix shifting and price declines

Notes to interviewer

- The Interviewee should be able to answer the question, “Why have our profit margins declined?” with the following rationale:
  - Exhibit 1: Shift in Client preference towards Laptops & Netbooks
  - Exhibit 2: Declining ASPs for Laptops and Low ASPs for Netbooks
  - Exhibit 3: Cost position has remained unchanged
- The interviewee could answer the question qualitatively by interpreting Exhibits 1-3. To make this case more quantitatively focused, ask the interviewee to calculate various metrics for 2005 and 2010.
- The interviewee should be able to calculate the following using Exhibits 1-3 (Math calculations on following page):
  - Net Income per Unit by product type
  - Revenue by product type and Total Revenue
  - Cost by product type and Total Cost
  - Net Income by product type and Total Net Income

Competitive Analysis + Supply Chain

- Using Exhibit 3, the interviewee should identify a “Full Potential” improvement for Bell to improve its margins by copying the strategy of its direct competitors.

Notes to interviewer

- The interviewee should be able to answer the question, “What can we do to improve our profitability and reach our “Full Potential”?” with the following COST REDUCTION strategy:
  - Copy Haysus' strategy for part procurement to reduce the build cost of PCs
  - Copy Racer's strategy for Direct Labor to reduce the labor cost of producing PCs
  - Copy HC's strategy for G&A to reduce the total company overhead
- The interviewee could answer the question qualitatively by interpreting Exhibit 3. To make this case more quantitatively focused, ask the interviewee to calculate various metrics for “Full Potential”.
- The interviewee should be able to calculate Bell’s “Full Potential” using Exhibits 1-3 (Math calculations on following page):
  - Net Income per Unit by product type
  - Revenue by product type and Total Revenue
  - Cost by product type and Total Cost
  - Net Income by product type and Total Net Income

Math Solutions

Math Part I

	BELL FY2005					
	Desktop PCs	Laptop PCs	Netbook PCs	Servers	Other	**TOTAL**
Units Sold (K)	20.0	10.0	0.0	5.0	5.0	**40.0**
ASP	$1,000.0	$2,000.0	$0.0	$3,000.0	$250.0	
CPU	800.0	800.0	0.0	800.0	200.0	
NI/Unit	*$200.0*	*$1,200.0*	*$0.0*	*$2,200.0*	*$50.0*	
Revenue ($M)	$20.0	$20.0	$0.0	$15.0	$1.3	**$56.3**
Total Cost ($M)	16.0	8.0	0.0	4.0	1.0	**$29.0**
NI ($M)	*$4.0*	*$12.0*	*$0.0*	*$11.0*	*$0.3*	**$27.3**
Profit Margin	*20.0%*	*60.0%*		*73.3%*	*20.0%*	**48.4%**

	BELL FY2010					
	Desktop PCs	Laptop PCs	Netbook PCs	Servers	Other	**TOTAL**
Units Sold (K)	30.0	30.0	5.0	10.0	5.0	**80.0**
ASP	$1,000.0	$750.0	$500.0	$3,000.0	$250.0	
CPU	800.0	800.0	800.0	800.0	200.0	
NI/Unit	*$200.0*	*($50.0)*	*($300.0)*	*$2,200.0*	*$50.0*	
Revenue ($M)	$30.0	$22.5	$2.5	$30.0	$1.3	**$86.3**
Total Cost ($M)	24.0	24.0	4.0	8.0	1.0	**$61.0**
NI ($M)	*$6.0*	*($1.5)*	*($1.5)*	*$22.0*	*$0.3*	**$25.3**
Profit Margin	*20.0%*	*(6.7%)*	*(60.0%)*	*73.3%*	*20.0%*	**29.3%**

Math Part II

	BELL Full Potential					
	Desktop PCs	Laptop PCs	Netbook PCs	Servers	Other	**TOTAL**
Units Sold (K)	30.0	30.0	5.0	10.0	5.0	**80.0**
ASP	$1,000.0	$750.0	$500.0	$3,000.0	$250.0	
CPU	350.0	350.0	350.0	350.0	200.0	
NI/Unit	*$650.0*	*$400.0*	*$150.0*	*$2,650.0*	*$50.0*	
Revenue ($M)	$30.0	$22.5	$2.5	$30.0	$1.3	**$86.3**
Total Cost ($M)	10.5	10.5	1.8	3.5	1.0	**$27.3**
NI ($M)	*$19.5*	*$12.0*	*$0.8*	*$26.5*	*$0.3*	**$59.0**
Profit Margin	*65.0%*	*53.3%*	*30.0%*	*88.3%*	*20.0%*	**68.4%**

Results:

	Desktop PCs	Laptop PCs	Netbook PCs	Servers	Other	**TOTAL**
NI ($M) Improved	$13.5	$13.5	$2.3	$4.5	$0.0	**$33.8**
Cost Per Box Reduced	$450.0	$450.0	$450.0	$450.0	$0.0	

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Solution and recommendations

Solution & Recommendations

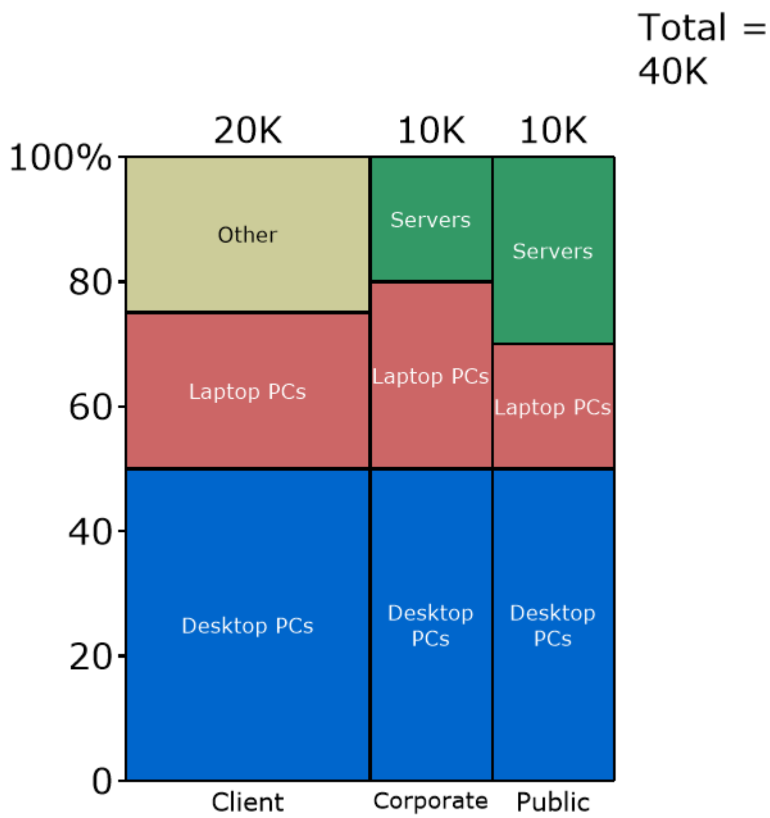
- Bell Computer Inc. and the PC industry have faced five years of Average Price declines in the Laptop product segment. At the same time, "Client" or retail consumers have shifted their preferences towards Laptops and a new product segment called Netbooks. Because Bell Computer has not reduced its costs over this same timeframe, profit margins and net income have deteriorated despite increases in revenue.
- In order for Bell Computer Inc. to return to profitability, they must reduce their cost per unit sold. The best approach we identified was through an analysis of our competitors. Using our competitors line-item costs as a benchmark, we could potentially reduce our cost per box by $450. This amounts to a total Net Income improvement of roughly $34M.

Bonus/Guide to an Excellent Case

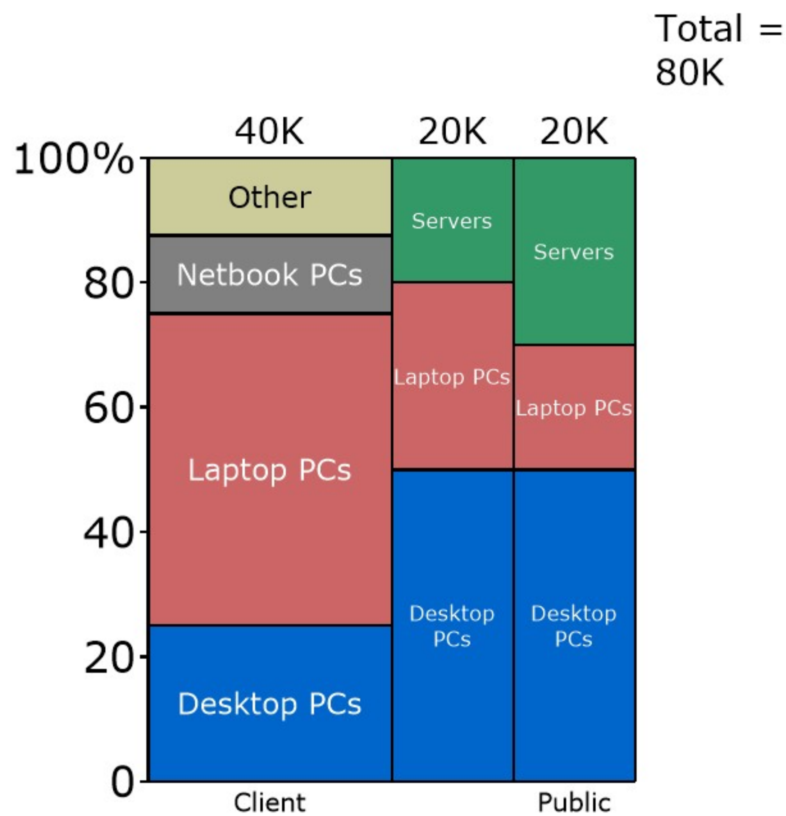
- An excellent interviewee will note:
  - Additional ways to improve net income by selling complimentary, high margin products such as:
    - Printers
    - Software
    - Parts upgrades
    - Warranties
  - Additional ways to cut costs, such as:
    - SKU Rationalization (Reducing the number of product models)

Exhibit 1: Product Mix breakdown by Business Segment for 2005 and 2010

PC Units(K) Sold in 2005



PC Units(K) Sold in 2010



*Note: Netbook PCs did not exist in 2005; “Other” products include Pocket PCs and Calculators

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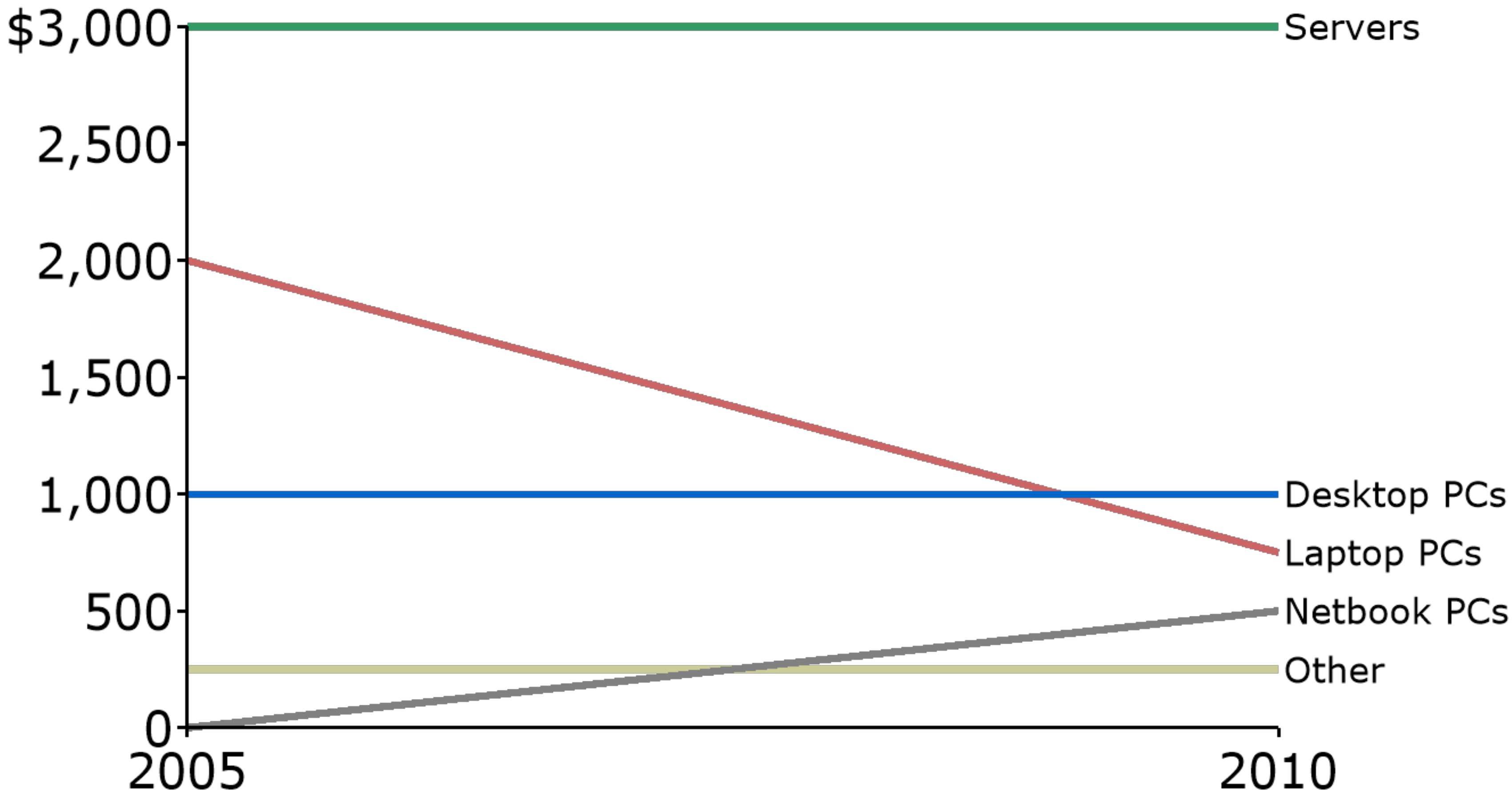
Exhibit #2: ASPs by Business Segment 2005 and 2010



*Note: Netbook PCs did not exist in 2005

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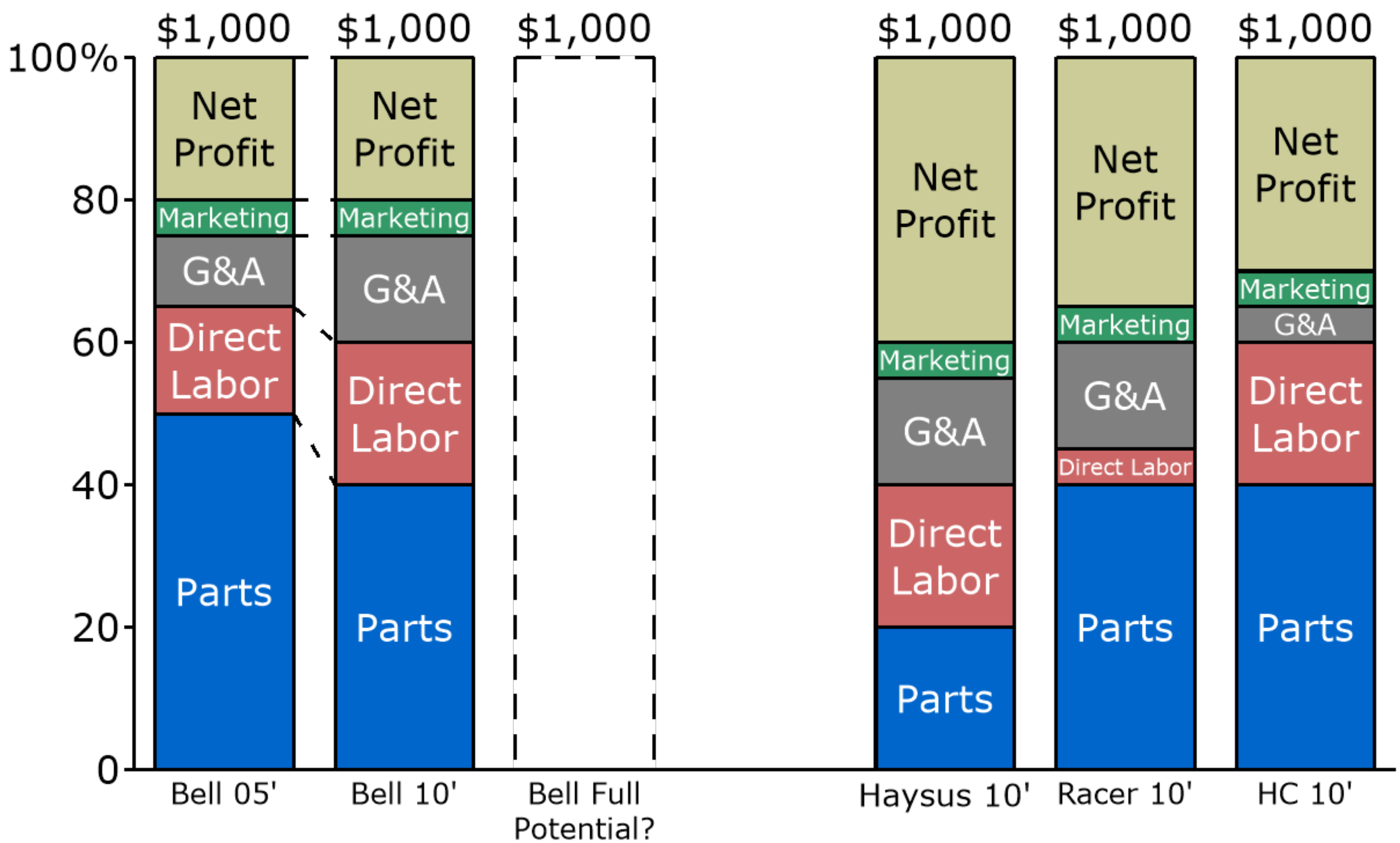
Exhibit 3: Avg. Per Unit Cost Breakdown of a Desktop PC for Bell (05’,10’) and Top 3 Competitors



*Note: Servers, Laptops, and Netbook Product types have the same costs per unit; however, Net Income will vary based on ASP.

“Other” products have a total CPU of $200

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Case 12: Shermer Pharma

By: Ameed Mallick (Kellogg Class of ‘12)

Case Question

- Our client, Shermer Pharma, is a venture backed start-up Pharmaceutical company. Over the past 15 years, Shermer has been developing a molecule that has been approved by the FDA to cure Alzheimer’s with 90% efficacy.
- Shermer’s owners have hired us to determine:
  - How should we sell our product?
  - Is our product going to be profitable?

Case tracker

- **Industry:** Health Care
- **Level of Difficulty:** **Medium**
- **Case format:** Market entry
- **Concepts Tested:**
  - Break Even analysis
  - Marketing strategies
  - Organizational changes

Fit Questions

Spend first 15 min on fit

- Give me an example of a time you had to change someone’s mind.
- What are the most difficult or challenging decisions you have made recently?
- In what kind of work environment are you most comfortable?

Guide to interviewer

- This case is focused on 2 questions: can you determine what it takes to launch a new product profitably through a cost benefit analysis, and can you think through the implications of starting a Sales & Marketing organization from scratch. The case should be driven by the interviewee.
- The interviewee should be guided towards 2 primary options for the Sales & Marketing question
  1. Start your own sales force
  2. Contract sales
- Bonus sales force answer is sell Shermer to a larger firm
- Profitability will center on the interviewees ability to read tables and data on the market and our market share.

5

Quants.

5

Structure

B/E
Mkt. Stgy
Org. Chg.

Clarifying answers and case guide

Clarifying answers to provide if asked

Industry Definitions

- Our product is a pill that cures Alzheimer's, an illness that currently has no treatment that cures or stops the progress of this disease
- Alzheimer's is a degenerative, terminal disease that causes senility and dementia. 30 MM people suffer worldwide
- Sales would be focused on Neurologists and Geriatric psychiatrists (not the consumer of the product)

Client Characteristics

- We don't have a Sales or Marketing organization, the company has purely been a research firm to this point.
- FDA approval, etc has been granted

Competitive Dynamics

- We will not focus on competitive response during this case as we are the only firm that has a cure for this illness and will be for the next 5 years

Interviewer Guide to case and handouts

Case Structure – Interviewee should focus on the questions separately. First we will brainstorm how to sell our product and ask questions to get after the costs of a sales force (Exhibit 1). An optional middle step is a brain teaser to determine the size of the Alzheimer's market. (provide answer of 5MM at the end of the exercise. They then need to ask about the costs and revenues from our new product (Exhibit 2).

Exhibit 1-3 – After Interviewee walks through structure, they should ask questions about the costs of sales and then ultimately the profit equation.

- *Let the Interviewee drive the case. When you feel that they have asked enough information about the following topics, give them the exhibit that shows this information:*
  - *Sales force options* → *Exhibit 1*
  - *Revenues vs Costs* → *Exhibit 2*
- *If the interviewee isn't getting to the question on the three Sales Force options, guide them back toward this and provide Exhibit 1.*
- *Have a conversation with the Interviewee to force them to talk through the essential components of the profit equation that are needed to answer the question.*

Answer – The numbers reveal that our product will be profitable. However, a critical question will be the sales channel, which is why they need to determine to use contract sales in order to be profitable. It is also correct to state that Shermer should sell the product to a larger firm, but the second half of the case should be under the assumption that the owners decide to do contract sales.

Key elements to analyze

Market Entry

- Using Exhibits 1 the interviewee should be able to determine that contract sales is the best financial option

Profitability

- Using Exhibit 2, the interviewee should determine that our product will be profitable utilizing either type of sales force.

Notes to interviewer

- The question boils down to realizing that our client's competencies are rooted in developing a product, not Sales and Marketing. The correct approach is therefore to contract sales or sell the company
- The qualitative approach to the answer is appropriate, but once the interviewee has discussed enough of the inputs, **exhibit 1** should be shared:
  - There is missing data in the chart that should be easy to calculate (solutions provided)
- A third option with no attached data would be to sell the company to a larger firm, this is an appropriate discussion to have and if prompted the interviewee should discuss the tradeoffs of this more qualitatively
- A contract sales organization is typically less effective than internal sales, though most interviewers wont pick up on this and simply giving the financial answer is appropriate

Notes to interviewer

- You should let them try to size the market as a first step, but then provide the actual number of 5MM.
- The firm requires that R&D costs be recovered by Year 5 of the product (a window before which there will be no competitive response)
  - — We can ignore NPV for this question and just assume a straight line amortization…interviewee should come to this conclusion on their own, but course correcting is okay if they get stuck
- Critical information on the exhibit should be provided as the interviewee asks, though should only be volunteered if the interviewee is stuck
- We can ignore tax, however a good interviewee will ask about it, and doing so would realize we still hit our profit targets by year 5
- Manufacturing & Packaging costs are included in the Gross Margin

Math Solutions: Exhibit 1

	Develop own Sales Force	Contract Sales Force
Percent of visit focused on our product	100%	50%
Annual fully loaded cost per Sales Rep	$200k	n/a
Cost per sales call	$170 (($200k*85)/100)	$60
Total calls required	100k (should be asked/given)	200k (100k*2)
Total Sales Reps needed	85	170 (85*2)
Total annual Selling Cost	$17MM ($200k*85)	$12MM ($60*200k)

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Math Solutions: Exhibit 2

Total Market	5MM
Annual gross margin per user	$1000
R&D Cost	$1.5B
G&A cost	$25MM

*Data at left to be provided as the questions are asked by interviewee

	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Market penetration	5%	10%	25%	40%	60%
Total Users	250k (5%*5M)	500k (10%*5M)	1.25MM (25%*5M)	2MM (40%*5M)	3MM (60%*5M)
Total Gross Margin	$250MM (250*$1000)	$500MM (500*$1000)	$1.25B (1.25MM* $1k)	$2B (2MM* $1k)	$3B (3MM* $1k)
Amortized R&D Costs	$300MM ($1.5B/5)	$300MM ($1.5B/5)	$300MM ($1.5B/5)	$300MM ($1.5B/5)	$300MM ($1.5B/5)
Selling Costs	$12 MM (from ex.1)	$12 MM (from ex.1)	$12 MM (from ex.1)	$12 MM (from ex.1)	$12 MM (from ex.1)
G & A Costs	$25 MM	$25 MM	$25 MM	$25 MM	$25 MM
Net Income	($87MM)	$163MM	$913MM	$1.663B	$2.663B

Solution and recommendations

Solution & Recommendations

- Shermer Pharma's core competency is their research focus. The plausible argument can be made that they should sell the company to a larger firm that has the appropriate capabilities that it takes to market and sell a product. Though this might be the right answer, the client isn't always going to do take the optimal approach, particularly when it comes to ownership of the firm. We need to be flexible to account management's wishes
- Assuming the owners decide not to sell the company, contract sales is the next best option, that gives us the best scenario when determining overall profitability of our product.
- The latter half of the case is simple math, determining a P & L for our product and coming up with the correct answer that Shermer can be profitable.
- Ask for high level analysis at the end of the case, what else should be consider before engaging this plan?

Bonus/Guide to an Excellent Case

- An excellent interviewee will note:
  - There is an option to sell the company, even though there is no data provided to support this conclusion
  - Some of the numbers give an obvious answer before needing the exact calculations
  - Challenging the interviewer on the effectiveness of a contract sales organization is a bonus. A qualitative argument can be made that for an additional $5MM a year, we can realize the benefit of a more effective sales force, this isn't the financially correct answer but may be the right tradeoff given the relatively minimal impact to the bottom line vs. revenues of $3B
  - $1000 per year for a life saving cure for a currently incurable ailment is definitely under priced!

Exhibit 1: Sales force options

	Develop own Sales Force	Contract Sales Force
Percent of visit focused on our product	100%	50%
Fully loaded annual cost of 1 sales rep	$200k	n/a
Cost per sales call		$60
Total calls required		
Total Sales Reps needed	85	
Total annual Selling Cost		

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Exhibit 2: Annual Net Income

	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Market penetration	5%	10%	25%	40%	60%
Total Users					
Total Gross Margin					
Amortized R&D Costs					
Selling Costs					
G & A Costs					
Net Income					

Case 13: Hospitality Co

By: Craig DePriester (Kellogg Class of '12)

Case Question

- Our client owns a large hotel chain and is thinking about investing in an add-on for a waterpark on one of its properties. This has been tested in some places and has a lot of potential benefits: family friendly, year-round availability, and potential to bring in new clientele. They have done a lot of work surveying their chain and believe that they have found the right hotel to experiment with a waterpark add-on. Currently, this hotel has a lot of business travelers, but our client believes it would also be attractive for families.
- Our client is nervous about the capital required to build the add-on and wants to make sure that they are making the right investment. That's why we brought you on board. What do you think?

5

Quants.

5

Structure

Invest.
B/E

Case tracker

- **Industry:** Leisure
- **Level of Difficulty:** **Medium**
- **Case format:** Opportunity Assessment
- **Concepts Tested:**
  - Investment
  - Breakeven analysis

Fit Questions

Spend first 15 min on fit

- Tell me about a time when you've had a conflict with a teammate.
- How would your friends describe you?
- How would you compare our industry with others you are interested in?

Guide to interviewer

- This case forces the interviewee to focus on the right issues and can be tricky. The candidate will need to ignore competitive positioning and focus on the profitability of the waterpark. The waterpark should recoup its investment and can even charge a premium.
- They will need to ask the right questions about the investment, its buyback period, and make assumptions about vacancy.
- There are also lots of potential risks and benefits that a great interviewee will recognize that allow them to consider the case on another level of detail.

Clarifying answers and case guide

Clarifying answers to provide

(Ignore any discussion of competition or market dynamics)

Competitive dynamics

- There are no competitors immediately nearby for a waterpark
- We have no information about competitors
- There is no possibility for a competitive response in the short run

Market information

- We do not have any specifics about the market and are unable to conduct additional survey data

Hotel characteristics

- Hotel's normal clientele is business travelers, but we believe that this waterpark will bring in families as well

Interview guidelines

This is a simple profitability calculation (Profit = Revenue – Costs) for the investment of a water-park add on. Many candidates will focus on the revenue side, but we need to back into the minimum amount the hotel *has* to charge to break-even on its investment in the payback period. The math portion assumes that all guests are incremental (the 50% vacancy rate). This is done to simplify the case, but it may require a little explanation to the interviewee .

A sample case structure would include the following:

1) Cost structure - Identify the costs (fixed and variable) as well as the relevant payback period for the investment.
2) Breakeven analysis - Based on the estimated room rates and payback period, identify how much the hotel would have to charge (fixed + variable costs) for each room to breakeven over the life of the investment.
3) Additional risks and benefits – Qualitative assessment of other potential benefits/issues that may arise from the investment.

Math question and solution

Math question

- How much will the hotel need to charge per room to recoup its costs?

Math solution

The math is about backing into how much the hotel needs to charge per room over the course of the three years to recover its investment. The interviewee needs to ignore the variable cost and focus on how to spread the fixed cost of the investment over the payback period.

$6 million investment / 3 years = $2 million / year in revenues

400 rooms X 50% vacancy X 350 days (don't use 365) year = 70,000 rooms per year

(Many candidates will struggle with this, try to combine costs, and will make the difficult on themselves. Let them struggle for a few minutes before helping).

$2 million/year divided by 70,000 rooms/year = 28.6, or about $30/night in fixed cost

The candidate should add this with the variable cost for around $70/night total for the three year period. If they do not interpret the number immediately, ask them what they think about the $70/night total.

Math information

- Investment:
  - $6 million investment
  - Payback in 3 years
- Hotel:
  - 400 rooms
  - With waterpark, 50% vacancy on average for the year
- Cost structure:
  - Investment is fixed cost
  - Variable cost is $40/night per room

Key elements to analyze

Pricing decisions

- How should we interpret the breakeven point on the hotel costs?
- How do we think about pricing?

Other revenue streams

- What other potential benefits/ revenue streams might this have?

Potential risks and issues

- What are the potential risks and issues associated with ?

Notes to interviewer

- The interviewee should realize $70 is an extremely low number, especially considering that families may be staying at the park.
- This will also ask the interviewee to gauge this number against the real cost of hotels and their personal experiences.
- Realistically, the hotel will be able to charge significant premium in addition to covering its basic costs.
- There are two options: charge an additional fee for waterpark entry or make it all-inclusive with hotel fee.

Notes to interviewer

- There are a lot of potential places to go here, but here are some ideas:
  - Charging admission entry
  - Food/restaurants at the park
  - Promotional tie-ins
  - Merchandise/swim suit apparel
  - Expansion to other hotels

Notes to interviewer

- Similarly, there are a lot of potential risks:
  - Management competency (do we have any experience?)
  - Regulatory/insurance risks
  - Health/litigation risks associated with theme parks
  - Competitive response
  - Alienating business customers with family friendly atmosphere

Solution and recommendations

Solution & Recommendations

- This project should be undertaken. While there are a number of potential risks and considerations (including competitive dynamics), the economics are extremely attractive and the price ($70/room) to earn back our investment is relatively low for almost any hotel, much less one with these amenities.
- The interviewee should make a solid case for their recommendation, using the other potential avenues for profit and the low payback price as key points for its undertaking.
- While the model answer suggests undertaking the investment, if an interviewee has a compelling, logical story on why the risks outweigh the benefits, it should be judged on its own merits. It would have to be a powerful argument though.

Bonus/Guide to an Excellent Case

- This case is defies a lot of candidate's expectations, with a lot of them really focusing on competitive/market dynamics. An excellent interviewee will get to the math quickly by focusing on the important issues: returning the investment.
- Additionally, an excellent interviewee will interpret the breakeven point as low. Asking them to "interpret" these numbers provides a good check of business judgment. Furthermore, an excellent interviewee will provide a lot of creative risks/benefits from this investment as well.

Case 14: Rock Energy

By: Mauricio Atri (Kellogg Class of '12); Edited by: Ron Mantel (Kellogg Class of '15)

Case Question

- Rock Energy, an Oil & Gas company, is evaluating the purchase of one of three oil fields in Latin America. After Rock Energy has decided which oil field to purchase, it will outsource all drilling related activities. You have been brought in to identify the best investment for Rock Energy.
- *How would you evaluate the three oil fields, and which oil field should Rock Energy purchase?*

Case tracker

- **Industry:** Energy
- **Level of Difficulty:** Medium
- **Case Format:** Opportunity Assessment
- **Concepts Tested:**
  - Investments
  - Creativity

Fit Questions

Spend first 15 min on fit

- What are you most proud of?
- Describe a time at Kellogg where you worked with a team to achieve a challenging goal

Guide to interviewer

- Main steps the interviewee should take:
  - You will likely see something similar to the Revenue/Cost framework where the interviewee assess the investment opportunity for each field; provide Exhibit #1 once they are ready to approach Revenues/Costs (after initial questions)
  - With the info from Exhibit #1, interviewee is expected to calculate Revenues and Costs (interviewee should identifying that they need to ask for price of oil and cost to secure initial rights)
  - The price and barrels extracted by day will allow the interviewee to estimate the total revenue and profit by well.
  - After calculating profit, the interviewee should consider other factors, risks that could affect the decision investment

7

Quants.

5

Structure

Invest. Creativity

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Clarifying answers and case guide

Clarifying answers to provide

Industry Characteristics/Market Economics

- The rights being offered to Rock Energy gives them the right to drill during year 1, and produce oil for 20 years. Assume that no oil is produced until the beginning of year 2.
- Rock Energy can get the drilling operator to deploy a maximum of 10 rigs in each of the regions
- The cost of the rig day includes crew, consumables and services
- Any amount of oil being extracted will be sold at the spot market price of the moment
- For simplicity assume that the oil wells will produce the same amount of oil for the next 20 years with no maintenance costs
- The rights to extract oil cost $40M in each region

Guide to case / Guide to handouts

Part 1 – Hand out exhibit #1 once the interviewee is at the point in their framework where they will analyze Revenue & Costs

- This handout should lead the interviewee to understand that each region will have different geological characteristics which will affect the drilling time, production, revenues and costs for Rock Energy

Part 2 – Profitability

- Provide the price of oil **($50/bbl)** if the interviewee does proactively ask for it when trying to calculate profitability; ask the interviewee to work out the profitability for each field, and not only by well.
- The answer will be a function of the investment, variable costs, and quantity of oil extracted by field. This last variable will depend on the number of wells drilled in one year.

Part3 – Conclusion and other issues

- Rock Energy should choose to buy the rights for **Region 2** because it will offer the best profits, but there are other factors that could impact the decision to invest:
    - Insurance costs; political stability of the region; labor contracts and unions; volatility of oil prices; oil quality differences

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Math question and solution

Math question

- What are the first profits during the first year of production (i.e. 1st year spent on drilling, and production begins in 2nd year)

Math solution

- **Time to complete a well** = (Depth/Penetration Rate): Region 1 = 60, Region 2 = 90, Region 3 = 180
- **Production per well by region =** Daily production * 360 days: Region 1 = 36K, Region 2=72K, Region 3= 108K
- **Cost per well** = Days to complete well*Cost per rig day. **Yearly Revenue per well** = Price * # barrels per year. **Number of wells per year =** 360/(Time to complete a well) * number of rigs. Profit Margin = (Profit per well)/(cost per well). **Total Revenue** =(Yearly Revenue) *(Number of wells per year). **Total Cost =** (Cost per well)*(number of wells)+(Rights to extract oil). **Profit =** Total Rev – Total Cost.

Concept	**Region 1**	**Region 2**	**Region 3**
Investment Cost (Rights to extract oil)	$ 40,000,000	$ 40,000,000	$ 40,000,000
Cost per well	$ 300,000	$ 900,000	$ 3,600,000
Yearly Revenue per well	$ 1,800,000	$ 3,600,000	$ 5,400,000
Profit per well	$ 1,500,000	$ 2,700,000	$ 1,800,000
Profit margin per well	500%	300%	50%
Number of wells per year	(360/60)=6x10 Rigs=60	40	20
Total Revenue	$ 108,000,000	$ 144,000,000	$ 108,000,000
Total Cost	$ 58,000,000	$ 76,000,000	$ 112,000,000
Profit	**$ 50,000,000.00**	**$ 68,000,000.00**	**$ (4,000,000.00)**

Solution and recommendations

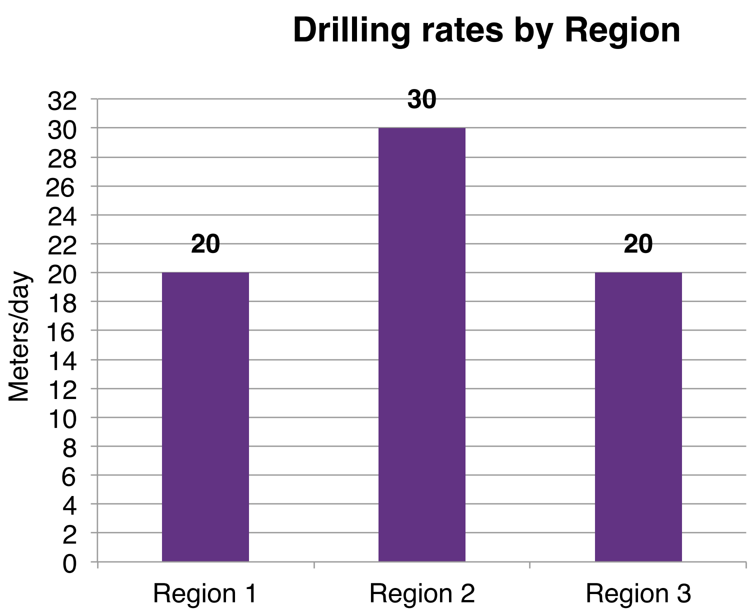
Solution & Recommendations

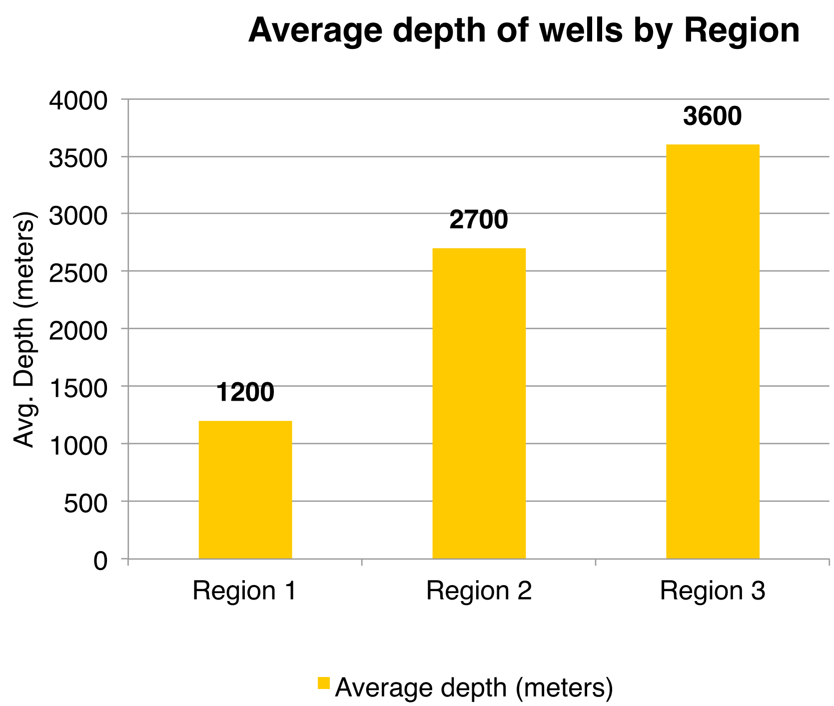
- Rock Energy should invest in buying the rights for Region 2
- It is important to recognize that even though the profit margin for Region 1 is significantly higher on a per well basis, the return of the investment depends on the total number of wells that you can drill in the first year and the upfront cost for the rights to extract oil in that Region
- Additionally, the interviewee should be able to identify other qualitative aspects of the investment that might affect the decision to invest in a certain Region

Bonus/Guide to an Excellent Case

- An excellent answer would mention and briefly summarize the impact of including an expected value analysis, which would assign different probabilities of extracting the expected barrels per day

Exhibit #1: Oil Field profiles, 2010





	Region 1	Region 2	Region 3
Max number of Rigs that would operate concurrently	10	10	10
Average well production (barrels per day)	100	200	300
Cost per rig day ($US)	$5,000	$10,000	$20,000

*Note: Wells are continuously dug during year 1 (assume 360 days), and oil is extracted beginning of year 2. Wells are dug by "Rigs". Once a Well has been completed, the Rig moves on to dig another well.

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Case 15: Orange Retailer Co.

By: Mauricio Atri (Kellogg Class of '12)

Case Question

- Orange Retailer Co. (ORC) manufactures, import/exports and distributes **high-end** world known brands and conservative/traditional apparel brands in several countries in Latin America. ORC is considering entering a new country in Latin America, and you have been hired to determine whether they should enter this new market or not.
- *Don't mention this until they have determined to enter the market:* What would be the best entry strategy?

5

Quants.

5

Structure

Mkt Size.
Mkt. Stgy
Creativity

Case tracker

- **Industry:** Retail
- **Level of Difficulty:** Medium
- **Case Format:** Market Entry
- **Concepts Tested:**
  - Market Sizing
  - Marketing Strategy
  - Creativity

Fit Questions

Spend first 15 min on fit

- Ask interviewee the name of a firm with which they have an interview, then ask Why this firm?
- Tell me about a time when you led a team through a challenge

Guide to interviewer

- This case tests the ability to understand business concepts and quantify the potential benefits and risks of entering a new market.
- The interviewee should be able to size the potential market, distinguish different type of customer segments, and identify entry strategy for Orange Retailer Co.
- Additionally, the interviewee should identify some associated risks and potential ways to mitigate them
- Hand out exhibit #1 – Size of potential market and customer segments
- Hand out exhibit #2– Current players' share and margins
- After quantifying the size of the opportunity and the ideal strategy to enter this market, the interviewee should identify qualitative aspects of entering this new market
- *Consider doing this case as an interviewer led case for beginners, and interviewee driven case for advanced casers*

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Clarifying answers and case guide

Clarifying answers to provide

Industry Characteristics/Market Economics

- Macroeconomic outlook is positive in the new market
- Distribution channels are primarily department stores, free standing points of sale, and online sales

Client Characteristics

- Client is currently the third biggest apparel retailer and has focused on F/H and T/C brands for over 30 years
- ORC has traditionally targeted High-End clients, men and women of ages 15-40

Guide to case / Guide to handouts

Part 1 – Hand out after introducing case

- Is there a market opportunity for ORC? What is the size of the relevant market? Interviewee should quantify the size of the market for fashion/ high end and conservative/traditional apparel
- Additionally, there should be insight about the most attractive customer segments to target

Part 2 – Hand out Exhibit 2 after solving Exhibit 1

- The data should lead the interviewer to recognize that the high-end fashion market is probably driven by brand and/or other factors besides price. The margins are more attractive. ORC should be able to leverage the "world known" brands to attract customers in this segment. Additionally, by targeting "young adults" and "teen & children" it can serve +80% of the market
- In the conservative/traditional market, there seems to be stronger competition, which is probably driven primarily by price. Achieving low costs in this market by importing would be unlikely due to tariffs, and local manufacturing would probably require significant fixed (plants, …) and variable (labor, …) costs

Part3 – What other elements should ORC consider in its decision to enter this market?

Key elements to analyze

Topic 1 being tested

- What is the potential of the market for this apparel brand?
- *When asked, answer the following: ORC has traditionally targeted **High-End** clients, men and women of ages 15-40*
- *When asked, say that Young Adults and Adults make 70-80% of the market*

Notes to interviewer

- With Exhibit 1, you can estimate the size of each market: Value Driven (245M), Conservative (155M), Fashion & High-end (105M)
- Although the high-end market is smaller (105M) than the conservative market (155M), its concentrated in two customer segments that account for ~70%-80% of the market, which would make entry efforts simpler and more focused.
- Value Driven apparel is not something in which ORC focuses, so they should not enter this segment

Topic 2 being tested

- What could the client drivers be for each segment?
- Should ORC compete in both segments, one or neither?
- *When asked, current players include local/domestic players*

Notes to interviewer

- The Fashion/High-end market seems to be driven by factors such as brand, *trendiness* items, aspiration aspects, or similar. Assuming manufacturing costs are similar, players seem to be able to charge more for products that have a brand recognition
- The Traditional market appears to be a price sensitive market, driven by cost. Assuming that ORC has no cost advantages over local players, this seems like a less attractive market (tariffs, or investment cost would drive ORC prices up)
- ORC should only enter the F/H market

Topic 3 being tested

- What channels would you use to enter the market
- What other elements need to be considered?
- What factors would impact how much market share we could get?

Notes to interviewer

- ORC should probably enter the market by distributing to department stores coupled with online options, limiting costs of testing the market. Once this has proven successful, ORC should think about rolling out a series of free standing stores, beginning by flagships stores for the brand which will help them position in the new market
- Some of the other elements that could be considered are: new organizational structure, investments in advertising, transportation times and costs , and exchange rates risk

Solution and recommendations

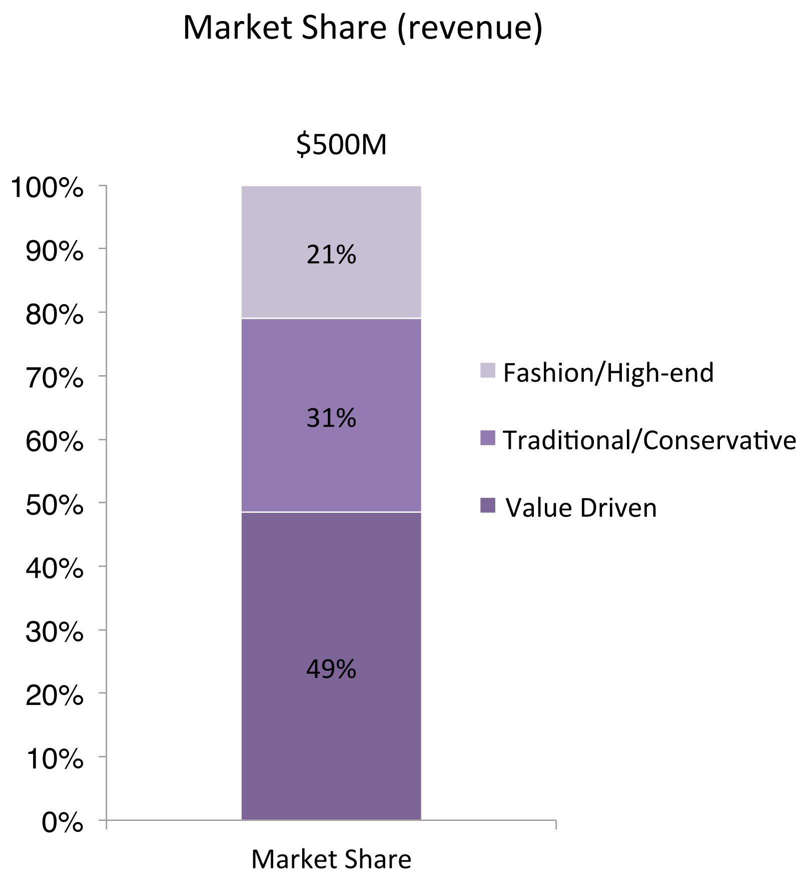
Solution & Recommendations

- ORC should enter the Fashion/High-end market. It should be able to leverage the "world known" brands to position itself in this market as an attractive option for the "adults" and young adults." Assuming ORC has competitive capabilities for "teens & children" segments, or can develop these with little risk or cost, then it should also consider entering this segment.
- To enter this market, ORC should focus on department stores first to test the market with low risk. It could enter the department stores and online channels without the need of a local partner. Once the market has been tested, it could be convenient to acquire/form a JV to build an independent store network

Bonus/Guide to an Excellent Case

- An excellent answer should mention investments costs, manufacturing costs, transportation costs, and exchange rate risks. If costs are expensed outside of the new market, there are options to mitigate exchange rate risks by buying currency financial options

Exhibit #1: Apparel market



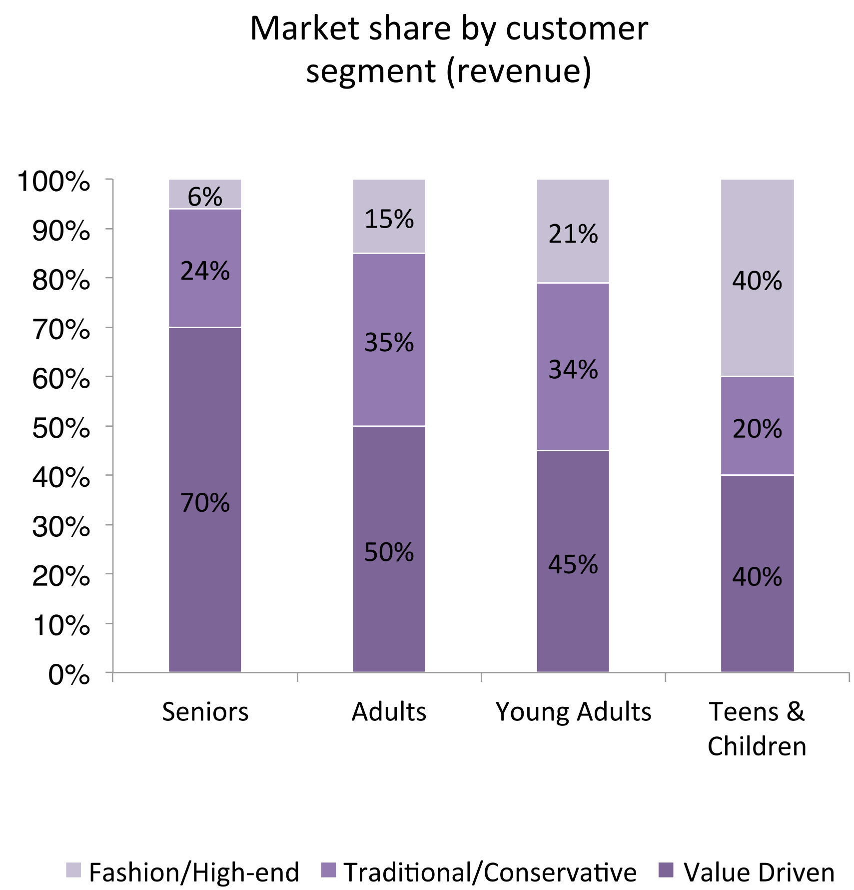


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Exhibit #2: Current players

Current players in the Fashion/High-end market

Fashion/High-end	**Player 1**	**Player 2**	**Player 3**
Market share	40%	26%	34%
Gross Margin	70%	43%	55%
Operating Margin	45%	18%	30%

Current players in the Conservative/Traditional market

Conservative/ Traditional	**Player 1**	**Player 2**	**Player 3**	**Player 4**	**Player 5**
Market share	21%	18%	19%	21%	21%
Gross Margin	21%	22%	20%	23%	20%
Operating Margin	11%	12%	10%	13%	10%

Case 16: Vitality Insurance, Inc.

By: Peter Manoogian (Kellogg Class of '12)

Case Question

- Our client, Vitality Insurance, is a leading provider of supplemental insurance products in the United States.
- Vitality agents partner with companies to offer their employees optional, supplemental insurance for such conditions as life, long-term disability, etc.
- Vitality has undergone fairly steady growth in the past two years, but profit margin is decreasing. W*hat should they do about it?*

Case tracker

- **Industry:** Financial Services
- **Level of Difficulty:** Medium
- **Case Format:** Improving profitability; Reducing Costs
- **Concepts Tested:**
  - Supply/value chain
  - Marketing strategy
  - Customer strategy

Fit Questions

Spend first 15 min on fit

- Give me an example of when you had to motivate others who did not report to you
- How would a friend, or a professor who knows you well, describe you?

Guide to interviewer

- This case is primarily about diagnosing the source of cost increases for an insurance firm and then determining whether those increases are justified by increased profits
- The case is fairly structured in that the interviewee will need to "peel back" the layers of this case in the following process
  - Recognize that sales costs are rising drastically
  - Identify the shift in sales contest mix for 2010
  - Evaluate the effectiveness of the new contest mix
- With any cost reduction case, an interviewee may seek information on other cost drivers. If this occurs, politely tell the interviewee nothing else exists and then refocus

3
Quants.

7
Structur

Reducing costs; profit

Clarifying answers and case guide

Clarifying answers to provide

Client Characteristics

- Vitality is the leader in its category and has over 10K field sales agents
- Vitality sells all policies through its field sales agents who are solely compensated on a % commission of total new premium, defined as premium from new customers or additional premium (up-sell) from existing policyholders
- In addition to the commission, short term priorities are often communicated via sales contests that focus on a particular customer segment or activity and pay a bonus in addition to standard commission
- Major costs: sales, G&A, and advertising

Competition

- Vitality has a few other competitors in this market who have seen similar growth, but Vitality is a leader in the space and thus competition is not the focus

Industry trends

- Mature market
- Agent turnover is very high on a yearly basis (though was lower during the recessionary period)

Guide to case / Guide to handouts

Exhibit 1– Provide once interviewee receives clarifying information (left pane) and asks for more detail on costs

Interviewee should recognize the following:

- All line items except for sales costs growing at 10% per year
- Sales costs grow at 10% from 2008 to 2009, but at 45% from 2009 to 2010 (while premium growth remains at 10%)
- Stronger interviewees will quickly note that something is strange w/the 2010 sales costs, but will calculate to confirm
- Finally, profit margins are declining significantly from 09-10, suggesting that the increase in sales costs is not paying off

Exhibit 2– Provide if interviewee asks about the value chain or selling process. If the interviewee asks about the **new contests** focused on **premium**, provide the following information:

- Vitality launched a contest called "Sweeps Week" that aimed to drive increased premium in weeks that were traditionally low volume for the company. Vitality paid an extra 10% bonus on all premium booked in those two weeks.
- Sales agents thought "Sweeps Week" was a great contest
- We have no info on the additional two contests on new accounts

Exhibit 3- Provide if interviewee asks for further detail on the effectiveness of "Sweeps Weeks"

Key elements to analyze

Supply/value chain

- As seen in **Exhibit 2**; Vitality's sales agents are engaged in several activities along the sales process, and that new premium can be generated in many ways.
- The interviewee should recognize the shift in contest mix from 2008/09 to 2010. Coupled with the additional information provided in the previous slide, the interviewee should realize that Vitality has shifted its focus more toward total premium and new accounts in 2010

Marketing strategy

- **Exhibit 3** shows weekly premiums for all of Vitality from 2008 – 2010. The chart is shown in a way that compares each year's actual premium to the average of historical premium for that year, so as to provide for a "benchmark" comparison.
- The "Sweeps Week" contest launched in 2010 is shown in weeks 4 and 20 in the chart, and clearly yields high premium volume for those particular weeks. However, it is done at the expense of the weeks surrounding the sweeps week.
- This implies that agents may be "gaming" the system by pushing/pulling sales into that week to earn the contest $$

Notes to interviewer

- Assume the types of contests run in 2008 and 2009 were fairly similar
- Do not share **Exhibit 3** until the interviewee recognizes this shift in mix and begins asking questions about the new programs

Notes to interviewer

- If asked, confirm that agents have authority to "book" sales whenever they want by influencing the enrollment timing by up to one week
- Strong interviewees will also recognize that, despite not having charts to support it, a shift in customer focus toward acquiring new accounts in 2010 will likely also hinder profit margins, as acquiring a new customer costs considerably more than retaining (or up-selling) an existing customer

Solution and recommendations

Solution & Recommendations

- The interviewee should conclude that Vitality overspent in 2010 on the "Sweeps Week" sales contest, thus hurting its profitability
    - Exhibit three indicates that the contest influenced the sales force to conduct undesirable selling practices by pushing / pulling forward business to earn the extra commission
    - Further, the contest's focus, driving new premium was duplicative with that of the main commission system, therefore it did not add much value
- Recommendation: eliminate "Sweeps Week" for 2011 and potentially repurpose those funds toward an activity that is not already covered by the main commission structure
- It is unclear whether we should remove the increased contests on new accounts, as this could be a new customer focus that we do not know about

Bonus/Guide to an Excellent Case

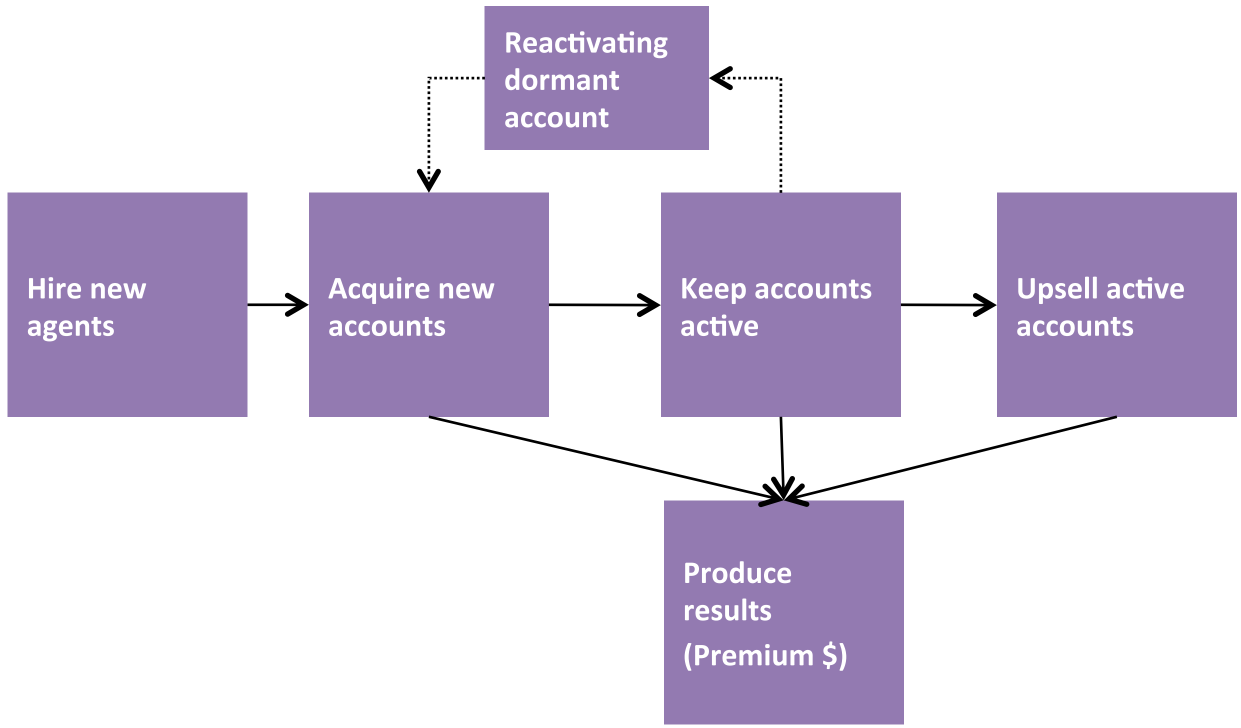
- Strong candidates will make the following observations:
    - Recognize that the likely decline in profit margin from 2009 to 2010 is linked to the abnormal increase to sales costs
    - That the "contest mix" in Exhibit two is similar to a firm's marketing mix, especially given that the sales channel has already been established as the main marketing channel for these products
    - Suggest that the added contests on acquiring new accounts will also decrease profitability because acquiring new customers is more costly than retaining existing ones.

Exhibit 1: Vitality results and major costs

Vitality insurance key results and costs (Figures in 000s)

	2008	**2009**	**2010**
Accounts converted	500	550	605
Total policyholders enrolled	1,500	1,650	1,815
Total premium from policyholders	$2,500,000	$2,750,000	$3,025,000
Total costs			
General and Administrative	$50	$55	$58
Sales	$250	$275	$400
Advertising	$25	$28	$30
Profit margin	9.50%	9.40%	8.50%

Exhibit 2: Vitality insurance sales process



# of sales contests targeted at these leverage points on the selling process

Year		New Agents	Acquire new accounts (bonus based on # of accounts)	Keep accounts active (bonus based on # of accounts)	Upsell active accounts (bonus based on # of accounts)	Produce results (bonus based on total premium $)
	2008	N/A	2	4	1	2
	2009	N/A	2	4	1	2
	2010	N/A	4	0	1	4

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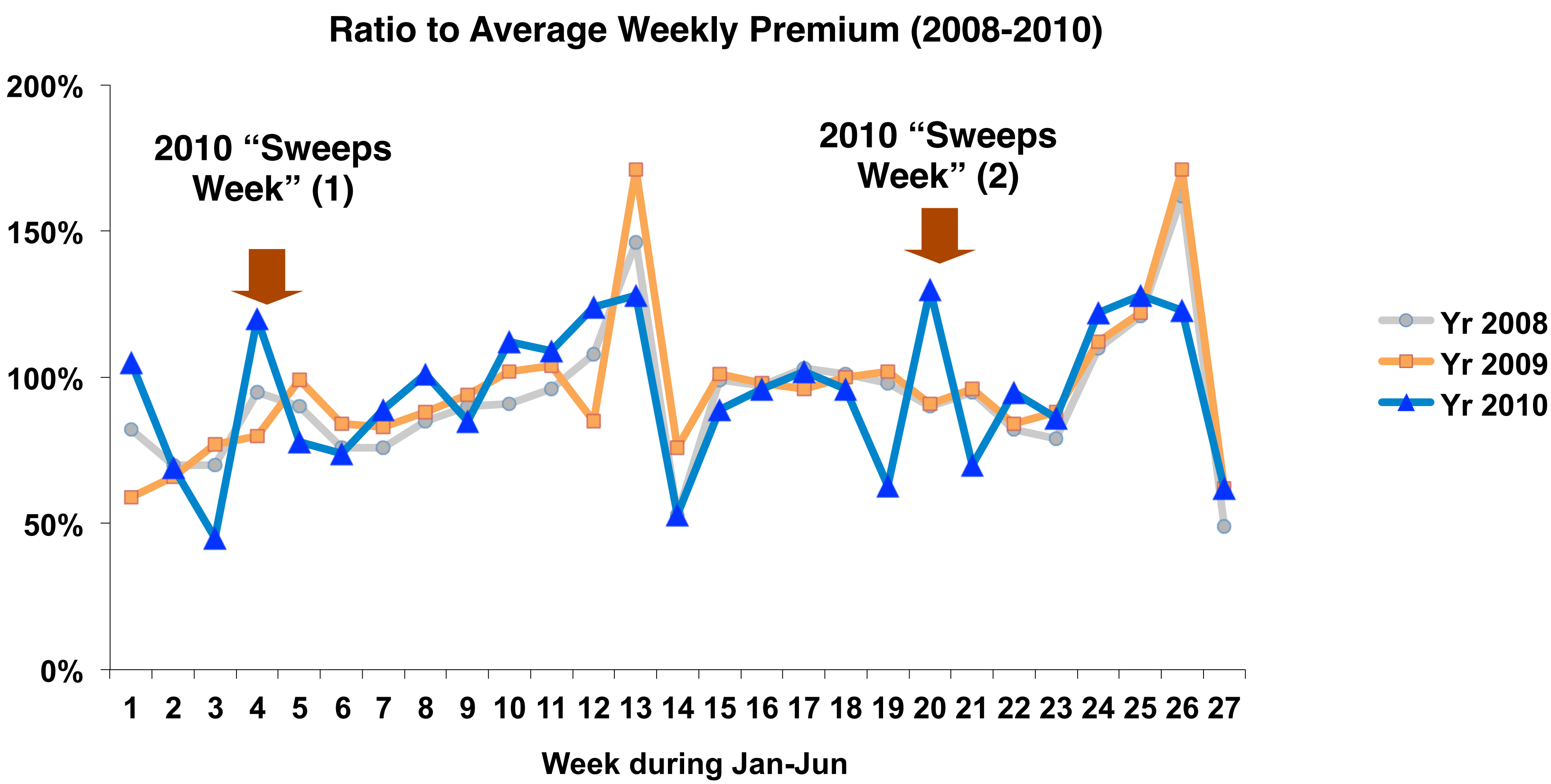
Exhibit 3: Snapshot of "Sweeps Week" contest results



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Case 17: Chic Cosmetology University

By: Peter Manoogian (Kellogg Class of '12)

Case Question

- Our client is a for-profit, specialty college named Chic Cosmetology University (CCU). Founded in 2005, CCU is a program for high school graduates seeking their professional cosmetology license. CCU is currently the market leader for cosmetology education with campuses in ten major metropolitan areas in the US.
- *CCU has capital to invest in a new campus and is considering Chicagoland as a location – should they do it?*
- *(If interviewee asks about OTHER objectives or defining success for opening the new location):* The client considers a successful launch as achieving positive operating profit for the new campus two years after opening

Case tracker

- **Industry:** Education
- **Level of Difficulty:** Medium
- **Case Format:** Opportunity Assessment
- **Concepts Tested:**
  - Break-Even Analysis
  - Marketing Strategy
  - Market Share
  - Investments

Fit Questions

Spend first 15 min on fit

- Tell me about a difficult or sensitive situation that required careful communication
- Describe a project or idea that was introduced or implemented because of your efforts

Guide to interviewer

- This case involves some number crunching but is more structurally focused. It is critical to ensure that the interviewee lands on the figures presented (or is course corrected toward them) in order to proceed with the later parts of the case.
- The interviewee should be able to develop a variant of the following question:

  Will CCU be able to enroll enough students to offset the initial investment and achieve positive profit?
- Key case steps:
  1. Evaluate CCU revenue and cost structures
  2. Project CCU's market share
  3. Estimate CCU Chicago enrollments
  4. Identify qualitative issues to consider

7

Quants.

8

Structure

B/E
Mkt. Stgy
Mkt Share
Invest.

Clarifying answers and case guide

Clarifying answers to provide

Client Characteristics
- Enrolled students take classes at a physical campus for one school year to earn degree (FY begins on 9/1)
- CCU boasts the best campuses in the industry with state of the art equipment
- Strong job placement due to CCU's relationships with top salons in local areas
- CCU and industry enrollments growing at 5% per year

Competitive Dynamics
- 2-3 other large specialty colleges, some of which are in the same geographies as CCU
- Community colleges beginning to offer cosmetology degrees at lower prices
- All ten CCU campuses have been present for at least three full school years
- All competitor campuses have also been present for similar lengths of time

Industry Characteristics/Economics
- H.S. Diploma and cosmetology degree required to enter the field
- 98% of cosmetologists are women

Guide to case / Guide to handouts

Share **Exhibit 1** with interviewee after probing questions are received about CCUs revenues and costs . Interviewee should be able to compute the following:

- Average revenue per enrollment = $15K (revenue / total enrollments)
- Total annual fixed cost per campus = $4.8M ($48M / 10)
- Total variable cost per student = $8K ($80M / 10K)
- Gross profit per student = $7K ($15K - $8K)

After that, the interviewee should begin to tackle the overall opportunity in the area as well as how many enrollments CCU could reasonably expect to obtain in year 1

Share **Exhibit 2** with interviewee after some of the qualitative aspects of CCU's targeting and marketing strategy are covered. Additionally, the interviewee should have asked about competitor information or made some attempt to assess what share of the market they should expect in Chicago.

- See "Market Share" section in next slide for further information on **Exhibit 2**

Key elements to analyze

Break-even analysis

- How many students will CCU need to break-even in year 1?

Notes to interviewer

- Interviewee should ask about the investment cost of building a new campus in Chicagoland
- After asking, tell interviewee that the total cost is $4.5M in initial building costs to renovate its chosen site. These costs can be amortized evenly over a three year period.
- Assume fixed costs remain flat per year

Interviewee should calculate

- Total fixed costs per year = $6.3M ($4.8M + $1.5M from amortization).
- Gross profit per student = $7K
- Break-even number of enrollments per year = 900 ($63M / $7K)

Marketing strategy

- What types of schools / students do you think CCU targets?

Notes to interviewer

Possible responses (schools):

-Public schools (private HS more likely to have grads go to 4yr univ)

-HS's in middle-class cities (may be an affordability issue w/lo income)

-Closest to the campus (geography)

Possible responses (students)

-Women HS graduates

-Not attending 4yr college

-Interested in cosmetology

After a few of the above criteria are noted, share:

- CCU has identified 1,000 targeted high schools in the Chicagoland area
- Within these HS, CCU's market research estimates that on average 6 students per HS have "potential" for CCU enrollment

Market share

- What is the highest share we could expect CCU Chicago to capture in Y1?

Notes to interviewer

- Show **Exhibit 2** to interviewee
- Interviewee should recognize:
  - Campuses w/competitors present tend to have a lower share (10%) than those w/out (15%)
  - However, presence of >1 competitor does not have an increased negative impact on market share (Boston has 8% share w/only one competitor)
  - Interviewee should assume a projected 10% market share for a Chicago campus (one competitor)
- **Also share the following :** 80% of enrolled students directly from high school, the other 20% of students come from the "Adult" market

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Calculations

Math questions

1. What is the breakeven number of students required for CCU Chicago?
2. How many students should CCU Chicago expect to enroll in year 1, at the most?
3. (If time permits) = Suppose CCU finds a lot with a one time construction cost of $300K with the same amortization schedule. Should they enter Chicago now?

Calculations

1. Break-even: (Estimated campus fixed cost + Yearly amortization) / gross profit per student

($4.8M + $1.5M) / $7K = 900 students

2. Students: Total potential students x maximum projected market share

Total potential students = Potential (HS) + Potential (Adult) = 7,500 students

Potential (HS) = 6 / HS X 1,000 targeted HS = 6,000 students

Potential (Adult) = 6,000 students * 25% = 1,500 students

Total potential students (year 1) = 7,500 students x 10% share = 750 students

Total potential students (year 2) = 750 students x 1.05 (growth) = 788 students

3. Break-even: (Estimated campus fixed cost + new yearly amortization) / gross profit per student

($4.8M + $0.1M) / $7K = 700 students

Solution and recommendations

Solution & Recommendations

- Overall, our client should NOT enter the Chicago market under the current cost structure. Even with a 10% market share assumption in year 1, the Chicago campus will enroll only 750 students, this is 150 fewer than the 900 required to break-even.
- The client should also consider several qualitative issues:
  - Consider offering scholarships to increase the number of potential students and/or conversion rate of potential students
  - Consider other cities beyond Chicagoland that currently do not have a CCU presence, or add a second campus to a city such as NYC that has high market share and potentially low capacity
  - Perform market research in other cities to understand if there is a greater potential per target high school to increase ROI
  - Consider ways to reduce fixed costs (*e.g.,* transporting equipment / materials from campuses that are not at capacity)

Bonus/Guide to an Excellent Case

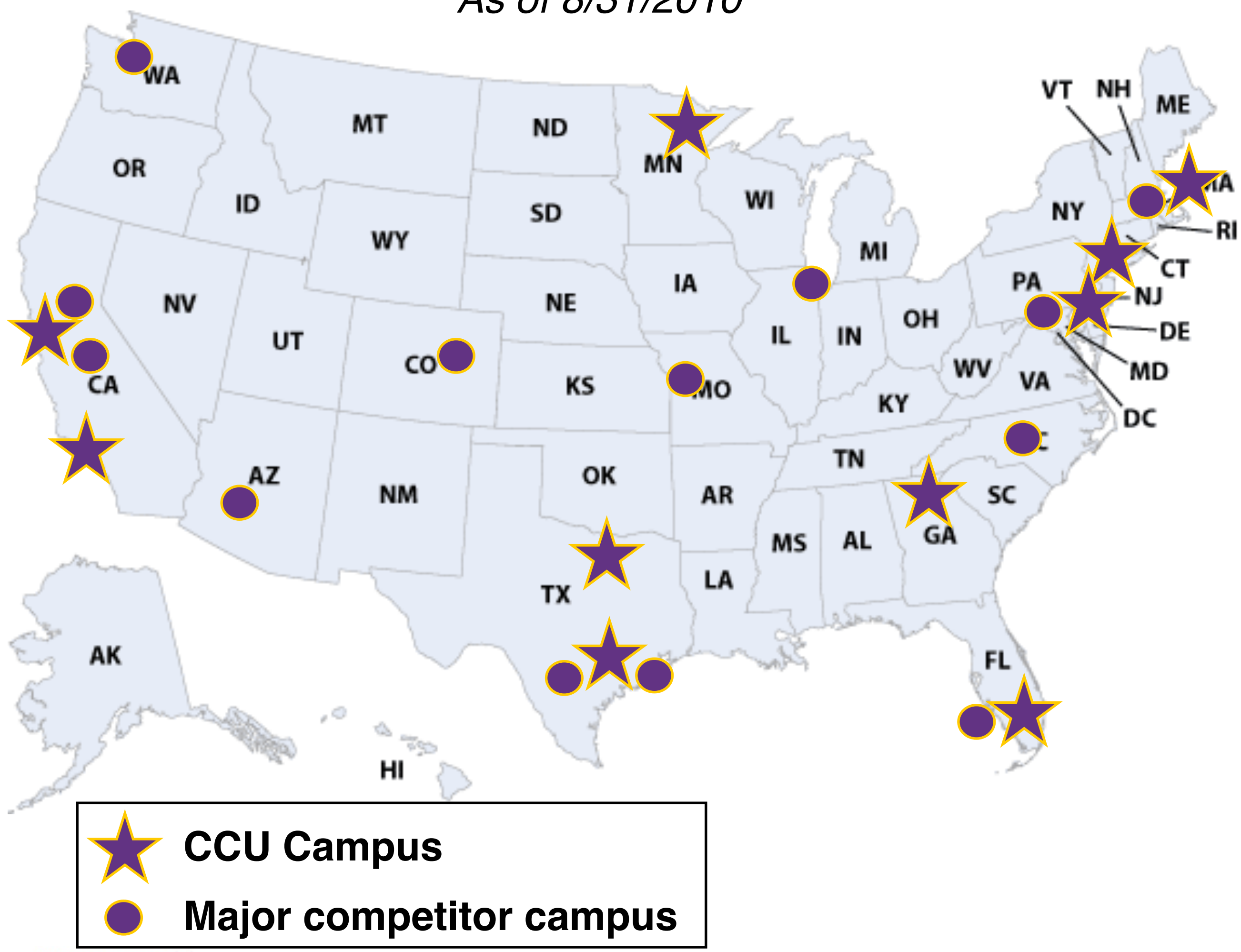
- Excellent interviewees will recognize that the 10% market share is for campuses that have been in place for at least three years , therefore Chicago is unlikely to achieve that share in year 1 or 2; this rules out the feasibility of the follow-up question that suggests the possibility of reducing the one-time investment from $4.5M to $300K.
- Additionally, a strong interviewee will identify several of the qualitative issues listed above as ways in which CCU could proceed

Exhibit 1: 2010 CCU Financials

CCU Financials as of 8/31/2010 ('000s)	
Student enrollments (all campuses)	10
Revenue from enrollments	$150,000
Total fixed campus costs	$48,000
Buildings and equipment	$32,000
Recruiting, general, and administrative	$16,000
Total variable campus costs	$80,000
Instructors	$40,000
Student supplies	$40,000
Operating profit	$22,000

Exhibit 2: CCU and major competitor locations

As of 8/31/2010



Campus	2010 share*
San Fran	8%
LA	14%
Minneapolis	15%
Dallas	14%
Houston	10%
Atlanta	16%
Miami	12%
Philly	12%
New York City	16%
Boston	8%

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* Measured as share of total “potential” students, as defined by CCU

Case 18: DigiBooks Inc.

KELLOGG CONSULTING CLUB
CASE COMPETITION
BRONZE MEDAL WINNER

By: Shobhit Chugh (Kellogg Class of ’11), Edited By: Adam Louras (Kellogg Class of ’11)

Case Question

- Our client, DigiBooks, is a manufacturer and seller of electronic book readers (tablets). DigiBooks also distributes e-books for the tablets through their website. The tablet is only compatible with books sold through the DigiBooks site.
- DigiBooks is planning the launch of its tablets in a country where no electronic book readers are currently sold. Only 1% of the population has ever used an electronic book readers , though 50% is aware of the concept. The Chief Marketing Officer of DigiBooks has come to you to help determine:
    - *How should DigiBooks launch and market DigiBook tablets in this new country?*

Case tracker

- **Industry:** Tech/ Telecom
- **Level of Difficulty:** Easy
- **Case Format:** Developing a new product
- **Concepts Tested:**
    - Marketing Strategy
    - Customer strategy
    - Creativity

Fit Questions

Spend first 15 min on fit

- Tell me about a time when you failed.
- Share me a time when you faced a difficult situation in a team and how you solved this .

Guide to interviewer

- The case primarily tests the understanding of marketing concepts, specifically a new product launch.
- The case is written in McKinsey style format; the interviewer is expected to guide the interviewer step by step through each question.
- Begin by laying out the situation and case question, allow the interviewee to layout their structure, and then jump immediately to question 1. The interviewer is expected to drive this case rather than the interviewee.

4

Quants.

7

Structure

MKT Stgy
Cust. Stgy
Creativity

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Clarifying answers and case guide

Clarifying answers to provide if Asked

Industry Definitions

- *Electronic book readers*: Is a software, hardware and network platform that utilizes wireless connectivity to enable users to shop for, download, browse, and read e-books, newspapers, magazines, blogs, and other digital media.

Client Characteristics

- *DigiBook's Tablet*: Uses an e-ink electronic paper display that features 16 shades of grey. This allows for a 12 hour long battery life and easy readability.
- *Locations:* DigiBook has never sold a product outside of the US.

Competitive Dynamics

- No competitors in the e-book or tablet space plan to enter this country

Market Characteristics

- Total population of the country 76MM, high literacy level

Interviewer Guide to case and handouts

Case Structure – Interviewee's structure should cover the key areas needed to explore in order to determine how DigiBooks should launch and market the tablets in this country.

- The interviewee should take a few minutes to sketch out a framework for analysis of the marketing plan
- Key elements expected to be included in this framework are:
  - **Segmentation, targeting and positioning**: Are there particular segments in the population that will be ideal customers for us?
  - **Product:** What key capabilities are people looking for? Can we use our existing products or do we need to develop a new one for this country?
  - **Price:** What price should the tablets and books be sold at? What is customers willingness to pay? Should we price the tablet at a low price so as to capture most of the market, and make margin on e-books?
  - **Promotion:** How should the tablets be marketed? What promotion mechanisms should be used?
  - **Place/Distribution**: Should the tablets be sold through retail channels, internet or other alternative means?
  - **Selection of e-books**: Is a wide selection of books available for this country?

Prompts 1-3 – After the interviewee has laid our their structure, begin by asking the question in Prompt 1. Once each prompt has been sufficiently covered, move to the next prompt. After all prompts are complete, ask the interviewee to summarize their findings. NOTE: Prompt 2 allows for creativity, so use your judgment when evaluating.

Key elements to analyze

Prompt #1: Cust. Strategy

- Through research, we found several segments. (Hand out **Exhibit 1**). We are only able to target one segment with our product.
- *Using a 3-year projection, which segment should DigiBook target?*

Prompt #2: MKT Strategy

- DigiBooks is now considering how it should sell its e-book readers: through retail stores or through the internet.
- *How would you go about evaluating this decision?*

Prompt #3: MKT Strategy

- Based on revised market estimates, we decided to price the e-reader at $100 and target the Occasional Reader segment.
- *Using this information and **Exhibit 2**, can you estimate the profit potential of each of these sales channels? Which should we choose?*
- What segment would you recommend to your client?

Notes on Exhibit 1

- If unclear, the interviewee should answer based on Revenue Potential (i.e. Ignore probability of purchase) assuming all tablet sales happen immediately (Ignore TVM).
- The missing data is that the average price of an e-book is $10, for each of the segments, and that e-books and tablets have the same margin
- Using **Exhibit 1**, interviewee should calculate:
  - SR Revenue = [(15 books x $10 X 3 Years) + ($200 x 1 tablet)] x 8M People = $5.2B
  - OR Revenue = [(10 books x $10 x 3 Years) + ($125 x 1 tablet)] x 20M People = $8.5B
  - RR Revenue = [(5 books x $10 x 3 Years) + ($175 x 1 tablet)] x 10M People = $3.25B
- **ANSWER: Segment to be targeted = occasional readers (OR) with a Revenue Potential of $8.5B**

Notes on Prompt #2

- **Retail Channel Sample Responses:**
  - CONS:
    - Lower margin due to value chain expansion
    - Will take time and money to set up and adds training costs
  - PROS:
    - Should encourage Trial of the product
    - Retailers can help with joint marketing campaigns
    - Retailers can help with customer service, returns
- **Internet channel Sample Reponses:**
  - PROS: Likely cheaper to establish, will result in higher margins
  - CONS: Hard to encourage trial

Notes on Exhibit 2

- If unclear, the interviewee should answer this with a 1-year Gross Profitability calculation for each of the Sales Channels and back out the Upfront Investment. They should ignore all other costs such as SG&A.
- There is no missing data; however, the Market Size of 20M people in the OR segment is needed from **Exhibit 1** and the price per e-book of $10.
- Using **Exhibit 2**, interviewee should calculate:
  - *Retail Profit* = [(10 Books x $10/book x 50%GM) + ($100/tablet x 30%GM)] x (10M People x 40% Penetration) = $320M - $20M II = **$300M**
  - *Internet Profit* = [(10 Books x $10/book x 50%GM) + ($100/tablet x 60%GM)] x (10M People x 10% Penetration) = $110M - $10M II = **$100M**
- **ANSWER: Sales Channel to Use = Retail with a profit of $300M**

Solution and recommendations

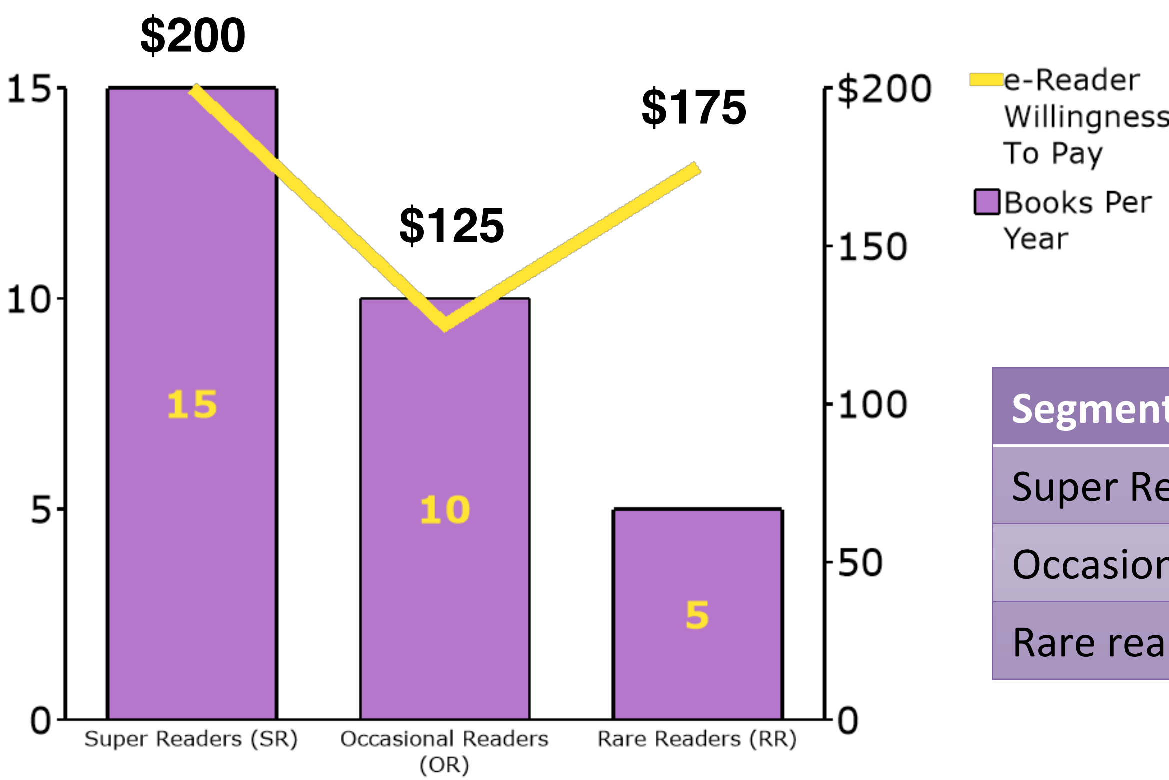
Solution & Recommendations

- Overall, DigiBooks should launch the e-book reader for the Occasional Reader segment through the Retail Sales Channel.
- Based on our calculations, we expect to earn a $300MM return on an initial investment of $20MM
- **Other items to consider:**
  - What advertising mechanisms do we use in this case?
  - Do we setup a manufacturing facility in the country or do we source the products from our current manufacturing facilities?
  - Are there any prospects of competitors entering the market?

Bonus/Guide to an Excellent Case

- An better interviewee notices key nuances in the case such as: Time Value of Money impacts on Exhibit 1 and Probability of Purchase or Penetration on Exhibit 1
- An excellent interviewee will detail various elements of marketing strategy of a new product launch
- A key element of this case is being able to do relatively complex calculations at a fast pace. Laying out the tables appropriately for this case is essential to success

Exhibit #1: Market segments



Segment	Size
Super Readers (SR)	8M
Occasional Readers (OR)	20M
Rare readers (RR)	10M

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Exhibit #2: Channel decisions

Channel	Percent of Total potential market	E book Gross Margin %	E-reader Gross Margin %	Penetration	Initial investment
Retail	50%	50%	30%	40%	$20M
Internet	50%	50%	60%	10%	$10M

Case 19: After School Programming

By: David Morse (Kellogg Class of '11), Edited By: Ameed Mallick (Kellogg Class of '12)

KELLOGG CONSULTING CLUB
CASE COMPETITION
GOLD MEDAL WINNER

Case Question

- It is 2003, and our client offers after school programming focused on supporting at-risk youth through high school, enabling them to enter and succeed in college.
- The client is trying to identify the best approach to meet its growth target. The client's goals for expansion are to most efficiently serve students at 7 new sites, while raising their national profile. We have been hired to help them vet potential sites to maximize their social and financial impact.

10
Quants.
10
Structure

Org. Chg
Cap. Exp.
Cust. Stgy
Mkt. Stgy

Case tracker

- **Industry:** Other (Non-Profit)
- **Level of Difficulty:** Hard
- **Case Format:** Growth Strategies
- **Concepts Tested:**
  - Organizational
  - Capacity Expansion
  - Customer Strategy
  - Marketing Strategy

Fit Questions

Spend first 15 min on fit

- "Why are you interested in Consulting as a career and our firm in particular?"
- "Tell about a time you failed and what you learned from the experience?"

Guide to interviewer

- This case should be delivered McKinsey-style, i.e. following presentation of the framework, the interviewer should guide the interviewee from question to question. The secret to this case is thoroughly understanding the client's business and goals. Interviewers should encourage the interviewee to take time to understand the client's business model and to be sure they thoroughly understand the questions being asked.
- This case focuses on understanding not only the financial objectives but also the other objectives/impact that a client wishes to achieve and these should impact the analysis and recommendations to be delivered.

Clarifying answers and case guide

Clarifying answers to provide if Asked

The following information can be provided if the interviewee asks, but should not be volunteered:

—'At-risk' youth are those who, due to behavior or grades, are at risk of dropping out of high school or have already done so
—The client operates local centers attached to high schools with full time staff
—The client offers tutoring and test prep support to the youth with whom it works, as well as connecting youth to internships and career opportunities
—All centers are Massachusetts or southern New Hampshire
—The client operates 8 sites with 2,500 youth served
—School districts and state agencies reimburse the client for activities
—The client has a high national profile and has received calls from high school systems in Florida and California offering to pay for the client to establish centers in their districts; the client has declined these offers to date

Interviewer Guide to case and handouts

Question 1: what are the client's options for locating and for opening new sites, and what are some considerations the client should consider in selecting among these options?

Question 2: let's look at the financial considerations, particularly at the effect of additional sites on central costs. The client allocates central office costs to each wholly owned site on a uniform basis, i.e. total central office costs / 8 = allocation per site. The client wants to understand how expanding sites will affect the per wholly owned site allocation of central costs. For this analysis, assume that central costs don't vary depending on the method selected for expansion. **(Show Exhibit 1)**

Question 3: from a mission perspective, our client thinks that serving areas with a high density of at-risk youth will best deliver its mission as well as raise its national profile. As such, it would like to determine which geographic areas show the most promise for mission fulfillment. They provided some data from representative school districts for an initial analysis: **(Show Exhibit 2)**

Question 4: earlier, you listed some additional factors that might help the client screen new locations. What do you think are the pros and cons of these additional factors in each geographic area? How might this influence the client's choice of target geographies?

Question 5: let's wrap up with a summary of your findings and a recommendation to the client.

Answer – The interviewee cannot solve this case without understanding the client's business and goals

Key elements to analyze (1)

Question 1: Organizational Changes

- **Question 1:** what are the client's options for locating and for opening new sites, and what are some considerations the client should consider in selecting among these options?

Notes to interviewer

- The interviewee should quickly focus on geographic options for sites:
  - Adjacencies to existing sites (middle schools, neighboring high schools)
  - New sites in existing states, separate from existing sites
  - New states neighboring existing states
  - New states that have contacted the client
- The three primary methods for opening new sites are:
  - Partnerships
  - Branching / licensing
  - Wholly-owned sites
- The interviewee should go back to their original question, and hopefully their framework, to remember that the client wants to vet potential sites for mission and financial impact. Based on this, they should come up with two sets of criteria, which might include:
  - Mission related:
    - Number of at risk youth
    - Presence of other youth service organizations
    - Potential to work with high schools
    - Knowledge of target market
  - Finance / operations related:
    - Potential to attract funding
    - Ability to leverage relationships and engage in political advocacy
    - Ability to leverage existing infrastructure
    - Ability to recruit talent

Key elements to analyze (2)

Question 2: Capacity Expansion

- **Question 2:** let's look at the financial considerations, particularly at the effect of additional sites on central costs. (Show Exhibit 1)

Question 3: Customer Strategy

- **Question 3:** our client thinks that serving areas with a high density of at-risk youth will best deliver its mission as well as raise its national profile (Show Exhibit 2)

Notes to interviewer

- A good interviewee will quickly point out that the 74% increase in costs is less than the 88% increase in the number of sites, and that central office cost allocation per site should decrease. Interviewees should quantify the impacts of growth on costs per site.

Notes to interviewer

- Note 1: Worcester, MA neighbors an existing site for the client. Nashua, NH does not have a site.
- Note 2: This is a tough problem to solve. Work actively with interviewees to get to the answer. Assume that class sizes, dropout rates and GPA averages are uniform across grades.
- Note 3: Mention that high school is 4 years i.e. There are 4 classes in school at any given time.
- *Solution on "Math Solution"*

Key elements to analyze (3)

Question 4: Marketing Strategy

- **Question 4:** What do you think are the pros and cons of these additional factors in each geographic area? How might this influence the client's choice of target geographies?

Notes to interviewer

- Good interviewees will draw a table matching geographic options against the screening criteria they listed in question one, then will give a quick summary of the pros and cons of each criteria in each geography. The interviewer can help the interviewee set the chart up but should let the interviewee take the lead on walking through the analysis. This question is highly qualitative and intended to test the interviewees' judgment and communication skills.

- Here is an illustrative Chart

	Neighboring site	New site in existing state	Neighboring state	New state
Mission fit	Pro: knowledge of local youth; relationships with policy makers and school admins Con: might not spread model		Pro: would spread model Con: need new relationships, regulations could differ and affect operations	
Financial fit	Pro: model already approved for funding, ability to move staff / hire easily Con: might hit funding limits		Pro: access to new sources of funding, higher national profile Con: districts / states might not fund model	

Math Solutions (1)

ANSWER: Question 2/Exhibit 1

	Current	Additional costs
Staff	$750K	$600K
IT	$110K	$80K
Office expenses	$115K	No change
Training and support	$25K	$55K
Total central office costs	$1,000K	$735
Cost per site	$1,000K / 8 = $125K	=$1,735K / 15 = $115.67K

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Math Solutions (2)

ANSWER: Question 3/ Exhibit 2

Column	A	B	C	D	E
	Average enrollment, HS	Annual % change in at risk youth, 2003	# high schools	HS completion rate, class of 2002	2002 % of enrolled students with GPA of D or lower
Worcester, MA	1,000	-10%	3	70%	30%
Nashua, NH	800	-5%	2	75%	25%
Barrington, CT	800	10%	1	75%	20%
San Mateo, CA	1,300	1%	4	85%	20%

Column	F	G	H	I	J	K	L	M
Formula	A * C	F/4 * (1-D)	G*3	G + H	F - I * E	I+J	K * (1 + B)	L / F
	Total Enrollment	Dropouts, class of 2002	Dropouts, other classes	Total Dropouts	Low GPA Students	Total at Risk, 2002	Total at risk, 2003	Total % of students at risk, 2003
Worcester, MA	3000	225	675	900	630	1530	1377	45.9%
Nashua, NH	1600	100	300	400	300	700	665	41.6%
Barrington, CT	800	50	150	200	120	320	352	44.0%
San Mateo, CA	5200	195	585	780	884	1664	1681	32.3%

Solution and recommendations

Solution & Recommendations

- The case is designed to indicate that the client should focus on existing states, and perhaps on neighboring states. The client should not consider expanding outside its existing geographic foot print in New England.
- The interviewee should note that the client benefits financially from scale, but that a financial analysis does not indicate a geographic area for expansion. From a mission perspective, existing and neighboring geographies provide the highest density of at-risk youth. New geographies in existing states are also promising from a mission perspective. Thinking further about non-financial benefits from scale, as should be done in question 4, should also indicates that growing within existing states or in neighboring states poses fewer risks for the client.

Exhibit 1: Addt'l central costs from expansion

	Current	Additional costs
Staff	$750K	$600K
IT	$110K	$80K
Office expenses	$115K	No change
Training and support	$25K	$55K
Total central office costs		
Cost per site		

Exhibit 2: Representative data on at-risk youth

	Average Enrollment, HS	Annual % Change in at risk youth, 2003	# high schools	HS completion rate, class of 2002	2002, % of enrolled students with GPA of D or lower
Worcester, MA	1000	-10%	3	70%	30%
Nashua, NH	800	-5%	2	75%	25%
Barrington, CT	800	10%	1	75%	20%
San Mateo, CA	1300	1%	4	85%	20%

Case 20: Dark Sky Co.

KELLOGG CONSULTING CLUB
CASE COMPETITION
SILVER MEDAL WINNER

By: Sean Burrow (Kellogg Class of '11), Edited By: Eugene Kim (Kellogg Class of '15)

Case Question

- Our client, Dark Sky, is a small manufacturer of unmanned (i.e. remotely piloted) data collection aircraft. Dark Sky produces the Assessor, an aircraft originally designed for unmanned weather exploration. In 2006, the United States military began purchasing Assessors for use in Intelligence, Surveillance and Reconnaissance (ISR) missions. The Assessor is profitable, but sales have stagnated and the client wishes to grow.
  - *What are some steps Dark Sky could take to achieve growth?*

5
Quants.
5
Structure
Mkt. Stgy
Creativity

Case tracker

- **Industry:** Industrial Goods – Aerospace and Defense
- **Level of Difficulty:** Easy/Medium
- **Case Format:** Growth Strategy
- **Concepts Tested:**
  - Marketing Strategy
  - Creativity

Fit Questions

Spend first 15 min on fit

- "What was the hardest piece of feedback you ever got? What did you do about it?"
- "How would your classmates and/or teammates describe working with you?"

Guide to interviewer

- This case intentionally uses terminology that may not be familiar to the typical MBA student. This is meant to challenge the interviewee to dismiss superfluous information and to focus on the business problem.
- After asking the initial question, engage in a qualitative discussion regarding organic and inorganic growth opportunities.
- Knowledge of the Aerospace and Defense industry is not necessary – creativity is encouraged.

Clarifying answers and case guide

Clarifying answers to provide if Asked

Customer / Price:
- Dark Sky's only customer is the U.S. Military.
- Dark Sky has a Cost-Plus-Fixed-Fee contract with the U.S. Military for Assessor sales:
  - The contract has been extended in the past and is up for renegotiation; the Military has agreed to a marginal fee (i.e. price) increase to account for inflation
  - Contracts for new aircraft will be structured similarly

Company:
- The firm has additional capacity and is positioned to strengthen any division of the workforce, if required (e.g. sales force, manufacturing, R&D)

Product:
- Dark Sky designs a unique aircraft that is launched from a catapult device; the aircraft can be launched from ships at sea or from harsh terrain (e.g. desert, mountains).
- Dark Sky only sells the Assessor, but has designed prototypes specifically for military operations.

Competition:
- There are approximately 20 competitors that manufacture unmanned aircraft.
- Though too small to purchase a competitor, Dark Sky has been considered an acquisition target. Dark Sky's lack of growth in recent years concerns potential buyers.

Interviewer Guide to case and handouts

This case is meant to stimulate the growth conversation and is designed to funnel the interviewee toward a new product launch.

Exhibit 1 – Provide following growth discussion

- The military started purchasing the Assessor in 2006. The price of the aircraft has remained constant at $100,000 per unit. Throughout the past decade, The Assessor has been Dark Sky's only source of revenue.

Exhibit 2 – Provide following Exhibit 1 calculations

- Dark Sky has developed several aircraft prototypes designed specifically for military missions. The company has the capability to continue producing the Assessor and to introduce one new aircraft.
  - SeaBird is specially designed for maritime (i.e. Naval) operations and can be sold to the Navy for $220,000 per aircraft.
  - SandBird is specially designed for desolate land-based operations and can be sold to the Army for $210,000 per aircraft.
  - JointBird is designed as a compromise for Army and Navy operations and can be sold to either service for $180,000 per aircraft.
  - The Military has agreed to a 10% Assessor price increase.

Exhibit 3 – ONLY PROVIDE IF ASKED

- The introduction of a new aircraft will have a negative impact on Assessor sales.

– *Continue to next page for further detail of the analysis to be performed*

Key elements to analyze

Current Revenues & Growth Strategy

- **Exhibit 1**: a) How many units were sold in 2014? b) What was the growth rate from 2006 to 2010?
- What are some steps to achieve growth (original question)

Notes to interviewer

- **Exhibit 1** should be treated as a math warm up. **Price = 100K/Unit**
- **Organic Growth** – the interviewee should consider internal options to could stimulate growth. Some potential examples include:
  - **Increase penetration** – negotiate additional Assessor sales to the military.
  - **Product development** – develop new products that may appeal to the military (e.g. new aircraft, training services, aircraft accessories / add-ons).
  - **New market entry** – sell the Assessor in international markets or additional domestic markets (e.g. Border Patrol, police, news channels)
  - **Diversification** – develop a new product to serve a new market.
  - **Increase / Reduce prices** (based on elasticity of demand)
- **External growth** – the interviewee should consider growth options using external resources. Some potential examples include:
  - Joint Venture – contract with a firm to increase market accessibility or to develop a new product beyond the capability of Dark Sky.
  - Merger / Acquisition – acquire a new firm to add additional capacity and/or product mix. Because Dark Sky is relatively small in the Defense industry, consider becoming an acquisition target.

Opportunity Assessment

- **Exhibit 2**: To maximize short-term growth, which aircraft should Dark Sky produce?

Notes to interviewer

- **Exhibit 2**: To maximize growth, Dark Sky should focus on maximizing revenue.

- To calculate the revenue for each scenario, the interviewee should add Assessor sales to the sales of the new product.
  - Assessor sales are based on:
    - 50 units sold with no new product launch
    - Cannibalization forecast specific to each new product launch
    - $110,000 per aircraft
  - New product sales can be easily calculated using shortcuts. For example:
    - SeaBird: $220k * 100 = $22m… then half of this
    - SandBird: $210k * 100 = $21m… then half of it and add (10% of $21m)
    - JointBird: Add to get 90… then $180k*100 = $18m, subtract (10% of $18m)

Math Solutions

Math Exhibit 1

- How many units were sold in 2014?
  - **Answer:** 50 units or $5,000k ÷ $100k/unit = 50 units

- What was the growth rate from 2006 to 2010?
  - **Answer:** 900% o ($5,000k - $500k) ÷ ($500k) x 100 = 900%

Math Exhibit 2

- To maximize short-term growth, which aircraft should Dark Sky produce?
- Answer: **JointBird**
  - Assessor Sales (Units, Revenue):
    - No new product = 50 aircraft, **$5,500,000**
    - With SeaBird = 50 + (50 * (-40%)) = 50 - 20 = 30 aircraft, **$3,300,000**
    - With SandBird = 50 + (50 * (-70%)) = 50 - 35 = 15 aircraft, **$1,650,000**
    - With JointBird = 50 + (50 * (-90%)) = 50 - 45 = 5 aircraft, **$550,000**
  - New Product Revenue:
    - SeaBird = 50 * $220,000 = **$11,000,000**
    - SandBird = 60 * $210,000 = **$12,600,000**
    - JointBird = (38 + 52) * $180,000 = 90 * $180,000 = **$16,200,000**
  - Total Revenue:
    - Assessor Only = $5,500,000
    - Assessor and SeaBird = $3,300,000 + $11,000,000 = **$14,300,000**
    - Assessor and SandBird = $1,650,000 + $12,600,000 = **$14,250,000**
    - Assessor and JointBird = $550,000 + $16,200,000 **= $16,750,000**

Solution and recommendations

Solution & Recommendations

- Based on 2015 forecasted revenue alone, Dark Sky should introduce the JointBird to the U.S. Military in order to boost short-term growth. However, there are several connected issues that Dark Sky should consider to include profitability, long-term revenue forecasts, competitive response, etc.

Bonus/Guide to an Excellent Case

- An excellent interviewee will note:
  - How quickly could Dark Sky start manufacturing a third model (i.e. can Dark Sky produce SandBird this year, and be producing SandBird and SeaBird the following year)? If so, what are the revenue implications?
  - If Dark Sky produces JointBird, is $550,000 in Assessor revenue worth the associated cost to produce the aircraft? Should resources be allocated to another project?
  - How profitable are the four aircraft models in comparison? Note: Because Dark Sky has a Cost-Plus-Fixed-Fee contract, profitability for each aircraft is likely equivalent. For this reason, Dark Sky should focus on maximizing the number of aircraft sold. • How much and how long is the payback period for the investment in manufacturing each type aircraft?
  - Potential benefits of have two customer bases for new product (Navy and Army).

Exhibit #1

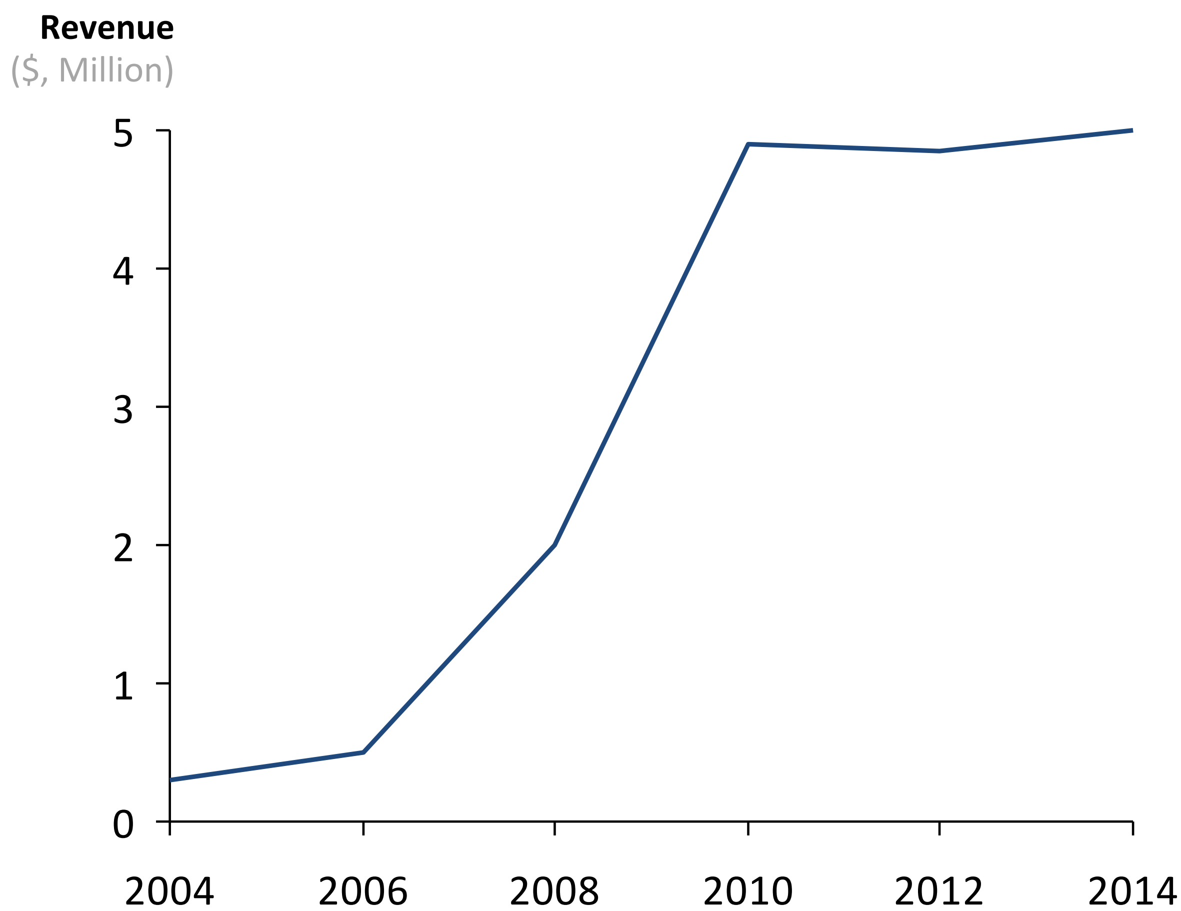

Exhibit #2

New Product Sales Forecast, 2015

	New Product Sales (# of aircrafts)		
New Product Offering	Navy	Army	Price Per Aircraft
SeaBird	50	--	$220,000
SandBird	--	60	$210,000
JointBird	38	52	$180,000

Exhibit #3

Impact of New Product on Assessor Sales

	New Product Sales (# of aircrafts)		
New Product Offering	**Navy**	**Army**	**Assessor unit sales lost due to cannibalization**
SeaBird	50	--	40%
SandBird	--	60	70%
JointBird	38	52	90%

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Case 21: Health Coaches

By: David Wellner (Kellogg Class of '11), Edited By: Craig DePriester (Kellogg Class of '12)

KELLOGG CONSULTING CLUB CASE COMPETITION PLATINUM WINNER

Case Question

- Our client is a large national health care payer (health insurance company, think Aetna) exploring the launch of a new disease management ("DM") program to better serve its 5 million members. The idea is to hire and train a team of "Health Coaches" to specialize in a single disease area (e.g., heart disease, diabetes, etc). Each Coach will manage a portfolio of patients to reduce the costs of overall health expenditures (e.g., reminders to take drugs, provide limited medical advice, suggested diet, etc). Studies show that once a month contact with each patient reduces health spending by 5%, on average.
- *Should our client launch the program? If so, what steps should it take?*

8

Quants.

6

Structure

Cust. Stgy B/E

Case tracker

- **Industry:** Healthcare
- **Level of Difficulty:** **Medium**
- **Case Format:** Developing a new product/Service
- **Concepts Tested:**
  - Customer strategy
  - Break-even analysis

Fit Questions

Spend first 15 min on fit

- How do you feel about working in a feedback-intensive environment?
- Why is consulting a better career move for you compared to your next best option?

Guide to interviewer

- The case tests the interviewee's ability to probe and develop a customer segmentation, digest a relatively complex chart, isolate the most critical information and determine profitability
- The data provided by both exhibits should be requested; try not to show the exhibits until need for the data is demonstrated
- Strong interviewees should use common sense to make reasonable assumptions before you provide required inputs

Clarifying answers and handout guide

Clarifying answers to provide

Competitive dynamics (not core to case)

- With spiraling health care costs, the industry is under pressure to innovate new products that will control spending
- Assume client is first to market
- Past attempts to purely automate DM have yielded minimal savings

Health Coaches

- All activity conducted remotely via phone/email
- Typical profile is registered nurse that wants to work from home
- It's difficult to actually reach patients, so Coaches can contact 8 members per day (assume 25 days per month)
- Annual costs per Coach: $60K salary +20% other (training, benefits, laptop, etc)
  - There are no other program costs

Guide to handouts

Before showing exhibits, interviewee should convey the essence of the case:
Are the costs associated with the DM program justified by the savings?

Sample set-up:

Program Savings	Program Costs	Risks
– Customer segmentation by disease area and cost per member	– Salary and other – Portfolio size/capacity (members/coach)	– Do assumptions hold? – Competitive response – Regulatory, liabilities

Exhibit 1 – Hand out when interviewee establishes need for understanding client's membership segmentation and/or exposure to disease areas. If he/she is not headed there alone, you can ask "how would you segment the client's members?"

- "What can we get out of this chart? Please let me know if you have questions"
- Definitions (if needed): Group are employee sponsored plans (e.g. ,if you work for McKinsey, you are in a group plan), Individual are non-groups (e.g., private contractors, unemployed, etc). 65+ (see asterisk below chart).
- "Which segment is likely to generate the greatest per member costs.? Why?"
- "Which disease area should we look at first?"

Exhibit 2 – Hand out when interviewee asks for medical cost data. Try to avoid handing out exhibit 2 until exhibit 1 has been discussed *(hint: if interviewee leads with profitability, steer him/her to first think about the customer segmentation)*

- "What can we do with this information?"

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Key elements to analyze

Segmentation and disease focus

Using **Exhibit 1**, discuss which segments and disease areas are most important to explore

Program profitability

Leveraging all data (Both Exhibits), interviewee should determine if Health Coaches are profitable in each of the three segments

Notes to interviewer

Interviewee should choose to focus on the 65+ segment

- 65+ (Medicare) patients are the sickest, followed by Individual
- Group members are the healthiest (younger, working)
- Sicker patients are likely to drive higher costs, which will make them riper candidates for the DM program (i.e., the 5% cost reduction will have a bigger impact)

Interviewee should choose to focus on diabetics (Assume all are Type 2 for the purposes of this case)

- Diabetics make up the largest portion of sick members
- As a chronic disease primarily brought on by behavior, T2 diabetics are most likely to benefit from DM program

Number of 65+ diabetics:

$$\frac{20\%}{segment\ \%} \ x \ \frac{40\%}{\%\ diabetic} \ x \ \frac{5MM}{members} = \frac{\mathbf{400,000}}{\mathbf{65+\ diabetics}}$$

Notes to interviewer

Cost per Coach: $\underline{\$60{,}000 \ + \ 20\% = \ \$72{,}000}$
Base Salary + other = per coach per year

Size of Portfolio: $\frac{8}{contacts\ per\ day} + \frac{25}{days\ per\ month} = \frac{\mathbf{200}}{\mathbf{max.patient\ portfolio}}$

Savings for one portfolio of 65+ diabetics:

$$\frac{\$300}{avg.\ PMPM} \ x \ \frac{4}{diabetic\ factor} \ x \ \frac{5\%}{avg.\ savings} = 60 \ x \ \frac{12}{mos.} \ x \ \frac{200}{patient\ portfolio} = \frac{\mathbf{\$144,000}}{\mathbf{savings\ per\ Coach\ per\ yr.}}$$

Overall savings: $\frac{\$144K}{savings} - \frac{\$72K}{costs} = \frac{\$72K}{profit\ per\ Coach} \ x \ \frac{2{,}000}{Health\ Coaches} = \frac{\mathbf{\$144\ MM}}{\mathbf{profit\ per\ year}}$

Conclusion:

- Profit is $72K per Health Coach, 2x cost of a Coach
- Based on PMPM diabetic cost data, Individual segment is break-even (50% less savings), Group segment is a loss

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Solution and recommendations

Solution & Recommendations

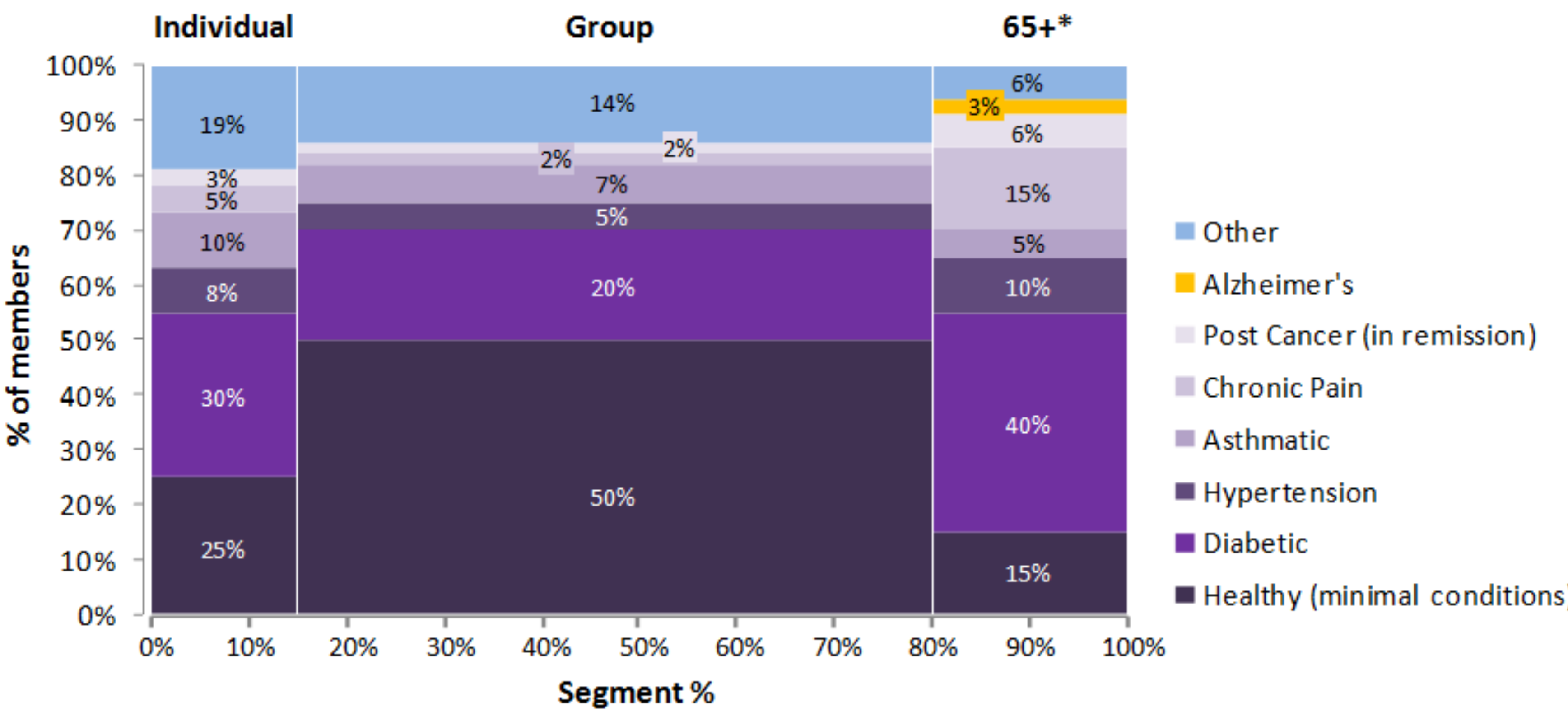
With 3-4 minutes remaining, give interviewee a moment to prepare a recommendation. Here is a strong sample:

- Client should launch the Health Coaching program, and first focus on diabetes for the 65+ Medicare segment
- The client should take the following steps:
  - Launch a pilot program to prove out assumptions (e.g., 5% cost reduction, Coach portfolio capacity, etc)
  - First expand to entire 65+ diabetes segment ($144M per year savings per coach, a 2x return on each Health Coach)
  - Consider introducing to Individual diabetes segment despite break-even (customer retention, moral rationale, etc)

Follow-up questions (if time permits)

- There are 650K Group diabetics left "uncoached." Is there a way to make the segment profitable? Ideas include:
  - More efficient DM program (e.g., Coaching at work, bi-monthly contact, automated correspondence, etc)
  - Seek additional revenue sources (e.g., Employers might be willing to pay a fee, government support)
  - Since 5% is the average savings, program can target members who will respond with savings well above 5%
- As first to the market, client plans to expand Health Coach program externally. Who should they target?
  - It's tempting to suggest that the client should market to 65+ Medicare patients with diabetes, since this is where the program yields the greatest savings. While it's good that we have lowered the cost of older diabetics, client should keep in mind that more diabetic members will increase overall health care costs, considerably – (still almost 4x after savings)
  - An instinctive interviewee might suggest an alternative: Client should sell its Health Coach service to other payers. But how would you price that? What are the challenges (e.g., regulatory, info sharing, etc)

Exhibit #1: Client's member segmentation by health condition



* Members 65 years of age and above. Known as "Medicare Advantage", premiums funded by government

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Exhibit #2: Average cost data (Per Member Per Month)

Segment	Average PMPM	Average Diabetic
Individual	$150	4x (Avg. PMPM)
Group	$100	
65+	$300	

Case 22: Wine & Co.

By: Anil Goteti (Kellogg Class of ’11), Edited By: Mauricio Atri (Kellogg Class of ‘12)

Case Question

- Wine & Co. is a niche wine manufacturer in the San Francisco Bay area. Wine & Co. recently acquired 12 acres of land outside San Francisco. The company wants to investigate opportunities to best use the land and needs a recommendation from you.

7

Quants.

5

Structure

CPG

Mkt. Stgy
NPV

Case tracker

- **Industry:** CPG
- **Level of Difficulty:** Medium
- **Case Format:** Opportunity Assessment
- **Concepts Tested:**
  - Marketing strategy
  - Basic NPV

Fit Questions

Spend first 15 min on fit

- Tell me about a time when you failed.
- Share me a time when you faced a difficult situation in a team and how you solved this .

Guide to interviewer

- The case tests the interviewee's ability to:
  a. Structure the problem and brainstorm
  b. Determine valuation and discounting
  c. Recommend a marketing strategy
  d. Synthesize the answers.
- This case is a McKinsey style case and has to be asked in a question and answer format. The interviewer should ask each question given below and wait for the interviewee to respond. If the interviewee is stuck, direction should be provided based on the information given below. The interviewee should be able to drive the case while at the same time seek direction based on the question asked.

Clarifying answers and case guide

Clarifying answers to provide

- **Question 1.** Some interviewees ask which geographical regions the company serves, the type of wines they manufacture and if they have other types of products (like other liquors or wine tasting tours in Napa valley). The following information can be provided if asked. a) They only manufacture red wines. b) The company serves only the local market (the San Francisco Bay area). c) The company does not sell any other products. d) The company is currently very healthy and does not face any problems.
- **Question 2.** Profit Margins on Merlot are 10% while the margins on Bordeaux are 15%.
- **Question 3.** a) Discount rate is 12% (provide only when asked). Many people forget the time value of money and add profits across years without discounting. b) Assume the costs are only incurred when the revenues are realized after aging (no costs until year 6 for Merlot and no costs until year 12 for Bordeaux). c) If people are struggling with the division or approximations, suggest the "Rule of 72" (If r is the discount rate, 72/r is the number of years it takes to double your money)
- **Question 4.** Customer segments that are currently served by Wine & Co.- niche wine enthusiasts.

Guide to case / Guide to handouts

- Question 1. What are the different ways in which Wine & Co. can use the land?
- Question 2. Wine & Co. has decided to use the land to manufacture wine. Each acre of land produces 1000 kg of grapes annually. Wine & Co. has an option to manufacture Merlot or Bordeaux. The two wines use different grapes and the grapes have varying yields. While the Merlot grapes yield 2litres/kg, the Bordeaux grapes yield 1litre/kg. Wine & Co. can charge $20 per liter of Merlot and can charge $40 per liter of Bordeaux. Which wine yields more profits annually?
- Question 3. Aging has an effect on the revenues and profitability. Merlot has to be stored for 6 years while Bordeaux has to be stored for 12 years before revenues can be generated. Which wine would you choose for manufacturing?
- Question 4. Wine & Co. has decided to manufacture Merlot. How should they market this product in the San Francisco Bay area?
- Please summarize your recommendations to the CEO of Wine & Co.

Key elements to analyze

Topic 1 being tested

- What are the different ways in which Wine & Co.wines can use the land?

Topic 2 being tested

- Which wine yields more profits annually?

Notes to interviewer

- The interviewee should create a framework and structure the problem. The interviewee should suggest options including manufacturing the wine, creating adjacent products (like wine tasting tours), using the land for other uses (commercial real estate/selling the land for a profit/ other opportunity costs). A good candidate would provide a detailed structure (eg. profitability framework for manufacturing feasibility with customization of the framework - yield of grapes, cost per liter of wine, etc.) and outline the risks or considerations involved in some of these options (like usability of land for manufacturing or company competency in pursuing in other opportunities unrelated to wine manufacturing).

Notes to interviewer

- A good candidate would ask for the profit margins/costs without being prompted. Look for organization and structure when the candidate evaluates the annual profits for each wine (a good candidate would use a table like structure when doing the math). The revenues would be $480,000 for both wines annually but the margins would be higher for Bordeaux ($72,000 for Bordeaux vs. $48,000 for Merlot). After the candidate arrives at the profits, look for interpretation. A good candidate would recommend using Bordeaux while at the same time consider other factors (competency in manufacturing either of the wines, customer demand in the bay area, sensitivity to product yields, customer reservation price, etc.). A creative candidate might suggest that we compare the age of the two wines (and hence will impact when the profits might actually start)

Math for Topic 2

		Value	Comments	
A	Acres of Land	12	Given	
B	kg of grapes produced/acre	1000	Given	
C	kg of grapes produced total	12000	=A*B	
		Merlot	**Bordeaux**	**Comments**
D	Yield (Litre/kg)	2	1	Given
E	Total Yield (Litre)	24000	12000	=C*D
F	Price / Litre	$20	$40	Given
G	**Total Revenue**	**$480,000**	**$480,000**	**=E*F**
H	Profit Margin	10%	15%	Given
I	**Total Profit**	**$48,000**	**$72,000**	**=G*H**

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Key elements to analyze

Topic 3 being tested

- Which wine would you choose for manufacturing?

Notes to interviewer

- Candidate should identify that the cash flows for Merlot would be $48,000 annually starting year 6. Cash flows for Bordeaux would start in year 12 ($72,000 annually). A good candidate would then consider the time value of money and discount the two perpetuities to the same year for an apples-to-apples comparison. Merlot: Annual Cash flow starting year 6: $48,000 Perpetuity value of cash flow (value in year 6) = $48,000/0.12 = $400,000 Bordeaux: Annual cash flow starting year 12: $72,000 Perpetuity value of cash flow (value in year 12) = $72,000/0.12 = $600,000 Value of perpetuity in year 6 = $600,000 / (1.12^6) = $300,000 (Rule of 72). Provide help here if the candidate is struggling with the division. Look for the candidate's approach than the exact number. Since value of pursuing Merlot ($400,000) is higher than value of pursuing Bordeaux ($300,000), the company should manufacture Merlot. A good candidate would interpret the result and suggest we take into account other factors like inventory costs, sensitivity to discount rate, etc.

Topic 4 being tested

- How should they market this product in the San Francisco Bay area?

Notes to interviewer

- Candidate should ask for the customer segments that the company might sell to and suggest appropriate marketing channels/strategies to consider. Look for a MECE structure here. Suggestions should include retail strategies, direct to consumer strategies (like wine clubs, wine tasting), traditional media and print advertising and online advertising.

Math for Topic 3

			Merlot	Bordeaux	Comments
	A	Annual Profit	$ 48,000	$ 72,000	See Q. 2
	B	Years to maturity	6	12	Given
	C	Discount Rate	12%	12%	Given
	D	Merlot NPV once ripe - at year 6	$ 400,000		=A/C
	E	Bordeaux NPV once ripe - at year 12		$ 600,000	=A/C
Method 1	F	Bordeaux NPV at year 6 (using discount rate)		$ 300,000	=E/(1.12)^6
Method 1	G	Comparison at year 6	$ 400,000	$ 300,000	=D and F
Method 2	I	Merlot NPV at year 12 (using discount rate)	$ 800,000	$ 600,000	=D*(1.12)^6
Method 2	J	Comprable comparison at year 12	$ 800,000	$ 600,000	=I and E

Alternative method using "Rule of 72" instead of (1.12)^6	**Value**	**Comments**
Discount Rate	12%	Given
Years to double value = 72/Discount rate	6	=72/12
Bordeaux: changing from year 12 to year 6 = halving the value of year 12 Merlot: changing from year 6 to year 12 = doubling the value of year 6		

Solution and recommendations

Solution & Recommendations

- A good candidate would recommend a solution (manufacturing Merlot) but would detail out the risks/next steps associated with the recommendation. Next steps may involve market research, land usability testing, evaluation of opportunity costs. Risks have been outlined above already.

Bonus/Guide to an Excellent Case

- An excellent answer should include:

  a) Identification of opportunity costs, particularly of not selling/leasing the land, which might be more profitable considering the current value of land in the Bay Area and/or Napa

  b) Considering industry specific issues like aging of wine

  c) Considering time value of money/perpetuity of cash flow

  d) Considering risks like customer demand, land usability

  e) Potential benefits of diversifying the acreage and producing multiple types of grapes (compensate for shifts in consumer demand, broader appeal to local market, etc.)

Case 23: Healthy Foods Co.

By: Milija Medic, Edited By: Mauricio Atri (Kellogg Class of '12)

KELLOGG CONSULTING CLUB
CASE COMPETITION
BRONZE MEDAL WINNER

Case Question

- Our client is Healthy Foods Co, a wholesaler serving a variety of clients with Food products. The client is profitable but they want you to help them find revenue growth opportunities from their current business.
- *How can we help Healthy Foods Co. drive their revenue growth?*

5
Quants.
6
Structure
CPG
Creativity
Mkt. Stgy
Cust. Stgy

Case tracker

- **Industry:** CPG
- **Level of Difficulty:** **Medium**
- **Case Format:** Growth Strategies
- **Concepts Tested:**
  - Creativity
  - Marketing Strategy
  - Customer Strategy

Fit Questions

Spend first 15 min on fit

- Tell me about a time when you failed.
- Share me a time when you faced a difficult situation in a team and how you solved this .

Guide to interviewer

- This case tests growth opportunities identification, and share of wallet analysis.
- It tests conceptualization skills as the interviewee needs to formulate prioritization criteria. The case is mainly qualitative.

Clarifying answers and case guide

Clarifying answers to provide

- **Customers**
  - The client serves various customer categories (shown **in Exhibit 1**).
  - Customer sensitivities are (highest to lowest):
    - Price
    - convenient delivery
    - help with location planning
    - help with menu
    - web site development
    - inventory
    - Help with management optimization
- **Competition**
  - The client is one of the market leaders and is not loosing the market share

Guide to case / Guide to handouts

- **Exhibit 1:** Hand out when interviewee asks about customers or revenue by customer type. Interviewee should notice that independent restaurants are the largest customer category and revenue source, and that there is a number of other customer types of similar revenue contributions comprising the rest.
- **Exhibit 2:** Hand out when interviewee identifies share of wallet as a relevant parameter, in search of revenue growth from existing customer types. Interviewee should generate a key insight that Healthy Foods Co's share of wallet is already large for the customers who bring in the largest revenues. The opportunity for growth therefore is in the smaller revenue-generating customers.
- **Exhibit 3:** Hand out when interviewee recognizes that in order to find the smaller customer types with highest revenue growth potential, (s)he needs the plot of the size of the wallet vs. the current client's share of wallet for that customer. The customers with large wallets, where the client has small share of wallet, are at the moment the best candidates to achieve increase in revenue from. Interviewee should identify hospitals and hotels as the customers with largest potential for revenue growth.

Key elements to analyze

Topic 1 being tested

- Identify the main customer types and their current contributions to the client's revenues, using **Exhibit 1**

Notes to interviewer

- The interviewee will probably explore opportunities for growth in the independent restaurant category. If they inquire about customer satisfaction and sensitivities, provide information from the "clarifying information" section, and emphasize that **the needs of this segment are already met**.
- The interviewee should inquire about the share of wallet in the customer categories to get a better idea on where the growth opportunities lie.

Topic 2 being tested

- Share of wallet analysis, using **Exhibit 2**

Notes to interviewer

- The interviewee should recognize that share of wallet in the highest-revenue-generating customer categories is already high, and that the client is already a key provider for a lot of them.
- Ask the interviewees to list all options to increase revenue and the reasons behind.
- Help interviewee to reach that the growth opportunity in the smaller revenue-generating customers, where client's share of wallet is smaller. Now the interviewee should formulate the criteria to prioritize among the smaller revenue-generating customer types: the bigger their wallet and the smaller client's share of wallet, the better.

Topic 3 being tested

- Wallet size vs. share of wallet

Notes to interviewer

- The bigger their wallet and the smaller client's share of wallet, the larger the revenue growth opportunity for the client.
- Using **Exhibit 3**, the interviewee should identify the hospitals and the hotels as the most promising candidates for revenue growth given their large wallets and small client's share of wallet. The interviewee should identify the strongest sensitivities these clients would have and suggest ways to increase client's share of wallet there.

Solution and recommendations

Solution & Recommendations

- In the current business, the largest growth opportunities lie in customer segments:
  - hospitals and hotels.
- The interviewee should suggest ways to better serve those customers and increase client's share of wallet there, capturing significant new revenues due to the large size of those clients' wallets.

Bonus/Guide to an Excellent Case

- An excellent interviewee should identify share of wallet as an important parameter, quickly recognize that there is little opportunity for growth in the largest-revenue-generating customers, and come up with the size of wallet vs. share of wallet plot as a good prioritization tool for identifying promising customer categories for the client's revenue growth.

Exhibit #1: Total Market Revenues by Customer Type

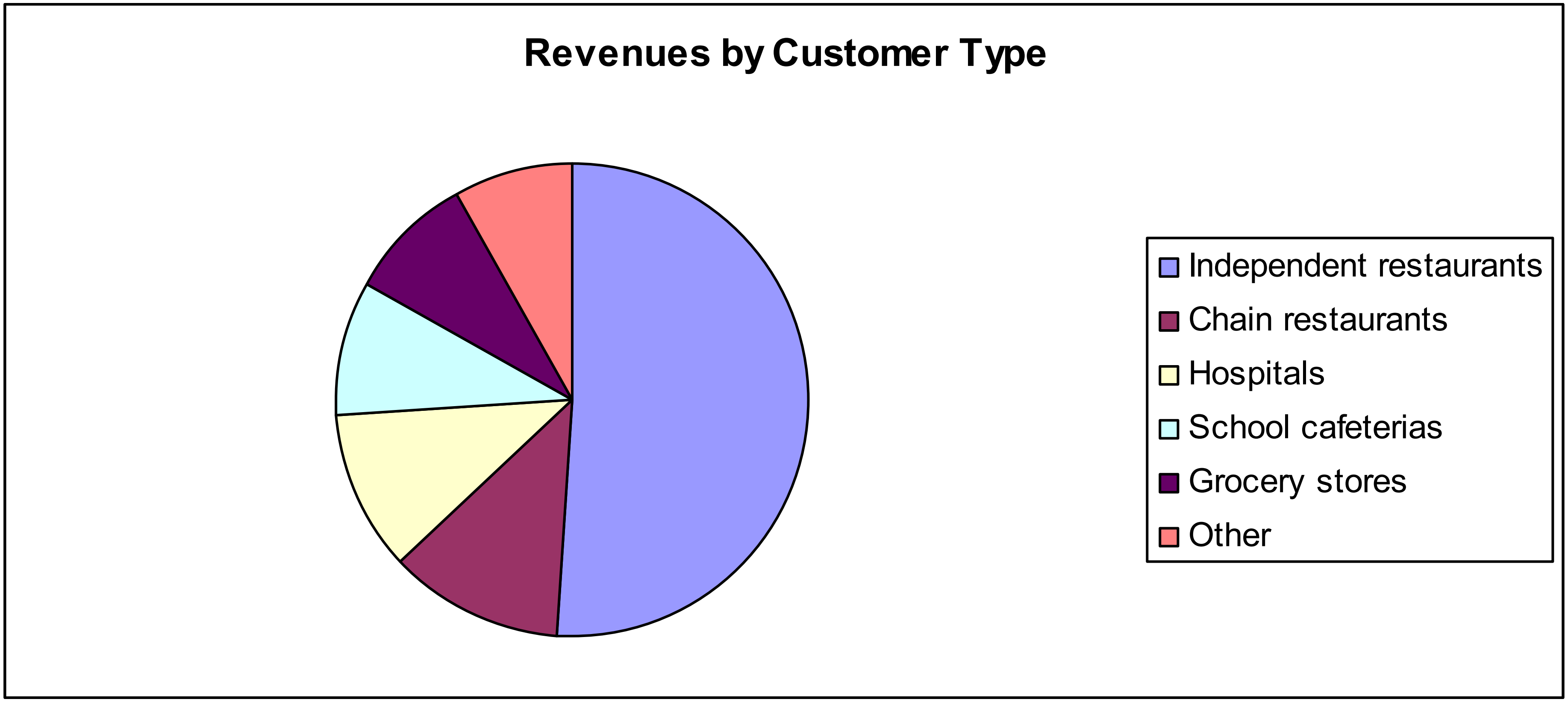

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Exhibit #2: Client's Share of Wallet

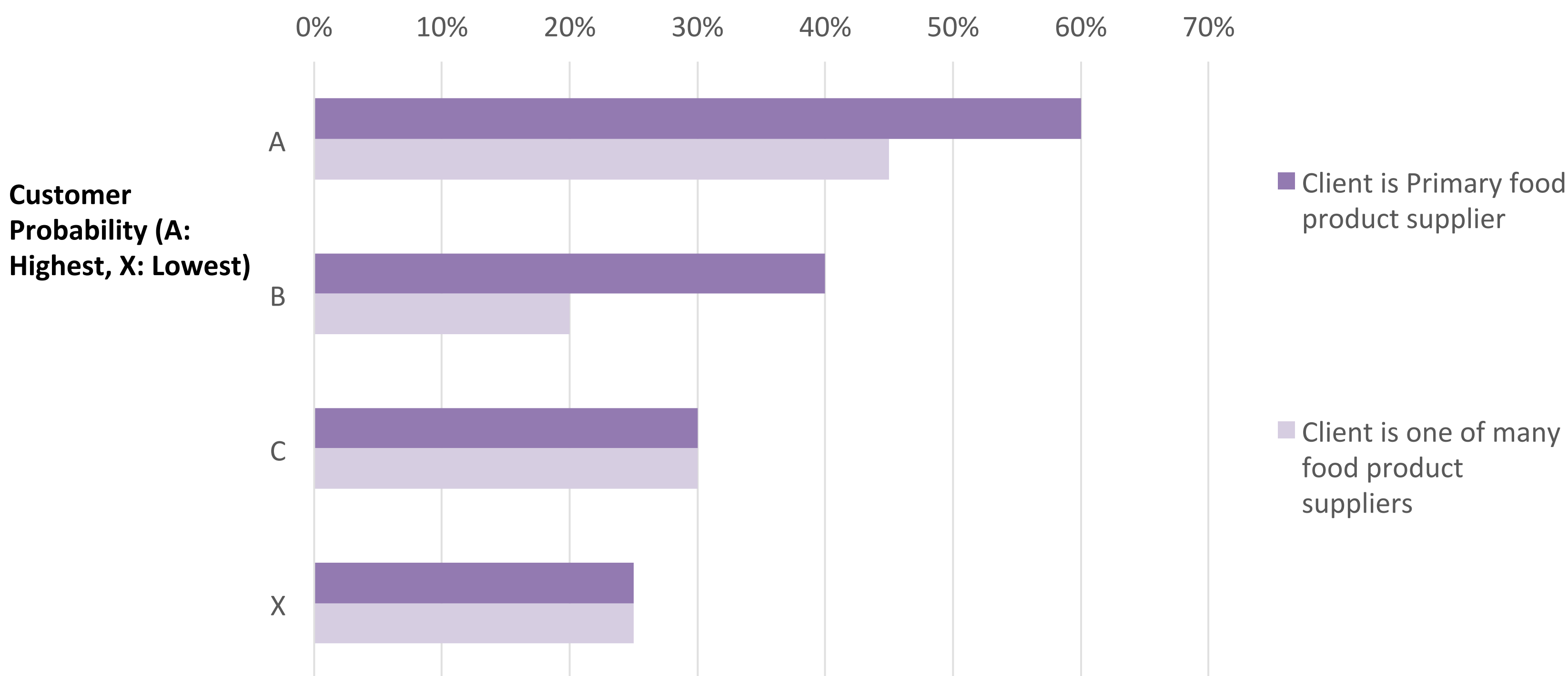
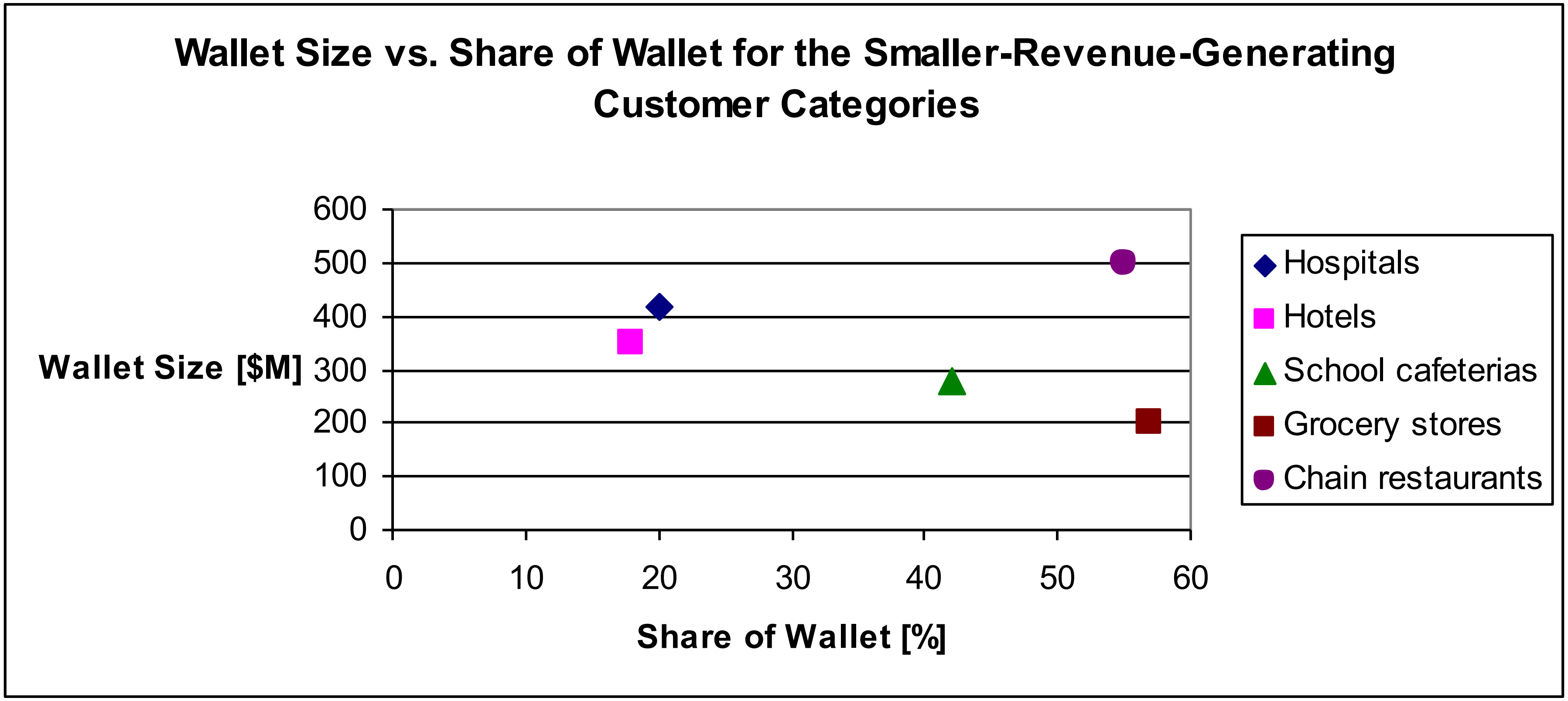


Exhibit #3: Wallet Size vs. Share of Wallet



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Case 24: High Q Plastics

By: Erin Brooks (Kellogg Class of '11), Edited By: Uri Kalir (Kellogg Class of '12)

KELLOGG CONSULTING CLUB
CASE COMPETITION
SILVER MEDAL WINNER

Case Question

- Our client, High Q Plastics, is an automotive parts supplier in the U.S. They primarily manufacture and sell plastic injection-molded parts, such as grills, door handles, decorative trim etc., to automotive customers.
- The client has two primary revenue sources: large automotive OEMs, and aftermarket. The client has recently seen declining profits, primarily due to increased price competition from new overseas competitors in China. Annual profits have declined from \$50M to \$20M over the past few years.
- *What is the reason behind declining profitability? How can High Q improve profits? Can they reach \$100M in profits by 2014?*

8
Quants.
5
Structure
Comp. Als
Creativity
Ops.

Case tracker

- **Industry:** Industrial Goods
- **Level of Difficulty:** Medium
- **Case Format:** Improving Profitability; Cost Reduction
- **Concepts Tested:**
  - Competitive Analysis
  - Creativity
  - Operations

Fit Questions

Spend first 15 min on fit

- Tell me about your greatest challenge, and how you overcame it.
- What is the best way to deal with a difficult client who does not agree with your recommendations?

Guide to interviewer

- The interviewee should examine the following MECE questions about the competitive dynamics of the industry:
  - *Industry*: What is the sales volume trend? What is the % of demand and growth of OEM vs. aftermarket segment? Is one of these segments more profitable than the other?
  - *Competitors:* Who are they? What is their relative market share? What are their prices vs. our clients'? What is their cost structure vs. our clients'? Do they have a technology or quality competitive advantage relative to our client?
  - *Revenue:* How have our clients' prices changed in recent years? Have they declined across all customers and products?
  - *Costs:* What trends is our client seeing in their cost structure? Increasing labor or material costs?

Clarifying answers and case guide

Clarifying answers to provide

Industry Characteristics/Market Economics

- Automotive sales overall still growing steadily, driven by emerging markets
- Automotive manufacturing is leaving the U.S.

Client Characteristics

- Client is currently one of the leaders in this category
- Client has U.S.-based manufacturing
- Revenues have been slowly declining over last 5 years
- Client's products are of a higher quality than most Chinese competitors' products

Competitive Dynamics

- Automotive OEM customers are looking to reduce cost, driving increased price competition among parts suppliers

Questions and Hand-out Guide

1. What key questions would you ask an industry expert in order to better understand the reasons behind High Q's declining profits?
2. The CEO of High Q wants to know if$100M in annual profits is achievable by 2014. What would you need to know in order to determine this? What data would you ask for?
3. What ways can you think of to increase revenues? What ways can you think of to reduce costs?
4. Our client is planning on implementing lean manufacturing across all 4 of its U.S. plants, in order to provide cost savings and increase profits. *Hand out exhibit 1.*
   - The client is expecting to produce 80% of 2010 volumes in 2014. They are also planning on reducing prices by 10% due to increased competition.
   - Lean manufacturing implementation across all plants will provide an additional 20% savings in raw material, and 30% savings in labor.
   - What is the change in profits the High Q CEO can expect from 2010 to 2014, based on this information?
5. High Q 's CEO has also asked us to take a look at competitive dynamics among the automotive OEMs, in order to predict any increase in profits from increased sales. Hand out exhibits 2 and 3.
   - Based on the information given, what do you expect High Q will see in additional profits due to Toyota's predicted 30% increase in market share in truck and SUVs?
6. Please summarize your findings to the CEO, including any other potential opportunities to increase High Q's profits over the next few years.

Solution and recommendations

Solution & Recommendations

1. The interviewee should examine the following MECE questions about the competitive dynamics of the industry:
   a) **Industry:** What is the sales volume trend? What is the % of demand and growth of OEM vs. aftermarket segment? Is one of these segments more profitable than the other?
   b) **Competitors**: Who are they? What is their relative market share? What are their prices vs. our clients'? What is their cost structure vs. our clients'? Do they have a technology or quality competitive advantage relative to our client?
   c) **Revenue:** How have our clients' prices changed in recent years? Have they declined across all customers and products?
   d) **Costs**: What trends is our client seeing in their cost structure? Increasing labor or material costs?
2. In order to understand if $100M in profits by 2014 is achievable, you would need to know the annual qty of units sold, the selling price, and the clients' fixed and variable costs. Profit = Q*(P-VC) – FC
3. The interviewee should come up with 2-3 ways each for cost reduction and increasing revenues:
   a) **Reduce Cost**: find alternative material sources, invest in process automation to reduce labor, consolidate multiple manufacturing sites to reduce SG&A costs, relocate close to customers to reduce transportation costs.
   b) **Increase Revenue:** segment customers to determine sensitivity to price, increase marketing in aftermarket segment, negotiate long-term contracts with OEM customers.

Solution and recommendations (2)

Solution & Recommendations

4. The interviewee should use the information provided in **Exhibit 1** to calculate the following profitability for each plant in 2014, and walk the interviewer through the calculation steps. It is important to first note that revenues, labor, and material will decrease by 20% due to the reduced quantity output from each plant, plus the additional 20% savings in material and 30% in labor. Revenue will decrease by an additional 10%, in a cost cutting maneuver. Overhead costs will not change.

*all figures are in $ million USD.				
	Plant A	**Plant B**	**Plant C**	**Plant D**
Revenues	72.0	72.0	72.0	72.0
Labor	11.2	22.4	33.6	16.8
Material	35.2	25.6	12.8	22.4
Overhead	20.0	15.0	15.0	30.0
Net Profits	5.6	9.0	10.6	2.8
Total 2014 Profits				28.0
Additional Profits				**8.0**

From this calculation, the interviewee should reference back to question 2. Even with the lean manufacturing implementation, High Q is still a long way from the CEO's goal of $100M in annual profits, and this is therefore not a realistic target. A strong interviewee should note the importance of aligning a client's expectations.

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Solution and recommendations (3)

Solution & Recommendations

5. The interviewee should be able to use the information provided in the Exhibits to calculate the following revenue growth ("Sales" figures below are in units/vehicles). Rounded answers ($13 or $14M) are fine, given that interviewee has already demonstrated math proficiency.

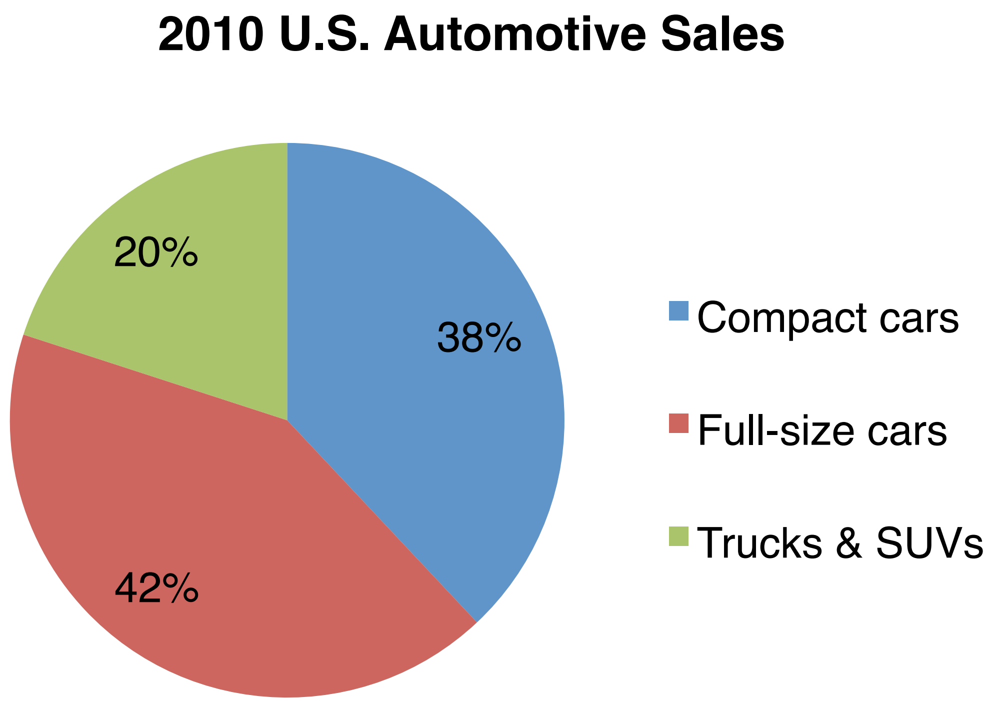
	2010	2014
U.S. Auto Market	16,000,000	
U.S. Truck & SUV Sales	3,200,000	
Toyota Truck & SUV Sales	320,000	1,280,000
High Q's Toyota Qty. Sold	224,000	896,000
High Q's Toyota Revenues	$ 4,480,000	$ 17,920,000
Additional Revenue		**$ 13,440,000**

6. The interviewee should concisely summarize the overall goal of the case (to increase High Q's declining profitability due to new, low-cost competition), and main findings from each question, and a recommendation (yes, High Q should implement the lean manufacturing initiative, while recognizing that this initiative alone will not hit the CEO's total profit goal in 2014). The interviewee should also generate a list of additional opportunities that were not explored in the case, including:
   a) Consolidation of the 4 manufacturing plants (especially Plant D, with its high overhead costs)
   b) Pursue growth in the aftermarket segment of their business
   c) Diversify their business into plastic injection-molded parts for other industries (outside of automotive), with less price competition

Exhibit #1: High Q's 2010 Financials, By Facility

*all figures are in $ million USD.				
	Plant A	**Plant B**	**Plant C**	**Plant D**
Revenues	100	100	100	100
Labor	20	40	60	30
Material	55	40	20	35
Overhead	20	15	15	30
Net Profits	5	5	5	5

Exhibit #2: 2010 U.S. Automotive Market



***Additional Information**

2010 U.S. Automotive Sales = 16 Million vehicles

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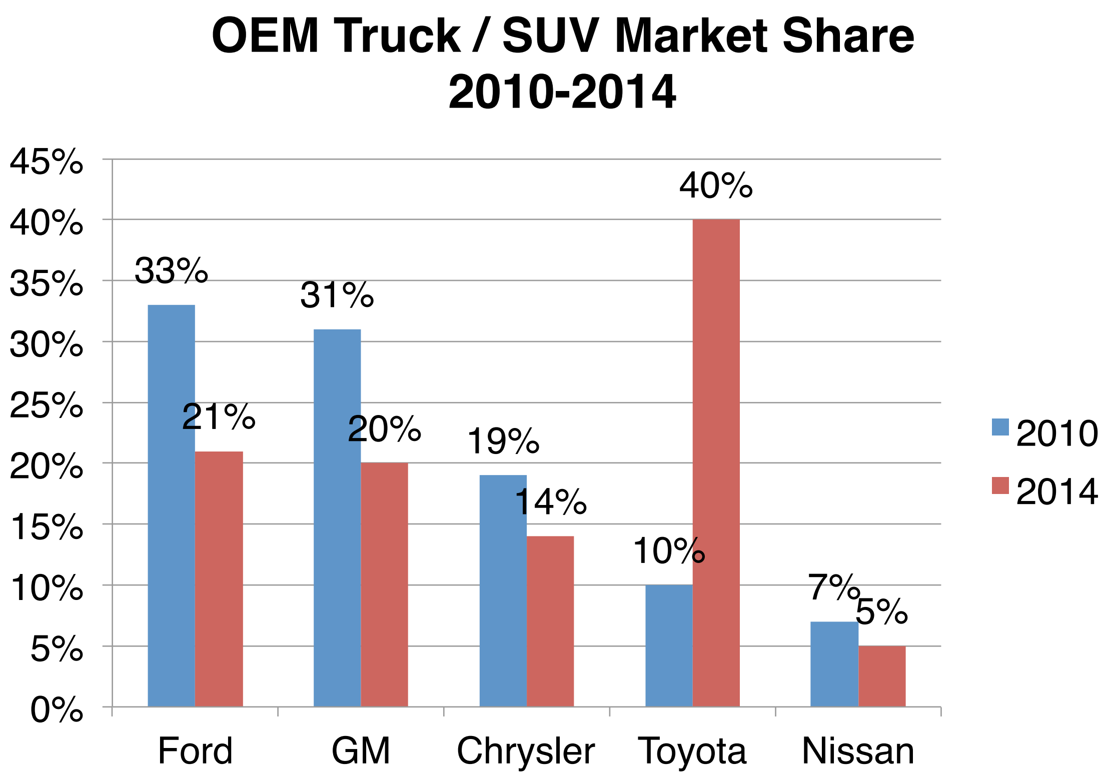
Exhibit #3: U.S. Automotive OEM Market



***Additional Information**

High Q supplies 70% of Toyota's business

Avg. Price of High Q products sold to Toyota = $20

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Case 25: Salty Sole Shoe Co.

KELLOGG CONSULTING CLUB
CASE COMPETITION
SILVER MEDAL WINNER

By: Meredith Tierney (Kellogg Class of '11), Edited By: Uri Kalir (Kellogg Class of '12)

Case Question

- Your client is a large retail-focused private equity firm that owns Salty Sole, a leading designer of junior women's footwear, primarily targeting the 14 – 22 year old age group. Salty Sole was purchased last year by the private equity firm expecting to realize substantial profits upon sale in 2012 by increasing the company's EBITDA. The situation, however, is that due to a current recession, annual profit has only grown modestly post the acquisition and is not on track to generate the double-digit returns that the private equity firm originally anticipated.
- *How can the company increase profitability and achieve the private equity firm's return on investment objectives?*

Case tracker

- **Industry:** Retail Apparel
- **Level of Difficulty:** Medium
- **Case Format:** Improving profitability
- **Concepts Tested:**
  - Creativity
  - Accounting
  - Microeconomics

Fit Questions

Spend first 15 min on fit

- Tell me about a problem you faced in your professional life, how you resolved it, and what the results were.
- Tell me about a time when you worked in a contentious or high-stress situation and how you handled it.

Guide to interviewer

- **The case primarily tests an understanding of profitability and profitability growth strategies**
- Begin by reading the case question and asking the interviewee to take a few moments and then explain how they would like to proceed in the client's problem

7
Quants.

6
Structure

Creativity
Acct.
Micro.

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Clarifying answers and handout guide

Clarifying answers to provide

Industry Characteristics/Market Economics

- Client is the market leader in junior women's footwear in the U.S. only.
- Apparel industry is characterized by cyclicality due to economy and consumer preferences.

Client Characteristics

- Client designs and distributes footwear to discount retailers (like Kohl's) and is considered mid-priced.
- Client outsources all manufacturing on a fixed-contract basis (i.e. manufacturing costs with outsourced providers fall under Fixed Costs for simplicity).

Competitive Dynamics

- Client follows a "me-too" strategy and follows fashion rather than inventing it then offering lower prices than name brands (i.e. not subject to fashion risk).
- Client competes on the basis of trendy fashion and value pricing.

Guide to handouts

- After asking the case question, the interviewee should draw a framework that outlines the basic concept that profit is driven by revenue (price and volume) and cost (fixed and variable)
- **Exhibit 1** – Hand out after interviewee presents his/her framework.
  - What observations can be made from this chart?
  - Interviewee should point out that the company experienced significant growth during the pre-recession years, but a decline and only gradual pick-up following.
  - Interviewee should pick-up on the fact that the change in net sales is not due to increased discounts/allowances (remains 1% throughout years).
  - On the cost side, interviewee should note that variable costs remained flat at 50% and fixed costs remained flat
- **Exhibit 2** – Hand out when discussing revenue / increasing volume.
  - Note that the "casual" footwear market is used as a proxy for the junior women's category in which the client competes and is the market leader.
  - What observations can be made from this chart?
  - Candidate should note that the client is already the market leader with greater than 35% share and that the industry is not projected to grow.

Key elements to analyze

Costs

- Using **Exhibit 1**, have a quick discussion about the company's cost structure.

Revenue

- Once interviewee determines that cost is not the issue, have a discussion on the components of revenue – price and volume.

Notes to interviewer

- Fixed: Interviewee should note that fixed costs are not extremely high (about 23-25%), but could be an area for improvement. Ask how interviewee would reduce fixed costs? Examples include: renegotiate contracts, find cheaper manufacturing partners, etc.
  - State that in-fact fixed costs cannot be adjusted based on the company's research.
- Variable: Interviewee should note that variable costs are approximately 50% of sales. Ask how interviewee would think about reducing variable costs? Examples include: reduce labor/sales force, use technology, renegotiate / volume purchase materials
  - State that variable costs are currently at the lowest possible rates based on market research.

Notes to interviewer

- Price: Interviewee should ask if pricing has remained constant over time or if the company has adjusted its pricing to reflect lower consumer discretionary income.
- Ask what considerations the interviewee would have when considering adjusting price?
  - Answers should be price sensitivity / elasticity, cost structure, brand equity (dilute brand through price decrease but compete with more upscale brands if increase).
  - State that pricing has remained constant at an average of $25/unit. The company has determined that it would not be prudent to adjust pricing based on industry research. Interviewee can now determine the number of pairs of shoes sold for later in the case.

Key elements to analyze

Revenue (cont' d)

- Now that the interviewee has hopefully zeroed-in on the fact that the issue is volume, ask how many units must be sold by 2012 in order for the private equity firm to achieve a 20% return on the investment in Salty Sole Shoe, which equals approximately $300 million sale value (give this number). Note that interviewee should *ignore* discounts/allowances for simplicity.

Notes to interviewer

- Interviewee should determine that if the sale value needs to be $300mm in 2012, then EBITDA will need to be $300 / 6.5 = $46.15 (round up to $50 million).
- The formula to determine how many pairs of shoes must be sold to reach that EBITDA level is as follows:
  - $50,000,000 = $25*v – (.5 * 25 * v) – 15,000,000
  - $65,000,000 = 12.5v
  - V = 5,200,000 pairs of shoes
- Interviewee should note that this is more than double the 2008 and 2009 volume levels.
- Ask what the interviewee would want to know to determine if this volume is feasible? Answer: market size / share.

Market Size

- Show the candidate Exhibit 2 when he/she notes that market size/share would be helpful.
- Candidate should note that the client is already the market leader with greater than 35% and that the market size is not projected to increase.
- This should lead to the conclusion that the client can increase volume by stealing share and/or new products in other categories.

Solution and recommendations

Solution & Recommendations

- The interviewee should zero-in on the fact that since cost-structure is fixed and price is also fixed, volume is the only real way to increase profitability.
- However, volume must more than double in order to achieve the growth desired by the private equity firm for a 20% return, which could be difficult given recession and the fact that the industry as a whole isn't growing.
- Interviewee should recommend potentials strategies for achieving that volume growth while outlining the risks of each: 1) Volume: new products / geographies / distribution channels (international?); increase marketing to steal share; acquire growth (brands); adjust product mix to higher-margin products. 2) Price: add value / features. 3) Risks: Capacity, cannibalization if new products.

Bonus/Guide to an Excellent Case

- An excellent interviewee will quickly identify that volume is the issue by ticking through the parts of the profitability equation.
- An excellent interviewee will also ask about product mix and question the 50% gross margin. Interviewer should note that it's assumed that all products have the same margin, but that's a great question.
- An excellent interviewee will also note that since the company is not projected to have to adjust discounts / allowances, then it probably has a good product that is highly-valued by customers and/or this may be aggressive projecting.

Exhibit #1: Client Financial Estimates

Salty Sole Financial Estimates
($ in millions)

	2006A	2007A	2008A	2009E	2010E	2011E	2012E
Sales	50.00	65.00	60.00	61.00	62.00	65.00	70.00
Less: Discounts/Allowances	(0.50)	(0.65)	(0.60)	(0.61)	(0.62)	(0.65)	(0.70)
Net Sales	$49.50	$64.35	$59.40	$60.39	$61.38	$64.35	$69.30
% Increase / Decrease	*20.0%*	*30.0%*	*(7.7%)*	*1.7%*	*1.6%*	*4.8%*	*7.7%*
Cost of Goods Sold	24.75	32.18	29.70	30.20	30.69	32.18	34.65
Fixed Costs	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Total Costs	39.75	47.18	44.70	45.20	45.69	47.18	49.65
EBITDA	$9.75	$17.18	$14.70	$15.20	$15.69	$17.18	$19.65
Sale Multiple	6.50x	6.50x	6.50x	6.50x	6.50x	6.50x	6.50x
Purchase/Sale Price		$111.64	$95.55	$98.77	$101.99	$111.64	$127.73
Return on Investment							2.7%

Note: Acquisition occurred on December 31, 2006.

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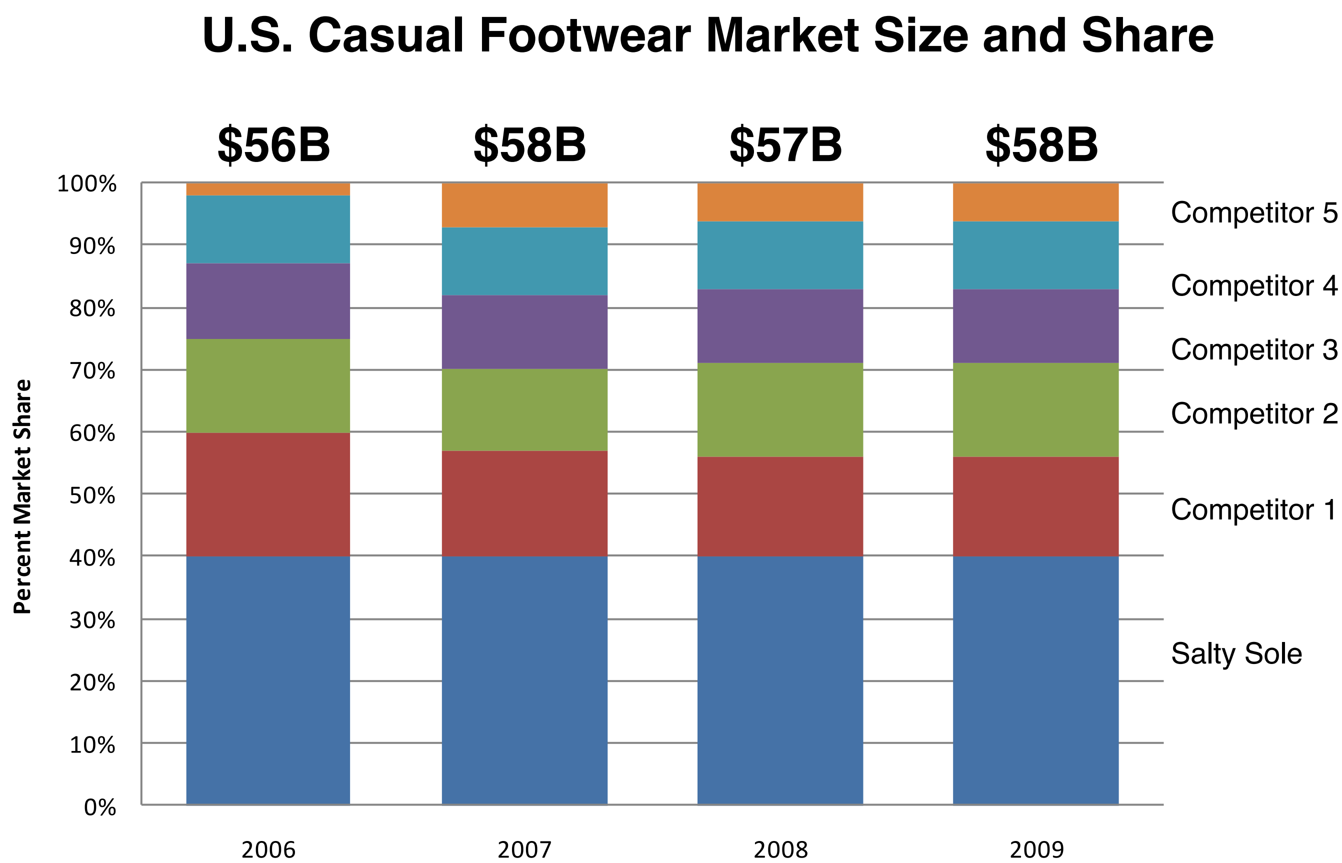
Exhibit #2: Market Size and Share



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Case 26: Plastic World

By: Milija Medic, Edited By: Peter Manoogian (Kellogg Class of '12)

KELLOGG CONSULTING CLUB
CASE COMPETITION
BRONZE MEDAL WINNER

Case Question

- Our client is a private equity firm interested in PlasticWorld, a plastic packaging manufacturer.
- *PlasticWorld's owners are requesting $25M. The offer is final. Should our client buy?*

3 *Quants.*

4 *Structure*

Org. Chg.
Mkt. Share
Cust. Stgy

Case tracker

- **Industry:** Financial Services
- **Level of Difficulty:** **Medium**
- **Case Format:** M&A
- **Concepts Tested:**
  - Organizational changes
  - Market share
  - Customer strategy

Fit Questions

Spend first 15 min on fit

- Tell me something about yourself that is not listed on your resume.
- What was the most difficult problem you solved in your previous job, business-wise?

Guide to interviewer

- **The case primarily tests the ability to gain insight from quantitative data , value a company and find potential improvements… As such, it is a little bit more data-driven than the average case.**
- The interviewee should focus on the company value – the recommendation regarding the offer depends on it – and on feasibility of identified profit-improving changes.
- The interviewee should be able to come up with the key improvements if (s)he invests some effort in understanding the price drop and its relationship to the sales force incentives. S(he) should also come up with innovation-related costs from the pressure from the customers and how to push back.

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Clarifying answers and case guide

Clarifying answers to provide

PlasticWorld Characteristics

- Makes plastic packaging for beverages, cosmetics, household and automotive chemicals
- Products are top quality, they have 350 sets of molds, with different materials, finish, colors, always innovating
- Overall product mix has not changed in recent years
- The sales force is "the best in breed", they hold market share, and they are compensated on market share
- Two years ago they invested further in equipment for product innovation

Customers

- PlasticWorlds' customers exhibit strong loyalty
- They are experiencing increasing pressures in their industries to innovate the plastic packaging

Guide to handouts

Begin by handing out exhibit #1 after stating the case question.

Exhibit 1 – Hand out after introducing case

- What observations can be made from this P&L statement?
- Interviewee should calculate the profit margin (-6%), notice that sales volume is growing but revenues are dropping, and infer that the cause may be pricing (*more detail on next page)*
- To check if it's an industry-wide or company-specific drop in profitability, *they should request competition profitability data*

Exhibit 2 – Hand out if the candidate requests competition data

- Note that it's a company-specific problem
- Push the interviewee to postulate what would be a realistic profit margin goal for PlasticWorld based on this industry profitability data (*more detail on next page*)

Exhibit 3 – Hand out after discussion of Exhibit 2

- Sensitivity analysis indicates that the company would be worth the offered $25M if the profit margin was brought from –6% to 0%
- Interviewee should investigate the profitability drop and the low prices further and suggest options to get PlasticWorld's profitability in line with the industry, and their feasibility

Key elements to analyze

Sales Force Incentives

- Using Exhibit 1, What could be the reasons behind what is in the data?

Profit Margin Improvement Feasibility

- Use Exhibit 2 to conclude it's a client-specific problem, use Exhibit 3 to discuss company's value if the profit margin is increased to the industry average.

Notes to interviewer

- Exhibit 1 – PlasticWorld has experienced a steady drop in revenues while the sales volume has been growing.
- There are three major points to identify: 1) the profit margin is dropping and negative; 2) given the unchanged product mix and increasing sales volume, the drop in revenues is caused by a reduction in prices; 3) depreciation change – it was equipment investment.
- The interviewee should find, asking independently or with your help, that sales force is compensated based on market share. This gives the sales force incentive to drop the prices.
- Interviewee should ask about the product quality and customer loyalty to discard price competition as the reason to drop prices. The products are high-quality and customers are loyal, so most of them would buy even at a higher price.

Notes to interviewer

- Exhibit 2 - the candidate should identify the profitability problem is client-specific, all competitors are profitable.
- Exhibit 3 – the observation from the graph is that the company would be worth the $25M if PlasticWorld increased profit margin from –6% to 0%. If the profit margin reached the industry average, the company would be worth $40M.
- Now the question is how easily can the profitability be increased above zero (making the company worth more than the $25M). The sales force incentive change is easy to make.
- Looking for other high-impact improvements, the dense product line and constant innovation is the next largest candidate. Eliminate some molds to cut costs, mindful of innovation pressures in PW's clients' industries.

Solution and recommendations

Solution & Recommendations

- Our client should accept the $25M offer and boost the profitability (and value) of PlasticWorld.
- The client should engage in the following easy-to-implement changes:
  - Compensate sales force based on company earnings instead of market share.
  - Simplify the product line - eliminate some of the 350 molds to cut costs while leveraging the superior sales force to maintain client satisfaction.
  - Examine the industry best practices to find other areas for improvement.

Bonus/Guide to an Excellent Case

- An excellent interviewee will quickly identify the pricing as the issue behind the revenue decrease and lay out potential causes for the price drop, finding the sales force incentive.
- Additionally, a strong interviewee will immediately notice that the company would be worth more than $25M if its profit margin was at the level of industry average.
- A framework comprehensive enough to find the product line size problem would be a plus.

Exhibit 1: PlasticWorld P&L statement in the past three years

	2009	2008	2007
Sales ($)	18,824,000	19,180,000	19,650,000
Volume (units)	36,200,000	34,250,000	32,750,000
COGS ($)	9,050,000	8,900,000	8,650,000
SG&A ($)	7,500,000	7,200,000	7,300,000
Depreciation ($)	3,450,000	3,450,000	2,250,000
EBIT ($)	-1,176,000	-370,000	1,450,000

Exhibit 2: PlasticWorld and Industry Peers Profit Margins

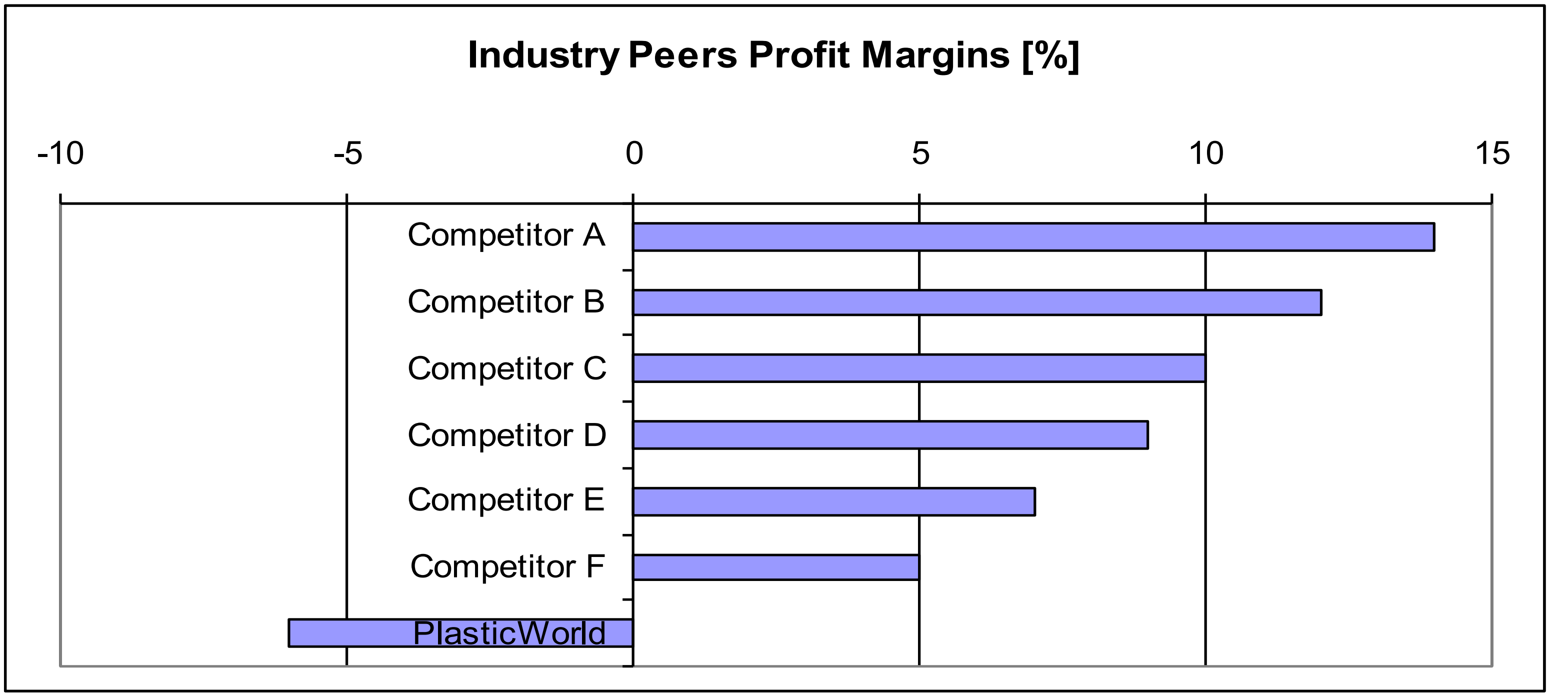

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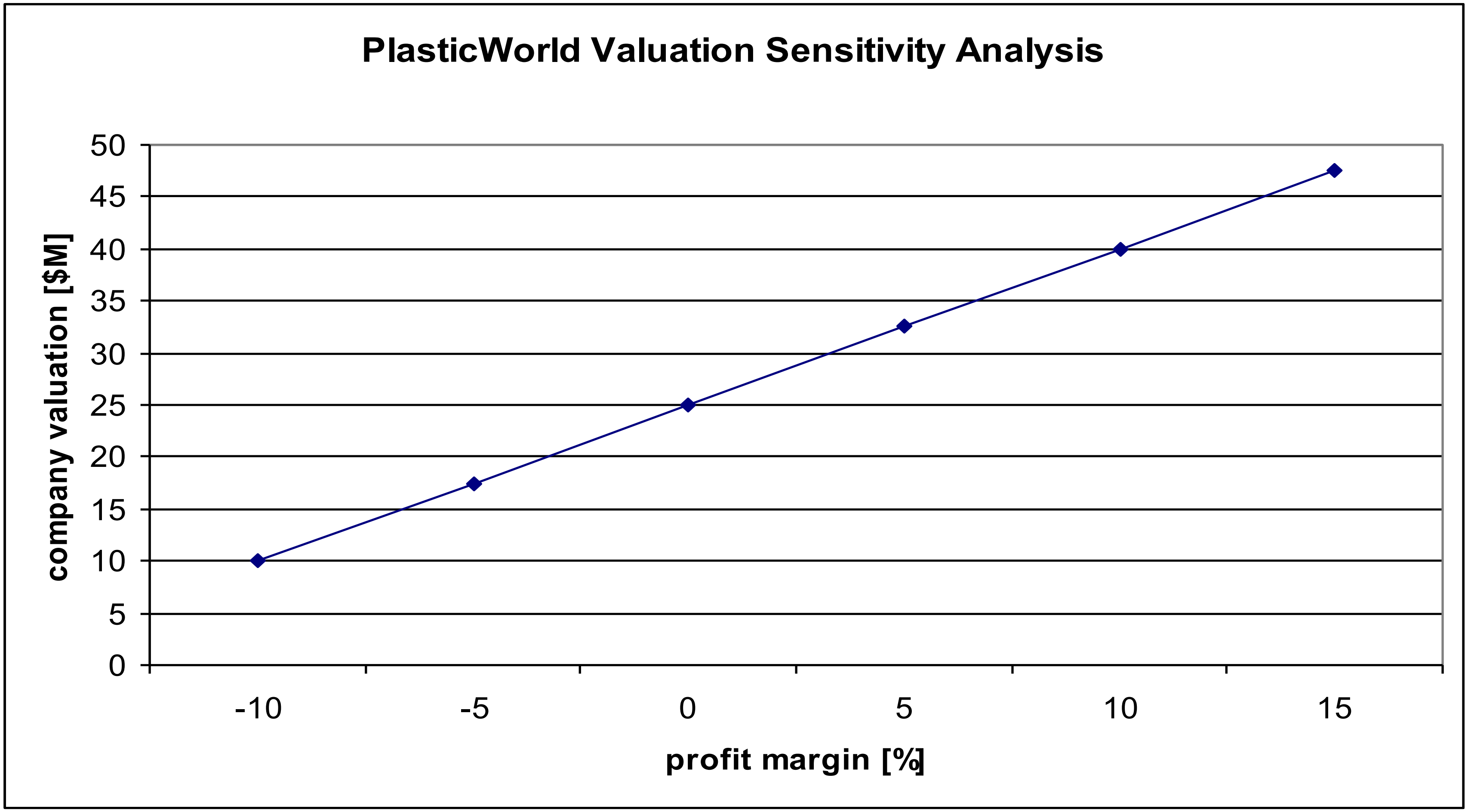
Exhibit 3: PlasticWorld Valuation by Profit Margin



Case 27: Zoo Co.

KELLOGG CONSULTING CLUB
CASE COMPETITION
SILVER MEDAL WINNER

By: Aneri Jambusaria (Kellogg Class of '11), Edited By: Ron Mantel (Kellogg Class of '15)

Case Question

- Our client is a zoo that is thinking about acquiring a famous zebra from an African preserve.
- It's a huge investment, but they believe the new zebra would be a great contribution to their animal community. You have been engaged to help decide whether this is a good idea. What would you consider when trying to help your client make this decision?

7
Quants.
5
Structure

Invest. B/E Basic NPV

Case tracker

- **Industry:** Financial Services
- **Level of Difficulty:** **Medium**
- **Case Format:** M&A
- **Concepts Tested:**
  - Investments
  - Break-even Analysis
  - Basic NPV

Fit Questions

Spend first 15 min on fit

- Describe a recent unpopular decision you made. What was the result?
- Tell me about a successful business relationship you built with a client, boss, or peer in your previous job.

Guide to interviewer

- Even though the client is a Zoo, we're undertaking a similar process to what is done when underwriting an insurance policy. The case evaluates basic concepts, but involves many calculations and use of financial and assessment techniques.
- Key case objectives:
  1. Investment Valuation – Walk through the valuation process for an asset
  2. Breakeven Analysis – Determine the revenue increase needed for a positive NPV
  3. Risk Assessment – Should the zoo should use an insurance contract to hedge downside risk?
- Rounding numbers is generally okay but should not be done to the extreme as it will alter the results

Zoo Co: Clarifying answers and case guide

Clarifying answers to provide

Data to provide when asked
- 300K people visit the zoo yearly
- Admission is $15
- Benefits from acquisition could lead to increased attendance. Another zoo that acquired a similar zebra had an 8% increase

Costs from zebra acquisition
- Immediate costs: acquisition fees, transportation costs, and new facilities.
- Food, health costs and additional trainers are part of annual maintenance costs
- Acquisition cost: $235K
- New facilities: $850K
- Transportation: $110K
- Annual maintenance: $90K
- Discount rate = 20% Assume that immediate cost are paid today, and annual costs and benefits are realized beginning next year and sustained into perpetuity, even thought the Zebra will not live on to perpetuity

Guide to case / Guide to handouts

- The interviewee should think about performing a break even and a sensibility analysis. Afterwards, they need to think about performing a risk assessment (*only when you reach this point you should deliver exhibit 1*)
- They should start by asking about the benefits and costs associated with zebra acquisition (Left)– Share with interviewee after probing questions are received
- Using the data on the left to calculate benefit to zoo from acquisition – Determine whether or not this zebra purchase makes financial sense for the zoo, using the NPV value
- Using the cost and benefit data provided, the interviewee should calculate the NPV of the acquisition
- *Assume that attendance benefits are realized immediately and maintained thereafter*
  - Annual benefits = (300K)*($15)*(0.08) = $360K
  - Upfront costs = $235K + $850K + $110K = $1.195M
  - Annual costs = $90K
  - NPV = -$1,195K+(($360K - $90K)/0.20) = $155K
- Continue by asking questions in next page

Zoo Co: Key elements to analyze

Break-even analysis

- Zoo Co. is concerned about using the other zoo's attendance benefits as a proxy. They think that attendance could increase by less than 8%. What analysis could you perform to address their concerns? What is the breakeven attendance increase required?

Risk assessment

- Since the zoo is very risk-averse, they're interested in hedging some of their downside risk. An insurance company has offered to provide the Zoo with a constant revenue to increase revenue to $250,000 per year if attendance increases are less than or equal to 5% (if revenue is $135K, the insurance will give the Zoo, $115K. In exchange, the insurance company wants the zoo to pay 1% of the zoo's total annual revenues as a premium. What might you do to determine if this was a good deal?

Notes to interviewer

- The interviewee should determine that a sensitivity / breakeven analysis of the NPV calculation with lower attendance increases will help confirm that the project still makes sense
- See calculations page

Notes to interviewer

- The interviewee should recognize that additional information is needed, and that a market research study could aid in this process
- Hand out Exhibit 1 after the interviewee identifies this notion
- The interviewee should use the market research to determine the probable attendance increase

Zoo Co: Calculations

Math questions

1. What is the breakeven attendance increase required?
2. Do you think the insurance company is providing a good deal to the zoo?

Calculations

1. Break-even: = -$1,195,000+((revenue-$90,000)/0.20)

   ($1,195,000)x .20 = revenue-$90,000

   revenue = $239,000 + $90,000 = $329,000 (*required additional revenue to break even)

   $329,000 = (300,000) x (15) x (% increase)

   % increase = ($329,000 / $4.5M) = 7.3%

After handing over exhibit 1

2. Annual cost to zoo: 1% of total zoo revenues = (0.001)*($4,752,000) = $47,520

   Annual expected benefit to zoo = ($250,000 - $225,000)*(0.20) + ($250,000 – 135,000)*(0.40) = $33,000

   *Costs > Benefits, so this is **not** a good deal*

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Zoo Co: Solution and recommendations

Solution & Recommendations

- It is unlikely that the zebra acquisition is a good idea for the zoo to undertake given the information provided. At other zoos, attendance has gone up substantially due to a new zebra; however, based upon our market research, it seems less likely that we can breakeven on the investment through increased attendance. We have received an insurance contract to help mitigate some of the downside risk; however, it is too expensive to create value.
- In order to make the investment more palatable, we may consider negotiating with the insurance company to either increase the revenue benefits provided or decrease the premium cost.

Bonus/Guide to an Excellent Case

Excellent cases will:

- Identify that we can use another zoo's attendance increases as a proxy for estimating our own attendance increases
- Notice in Exhibit 1 that it is unlikely that attendance will increase sufficiently enough for the zoo to break even
- Notice that the insurance company's premiums and benefits are both impacted by attendance increases; so if attendance increases are always greater than 5%, the zoo will be paying even more but getting no benefit
- Notice that the insurance company's contract is essentially an option; so a different structure to the contract may be more suitable for the zoo

Exhibit 1: Market research findings

Exhibit 1: Market Research Findings

Possible Attendance Increases	Annual Revenue	Probability
3% Increase	$135,000	20%
5% Increase	$225,000	40%
7% Increase	$315,000	30%
9% Increase	$405,000	10%
Expected Additional Annual Revenue	**$252,000**	
Plus: Current Annual Revenue	$4,500,000	
Expected Total Annual Revenue	**$4,752,000**	

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Case 28: Money Bank Call Center

By: Guruprasad Sankaranarayanan (Kellogg Class'12)

KELLOGG CONSULTING CLUB
CASE COMPETITION
GOLD MEDAL WINNER

Case Question

- Our client is a large financial services firm with multiple locations around the world. Part of their service offering includes a 24 hour helpline. The client has their call centers in New York and Paris.
- The client has recently acquired a small firm (Firm B) in order to expand its reach in a particular geography. Firm B provides a subset of the services and has its call center located in the Philippines
- The client has asked us to determine its strategy going forward for handling customer calls. In particular they want us to look into the call center operations.

8
Quants.
9
Structure

Mkt. Size
Due Diligence
Organization

Case tracker

- **Industry:** Operations / financial services
- **Level of Difficulty:**

  Medium
- **Case format:** Market Size
- **Concepts being tested:**
  - Financial Analysis
  - Organizational fit

Fit Questions

Spend first 15 min on fit

- Tell me about a time when you have to convince a difficult client to follow your recommendations
- What is the achievement you are most proud of?

Guide to interviewer

- This is a typical outsourcing case with some elements of
  - Use a framework that covers the most important areas of M&A and cost cutting
  - Read the exhibits to assess the cost effectiveness and efficiency of the 3 locations
  - Discuss qualitative information on the acquired company – products, culture, customers etc
- There is no right or wrong recommendation, as it will depend on the interviewees assessment of the qualitative concerns
- Key case steps:
  1. Evaluate existing and potential cost structure
  2. Explore alternatives / ideas for implementation
  3. Make a recommendation based on the data

Clarifying answers and case guide

Clarifying answers to provide

The following information can be provided to the interviewee if asked:

Client Characteristics

- Provides full range of financial services for individuals and small organizations
- Acquired firm was started 5 years ago and is still run by the original founders

Nature of call center

- New employees are college graduates with basic knowledge of financial services and products
- Fluency and English and several European languages required

Regulatory environment

- Very difficult to lay off employees in the Paris location – significant costs will be incurred
- Philippines government encourages investment in the country – significant tax advantage possible

Guide to case / Guide to handouts

Case structure – The interviewee should draft in a couple of minutes a framework that covers the most important areas in this case.

- **Options**
  - No changes – maintain all 3 call centers
  - Close Firm B's call center and route calls to one of the exiting locations
  - Consolidate to a single location
- **Company**
  - Comparison of services offered at the 3 call centers / product mix
  - Metrics for evaluating call center performance (cost / call, calls / rep etc)

Specifics to outsourcing – The interviewee should include specific concerns to the industry such as employment regulations, quality of call, infrastructure capabilities etc

Key elements to analyze

Outsourcing

- Compare the efficiency of the 3 locations – possible explanations for variance
- Identify the cost effective option – how is this impacted by integration cost

Note to interviewer

- When asked, the interviewer should provide data from *exhibit 1*. Key takeaways from the exhibit are:
  - Total cost incurred by the 2 firms is $9.6M
  - Philippines can process 20 calls / employee / day (200 days per year) at $6 per call
  - Currently, we have space, infrastructure necessary to expand. Assume overhead is variable in this case. To process total call volume Philippines will need 250 employees to handle the traffic – total cost including overheads is $6.0M. Total cost savings from closing centers is $7.8M, net = $1.8M
- The interviewee should realize that this does not account for all the costs, including hiring and training costs. When prompted inform the interviewee about a 1 time cost of $5M (includes severance for NY and Paris, expanding the Philippines facility) implying that the move is not profitable

	Calls / employee	Cost / call
New York	40	7
Paris	33.3	9
Philippines	20.0	6

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Key elements to analyze (contd.)

Outsourcing

- Prompt the interviewee to explore ways to make outsourcing to Philippines feasible
- Inform the interviewee that the CEO requires our solution to be at least cost neutral by year 2

Note to interviewer

- The interviewee needs to identify the difference in calls/employee between the New York and Philippines locations
  - Ask the interviewee to assume that the best practices can be transferred and implemented within 3-6 months
- Potential cost savings if Philippines achieves same effectiveness as New York
  - # employees required = 1.3M calls / 40 (calls / employee) * 200 (days / year) = 163
  - New employee cost is 3.25M
  - Ask interviewee to assume overheads double which results in total cost of 3.85M
- Other questions interviewee needs to consider
  - Does Philippines has sufficient space and capacity to handle the expansion
  - Will the client be able to acquire sufficient talented personnel within the short time frame
  - Customer satisfaction with the new location?
  - Legal constraints / requirements in NY and Paris – how quickly can we lay off the staff

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Solution and recommendations

Solution & Recommendations

- This is an open ended case. The interviewee needs to justify the recommendation based on the qualitative considerations.
- A good recommendation would include 3 sections:
  1. Recommendations: if the recommendation to outsource the interviewee needs to highlight the risks associated with outsourcing and nature of the acquired firm. If the recommendation uses any other approach sufficient justification needs to be given to overcome the cost savings
  2. Risks
     - Risks associated with increasing capacity ~100% - people, infrastructure, service quality , gaps in knowledge transfer, organizational changes etc
     - Reputational impact - do customers notice difference in service, can the competitor leverage this to steal customers?
  3. Next steps: If outsourcing, some of the next steps would be analyzing the infrastructure requirements and capabilities, finding the right talent, ensuring smooth transfer and implementation of best practices etc.

Bonus/Guide to an Excellent Case

- Excellent interviewees need to address the qualitative information provided in the case: nature of merger, nature of markets being served etc.
- The interviewee should explore the option of improving effectiveness of the Philippines location without being prompted to do so.

Exhibit 1

Call center performance – FY2010

Center	Call / year	Employee cost / year ($)	Overhead cost/year	# Employees
New York	600,000	50,000	450,000	75
Paris	400,000	50,000	600,000	60
Philippines	300,000	20,000	300,000	75

Case 29: Thompson Healthcare

By: Aaron Mowery (Kellogg Class of '13)

KELLOGG CONSULTING CLUB
CASE COMPETITION
SILVER MEDAL WINNER

Case Question

- Our client is Thompson Healthcare, a health insurance firm located in the Midwest.
- Customers pay Thompson a fixed monthly premium per person covered under the plan. In exchange, Thompson pays for all health services that each member requires (e.g., physician care, prescription medications, hospitalization).
- In recent years, Thompson's financial and competitive position has begun to erode, and the CEO has retained our firm to help them determine what is causing the problem and how to fix it.

Case tracker

- **Industry:** Healthcare
- **Level of Difficulty:** Medium
- **Case format:** Cost reduction
- **Concepts being tested:**
  - Cost management
  - Sales channel strategy
  - Economic value analysis

Fit Questions

Spend first 15 min on fit

- Tell me about a time when you failed.
- Share me a time when you faced a difficult situation in a team and how you solved this .

Guide to interviewer

Read to the Interviewee before beginning:
This case is based on a real McKinsey study, and has been formatted as a McKinsey-style structured case.

Before asking you any questions about the case, I will give you the background that you will need.

There are a number of issues that I would like to cover with you today; please do not be surprised if I seem to change topics abruptly.

8
Quants.

9
Structur

Profitability
Sales
Channel
strategy

Clarifying answers and case guide

Clarifying answers to provide	Guide to case / Guide to handouts

Clarifying answers to provide

Client Characteristics

- Thompson Healthcare is a mutual insurance company, meaning all of its profits are returned to members in the form of lower premiums the following year. As such, Thompson does not seek to maximize profit – it seeks to minimize cost.
- Thompson's prices reflect underwriting of risk and the underlying cost to serve a customer

Competitive Dynamics

- Market share is steady, despite presence of major national health insurance company in the market (United Healthcare - UHC).
- UHC has a 30% market share.
- UHC typically expects to earn a 5% profit margin.

Local industry Characteristics/Economics

- The national average rate of medical cost inflation is 10% over the past five years.
- Thompson has seen medical cost inflation of 12% over the past five years.
- UHC has seen medical cost inflation of 10% over the past five years.

Guide to case / Guide to handouts

- State the information to the left after reading the initial prompt, the interviewee should be able to develop a variant of the following question:

  How can Thompson Healthcare reduce its total cost to serve its policy holders?

- Ideally, the interviewee should be able to break down the question into two parts:
  1. Managing medical costs
  2. Managing administrative costs

- This case is formatted as a McKinsey-style structured case. You should ask the interviewee the questions on pages 3-7 of this case directly and move on to the next page when the interviewee has answered the question sufficiently.

Key elements to analyze

1

Problem structure

What factors would you consider in order to understand Thompson's eroding financial position?

Note to interviewer

- The interviewee should lay out a structure for analyzing the case.
- The interviewee could have determined that revenue is not relevant to this case based on information given in the initial prompt on page 1 and 2, so the interviewee should focus on cost.
- Costs in this case break out into fixed costs and variable costs:
    - Variable costs (medical costs – claims made by policyholders)
    - Fixed costs (administrative costs – e.g., marketing & sales, underwriting, finance, HR)
- Specifically, we will need to understand how these costs have changed in recent years.

Key elements to analyze

2

Initial hypothesis

Medical costs are the largest component of Thompson's costs. However, Thompson's medical costs are increasing faster than the national average. What are some potential reasons why this is taking place? What potential opportunities could you explore to reverse this trend?

Note to interviewer

- Medical cost = (Number of claims) * (Cost per claim)
- Potential answers include:
    - Deductibles are low, leading members to see doctors for minor medical issues -> increase deductibles to make members more conscious of costs
    - Thompson pays more for procedures than average -> conduct benchmarking study to determine what competitors charge for various procedures
    - Thompson insures an older population than average -> increase marketing efforts toward younger customers
    - Thompson insures a sicker population than average -> enhance wellness programs

Key elements to analyze

3

Second hypothesis

In addition to medical costs, administrative costs for Thompson are also higher than average. The biggest driver of this phenomenon is a high cost of sales. Thompson's policies are sold through independent agents. All independent agents work with a "General Agency" which acts as a sales support organization. How much does Thompson pay in commissions each year? What are some potential approaches Thompson could take to reduce its cost of sales? What potential strategic issues exist with these approaches?

Note to interviewer

Additional information to provide after interviewee explains how they would calculate commission expense

- Commission (10% of annual premiums) is paid to the General Agency, which passes a share to the independent agent. Total commission paid is, on average, $25 per agent, per month.
- Interviewee should identify the need for # of agents. Give the number 500,000 if asked.
- Total commission expense = $25 * 500,000 * 12 = **$150,000,000**

- Potential approaches to reduce cost of sales:
    - Reduce commission percentage
    - Cap commission to a certain level per year
    - Change commissions structure from percent of premium to flat fee (percent of premium increases at the rate of medical cost inflation every year)

- Potential risks with these approaches:
    - Agents could shift business from Thompson to another carrier that pays higher commission
    - Agents would lose incentive to sell if their commission is capped

Key elements to analyze

4

Next level of analysis

The team has decided to pay a flat commission directly to agents, and to pay the General Agencies a separate fee for the support services they provide to agents. If the total commission paid to both parties is set at $20 per member per month, what share should be given to the General Agencies?

(If interviewee is unsure of "what share" means, explain they should find the maximum amount that should be allocated to the General Agencies.)

Note to interviewer

Additional information

- General Agencies perform three activities: training, application processing, and performance management.
- If Thompson were to perform these activities internally, they would cost:
    - Training: $6,000,000
    - Application processing: $9,000,000
    - Performance management: $15,000,000

Potential approach

- The total cost of the activities that General agencies perform is $30,000,000 (=$6,000,000 + $9,000,000 + $15,000,000).
- There are 500,000 members and 12 months in a year.
- The maximum amount of money Thompson should be willing to pay the General Agencies for the activities performed is the per member, per month cost of these activities ($30,000,000 / (500,000 * 12) = $5

Wrap-up

5

Final recommendations

Taking into account what you've learned thus far as well as your own additional hypotheses, what initiatives would you recommend to the CEO at this point?

Note to interviewer

- Our client should take action to reduce both medical costs and administrative costs.
- At this point, the interviewee should synthesize the findings from the interview into several clear initiatives, for example:
    - Enhance marketing efforts to attract more young customers and bring down the average claims per member.
    - Conduct a benchmarking study to determine opportunities for reductions in payments for medical services.
    - Change the commission structure to flat fee per member per month. This achieves the goal of reducing commission expense, while at the same time keeping an agent's incentive to sell more business.
- Strong interviewees will demonstrate the ability to analyze issues using a clear structure and will draw out the implications of their analysis. The quantitative calculations in this case are elementary, but the process to get to them is somewhat more complicated.

CONTENTS

Industry Research Overview

A tailored approach to industry research can help you prepare

- Provides insight into industry-wide trends and revenue/cost drivers
  - Allows you to make a more nuanced framework or tack on an additional piece of industry-specific analysis
  - May point you toward sources of issues in cases
  - Can be helpful in Q&A with your interviewers about their own work
- Spend your limited time well
  - No need for extensive research on industries in which you already have significant prior experience or knowledge
  - Read high-level industry summaries (such as those on the following pages) to gauge whether anything is completely new to you
  - Consider reading in-depth guides for industries that
    - Are completely new to you
    - You seek to specialize in
    - You know will come up in interviews (e.g., due to industry focus of firm)

List of Industry Overviews

This section includes brief overviews of 19 industries that are likely to come up in interviews

- Industrial Goods
- Energy
- Airlines
- Automotive
- Online Services and Storage
- Computer Software
- Hardware and Digital Devices
- Semiconductor
- Pharmaceuticals
- Medical Devices
- Hospital Facilities
- Healthcare Payers
- Banking and Financial Services
- Media and Entertainment
- Telecom
- Retail
- Household Durables
- Household Non-durables
- Restaurant
- Non-alcoholic Beverages
- Beer, Wine and Distilled Spirits
- Mining and Precious Metals
- Utilities

Industrial Goods

Overview

- Large and diverse industry that provides products/services primarily used to produce other goods
- Main sectors
  - Electrical Equipment and Components
  - Industrial Automation/Heavy Machinery
  - Construction and Engineering
  - Aerospace & Defense
- Key Players include: GE, Siemens, Cummins, Boeing, Lockheed Martin, Northrop Grumman, Eaton, Honeywell, Raytheon, 3M, Caterpillar, Emerson Electric, Fluor, Tyco, Waste Management, Bosch Rexroth

Trends

- Tighter consumer spending has led to reduced production and stagnant growth for the industry
- Industry has seen increasing consolidation over the past few years; Most sub-segments are Oligopoly
- Emerging markets are key for growth as they are quickly developing and increasing production capacity for a variety of goods
- Local assembly is common since components are easier to ship than finished goods

Drivers

Revenue

- New Product Innovation
- Product quality and reliability including after-sales service
- Specialized products for various customer segments

Cost

- Raw materials including oil, natural gas, metals,
- Human capital costs including engineers, labor/manufacturing force and sales force
- R&D

Energy

Overview	Trends	Drivers
Major E&P players like BP, ExxonMobil, Pertrobras, Aramco are involved in both upstream and downstream. **Upstream Steps**: 1. Exploration: Finding oil, including geological exploration, research, and purchasing/leasing land. Offshore is leased from gov'ts through auctions 2. Drilling. Companies drill exploratory wells to determine size; if satisfactory, add'l wells are developed. Overheating can cause explosions ("blowouts"). 3. Well Completion. Post drilling, engineers put cement in the walls Steps 1-3 are often contracted out from E&P firms to firms like TransOcean. Delays are very expensive ($500k a day), and may be charged to contractors; but E&P firms make decisions Downstream Steps: Production → Refining → Marketing Liability for spills is extremely costly ($1-4k per barrel spilled, 205M gallons est. spilled)	**New Legislation Post –BP oil spill** the industry is likely to experience major changes. • A hodgepodge of oversight agencies granted exceptions to rules, as government agencies needed to both foster and police the industry • A mix of companies is in charge of each rig, and their interests are not always in sync (see **delays** under overview, eg for maintenance) Foreign countries maintain their own oil standards State-owned oil companies like Saudi Aramco and Petrobras are sitting on enormous oil reserves, but cannot exploit it as efficiently as public companies New players in China (supported by government) is entering the OEM and shipping industry	**Revenue Drivers** **Outside Factors:** economic environment (GDP growth), supply, consumption and demand level, oil and gas inventories. **Prices** of oil, gas, and refined products are the most watched factor in energy. **Key measures:** Supply and demand of oil and natural gas, rig count, rig utilization rates, rig dayrates and daily margins **Drilling companies**: provide the rigs and operate them, either on a project or long-term contract basis, with **rates charged by the day (popular among offshore drilling), foot drilled, or all-inclusive basis**. **Wide range of services**, including: pressure pumping, wireline, directional drilling and measurement while drilling (MWD), and marine support **Cost Drivers** Upstream - exploration and production expenditures; Midstream – transportation, and storage costs; Downstream – refining and marketing costs. **OPEC**: influences global price.

Airlines

Overview

•Airlines provide air transport services for passengers and freight
•The industry was deregulated in 1978 free from government control of fares, routes, merger and acquisitions. This helped to completely transform air travel from a luxury to a mass-market service

INDUSTRY STRUCTURE:
Major Airlines: revenues > $1B
National Airlines: revenues $100 M - $1B
Regional Airlines: revenues < $100M
•Airlines is a low-margin industry

COMPETITION
•Price Competition: airlines compete to provide the lowest fares to the passengers
•To attract leisure travelers they advertise huge discounts
•Niche players like JetBlue, Southwest, and Spirit have entered

Trends

MERGERS
The industry has seen a lot of consolidation in recent years. There are 3 major US carriers, down from 6 a few years ago (eg, United/ Continental Delta/Northwest)

BANKRUPTCY:
Mergers primarily happened as the due to several airlines filing for **bankruptcy and going out of business**
There has been a barrage of bankruptcies in the industry. More than **20 airlines** have filed for bankruptcy in the last decade

Potential problems of declining revenue:
- Inefficient network: look at route profitability and see if some of the routes could be eliminated
- Poor use of fixed capacity: increase volumes to tackle this issue

Drivers

Revenue Drivers
Airlines have been really creative to add several revenue streams to their business
- Passenger fares
- Mail and cargo charges
- Meals / alcohol in flights
- In flight entertainment
- Extra baggage/seat prices

Customers are broadly categorized as:
- Leisure: highly price sensitive
- Business: not price sensitive, hard to reach

Cost Drivers
Airline industry is **capital and labor intensive**
Fuel: Fuel costs are highly volatile and can range anywhere from 25% - 40% of the total cost for an airline
Labor: costs in 2009 was 26% of the total cost. Labor is unionized, and pilots have few substitutes
•Includes pilots, attendants, ground services, dispatchers, maintenance, customer service
Equipment: is around 10% of the total cost
•Some airlines lease fleets rather than buy

Consulting Club

Automotive

GM, Ford, TOYOTA, Mercedes-Benz

Overview	Trends	Drivers
The automotive industry is engaged in the design, production, marketing, sale, and servicing of motor vehicles. New light vehicle sales in the US expected at **11.7 million for 2010**. **Volume increase is forecasted** in 2011, to 13.5 million. **Heavy capital commitments** required to keep pace with product development and model changeovers. **Demand** is naturally affected by economic environment. **Auto parts manufacturers highly fragmented**: produce original parts and accessories for new vehicles, replacement parts, and accessories for older vehicles, or both **Labor** is often unionized and wields power. **<u>Competition</u>** **Extremely competitive.** The US is the world's most competitive auto market. **Detroit Three losing market share**: GM, Ford, and Chrysler. The top three foreign companies have a combined US market share of 41.5%: Toyota, Honda, and Nissan.	**US share of global market shrinking**: In 2009, China overtook the US as the largest market for new vehicles. US accounted for **16.3% of global demand**. **Demand in developing markets**, including the BRIC economies, is projected to outstrip that of the world's mature markets. **US and global sales to advance**. Production in NA was up 70% in the first quarter of 2010. Europe may lag. Companies in China, Russia, India to make **acquisitions in the US.** **Alternative fuel and hybrid vehicles** – All automakers are developing the technology: ethanol, methanol, natural gas, and electricity derived from batteries or solar power. **Auto parts** – online procurement has changed the business, with increased transparency pressuring selling prices for commodity items. **Bankruptcy**: GM, Chrysler, GMAC (auto lender) and suppliers filed for bankruptcy and some for bailouts in 08/09 **Distribution**: Main channel is – dealership model. Rapid consolidation in recent years.	**Revenue Drivers** **Factors affecting new car sales**: changes in style, engineering, safety, quality, cost and availability of gasoline and insurance. **Price increases are limited**. Rising competition in NA and Europe has restricted manufacturers' pricing power. **Demand, sales rise** during sustained economic growth and plentiful employment. **Tactics to stimulate demand**: discounts and cash rebates, (dealers' discounts,) financing at lower interest rates, eliminating options on a model to offer a low-priced alternative. **Cost Drivers** **Capital expenditures of 2010**: GM $6.0 billion, Ford $4.5-5 billion, Toyota $8.1 billion. **Costs breakdown**: plants, raw materials, design, production, labor, distribution, marketing, and customer service. **Suppliers**: number shrinking, due to globalization, reduced volume from US automakers, high material and labor costs. **Oil prices and raw material prices** **Cost cutting tactics**: higher unit production volume, savings on parts and labor, improved manufacturing efficiencies.

Online Services and Storage

Google amazon.com Dropbox

Overview

The online industry consists of companies that provide virtual-environment services and products, including data search, cloud data storage, social networking, big data analytics, music and video streaming, e-Stores (fashion, media, etc.), news and gaming.

INDUSTRY STRUCTURE:
Total Revenues: ~$1.8Trillion
Industry Leader in Revenues:
Google ($29.3 Billion)

COMPETITION

- Innovation: companies try to differentiate themselves by investing heavily in innovation, or "the next big thing", such as YouTube, Facebook or eBay, most of which are monopolies in their own specific market.
- In the consumer world, major players include online services companies such as Google or DropBox, e-Retailers such as Amazon and Gilt, entertainment providers such as NetFlix and Hulu, and social networks such as Facebook and Twitter. In the business arena, companies such as IBM, McKinsey, Accenture and other professional services companies are taking the lead.

Trends

CLOUD COMPUTING:
A wide variety of service providers are battling over the right to provide consumers with free cloud based services, most notably storage (DropBox, Google Drive, Amazon Cloud Drive), productivity (Google Docs, Microsoft Office Live), CRM (Salesforce) and professional services (Quickbase, Bill.com).

BIG DATA:
The huge amount of information out there serves not only as an opportunity for companies to study, analyze and predict market trends, but also as an essential tool for survival.

CYBER SECURITY:
Both in the private sector, where many have already entrusted the web with their most intimate information, including bank accounts, emails or work, and in the more global aspect, cyber warfare, spying and intelligence gathering have all increased the need for highly developed cyber security services, to protect both corporate secrets and peoples' lives.

Drivers

Revenue Drivers
In the consumer market, most services are given for free, where most revenues come from advertising and data collection. Some services/products are given for a subscription fee, and some (usually e-retailers) usually come from direct sales. In the business sector, the ability to provide expertise to increase value for clients, where many companies are quickly transitioning themselves from conventional services firms into "one-stop-shop" firms, mostly among consulting companies, accounting firms and technology firms, allow such companies to charge service fees.

Customer base is very broad, i.e. not limited solely to ultra-techy consumers, but also to sophisticated business people, organizations and consumers with low-to-intermediate level of technical experience.

Cost Drivers
The online industry relies heavily on innovation (a large portion of which comes from M&As of startup companies), customer relations and IT infrastructure. Conventional costs such as physical stores, fragmented inventory space and manpower are very low.

Computer Software

Overview

The software industry includes businesses for development, maintenance and publication of software, including productivity suites, games, mobile apps, hardware-specific software (both firmware and custom made software) and operating systems (including mobile platforms).

INDUSTRY STRUCTURE:
Total Revenues: $303Billion (in 2010)
Industry Leader in Revenues:
Microsoft $69Billion (in 2010)

COMPETITION

- Software companies compete not only with other software companies, but also with other technology-based services providers, by focusing on specific clients – whether by creating simple and cheap mobile apps for clients on the go, or niche expertise-based products for sophisticated clients.
- Major players include very large companies such as Microsoft, IBM, Oracle, Symantec and Adobe, which focus on the working environment, and of smaller companies such as Electronic Arts, which focus on gaming across multiple platforms.

Trends

DIGITAL TRANSFORMATION:
For the last few years, there is an apparent slowdown in growth in the software industry, where gains are achieved through operational performance rather than technological innovation, and growth is accomplished through mergers rather than organic development. Due to convenience issues, piracy and security risks related to software-based ecosystems, the tech world is moving towards online services and mobility. Other than switching to other, software developers are also either focus on smaller & simpler versions for the consumer market (mobile apps) or on much more sophisticated software for the business market, mostly for CRM, IT systems, database and online services.

MICROSOFT RISE AGAIN(?):
Despite overwhelming criticism regarding its lack of innovation and inability to create value in the longer term, Microsoft managed to retain its dominance in the productivity software market with its Office cash-cow, while introducing the much anticipated Windows 8 OS, which draws positive attention.

Drivers

Revenue Drivers
The industry experienced very few changes in such respect, as revenues are based mostly online and retail sales, service and client support fees, annual subscriptions and licensing fees.

The customer base has changed in the past couple of years: regular consumers are interested more in simple friendly software rather than sophisticated do-it-all software, and businesses are worried that constant innovation will harm their competitiveness if they commit to the wrong software, and are interested more in "renting" a dynamic software rather than buying a product that requires high implementation costs. Therefore, the software industry focuses on the 2 "extremes": the relatively low-tech customers and ultra-sophisticated ones.

Cost Drivers
The biggest cost software companies traditionally faced was related to the development of the products. In the past, the huge allure of the software industry was its relatively low operational costs once the product has been developed, and such costs have shrunk even more in the last few years due to online distribution. However, piracy has plagued most of the software industry and increased the cost of protecting the companies' intellectual property.

Hardware and Digital Devices

Overview	Trends	Drivers
The Computer Hardware industry consists of companies engaged in assembling and manufacturing computers, computer hardware and computer peripherals, including storage devices, keyboards, printers, monitors, mouse and other pointing devices, Webcams and PC cameras. **INDUSTRY STRUCTURE:** **Total Revenues**: $842.1 Billion **Industry Leader in Revenues**: Apple ($156.5 Billion) **COMPETITION** • Price/Feature Competition: companies try to differentiate either by selling at low prices and relying on complementary products, or by increasing consumer benefit through innovation and features. • Major players include manufacturers such as Apple and Samsung, but also Google, which does not manufacture but has tremendous influence over the industry due to its Android mobile operating system and its collaboration with manufacturers such as LG.	**MOBILE COMPUTING:** During the last decade, we experienced a major shift from desktop computing to computing-on-the-go, mainly due to growing popularity of smartphones and the emergence of tablet computers (see below). Cloud computing reduced the need for physical storage, while constant improvement in speed and reliability of mobile internet connectivity allow consumers to communicate, work and play anytime and anywhere. The recent growth also led to increased revenue by component manufacturers (ARM, Broadcom, Samsung) and demand for online services. Tablets and smartphones are estimated to have cannibalized more than 20% of the computer industry. **TABLET WARS:** Despite continuous dominance by the iPad (50.4% market share), industry behemoths such as Microsoft (Surface), Google (Nexus), Amazon (Kindle) fiercely compete over the tablet industry, though most profits do not come from units sold but from complementary products (such as apps and cases).	**Revenue Drivers** Companies seek to add revenue streams to their business • App and digital content stores for Smartphones and Tablets • Advertising through mobile apps • Collaboration with peripheral product manufacturers (such as keyboards, casing, headphones and audio systems) and with mobile telecommunications companies. Customer base is very broad, not limited solely to ultra-techy consumers, but also to sophisticated business people and consumers with low-to-intermediate level of technical experience **Cost Drivers** The hardware industry relies heavily on component manufacturers, which are exposed to variance in material prices), environmental regulation, and cost of labor (as most manufacturing is done in developing countries). Hardware companies are also required to invest heavily in R&D.

Semiconductor

Overview	Trends	Drivers
Industry: The research, development, production, and marketing of semi-conductors **Products:** Industry is made up of four product categories: 1. **Memory** – Memory chips are temporary storehouses of data and pass information to and from computer 2. **Microprocessors** – central processing unit that contain the basic logic to perform tasks 3. **Commodity Integrated Circuit** – "standard chips" – produced in large batches for routine processing purposes 4. **Complex SOC** – "System on a Chip" – integrated chip with entire system's capability on it **Key Ratios/Terms:** **Moore's Law** – number of transistors on a chip doubling every two years **"Fabless" Chip Makers –** semi-conductor companies that carry out design and marketing, but outsource the actual manufacturing **R&D/Sales** – research and development expenses as a percent of sales – want high % **Yield** – # of operational devices out of all mfg.	**Growth:** • Semi-conductor industry is highly cyclical • Companies face constant highs and lows for demand of their product • Growth trends track closely with demand for personal computers, cell phones, and other electronic equipment **Trends:** Traditionally, semi-conductor companies have controlled the entire production process, but in order to be lean, efficient, and effective, they are moving away from that model: • Successful companies must be smaller, faster, and cheaper • Chip makers are beginning to delegate manufacturing to foundry companies (whose sole business is manufacturing) • Noticeable increases in specialized designers and chip testers **Competition:** • "Fabless" companies overcome barriers to entry related to large capital requirements • Foundries gaining supplier power because of cutting-edge equipment and production skills • Intense rivalries between companies	**Revenue:** Revenue = Price of chip x quantity sold • Due to Moore's law and the competitive nature of the industry, it is not uncommon for the price of a new chip can fall by as much as 50% in a short time period • By nature of the process, there is a long lead time with product releases, so it may take years before a company sees revenue for certain products **Costs:** • Semi-conductor companies live and die by their ability to be cost efficient • Constant pressure from market and customers to develop better, cheaper products in a short time frame • As noted above, each product has a long lead time, so a company will incur costs for a long time before that product generates any revenue • As noted in "Trends", historically complete process companies have outsourced some of the production process in order to be more lean and cost efficient

Pharmaceuticals

Overview	Trends	Drivers
• Historically among the world's most profitable industries • Total domestic expenditures for prescription drugs were roughly $234.1B in 2008, and is increasing • Worldwide sales are expected to increase 5-8% per year (similar figures in the US), and reach $1.1 trillion in sales by 2014 • In 2009, the US and Europe markets made up approximately 39% and 32% of the world wide market followed by Asia, Africa, and Australia (12.7%), Japan (11.3%), and Latin America (5.7%) • Typically high economic, regulatory and legal barriers to entry	• The growth of the industry has been supported by an aging population (in developed markets), lengthening of the life expectancy, and rising incidence of chronic diseases • Emerging markets are leading industry growth; CAGR is expected to be 14-17% through 2014 • Patent expirations are expected to peak in 2011-2012; resulting revenue loss has forced many companies to downsize to maintain high levels of profitability • Large pharma companies are increasingly relying on purchasing or partnering with young / niche firms to create growth • Uncertainties introduced by PPACA ("Obamacare") and lagging drug approval times by FDA is expected to slow growth • Insurers are getting increasingly more stringent on which medications they will reimburse	Revenue • New products – premium-priced breakthrough therapies that open new markets • Patent protection – commercial life of a branded drug is approximately 10 years • OTC – some pharmas are introducing OTC versions to combat generics when patents expire Cost • R&D – costs higher than any other industry; can take 10+ years for new drug development • Sales and Marketing – US companies spend approximately $20B/year on promotions

Medical Devices

Overview

Industry Definition: any healthcare product that achieves its intended purpose *not through* chemical action or being metabolized

Products: devices range in complexity from tongue depressors to multi-million $ imaging equipment.
- Most common are surgical appliances/ supplies, surgical & medical instruments, electro-medical equipment, in-vitro diagnostic substances, irradiation apparatus (typically x-ray), dental & ophthalmic (eye) goods

Key Stats: US industry includes about 11,000 companies with combined annual revenue of over $150 billion. Globally, the industry generates annual revenue over $400 billion. Major markets include the US, Japan, Germany, France, and Italy.
- Industry is concentrated: 50 largest companies account for ~60% of revenue

Major Companies: include Baxter International, Boston Scientific, Johnson & Johnson, Medtronic, GE & St. Jude

Trends

Growth: industry revenue is projected to grow on average 6.6%/yr. from 2012 to 2017

Trends:
- Uncertainties introduced by PPACA ("Obamacare") and lagging device approval times by FDA is expected to slow growth
- PPACA contains med device tax -will cost the industry $20 billion over the next decade
- Increased government regulation around the globe threatening growth
- Recent difficulties in retaining qualified manpower to design and produce devices
- Aging population and increased access to care should help stem some of losses from forces mentioned above
- Growing attention to healthcare in developing markets

Competition: increasingly sophisticated pharmacologic products, growth in preventive medicine

Barriers to entry: high for small players; economies of scale and access to capital are critical to negotiate complex regulatory and approval processes

Drivers

Revenue Drivers:
- expanding emphasis on healthcare in developing countries
- standardization of regulatory requirements across countries
- Growth in elderly population means increased demand for devices
- Improved patient longevity due to higher quality healthcare
- Innovation in product development due to strong scientific progress

Cost Drivers
- Research and development
- Regulatory approval and compliance process
- Federal and local taxes
- Sales and marketing operations

Hospital Facilities

Overview	Trends	Drivers
Acute care hospitals – 5,815 in 2008. Non profit entities account for 82% of this segment. Total revenues in 2008: $608 billion. Revenue CAGR (04-08) – 5.4% **Rehabilitation hospitals** (both stand-alone units & those attached to a larger facility) – 203 in 2008 **Psychiatric hospitals** – 447 in 2008; Avg. length of stay has remained stable at 9-10 days **Specialized hospitals** – orthopedics (25); obstetrics & gynecology (13); chronic disease (4); eye, ear, nose, and throat (6); & tuberculosis and other respiratory diseases **Nursing homes** – 15,531 in 2008, occupancy rate ~84% **Assisted-living facilities**, and home healthcare services.	**Patient Protection and Affordable Care Act** (**PPACA**) ("ObamaCare") reforms aspects of the private health insurance industry and public health insurance programs, increases insurance coverage of pre-existing conditions, expands access to insurance to over 30 million Americans, and increases projected national medical spending while lowering projected Medicare spending. **Shortage of Physicians and Nursing staff** : As the population ages the shortage of primary care physicians would aggravate **Highly regulated** by the government which is a key buyer for the hospital industry **Gov't:** account for 47% of healthcare spend **Healthcare reform** will extend healthcare insurance coverage to approximately 32 million of the previously uninsured by 2019 **Consolidation: T**o reduce costs, nonprofit chains or individual nonprofit hospitals being acquired and/or entering into JV arrangements with the for-profit chains	**Sources of Revenue:** **Inpatient admissions**: Has remained flat at ~118 admissions/1000 population **Procedures**: Decrease in admissions result of a shift towards procedures performed on an outpatient basis rather than in hospital **Reimbursement rates**: Controlled by gov't **Demand Drivers:** Increase in **unemployment** → **loss** of employer-based health coverage **Decline** in the rate of elective procedures **Shift** towards procedures performed in outpatient facility or physicians' offices that don't require an overnight hospital stay **New medical technologies** reduce or eliminate the need for hospitalization Increasing influence of **third-party payers**, **Ageing** population **Cost Drivers** Labor Costs (Doctors, Nurses, Admins) Uncompensated Care: high % bills not billed to insurance is written off as bad debt Taxes: non-profits are exempt from some taxes

Healthcare Payors

UnitedHealthcare Humana Aetna WellPoint Cigna

Overview

WHAT PAYORS DO:
- Underwrite (assume risk of, assign premiums for) health insurance policies
- Provide admin services for self-funded plans (e.g. employers providing benefits with own funds)
- Help manage individuals' care

KEY INDUSTRY STATISTICS:
- **Revenues/Profits:** $707.4B / 28.3B (4%)
- **CAGR '07-'12 / '12-'17:** 2.8% / 5.1%
- **Number of businesses:** 927

PRIMARY PLAN OFFERINGS:
- **Fee-for-service:** Provider paid on one-off basis; patient choice not restricted
- **Health maintenance org:** Payer and provider integrated and pre-paid; cheaper, but patient choice limited
- **Preferred provider org:** Mix of FFS, HMO
- **High deductible:** Lower premiums but higher out-of-pocket obligation; patient has incentive to use services efficiently
- **Pharmacy benefits**

Trends

HEALTHCARE REFORM

Directly pressures payors' bottom lines by:
- Eliminating coverage caps, denials based on pre-existing conditions, etc.
- Increasing medical loss ratios (% premium dollars payers must spend on healthcare, with remainder going to admin and profit)
- Increasing gov. scrutiny of premium hikes
- Forcing payors onto exchanges for individuals; more price competition, less G&A scale than with employer groups

However, the law will bolster top-line growth by growing the insured population

COMPETITION
- The top four payors have ~35% share; the rest of the market is fairly fragmented
- Slow but steady consolidation expected to continue given profitability issues

MACROECONOMIC ENVIRONMENT
- Recession precluding payors from increasing premiums in line with healthcare cost inflation

Drivers

REVENUE DRIVERS

Payor revenues are largely dependent on external factors:
- Total health-related expenditures
- Number of physician visits
- Number of employed individuals
- Age of population
- Regulation and legislation

Payors also attempt to steal market share from one another by differentiating on:
- Steeper discounts on provider charges
- Broader network coverage
- Lower administrative fees
- Add-on services (e.g. case management)
- Attractiveness to individual consumers (once exchanges go live in 2014)

COST DRIVERS
- Purchases of medical and Rx services/ products) comprise ~72% of costs; influenced by utilization and cost inflation.
- Relative to other sectors of healthcare, the health insurance industry is neither capital nor labor intensive.

Banking and Financial Services

Overview

Diversified Financial Services firms: large financial conglomerates (e.g. JP Morgan Chase & Co.) which combine insurance, securities, and lending businesses

Consumer finance firms: primarily lend money to consumers: mostly through small to midsized loans ($1,000 to $75,000). The main products include home equity loans, credit card loans, etc

PE/VC firms: invest in and help manage or guide businesses with hopes of company growth resulting in profits from a later sale

(Additional Types under **Drivers**)

Interest Rates are at zero, meaning banks will make no money by investing in government bonds. This is the federal reserve encouraging banks to lend money

Customer deposits in banks are FDIC insured up to $250,000, meaning the government will make you whole if the bank loses that money

Trends

As a result of recent financial crisis, **regulations have increased** (controlled by Treasury Department, The Federal Reserve, House and Senate bills)

The US government intervened in 2007-09 to lend money to banks, insurers, and other key players to keep the financial system afloat.

Consolidation of banks
Trend towards large "financial supermarkets" like Citi may be reversing, as many large banks sold off divisions for needed cash during the downturn

Post- financial crisis, many financial institutions have stopped **proprietary trading**, or placing bets with their own assets.

The Dodd-Frank act, which has not been fully implemented, includes **new and consolidated federal regulatory agencies**, stricter **capital requirements** for banks, and regulates the trading of certain **derivatives**.

Drivers

Revenue Drivers
Commercial Banks earn money by reinvesting customer deposits in higher-yielding funds or lending at higher rates and charging transaction fees
Investment Banks charge fees for advising corporate and governmental clients on mergers, acquisitions, restructuring, and debt and equity issuances
Insurance Companies earn money by taking in monthly premiums from customers, who receive a payout if an event occurs
Credit Card Companies (Visa / Discover) earn fees from customers and merchants by handling the complex processing necessary. AMEX does the same, but also lends the customer money.

Cost Drivers
Research (whether to buy/sell securities, or suggest a specific merger)
Salary and benefits, supplies, insurance.
Losses on investments like loan defaults
Risks, such as a sudden demand from many customers to redeem their money

Media and Entertainment

Overview

- Media and entertainment companies create, license and / or distribute content (TV shows, movies, music, news, video games, books, magazines, radio shows, advertising, etc.)
- The industry has long been known for conglomeration; developing and acquiring multiple brands and multiple distribution channels for their dissemination

INDUSTRY STRUCTURE:
Total: Global revenues of $1.5 T
Consumer / End-User Spend: $1 T
Advertising Spend: $500 B

- The leading 10 companies in the industry account for one third of revenue
- This includes some cable, telecom, hardware, software and internet spend which is hard to split from "content"
- Other national or regional conglomerates and digital startups comprise remaining revenue

Trends

MACROECONOMICS:
Consumer and advertising spending on M&E is tied to economic growth, though some segments (cable, internet access) are resistant to downturns and / or more impacted by secular trends. Annual growth slowed in 2008 and the industry retracted by 2.4% in 2009. Growth has rebounded to ~4.5% since then.

DIGITAL:
The biggest long-term issue for industry players is how to put content online. The internet poses a number of challenges:

- Lowered barriers to entry for creating / distributing, increasing competition
- Increased piracy due to high-speed connections and illegal download sites
- Consumer expectations of lower priced / free content, available on-demand
- New intermediaries and lack of standards (Google search, iOS vs. Android app platforms, new ad formats)
- Limitless advertising inventory and less consumer attention, reducing ad prices
- Distribution and standing out harder given huge libraries (Amazon books, iTunes)

Drivers

Revenue Drivers
Depending on the company's focus, the below revenue mix differs. There has been a lot of experimentation in adapting these business models to digital age:

- **Consumer / end-user**: More of a focus on subscriptions, multi-device access and free or "freemium" with micro-transactions
- **Advertising**: More of a focus on direct response and tying ad exposure to purchases or clicks, also use of web usage data to micro-target, raising privacy issues
- **Licensing / distribution:** More focus on retransmission fees TV networks charge to cable cos. and revenue shares with online marketplaces

Cost Drivers
The M&E industry is **labor intensive** in terms of costs for "creative" talent and sales staffs, which can comprise 40% - 50% of costs for a company or project (one movie). **Marketing** also represents a large portion of costs, given the competition for consumer attention. Capital investments in digital technologies represent a newer but growing area of cost

Telecom

Overview	Trends	Drivers

Industry:
Made up of companies that allow people to connect all over the world through a complex networks of phones, mobile phones, and internet-linked PCs.
 	
Products:
This is not a comprehensive list, but it does provide examples of products from the Telecom industry:
• Telephone
• Fiber optics
• High-speed internet
• Radio
• Satellite communications
• Cell phone networks
 	
Key Ratios:
Churn Rate –rate at which customers leave for a competitor. Telecom industry has highest churn rate of any industry.
Average Revenue Per User (ARPU) – understand purchase level for each user
Broadband – high-speed internet access tech
Telecommunications Act – stimulate competition in the industry
	Growth:
	• Growth in this industry comes from services delivered over mobile networks
	
	Trends:
	• Deregulation and innovation changed the competitive landscape of this industry
	• Telecom companies are beginning to expand out of telecom and into enter other industry spaces
	    • An example of this is Comcast entering the media and entertainment industry
	• The reverse is also true where outside industry companies are expanding into the telecom industry, e.g. Google Fiber
	Competition:
	• The telecom industry requires large capital investments upfront, which creates a potential barrier to entry for new entrants
	• No significant supplier power due to large quantity of equipment suppliers
	• Growing buyer power due to access to substitutes and the telecom becoming a commodity
	• Deregulation and receptiveness of the market has made this industry incredibly competitive
		Revenue:
		Revenue = subscription fee x # of subscribers
		
		• Subscription fee structure will vary by service offering and telecom company
		    • Companies will try to maximize their revenue through the structure of their fee arrangement
		    • Must be very conscious of industry pressures related to fee structure
		• Bundling services is a common practice in the industry in order to maximize revenue
		• Another opportunity for telecom companies to make revenue is to provide network connectivity to other telecom companies
		
		Costs:
		• Fierce competition in an essentially commodity market has led to cost competition between companies
		• Efficient billing systems are a way for companies to decrease cost and improve margins
		• Expanding a company's network and service offering are large cost drivers
		• Smaller players may have to pay for connectivity which will increase their costs

Retail

Overview

- Retail trade makes up $3.8 trillion in sales (second largest US industry)
- Retail industry is comprised of the following sub-industries:
  - General merchandise
  - Apparel
  - Consumer electronics
  - Home improvement
  - Office supplies
  - Drug retail
  - Automotive retail
  - Specialty
  - Food retail
  - Hypermarkets/super-centers

Trends

- The industry has generally been negatively impacted by the economy (discount retailers have done best)
- Due to frequent price promotions, lower profit margins are common in the industry
- Retailers are expanding their share of private label brands
- Many specialty retailers are selling services to differentiate themselves from rivals
  - Best Buy – Geek Squad, Staples – Copy Centers, Pet Smart – Grooming and Training
- Online sales are increasing faster than traditional retail sales (currently 3-4% of retail industry revenue)

Drivers

<u>Revenue</u>

- Promotions – retailers drive traffic through price reductions and in-store displays
- Consumer spending/confidence – retail industry is leading indicator for economic conditions (discount retailers generally do better in bad times than specialty retailers)

<u>Cost</u>

- Inventory management – critical to minimize cost, increase response times and increase profitability
- Real Estate – number of stores and location decisions are important given high fixed costs

Household Non-Durables

Overview	Trends	Drivers
Industry Definition: Manufactured products with useful life < 3 years **Products** • Household – soap, detergent, cleaning, paper towels, pet care… (US Revenue ~ $100B per year) • Personal care: hair care, cosmetics, fragrances, skin care, oral care…(US Revenue ~$250B per year) **Major Companies:** P&G, Colgate-Palmolive, Ecolab, Henkel KGaA, SC Johnson, Nestle, Georgia Pacific, Kimberly Clark, International Paper, Estee Lauder, J&J, L'Oreal, Unilever **Competition:** Markets tends to be concentrated • Scale, shelf placement at retail critical and promotions critical • Small companies compete through product specialization or targeting local markets	**Growth:** Category is expected to grow at a low to moderate pace; most growth from emerging economies **Trends:** • Industry concentration • Power of key customers (Wal-Mart) • Focus on export growth to tap into middle class in emerging economies • Brand rationalization/optimization • Private label gaining share and improving in quality • Pressure for environmental sustainability, compliance and product safety • Increase cost and scarcity of raw materials • Growing demand for organic / environmentally friendly products • R&D– more advanced compounds / multi-use products	**Revenue** • Household products cash flow generally even throughout the year • Personal care products are seasonal with loading in first half of year • New product innovation • Marketing/Promotions • Brand equity / loyalty- insulates against switching & price wars **Costs** • Capital intensive significant investment to improve efficiency • Significant spends on marketing. sales and R&D • Raw materials costs significant as much as 50% of revenues • Futures contracts to protect cost of inputs • Environmental and other regulatory compliance in production / waste disposal

Household Durables

Overview	Trends	Drivers
Industry Definition: highly durable goods useful for at least 3 years **Products**: industry if often classified into two segments: • Electronics (Brown Goods) – TVs, A/V, computers, cameras, tools (>$500B globally) • Appliances (White Goods) – Refrigerators, AC, microwaves (~$160B globally) • Home furnishings/furniture are also often considered durables (~$400 globally) **Major Companies:** GE, Sony, Samsung, LG, Apple, Whirlpool, Panasonic, Xerox, Cannon, Philips, Furniture Bands International, IKEA **Competition:** A/V competes with PCs and games for in-home entertainment	**Growth:** Despite recession, demand surging as emerging markets (India, China, Mexico…) buy basic goods due to emerging middle class real estate expansion and access to credit **Trends:** • Slowing housing market in the US has directly impacted purchases • Raw material costs for appliances (oil and precious metals) increasing • US manufacturers losing market share to foreign producers • Demand for products that work with smart grid technology • Shift from brick and mortar to internet purchases • Scrutiny re: "dumping" products in competitor markets • Recent scandals re: working conditions in factories	**Revenue** • Cash flow partly seasonal (holidays, real-estate purchases) • Long purchase cycle means goods sold on higher margin • Demand often tied to fluctuations in real-estate market • International competition putting downward pressure on price • Planned obsolescence • Stiff competition and discounting **Costs** • Often carry large inventories • Capital intensive manufacturing and R&D processes • Compliance with regulation re: production and waste disposal • Currency translations and tariffs impact profit • Supplier network and sourcing • Distribution network and shipping

Restaurant

Overview

- Restaurant industry makes up $604 billion in sales
- Restaurant industry is comprised of the following sub-industries:
  - Quick-service restaurants (QSR)
  - Full-service restaurants
- One of the largest private sector employers (~13M jobs)
- Many QSRs operate as franchises

Trends

- Growth and profits have been hurt by soaring food and energy prices
- Explosive growth overseas, especially in QSR industry, due to strong economic growth and growing middle class in emerging markets
- Health and wellness concerns continue to pose problems for QSRs and have resulted in healthier menu options
- Newer “fast casual” restaurants like Chipotle and Panera threaten to steal market share from both QSR and full-service restaurants
- In general, restaurants have been negatively impacted by the economy and reduce consumer spending

Drivers

Revenue

- Food and beverages (usually the higher margin products)
- Merchandise
- Catering
- Franchising fees
- Licensing

Cost

- Labor – largest cost for restaurant operators
- Raw materials – accounts for roughly a third of sales
- Real Estate – number of restaurants and location decisions
- Other – product innovation, consumer research

Non-Alcoholic Beverages

Overview

Non-alcoholic beverages: (NA) industry is highly concentrated: 89% of US retail sales are a few companies: Coca-Cola, PepsiCo, and Cadbury Schweppes PLC (Dr. Pepper & 7UP)

Main NA beverage categories: 1) Carbonated soft-drinks 2) Bottled water (fastest growth) 3) Juice drinks 4) Sports drinks

Trends

Growth in soda is flat. Bottled water's growth will continue well into the future because of increasing demand for natural, organic products.
More manufacturers work with consumers to understand their packaging preferences

Hispanics, followed by Asian-Americans are fastest growing segments.

The low-carbohydrate trend is virtually nonexistent outside of the United States and the United Kingdom
Many US consumers believe that the "better-for-you" substitutes do not taste as good as the traditional brands, and a large majority of them remain committed to traditional high-carb, high-sugar foods.

Competition
Energy drinks is a **growing and competitive** segment. These drinks turn into fashion among youngsters.
Barriers to entry – not high for small players, however economies of scale and brand are important issues

Drivers

Revenue Drivers:
Increasing market share:
new segments (incl. international, especially emerging markets)
new products (incl. acquisitions of niche lines)
expanding distribution channels (cooperating with Wal-Mart Stores, etc)
Squeeze existing users more (premium labels, complementary products such as Coke and chips)
Innovation in product and merchandising strategies, such as the use of mobile internet and online shopping

Cost Drivers
Packaging – the cost of plastic increases over the years
Taxes - on inputs (eg sugar) and vice taxes (falls on end users – reduces demand)
Wages within the industry are noticeably higher than the national average

Beer, Wine & Distilled Spirits

Overview

Beer/Malt Beverages: major products are malt beverages, primarily beer. Major companies: Anheuser-Busch InBev (Belgium), SABMiller (UK), Heineken (Netherlands), MolsonCoors & Boston Beer (US)

- Top sellers: Budweiser, Bud Light, Heineken, Corona, Skol, Stella Artois

Wine: make wine and brandies from grapes. Major companies: Constellation Brands, E&J Gallo, & Jackson Family (US), Veuve Clicquot Ponsard (France), Gruppo Italiano Vini (Italy) Viña Concha y Toro (Chile)

- Red & white containing ≤14% ABV (60% of market); Brandy, & other wines (15%); Dessert wine, coolers, & effervescents (~10%)

Distilled: distill, blend, or mix liquors. Major companies: Brown-Forman (US), Diageo (UK), Kweichow Moutai (China), & Pernod-Richard (France)

- Major products: whiskey & bourbon (10% industry revenues); cordials &liqueurs (10%); gin (5%). Other products include vodka, specialty liquors & bottled cocktails

Trends

Growth:
Beer – forecast to grow at 3% CAGR between 2012-2016
Wine – forecast to grow at 2% CAGR between 2012-2016
Distilled - forecast to grow at 3% CAGR between 2012-2016
Tends:
Beer – Consolidation: 8 largest brewers account for ~90% of industry revenue; success of small, independent craft brewers have influenced larger brewers; growing popularity for seasonal brews
Wine – reliance on restaurant sales ties performance to food service sector, increasing demand from baby boom generation, agritourism (winery visits)
Distilled – mixed fruity drinks increasingly popular, flavored malt beverages evolving, rise in grain prices
Competition: Beer, Wine, Distilled compete against each other. Energy drinks
Barriers to entry: not high for small players, however economies of scale and brand are important issues

Drivers

Revenue Drivers:
Increasing market share:
new segments (incl. international, especially emerging markets)
new products (incl. acquisitions of niche lines, increasing variety of products)
expanding distribution channels (cooperating with Wal-Mart Stores, increasing importance of convenience stores)
Squeeze existing consumers more (premium labels, other occasions for use)
Innovation in product development, packaging and merchandising strategies, such as new flavored malt beverage varieties, use of mobile internet, sports and other event promotion

Cost Drivers
Packaging & Other raw input costs – continue to rise over time
Shipping – heavy products and rising gas prices
Taxes & Regulation – complex three tier distribution system and heavy federal/state taxation

Kellogg School of Management
Consulting Club

Mining and Precious Metals

RioTinto | AngloAmerican | bhpbilliton

Overview

Industry:
Includes the constructing and operating mines as well as building and operating production facilities.

Products:
Products include a wide variety of precious metals including gold, silver, copper, diamonds, and lead. Gold is the most popular precious metal for investors.

Industry Structure:
- Industry is not vertically integrated

Three types of firms
1. Exploration – explore and prove gold exists
2. Development – develop mines on sites that have proven that the precious metal exists
3. Production – full-fledged mining companies

Key Ratios/Terms:
Mine Production Rates – quantity produced
Scrap Recovery – supply of metals from sources other than mines, e.g. old jewelry
Future Sales by Producers – indicates producers expectations on future gold prices
Bullion – refined metal that is high quality

Trends

Growth:
Growth of each precious metal will be unique compared to other precious metals

Gold
- Growth for gold is inversely related to the stock market (i.e. it has a negative beta), so the gold market experienced large growth during the recent recession, but has decreased since the recovery of the market

Trends:
- Most gold that is mined today is used for jewelry as opposed to currency or other possible uses for gold and other precious metals
- Technology has greatly changed the mining industry making it more efficient

Competition:
- High capital requirements creates a deterrent to entry to potential new entrants
- Government regulations are main consideration for supply concerns
- Substitutes are other precious metals
- Do not compete on price, but do compete for land with other companies

Drivers

Revenue:
Revenue = output x the selling price of gold

- Prices are determined by market forces
- Output varies by demand and market price
- Low operating costs allow a mine to have higher/more stable outputs at lower market price points and therefore increase revenue
  - E.g. if it costs a company $250/ounce to produce, then they will not produce until the price for gold increases over $250/ounce

Costs:
Main costs of production:
Location – Understand cost in certain areas and risk due to political unrest
Ore Quality – Oxide ores are better because it is easier to extract the precious metals
Mine Type – Most underground mines are more expensive than open pit mines

- Company's must manage costs in order to maintain good financial health and production levels in the face of volatile gold prices
- Producers usually publish their cost of production in their annual report

Utilities

Overview

Industry:
Generate, manage, and provide electrical power to the general population

Historically the industry was run by monopolies, but is now disintegrating into the following four supplier segments:

Supplier Segments:
Generators – Create electrical power
Energy Network Operators – Sell access to their networks to retail service providers
Energy Traders and Marketers – buy and sell energy futures and derivatives. Help secure electricity at a stable, predictable price
Energy Service Providers and Retailers – sells energy to end user

Key Ratios/Terms:
Power Purchase Agreements (PPA) – contract between power producer and its customers
Megawatt Hour – basic industrial unit for pricing electricity
Load – amount of electricity delivered
Federal Energy Regulatory Commission (FERC) – oversees rates and service standards

Trends

Growth:
- Consumption of electricity expected grow rapidly as the world becomes increasingly "electrified"
- Energy Information Administration (EIA) projects that 40% more electric generating capacity will be needed by 2020 to meet growing demand
- Short term direction of the market still remains a risky bet

Trends:
Utility companies are undergoing major changes due to:
- Regulatory changes
- Demand fluctuations
- Price volatility
- New competition

The once stable industry has become much more unstable and risky

Competition:
- High barriers to entry due to large capital requirements and significant regulation barriers
- Fierce rivalry between competitors because product is a commodity

Drivers

Revenue:
Revenue = $ per megawatt per hour x utilization

- Wholesale electricity prices are no longer set by regulatory agencies
    - This heightens the risk of uncontrollable price increases
- Forwards and future options provide energy buyers (not at the consumer level) the tools to help hedge against large volatility in price
- Utilization will vary by utility company and their market strategy
- See the "Growth" section for more information on short term and long term utilization projections

Costs:
- There are high fixed costs upfront in order to build new generation plants
- A lot of capital is required to enter the market
- Marginal costs are relatively low, i.e. it is not costly to offer one more kilowatt-hour to one more person
- Economies of scale are a very effective way to reduce costs in this industry

Additional Industry Research Resources

Several sources may help you further research specific industry topics

- For a basic overview
  - Industry overviews provided on consulting firm websites
- For more in-depth background on industry context and trends
  - Vault industry guides (note: these are lengthy!)
  - Investopedia – http://www.investopedia.com/features/industryhandbook/
- For in-depth information on revenue and cost drivers
  - Standard & Poor's NetAdvantage guides, which include guidance on how to effectively analyze and value companies
- For up to date information on industry developments
  - WSJ (can be accessed for free on CMC website's Factiva link)

All of these resources are public or can be accessed via CMC's Research Guide portal